



PART 70

PERMIT TO OPERATE

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to operate the air contaminant source(s) described below, in accordance with the laws, rules, and conditions set forth herein.

Operating Permit Number: OP2014-005
Expiration Date: MAY 15 2019
Installation ID: 095-0030
Project Number: 2005-10-036

Installation Name and Address

Audubon Materials, Inc. – Sugar Creek Plant
2200 N. Courtney Road
Sugar Creek, MO 64050
Jackson County

Parent Company's Name and Address

Audubon Materials, Inc.
903 E. 104th Street, Suite 900
Kansas City, MO 64131

Installation Description:

Audubon Materials, Inc. - Sugar Creek Plant operates a Portland cement plant in Sugar Creek, Missouri. Major operations include underground mining; raw material crushing, conveying, storage, loading and unloading; solid fuel storage, milling, and transfer; raw mill and preheater/precalciner rotary kiln; clinker cooler; finish mill; finish material conveying, storage, loading and unloading. The installation is a major source.

MAY 16 2014

Effective Date



Director or Designee
Department of Natural Resources

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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

Audubon Materials, Inc. - Sugar Creek Plant operates a Portland cement plant in Sugar Creek, Missouri. Major operations include underground mining; raw material crushing, conveying, storage, loading and unloading; solid fuel storage, milling, and transfer; raw mill and preheater/precalciner rotary kiln; clinker cooler; finish mill; finish material conveying, storage, loading and unloading. The installation is a major source.

Reported Air Pollutant Emissions, tons per year							
Year	Particulate Matter ≤ Ten Microns (PM-10)	Sulfur Oxides (SO _x)	Nitrogen Oxides (NO _x)	Volatile Organic Compounds (VOC)	Carbon Monoxide (CO)	Lead (Pb)	Hazardous Air Pollutants (HAPs)
2012	236.55	115.47	1209.51	90.41	672.13	--	4.56
2011	183.89	91.48	646.83	71.71	542.09	--	3.46
2010	100.34	277.97	1063.06	74.73	571.55	--	3.16
2009	89.2	191.66	1028.02	53.05	369.83	--	1.99
2008	150.61	286.07	1455.87	77.05	639.59	--	7.08

EMISSION UNITS WITH LIMITATIONS

The following list provides a description of the equipment at this installation which emits air pollutants and which is identified as having unit-specific emission limitations.

Emission Unit #	Description of Emission Unit	2006 EIQ EP #
EU0010	Gypsum Unloading Station	EP-08
EU0020	Clinker Truck Unloading	EP-27A
EU0030	Clinker Conveying	EP-27B
EU0040	Clinker Loadout Station #2	EP-27
EU0060	Clinker/Gypsum Feed Conveyors	EP-33
EU0070	SCK I Finish Mill #1 Feed Belt	EP-34
EU0080	SCK I Finish Mill #1 Weigh Hopper	EP-34
EU0090	SCK I Finish Mill #2 Feed Belt	EP-35
EU0100	SCK I Finish Mill #2 Weigh Hopper	EP-35
EU0110	SCK I Finish Mill #2 Fringe Tank	EP-35A
EU0120	SCK I Finish Mill #3 Feed Belt	EP-36
EU0130	SCK I Finish Mill #3 Weigh Hopper	EP-36
EU0140	Cement Storage Silos	EP-38
EU0145	Cement Storage Silos	EP-38B
EU0146	Cement Storage Silo 12	
EU0150	Pneumatic Pump #1	EP-39
EU0160	Pneumatic Pump #2	EP-40
EU0170	Cement Silo Unloading Truck #1	EP-41
EU0180	Cement Silo Unloading Truck #2	EP-42
EU0190	Barge Loadout Station	EP-43

Emission Unit #	Description of Emission Unit	2006 EIQ EP #
EU0200	Railroad Loadout Station	EP-44
EU0210	Truck Loadout Station #1	EP-45
EU0220	Truck Loadout Station #2	EP-47
EU0230	SCK I Finish Mill #1 Clinker Grinding	EP-34
EU0240	SCK I Finish Mill #1 Air Separator	EP-34
EU0250	SCK I Finish Mill #2 Clinker Grinding	EP-35
EU0260	SCK I Finish Mill #2 Air Separator	EP-35
EU0270	SCK I Finish Mill #3 Clinker Grinding	EP-36
EU0280	SCK I Finish Mill #3 Air Separator	EP-37
EU0290	Deep Mine Limestone Unloading to Hopper	EP-58
EU0300	Hopper Unloading to Stockpile Feed Conveyor	EP-58
EU0310	Limestone Stock Pile (SK II)	EP-60
EU0320	Raw Material Truck Unloading to Dump Hopper	EP-61
EU0330	Raw Material Crusher	EP-61
EU0340	Raw Materials Dump Hopper Unloading to Conveyor	EP-61
EU0345	Limestone Fines Transfer/Emergency Limestone Hopper	EP-134
EU0350	Unloading to Solid Fuel Stockpile	EP-63
EU0360	Solid Fuel Stockpile	EP-63
EU0370	Raw Material Transfer to Tripper Belt	EP-62
EU0380	Tripper Belt Unloading to Bins	EP-62
EU0390	Unloading to Limestone Storage Bin	EP-64
EU0400	Sand Transfer to Tunnel Conveyor	EP-65
EU0410	Ash Transfer to Tunnel Conveyor	EP-65
EU0420	Iron Mill Scale Transfer to Tunnel Conveyor	EP-65
EU0430	Kaolin Clay Transfer to Tunnel Conveyor	EP-65
EU0440	Limestone Transfer to Tunnel Conveyor #1	EP-65
EU0450	Limestone Transfer to Tunnel Conveyor #2	EP-65
EU0460	Tunnel Conveyor To Raw Mill Conveyor	EP-66
EU0470	Homogenization Silo	EP-67
EU0480	Raw Mix Storage Bin	EP-68
EU0490	CKD Transfer to Bucket Elevator	EP-69
EU0500	CKD Unloading to Silo	EP-69
EU0510	Kiln Feed Airlift System	EP-70
EU0520	Pulverized Solid Fuel Day Bin	EP-76
EU0530	Clinker Transfer to Clinker Elevator	EP-79
EU0540	Clinker Unloading to Hot Clinker Storage Bin	EP-79
EU0550	Hot Clinker Storage Bin Transfer to Pan Conveyor	EP-79
EU0560	Clinker Elevator Unloading to Clinker Silo	EP-80
EU0570	Clinker/Gypsum Transfer Conveyor Unloading to Clinker Silo	EP-80
EU0580	Clinker/Gypsum Reclaim Conveyor to Gypsum Silo	EP-81
EU0590	Clinker Truck Loadout	EP-82

Emission Unit #	Description of Emission Unit	2006 EIQ EP #
EU0600	Hot Clinker Truck Loadout	EP-83
EU0610	Clinker/Gypsum Reclaim Hopper	EP-84
EU0620	Gypsum/Clinker Reclaim Conveyor	EP-85
EU0630	SCK II Finish Mill Weigh Hoppers	EP-86
EU0640	Finish Mill Elevator (SCK II)	EP-88
EU0650	Cement Transfer to Headhouse	EP-89
EU0660	Headhouse Transfer to Distribution Box	EP-90
EU0670	Recycle from Silos to Headhouse	EP-90
EU0680	Cement Unloading to Interstice Cement Silo	EP-90
EU0690	Cement Silos #1 & #2	EP-91
EU0700	Cement Silos #3 & #4	EP-92
EU0710	Cement Truck Distribution Box	EP-93
EU0720	Cement Pump to Interstice or Blends	EP-94
EU0730	Cement Recycle to Finish Mill	EP-95
EU0740	Cement Truck Loadout #1	EP-96
EU0750	Cement Truck Loadout #2	EP-97
EU0770	Solid Fuel Transfer to Solid Fuel Conveyor	EP-72
EU0780	Solid Fuel Surge Bin #1	EP-74
EU0790	Solid Fuel Surge Bin #2	EP-75
EU0800	Solid Fuel Milling and Separation	EP-77
EU0810	Raw Material Grinding and Drying	EP-77
EU0820	Raw Mill Air Separator	EP-77
EU0830	Raw Mix Feed Transfer to Preheater/Precalciner	EP-77
EU0840	Preheater/Precalciner Rotary Kiln	EP-77
EU0850	Clinker Cooler	EP-78
EU0860	Clinker Transfer to Cooler Outlet Conveyor	EP-78
EU0870	SCK II Finish Mill Feed Belt	EP-87
EU0880	SCK II Finish Mill Clinker Grinding	EP-87
EU0890	SCK II Finish Mill Air Separator	EP-87
EU0900	Cement Blending System Cement Bin	EP-144-1
EU0910	Cement Blending System Slag Bin	EP-146-1
EU0920	Cement Bin Unloading	EP-144-2
EU0930	Slag Bin Unloading	EP-146-2
EU0940	Transfer to Blender	EP-147-3
EU0950	Blending System Loadout #1	EP-148-1
EU0960	Blending System Loadout #2	EP-148-2
EU0970	Blending System Loadout #3	EP-148-3
EU0980	Slag Hauling	EP-145-1
EU0990	Blended Cement Hauling	EP-149-1
EU1000	CKD Transfer to Collecting Screw	EP-150-1
EU1010	CKD Transfer to Small Screw	EP-150-2
EU1020	CKD Transfer to Cooling Screw	EP-150-3

Emission Unit #	Description of Emission Unit	2006 EIQ EP #
EU1030	CKD Transfer to Loadout Spout #1	EP-150-4
EU1040	CKD Loadout to Truck #1	EP-151
EU1050	CKD Transfer to Storage Silo #1	EP-153
EU1060	CKD Transfer to Loadout Spout #2	EP-154-1
EU1070	CKD Loadout to Truck #2	EP-154-2
EU1090	CKD Hauling to Silo	EP-152
EU1100	CKD Sales Hauling	EP-155
EU1120	Underground Limestone Mine	EP-104
EU1130	Safety Kleen Parts Washer	EP-57

EMISSION UNITS WITHOUT LIMITATIONS

The following list provides a description of the equipment which does not have unit specific limitations at the time of permit issuance.

Description of Emission Source

Space Heaters, natural gas fired
Underground gasoline storage tank, EP-52
Underground diesel storage tank, EP-53
Bottom ash storage pile, fugitive, EP-133
Surge limestone pile, fugitive, EP-134
Ethanamine storage tank, 10,000-gallons, EP-136
Three ethanamine totes, EP-137

DOCUMENTS INCORPORATED BY REFERENCE

These documents have been incorporated by reference into this permit.

- 1) Air Pollution Control Program Construction Permit 0184-055A, issued January 30, 1984
- 2) Air Pollution Control Program Construction Permit 0596-027, issued May 3, 1996
- 3) Air Pollution Control Program Construction Permit 0897-019G, amended November 13, 2012
- 4) Air Pollution Control Program Construction Permit 012002-004, issued November 19, 2001
- 5) Air Pollution Control Program Construction Permit 072004-028, issued July 27, 2004
- 6) Air Pollution Control Program Construction Permit 082004-016, issued August 26, 2004
- 7) Air Pollution Control Program Construction Permit 082004-016D, amended November 6, 2012
- 8) Air Pollution Control Program Construction Permit 092005-015, issued July 15, 2005
- 9) Air Pollution Control Program Construction Permit 062006-002, issued June 2, 2006
- 10) Air Pollution Control Program Construction Permit 112008-011, issued November 24, 2008
- 11) Air Pollution Control Program Construction Permit 022009-005, issued February 6, 2009
- 12) Consent Decree, Civil Action No. 3:10-cv-00044-JPG-CJP, signed June 13, 2012

II. Plant Wide Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

PERMIT CONDITION PW001

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart A General Provisions and Subpart LLL National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry - O & M Plans

Note: Permit Condition PW001 is applicable to each affected source subject to the provisions of 40 CFR Part 63, Subpart LLL as indicated in the Emission Unit Specific Emission Limitations section.

Operations and Maintenance Plan:

The permittee shall prepare for each affected source subject to the provisions of Subpart LLL, a written operations and maintenance plan. The plan shall be submitted to the director for review and approval as part of the application for a part 70 permit and shall include the following information: [§63.1347(a)]

- 1) Procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emissions limits and operating limits, including fugitive dust control measures for open clinker piles, of §§ 63.1343 through 63.1348. Your operations and maintenance plan must address periods of startup and shutdown; [§63.1347(a)(1)]
- 2) Corrective actions to be taken when required by paragraph § 63.1350(f)(3); [§63.1347(a)(2)]
 - a) Failure to comply with any provision of the operations and maintenance plan developed in accordance with this section is a violation of the standard. [§63.1347(3)(b)]

PERMIT CONDITION PW002

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart A General Provisions and Subpart LLL National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry – Notification, Recordkeeping and Reporting Requirements

Note: Permit Condition PW002 is applicable to each affected source subject to the provisions of 40 CFR Part 63, Subpart LLL as indicated in the Emission Unit Specific Emission Limitations section.

Development and Submittal (Upon Request) of Monitoring Plans:

The permittee must develop a site-specific monitoring plan according to the requirements in paragraphs §63.1350(p)(1) through (4). This requirement also applies if the permittee petitions the EPA Administrator for alternative monitoring parameters under paragraph §63.1350(o) and §63.8(f). If the permittee uses a bag leak detection system (BLDS), the requirements specified in paragraph §63.1350(p)(5) must also be met. [§63.1350(p)]

Recordkeeping

- 1) The permittee shall maintain files of all information (including all reports and notifications) required by §63.1355 recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five years following the date of each

occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. [§63.1355(a)]

- 2) The permittee shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3); and [§63.1355(b)]
 - a) All documentation supporting initial notifications and notifications of compliance status under §63.9; [§63.1355(b)(1)]
 - b) All records of applicability determination, including supporting analyses; and [§63.1355(b)(2)]
 - c) If the permittee has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. [§63.1355(b)(3)]
- 3) In addition to the recordkeeping requirements in §63.1355(b), the owner or operator of an affected source equipped with a continuous monitoring system shall maintain all records required by §63.10(c). [§63.1355(c)]
- 4) The permittee must keep annual records of the amount of CKD which is removed from the kiln system and either disposed of as solid waste or otherwise recycled for a beneficial use outside of the kiln system. [§63.1355(d)]
- 5) The permittee must keep records of the daily clinker production rates and kiln feed rates. [§63.1355(e)]
- 6) The permittee must keep records of the date, time and duration of each startup or shutdown period for any affected source that is subject to a standard during startup or shutdown that differs from the standard applicable at other times, and the quantity of feed and fuel used during the startup or shutdown period. [§63.1355(f)]
- 7) The permittee must keep records of the date, time and duration of each malfunction that causes an affected source to fail to meet an applicable standard; if there was also a monitoring malfunction, the date, time and duration of the monitoring malfunction; the record must list the affected source or equipment, an estimate of the volume of each regulated pollutant emitted over the standard for which the source failed to meet a standard, and a description of the method used to estimate the emissions. [§63.1355(g)(1)]
- 8) The permittee must keep records of actions taken during periods of malfunction to minimize emissions in accordance with § 63.1348(d) including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [§63.1355(g)(2)]
- 9) For each exceedance from an emissions standard or established operating parameter limit, the permittee must keep records of the date, duration and description of each exceedance and the specific actions taken for each exceedance including inspections, corrective actions and repeat performance tests and the results of those actions. [§63.1355(h)]

Notification:

- 1) The notification provisions of 40 CFR Part 63, Subpart A that apply and those that do not apply to affected sources subject to Subpart LLL are listed in Table 1 of Subpart LLL. [§63.1353(a)]
- 2) The permittee shall comply with the notification requirements in §63.9 as follows: [§63.1353(b)]
 - a) Notification of performance tests, as required by §§63.7 and 63.9(e). [§63.1353(b)(2)]
 - b) Notification of opacity and visible emission observations required by §63.1349 in accordance with §§63.6(h)(5) and 63.9(f). [§63.1353(b)(3)]

- c) Notification, as required by §63.9(g), of the date that the continuous emission monitor performance evaluation required by §63.8(e) is scheduled to begin. [§63.1353(b)(4)]
- d) Notification of compliance status, as required by §63.9(h). [§63.1353(b)(5)]
- e) Within 48 hours of an exceedance that triggers retesting to establish compliance and new operating limits, notify the appropriate permitting agency of the planned performance tests. The notification requirements of §§ 63.7(b) and 63.9(e) do not apply to retesting required for exceedances under Subpart LLL. [§63.1353(b)(6)]

Reporting:

- 1) The reporting provisions of Subpart A of Part 63 that apply and those that do not apply to affected sources subject to Subpart LLL are listed in Table 1 of Subpart LLL. [§63.1354(a)]
- 2) The owner or operator of an affected source shall comply with the reporting requirements specified in §63.10 of the general provisions of Part 63, Subpart A as follows: [§63.1354(b)]
 - a) As required by §63.10(d)(2), the permittee shall report the results of performance tests as part of the notification of compliance status. [§63.1354(b)(1)]
 - b) As required by §63.10(d)(3), the permittee shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]
 - c) As required by §63.10(d)(4), the permittee, if required to submit progress reports as a condition of receiving an extension of compliance under §63.6(i) shall submit such reports by the dates specified in the written extension of compliance. [§63.1354(b)(3)]
 - d) As required by §63.10(e)(2), the permittee shall submit a written report of the results of the performance evaluation for the continuous monitoring system required by §63.8(e). The permittee shall submit the report simultaneously with the results of the performance test. [§63.1354(b)(6)]
 - e) As required by §63.10(e)(2), the permittee, if using a continuous opacity monitoring system to determine opacity compliance during any performance test required under §63.7 and described in §63.6(d)(6) shall report the results of the continuous opacity monitoring system performance evaluation conducted under §63.8(e). [§63.1354(b)(7)]
 - f) As required by §63.10(e)(3), the owner or operator of an affected source equipped with a continuous emission monitor shall submit an excess emissions and continuous monitoring system performance report for any event when the continuous monitoring system data indicate the source is not in compliance with the applicable emission limitation or operating parameter limit. [§63.1354(b)(8)]
 - g) The permittee, shall submit a summary report semi-annually which contains the information specified in §63.10(e)(3)(vi). In addition, the summary report shall include: [§63.1354(b)(9)]
 - i) All failures to comply with any provision of the operation and maintenance plan developed in accordance with §63.1350(a) (see Permit Condition PW001). [§63.1354(b)(9)(v)]
 - h) If the total continuous monitoring system downtime for any CEM or any continuous monitoring system (CMS) for the reporting period is ten percent or greater of the total operating time for the reporting period, the permittee shall submit an excess emissions and continuous monitoring system performance report along with the summary report. [§63.1354(b)(10)]
- 3) Reporting a failure to meet a standard due to a malfunction. For each failure to meet a standard or emissions limit caused by a malfunction at an affected source, the permittee must report the failure in the semi-annual compliance report required by § 63.1354(b)(9). The report must contain the date, time and duration, and the cause of each event (including unknown cause, if applicable), and a sum of the number of events in the reporting period. The report must list for each event the affected source or equipment, an estimate of the volume of each regulated pollutant emitted over the emission

limit for which the source failed to meet a standard, and a description of the method used to estimate the emissions. The report must also include a description of actions taken by the permittee during a malfunction of an affected source to minimize emissions in accordance with § 63.1348(d), including actions taken to correct a malfunction. [§63.1354(c)]

PERMIT CONDITION PW003

10 CSR 10-6.060 Construction Permits Required
Construction Permit 0897-019G, Amended November 6, 2006

Emission Limitation:

- 1) The permittee shall meet the BACT limit for control of PM₁₀ emissions from paved roads through:
 - a) Periodic Washing
 - i) The permittee shall periodically sweep, water and wash all of the paved portions of the haul road as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
 - b) High Efficiency Recirculative Air Sweeper
 - i) The permittee shall operate the high efficiency recirculative air sweeper in accordance with manufacturer's specifications to obtain the highest efficiency possible (90 to 95%).[Construction Permit 0897-019G, Special Condition 5]
- 2) Permittee shall meet the BACT limit for PM₁₀ emissions from unpaved roads through the use of an emulsion application at the manufacturer's specified rate. [Construction Permit 0897-019G, Special Condition 6]
- 3) The permittee shall preclude public access to property that is considered within the non-ambient air zone with respect to the air quality impact analysis conducted for this permit. Installation and maintenance of a fence or other physical barrier shall be the means to preclude public access. A map showing property boundary (precluded areas) can be found in Appendix C of the Ambient Air Quality Impact Analysis modeling memo. The permittee shall submit documentation to demonstrate preclusion to the Air Pollution Control Program for review and approval. [Construction Permit 0897-019G, Special Condition 30]

III. Emission Unit Specific Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

EU0010 –GYPSUM UNLOADING STATION			
Emission Unit	Description	Manufacturer /Model #	2006 EIQ Reference #
EU0010	Gypsum Unloading Station: fugitive; installed 1952 - 1954	Unknown	EP-08

PERMIT CONDITION EU0010-001
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations 40 CFR Part 63, Subpart A General Provisions and Subpart LLL National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry - Standards for Unloading System

Emission Limitation:

The permittee shall not cause or permit emissions to be discharged with opacity greater than ten percent. [§63.1345]

Monitoring:

- 1) The permittee must conduct required opacity monitoring in accordance with the provisions of paragraphs §63.1350(f)(1)(i) through (vii) and in accordance with the monitoring plan developed under §63.1350(p). [§63.1350(f)]
- 2) If visible emissions are observed during any Method 22 visible emissions test conducted under paragraphs §63.1350(f)(1) or (2), the permittee must initiate, within one-hour, the corrective actions specified in the facility’s operation and maintenance plan as required in §63.1347. [§63.1350(f)(3)]

Recordkeeping/Reporting:

The permittee shall meet the recordkeeping and reporting requirements specified in Permit Condition PW002.

EU0020 AND EU0030 – CLINKER RECLAIM SYSTEM (SCK 1)			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0020	Clinker Truck Unloading: truck unloading of clinker to stilling shed; MHDR 220 ton/hr; equipped with enclosure; fugitive; installed 2002	NA	EP-27A
EU0030	Clinker Conveyor: clinker conveying to silos; MHDR 220 ton/hr; vented to baghouse (CD-27B); installed 2002	Dearborn Mid-West Conveyor	EP-27B

PERMIT CONDITION (EU0020 and EU0030)-001
10 CSR 10-6.060 Construction Permits Required Construction Permit 012002-004, Issued November 19, 2001

Emission Limitation:

The permittee shall not discharge into the atmosphere particulate matter less than ten (10) microns in diameter (PM₁₀) in excess of 15 tons from the new clinker reclaim system (EU0020 and EU0030) in any consecutive 12-month period. [Construction Permit 012002-004, Special Condition 1.A]

Operational Specifications:

The permittee shall control emissions from the Clunker Conveyor (EU0030) using a baghouse as specified in the Construction Permit 012002-004 application. The baghouse shall be operated and maintained in accordance with the manufacturer's specifications. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located as such that Department of Natural Resources' employees may easily observe them. Replacement filters for the baghouse shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance and abrasion resistance). [Construction Permit 012002-004, Special Condition 2.A]

Monitoring/Recordkeeping:

- 1) The permittee shall maintain a monthly record of the amount of material managed through the operation to demonstrate that emissions from this equipment are in compliance with the 15 ton/year PM₁₀ limit. Attachment A (or an equivalent form with the same calculation methodology, control efficiency and emission factor as shown on Attachment A) shall be used for this purpose. The permittee shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any personnel from the Missouri Department of Natural Resources upon request. [Construction Permit 012002-004, Special Condition 1.B]
- 2) The permittee shall monitor and record the operating pressure drop across the baghouse weekly. If the pressure drop falls out of the normal operating range, specified by the manufacturer, corrective action shall be taken within eight (8) hours to return the pressure drop to normal whenever the emission units are in operation. (See Attachment B) [Construction Permit 012002-004, Special Condition 2.B]
- 3) The permittee shall maintain an operating and maintenance log for the baghouse which shall include the following: [Construction Permit 012002-004, Special Condition 2.C]
 - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
- 4) Attachments B and C contain logs including these recordkeeping requirements. These logs, or equivalent forms created by the permittee, must be used to certify compliance with this requirement.
- 5) All records shall be maintained for five (5) years. They shall be kept onsite for at least two (2) years. They may be kept in either hard-copy form or on computer media.
- 6) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon their verbal request and presentation of identification.

Reporting:

The permittee shall report all exceedances of the 15 ton/year PM₁₀ limitation. This report shall be sent to the Missouri Department of Natural Resources, Air Pollution Control Program, Enforcement Section, at P.O. Box 176, Jefferson City, Missouri 65102. The report shall be sent no later than ten (10) days after the end of the month during which the records required by Special Condition 1.B. indicate that the source exceeded the limitation. [Construction Permit 012002-004, Special Condition 1.C]

PERMIT CONDITION (EU0020 and EU0030)-002

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
 40 CFR Part 63, Subpart A General Provisions and Subpart LLL National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry - Standards for Storage Bin, Conveying System Transfer Point, and Bulk Loading or Unloading System

Emission Limitation:

The permittee shall not cause or permit emissions to be discharged with opacity greater than ten percent. [§63.1345]

Monitoring:

- 1) The permittee must conduct required opacity monitoring in accordance with the provisions of paragraphs §63.1350(f)(1)(i) through (vii) and in accordance with the monitoring plan developed under §63.1350(p). [§63.1350(f)]
- 2) If visible emissions are observed during any Method 22 visible emissions test conducted under paragraphs §63.1350(f)(1) or (2), the permittee must initiate, within one-hour, the corrective actions specified in the facility’s operation and maintenance plan as required in §63.1347. [§63.1350(f)(3)]

Recordkeeping/Reporting:

The permittee shall meet the recordkeeping and reporting requirements specified in Permit Condition PW002.

EU0040 THROUGH EU0220 – STORAGE BINS, CONVEYING SYSTEM TRANSFER POINTS, BULK LOADING OR UNLOADING SYSTEMS (SCK I)			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0040	Clinker Loadout Station #2: clinker unloading from silos to trucks; MHDR 42 ton/hr; vented to fabric filter; installed 1952 – 1954	Unknown	EP-27
EU0060	Clinker/Gypsum Feed Conveyors: conveyors to FM3; MHDR 30 ton/hr; vented to fabric filter; installed 1952 - 1954	Unknown	EP-33
EU0070	SCK I Finish Mill #1 Feed Belt: MHDR 32 ton/hr; vented to baghouse; installed 1952	Nordberg	EP-34
EU0080	SCK I Finish Mill #1 Weigh Hopper: MHDR 32 ton/hr; vented to baghouse; installed 1952	Nordberg	EP-34
EU0090	SCK I Finish Mill #2 Feed Belt: MHDR 36 ton/hr; vented to baghouse; installed 1954	Nordberg	EP-35
EU0100	SCK I Finish Mill #2 Weigh Hopper: MHDR 36 ton/hr; vented to baghouse; installed 1954	Nordberg	EP-35
EU0110	SCK I Finish Mill #2 Fringe Tank: MHDR 98 ton/hr; vented to baghouse; installed 1998	Nordberg	EP-35A
EU0120	SCK I Finish Mill #3 Feed Belt: MHDR 30 ton/hr; vented to baghouse; installed 1984	Nordberg	EP-36
EU0130	SCK I Finish Mill #3 Weigh Hopper: MHDR 30 ton/hr; vented to baghouse; installed 1984	Nordberg	EP-36
EU0140	Cement Storage Silos: cement transfer to storage silos; MHDR 98 ton/hr; vented to baghouse; installed 2005	Unknown	EP-38A

EU0145	Cement Storage Silos: cement transfer to storage silos; MHDR 98 ton/hr; vented to baghouse; installed 2005	Unknown	EP-38B
EU0146	Cement Storage Silo 12: cement transfer to storage silo; MHDR 98 ton/hr; vented to baghouse	Unknown	
EU0150	Pneumatic Cement Pump #1: MHDR 49 ton/hr; vented to baghouse; installed 1937-1960	Unknown	EP-39
EU0160	Pneumatic Cement Pump #2: MHDR 49 ton/hr; vented to baghouse; installed 1937-1960	Unknown	EP-40
EU0170	Cement Silo Unloading to Truck Silo #1: MHDR 49 ton/hr; vented to baghouse; installed 1937-1960	Unknown	EP-41
EU0180	Cement Silo Unloading to Truck Silo #2: MHDR 49 ton/hr; vented to baghouse; installed 1937-1960	Unknown	EP-42
EU0190	Barge Loadout Station: MHDR 49 ton/hr; vented to baghouse; installed 1937-1960	Unknown	EP-43
EU0200	Railroad Loadout Station: MHDR 49 ton/hr; vented to baghouse; installed 1937-1960	Unknown	EP-44
EU0210	Truck Loadout Station #1: MHDR 49 ton/hr; vented to baghouse; installed 1937-1960	Unknown	EP-45
EU0220	Truck Loadout Station #2: MHDR 49 ton/hr; vented to baghouse; installed 1937-1960	Unknown	EP-47

PERMIT CONDITION (EU0040 through EU0220)-001

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
 40 CFR Part 63, Subpart A General Provisions and Subpart LLL National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry - Standards for Storage Bin, Conveying System Transfer Point, and Bulk Loading or Unloading System

Emission Limitation:

The permittee shall not cause or permit emissions to be discharged with opacity greater than ten percent. [§63.1345]

Monitoring:

- 1) The permittee must conduct required opacity monitoring in accordance with the provisions of paragraphs §63.1350(f)(1)(i) through (vii) and in accordance with the monitoring plan developed under §63.1350(p). [§63.1350(f)]
- 2) If visible emissions are observed during any Method 22 visible emissions test conducted under paragraphs §63.1350(f)(1) or (2), the permittee must initiate, within one-hour, the corrective actions specified in the facility’s operation and maintenance plan as required in §63.1347. [§63.1350(f)(3)]

Recordkeeping/Reporting:

The permittee shall meet the recordkeeping and reporting requirements specified in Permit Condition PW002..

PERMIT CONDITION (EU0040 through EU0220)-002
 10 CSR 10-6.400 Restriction of Emission of Particulate Matter from Industrial Processes

Emission Limitation:

- 1) The permittee shall not emit particulate matter from the following sources in excess of the amounts listed in the following table:

EU ID#	EU Description	Allowable PM Emission Rate (lb/hr)
EU0040	Clinker Loadout Station #2	42.97
EU0060	Clinker/Gypsum Feed Conveyors	40.04
EU0070	SCK I Finish Mill #1 Feed Belt	40.52
EU0080	SCK I Finish Mill #1 Weigh Hopper	40.52
EU0090	SCK I Finish Mill #2 Feed Belt	41.57
EU0100	SCK I Finish Mill #2 Weigh Hopper	41.57
EU0110	SCK I Finish Mill #2 Fringe Tank	51.07
EU0120	SCK I Finish Mill #3 Feed Belt	40.04
EU0130	SCK I Finish Mill #3 Weigh Hopper	40.04
EU0140	Cement Storage Silos	51.07
EU0145	Cement Storage Silos	51.07
EU0146	Cement Storage Silos	51.07
EU0150	Pneumatic Cement Pump #1	44.39
EU0160	Pneumatic Cement Pump #2	44.39
EU0170	Cement Silo Unloading Truck #1	44.39
EU0180	Cement Silo Unloading Truck #2	44.39
EU0190	Barge Loadout Station	44.39
EU0200	Railroad Loadout Station	44.39
EU0210	Truck Loadout Station #1	44.39
EU0220	Truck Loadout Station #2	44.39

- 2) The permittee shall limit particulate matter in the exhaust gases to less than 0.30 grains per standard cubic feet.

Monitoring:

- 1) The permittee shall monitor and record the operating pressure drop across the baghouses at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
- 2) The permittee shall check and document the cleaning sequence of the baghouse every six (6) months.
- 3) The permittee shall inspect bags for leaks and wear every six (6) months.
- 4) The permittee shall inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods every six (6) months.

Recordkeeping:

- 1) The permittee shall document all pressure drop readings. (see Attachment B)
- 2) The permittee shall document all inspections, corrective actions, and instrument calibrations. (see Attachment C)
- 3) Attachments B and C contain logs including these recordkeeping requirements. These logs, or equivalent forms created by the permittee, must be used to certify compliance with this requirement.

- 4) All records shall be maintained for five (5) years. They shall be kept onsite for at least two (2) years. They may be kept in either hard-copy form or on computer media.
- 5) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon their verbal request and presentation of identification.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) and/or normal pressure drop range.
- 2) Reports of any deviations from monitoring (other than the pressure drop range), recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

EU0230 THROUGH EU0280 – FINISH MILLS (SCK I)			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0230	SCK I Finish Mill #1 Clinker Grinding: MHDR 32 ton/hr; vented to baghouse; installed 1952	Nordberg	EP-34
EU0240	SCK I Finish Mill #1 Air Separator: MHDR 32 ton/hr; vented to baghouse; installed 1952	Nordberg	EP-34
EU0250	SCK I Finish Mill #2 Clinker Grinding: MHDR 36 ton/hr; vented to baghouse; installed 1954	Nordberg	EP-35
EU0260	SCK I Finish Mill #2 Air Separator: MHDR 36 ton/hr; vented to baghouse; installed 1954	Nordberg	EP-35
EU0270	SCK I Finish Mill #3 Clinker Grinding: MHDR 30 ton/hr; vented to baghouse; installed 1984	Nordberg	EP-36
EU0280	SCK I Finish Mill #3 Air Separator: MHDR 30 ton/hr; vented to baghouse; installed 1984	Nordberg	EP-37

PERMIT CONDITION (EU0230 through EU0280)-001

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
 40 CFR Part 63, Subpart A General Provisions and Subpart LLL National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry –
 Standards For Finish Mills

Finish mill means a roll crusher, ball and tube mill or other size reduction equipment used to grind clinker to a fine powder. Gypsum and other materials may be added to and blended with clinker in a finish mill. The finish mill also includes the air separator associated with the finish mill.

Emission Limitation:

The permittee must not cause to be discharged any gases from these affected sources which exhibit opacity in excess of ten percent. [§63.1345]

Monitoring:

- 1) For a raw mill or finish mill, the permittee must monitor opacity by conducting daily visible emissions observations of the mill sweep and air separator PM control devices (PMCD) of these affected sources in accordance with the procedures of Method 22 of Appendix A-7 to Part 60 of this chapter. The duration of the Method 22 performance test must be six minutes. [§63.1350(f)(2)(i)]

- 2) Within 24 hours of the end of the Method 22 performance test in which visible emissions were observed, the owner or operator must conduct a follow up Method 22 performance test of each stack from which visible emissions were observed during the previous Method 22 performance test. [§63.1350(f)(2)(ii)]
- 3) If visible emissions are observed during the follow-up Method 22 performance test required by paragraph §63.1350(f)(2)(ii) from any stack from which visible emissions were observed during the previous Method 22 performance test required by paragraph §63.1350(f)(2)(i), the permittee must then conduct an opacity test of each stack from which emissions were observed during the follow up Method 22 performance test in accordance with Method 9 of Appendix A-4 to Part 60 of this chapter. The duration of the Method 9 test must be 30 minutes. [§63.1350(f)(2)(iii)]
- 4) If visible emissions are observed during any Method 22 visible emissions test conducted under paragraphs §63.1350(f)(2), the permittee must initiate, within one-hour, the corrective actions specified in the operation and maintenance plan as required in §63.1347 (*See Plantwide Permit Condition PW001*). [§63.1350(f)(3)]

Recordkeeping/Reporting:

The permittee shall meet the recordkeeping and reporting requirements specified in Permit Condition PW002.

PERMIT CONDITION PERMIT CONDITION (EU0230 through EU0280)-002 10 CSR 10-6.400 Restriction of Emission of Particulate Matter from Industrial Processes

Emission Limitation:

- 1) The permittee shall not emit particulate matter from the following sources in excess of the amounts listed in the following table:

EU ID#	EU Description	Allowable PM Emission Rate (lb/hr)
EU0230	SCK I Finish Mill #1 Clinker Grinding	40.52
EU0240	SCK I Finish Mill #1 Air Separator	40.52
EU0250	SCK I Finish Mill #2 Clinker Grinding	41.57
EU0260	SCK I Finish Mill #2 Air Separator	41.57
EU0270	SCK I Finish Mill #3 Clinker Grinding	40.04
EU0280	SCK I Finish Mill #3 Air Separator	40.04

- 2) The permittee shall limit particulate matter in the exhaust gases to less than 0.30 grains per standard cubic feet.

Monitoring Requirements:

- 1) The permittee shall maintain the baghouse(s) such that the pressure drop remains in the normal operating range whenever the emission units are in operation.
- 2) The permittee shall ensure that all instruments and control equipment be calibrated, maintained, and operated according to the manufacturer’s specifications and recommendations.
- 3) The permittee shall check and document the baghouse pressure drop daily, whenever the emission unit is in operation. If the pressure drop falls out of the normal operating range, corrective action shall be taken by the permittee as soon as practicable but within eight (8) hours to return the pressure drop to normal.

- 4) The permittee shall check and document the cleaning sequence of the baghouse every six (6) months.
- 5) The permittee shall inspect bags for leaks and wear every six (6) months.
- 6) The permittee shall also inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods every six (6) months.

Recordkeeping:

- 1) The permittee shall document all pressure drop readings. (see Attachment B)
- 2) The permittee shall document all inspections, corrective actions, and instrument calibrations. (see Attachment C)
- 3) Attachments B and C contain logs including these recordkeeping requirements. These logs, or equivalent forms created by the permittee, must be used to certify compliance with this requirement.
- 4) All records shall be maintained for five (5) years. They shall be kept onsite for at least two (2) years. They may be kept in either hard-copy form or on computer media.
- 5) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon their verbal request and presentation of identification.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) and/or normal pressure drop range.
- 2) Reports of any deviations from monitoring (other than the pressure drop range), recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

EU0290 AND EU0300 – DEEP MINE LIMESTONE UNLOADING			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0290	Deep Mine Limestone Unloading to Hopper: MHDR 750 ton/hr; equipped with enclosure; hopper installed 2001	NA	EP-58
EU0300	Hopper Unloading to Stockpile Feed Conveyor: deep mine skip unloading to stockpile feed conveyor; MHDR 750 ton/hr; equipped with enclosure; conveyor installed 2001	Dearborn Mid-West	EP-58

<p>PERMIT CONDITION (EU0290 and EU0300)-001</p> <p>10 CSR 10-6.060 Construction Permits Required</p> <p>Construction Permit 0897-019G, Amended November 13, 2012</p>

Operational Limitation/Monitoring:

- 1) The permittee shall meet the Best Available Control Technology (BACT) limit for control of PM₁₀ emissions using water sprays and enclosures on the conveyor transfer points (EU0290 and EU0300) identified as EP-58. However, the moisture content of the material at EU0290 and EU0300 has been demonstrated by the permittee to be greater than 1.5% by weight, which should be equivalent to the usage of water sprays. Therefore, the permittee shall conduct a moisture content test at least once every five (5) years to affirm continued compliance with this claim. [Construction Permit 0897-019D, Special Condition 1]

- a) The permittee shall conduct the required moisture content test in accordance with the test methods and procedures prescribed in the *American Society for Testing Materials (ASTM), Designation D-2216 Standard Test Methods for Laboratory Determination of Water (moisture) Content of Soil or Rock*, ASTM C-566, *Standard Test Method for Total Moisture Content of Aggregate by Drying* or other moisture content testing method(s) approved by the director. Test samples should be obtained immediately prior to EU0290 and EU0300 unless an alternate sampling location is approved by the Director, and [Construction Permit 0897-019G, Special Condition 1.A]
- b) The usage of water sprays for EU0290 and EU0300 are no longer required as moisture content testing has been completed that satisfactorily demonstrates that the material associated EU0290 and EU0300 currently has a moisture content of greater than 1.5% by weight. [Construction Permit 0897-019G, Special Condition 1.B]

Recordkeeping/Reporting:

Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

PERMIT CONDITION (EU0290 and EU0300)-002

10 CSR 10-6.070 New Source Performance Regulations
40 CFR Part 60, Subpart A General Provisions and Subpart OOO Standards of Performance for Nonmetallic Mineral Processing Plants - Standards for Fugitive Emissions

Emission Limitation:

The permittee shall not cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any fugitive emissions, which exhibit greater than 10 percent opacity. [§60.672(b)]

Monitoring:

- 1) The permittee shall conduct opacity readings on these emission units using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required.
- 2) For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the permittee shall use Method 9 and the procedures in §60.11, with the following additions: [§60.675(c)(1)]
 - a) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet). [§60.675(c)(1)(i)]
 - b) The observer shall select, when possible, a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed. [§60.675(c)(1)(ii)]
 - c) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is

present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible. [§60.675(c)(1)(iii)]

- 3) When determining compliance with the fugitive emissions standard, the duration of the Method 9 observations may be reduced from three hours (thirty 6-minute averages) to one hour (ten six-minute averages) only if the following conditions apply: [§60.675(c)(3)]
 - a) There are no individual readings greater than ten percent opacity; and [§60.675(c)(3)(i)]
 - b) There are no more than three readings of ten percent for the one-hour period. [§60.675(c)(3)(ii)]
- 4) The permittee may use the following as alternatives to the reference methods and procedures specified in this section: [§60.675(e)]
 - a) For the method and procedure of §60.675(c), if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used: [§60.675(e)(1)]
 - i) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream. [§60.675(e)(1)(i)]
 - ii) Separate the emissions so that the opacity of emissions from each affected facility can be read. [§60.675(e)(1)(ii)]
- 5) The following monitoring schedule must be maintained:
 - a) The permittee must conduct a monthly 1-minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to Part 60 of Chapter 40. The test must be conducted while the affected source is in operation.
 - b) If no visible emissions are observed in six consecutive monthly tests for any affected source, the permittee may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, the owner or operator must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
 - c) If no visible emissions are observed during the semi-annual test for any affected source, the permittee may decrease the frequency of testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual test, the permittee must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
 - d) If visible emissions are observed during any Method 22 test, the permittee must conduct a 6-minute test of opacity in accordance with Method 9 of Appendix A to Part 60 of Chapter 40. The Method 9 test must begin within one hour of any observation of visible emissions.
- 6) If the source reverts to monthly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachment D-1 or D-2), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment C)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment E)

- 4) Attachments C, D-1, D-2 and E contain logs including these recordkeeping requirements. These logs, or equivalent forms created by the permittee, must be used to certify compliance with this requirement.
- 5) All records shall be maintained for five (5) years. They shall be kept onsite for at least two (2) years. They may be kept in either hard-copy form or on computer media.
- 6) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon their verbal request and presentation of identification.

Reporting:

- 1) The permittee shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of Subpart OOO, including reports of opacity observations made using Method 9 to demonstrate compliance with §60.672(b). [§60.676(f)]
- 2) The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the permittee determined using the Method 9 test that the emission unit exceeded the opacity limit.
- 3) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit

EU0310 – LIMESTONE STOCKPILE (SCK II)			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0310	Limestone Stockpile: stockpile maintenance (dozer pushing); equipped with wind guards	NA	EP-60

PERMIT CONDITION EU0310-001
10 CSR 10-6.060 Construction Permits Required Construction Permit 0897-019G, Amended November 13, 2012

Emission Limitation:

- 1) The permittee shall meet the BACT limit for control of PM₁₀ emissions from the limestone stockpile (EU0310) identified as EP-60 through the use of partial enclosures or wind guards. [Construction Permit 0897-019G, Special Condition 2]
- 2) Permittee shall limit the cumulative 12-month throughput for the limestone stockpile (EU0310) identified as EP-60 to less than 1,336,900 tons. [Construction Permit 0897-019G, Special Condition 28]

Monitoring/Recordkeeping

The permittee shall maintain an accurate monthly record of the throughput for the limestone stockpile (EU0310). These records shall include monthly and rolling 12-month totals. These records shall be kept on-site for the most recent sixty (60) month period of operation and be made immediately available to Department of Natural Resources' personnel upon request. [Construction Permit 0897-019G, Special Condition 29]

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the permittee determined that the emission unit exceeded the throughput limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit

EU0320 THROUGH EU0345 –RAW MATERIAL UNLOADING/CRUSHING/CONVEYING			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0320	Raw Material Truck Unloading to Dump Hopper: MHDR 709.79 ton/hr; equipped with enclosure; truck unloading area & hopper constructed in 2001	NA	EP-61
EU0330	Raw Material Crusher: MHDR 119.05 ton/hr; equipped with enclosure; installed 2001	McClanan	EP-61
EU0340	Raw Materials Dump Hopper Unloading to Conveyor: MHDR 708.79 ton/hr; equipped with enclosure; installed 2001	Dearborn Mid-West Conveyor	EP-61
EU0345	Limestone Fines Transfer/Emergency Limestone Hopper: moisture content >1.5%; fugitive	NA	EP-143

PERMIT CONDITION (EU0320 through EU0340)-001

10 CSR 10-6.060 Construction Permits Required
 Construction Permit 0897-019G, Amended November 13, 2012

Operational Specifications:

BACT for PM₁₀ emissions is the use of partial enclosures or wind guards on raw material truck unloading to hoppers, raw material crushing, and bin unloading to the raw material conveyor (EU0320 through EU0340), identified as EP-61. [Construction Permit 0897-019G, Special Condition 2]

Reporting:

Reports of any deviations from the Operational Specifications of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

PERMIT CONDITION (EU0330 and EU0345)-002

10 CSR 10-6.070 New Source Performance Regulations
 40 CFR Part 60, Subpart A General Provisions and Subpart OOO Standards of Performance for Nonmetallic Mineral Processing Plants - Standards for Fugitive Emission

Note: This permit condition is only applicable when non-metallic minerals are being processed.

Emission Limitation:

- 1) The permittee shall not cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any fugitive emissions, which exhibit greater than ten percent opacity. [§60.672(b)]

- 2) The permittee shall not cause to be discharged into the atmosphere from any crusher, at which a capture system is not used, fugitive emissions which exhibit greater than 15 percent opacity. [§60.672(c)]

Monitoring:

- 1) The permittee shall conduct opacity readings on these emission units using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required.
- 2) For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the permittee shall determine compliance with the particulate standards in §60.672(b) and (c) using Method 9 and the procedures in §60.11, with the following additions: [§60.675(c)(1)]
 - a) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet). [§60.675(c)(1)(i)]
 - b) The observer shall select, when possible, a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed. [§60.675(c)(1)(ii)]
 - c) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible. [§60.675(c)(1)(iii)]
- 3) When determining compliance with the fugitive emissions standard described under §60.672(b), the duration of the Method 9 observations may be reduced from three hours (thirty six-minute averages) to one hour (ten six-minute averages) only if the following conditions apply: [§60.675(c)(3)]
 - a) There are no individual readings greater than ten percent opacity; and [§60.675(c)(3)(i)]
 - b) There are no more than three readings of ten percent for the one-hour period. [§60.675(c)(3)(ii)]
- 4) When determining compliance with the fugitive emissions standard for any crusher at which a capture system is not used as described under §60.672(c), the duration of the Method 9 observations may be reduced from three hours (thirty six-minute averages) to one hour (ten six-minute averages) only if the following conditions apply: [§60.675(c)(4)]
 - a) There are no individual readings greater than 15 percent opacity; and [§60.675(c)(4)(i)]
 - b) There are no more than three readings of 15 percent for the one-hour period. [§60.675(c)(4)(ii)]
- 5) The permittee may use the following as alternatives to the reference methods and procedures specified in this section: [§60.675(e)]
 - a) For the method and procedure of §60.675(c), if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used: [§60.675(e)(1)]
 - i) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream. [§60.675(e)(1)(i)]
 - ii) Separate the emissions so that the opacity of emissions from each affected facility can be read. [§60.675(e)(1)(ii)]
- 6) The following monitoring schedule must be maintained:

- a) The permittee must conduct a monthly 1-minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to Part 60 of Chapter 40. The test must be conducted while the affected source is in operation.
 - b) If no visible emissions are observed in six consecutive monthly tests for any affected source, the permittee may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, the permittee must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
 - c) If no visible emissions are observed during the semi-annual test for any affected source, the permittee may decrease the frequency of testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual test, the permittee must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
 - d) If visible emissions are observed during any Method 22 test, the permittee must conduct a 6-minute test of opacity in accordance with Method 9 of Appendix A to Part 60 of Chapter 40. The Method 9 test must begin within one hour of any observation of visible emissions.
- 7) If the source reverts to monthly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachment D-1 or D-2), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment C)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment E)
- 4) Attachments C, D-1, D-2 and E contain logs including these recordkeeping requirements. These logs, or equivalent forms created by the permittee, must be used to certify compliance with this requirement.
- 5) All records shall be maintained for five (5) years. They shall be kept onsite for at least two (2) years. They may be kept in either hard-copy form or on computer media.
- 6) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon their verbal request and presentation of identification.

Reporting:

- 1) The permittee shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of Subpart OOO, including reports of opacity observations made using Method 9 to demonstrate compliance with §60.672(b) and (c). [§60.676(f)]
- 2) The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the permittee determined using the Method 9 test that the emission unit exceeded the opacity limit.
- 3) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

EU0350 AND EU0360 – SOLID FUEL STOCKPILE (SCK II)

Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0350	Unloading to Solid Fuel Stockpile: truck unloading solid fuel to stockpile; MHDR 100 ton/hr; equipped with enclosure	NA	EP-63
EU0360	Solid Fuel Stockpile: equipped with enclosure	NA	EP-63

PERMIT CONDITION (EU0350 and EU0360)-001

10 CSR 10-6.060 Construction Permits Required
 Construction Permit 0897-019G, Amended November 13, 2012

Operational Specifications:

BACT for PM₁₀ emissions is the use of partial enclosures or wind guards on the solid fuel stockpile (EU0350 and EU0360), identified as EP-63. [Construction Permit 0897-019G, Special Condition 2]

Reporting:

Reports of any deviations from the Operational Specification requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

EU0370 THROUGH EU0750 – STORAGE BINS, CONVEYING SYSTEM TRANSFER POINTS, BULK LOADING OR UNLOADING SYSTEMS (SCK II)

Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0370	Raw Material Transfer to Tripper Belt: five raw materials (sand, ash, iron mill scale, kaolin clay and limestone) are transferred to tripper belt; total MHDR 708.79 ton/hr; vented to fabric filter (DC-35-3); installed 2001	Dearborn Mid-West	EP-62
EU0380	Tripper Belt Unloading to Bins: five raw materials (sand, ash, iron mill scale, kaolin clay and limestone) are unloaded to bins; total MHDR 708.79 ton/hr; vented to fabric filter (DC-35-3); installed 2001	WINBCO	EP-62
EU0390	Unloading to Limestone Storage Bin: MHDR 152.61 ton/hr; vented to fabric filter (DC-35-5); installed 2001	Dearborn Mid-West	EP-64
EU0400	Sand Transfer to Tunnel Conveyor: MHDR 10.29 ton/hr; vented to fabric filter (DC-35-2); installed 2001	Dearborn Mid-West	EP-65
EU0410	Ash Transfer to Tunnel Conveyor: MHDR 11.76 ton/hr; vented to fabric filter (DC-35-2); installed 2001	Dearborn Mid-West	EP-65
EU0420	Iron Mill Scale Transfer to Tunnel Conveyor: MHDR 1.80 ton/hr; vented to fabric filter (DC-35-2); installed 2001	Dearborn Mid-West	EP-65
EU0430	Kaolin Clay Transfer to Tunnel Conveyor: MHDR 4.34 ton/hr; vented to fabric filter (DC-35-2); installed 2001	Dearborn Mid-West	EP-65
EU0440	Limestone Transfer to Tunnel Conveyor #1: MHDR 152.61 ton/hr; vented to fabric filter (DC-35-2); installed 2001	Dearborn Mid-West	EP-65
EU0450	Limestone Transfer to Tunnel Conveyor #2: MHDR 152.61 ton/hr; vented to fabric filter (DC-35-2); installed 2001	Dearborn Mid-West	EP-65
EU0460	Tunnel Conveyor To Raw Mill Conveyor: MHDR 180.82 ton/hr; vented to fabric filter (DC-35-4); installed 2001	Dearborn Mid-West	EP-66

EU0370 THROUGH EU0750 – STORAGE BINS, CONVEYING SYSTEM TRANSFER POINTS, BULK LOADING OR UNLOADING SYSTEMS (SCK II)			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0470	Homogenization Silo: raw mill air separators unloading to homogenization silo; MHDR 180.82 ton/hr; vented to fabric filter (DC-37-1); installed 2001	Polysius	EP-67
EU0480	Raw Mix Storage Bin: raw mill transfer from homogenization silo to storage bin; MHDR 180.82 ton/hr; vented to fabric filter (DC-38-1); installed 2001	NA	EP-68
EU0490	CKD Transfer to Bucket Elevator: CKD transfer from kiln baghouse to bucket elevator; MHDR 9.60 ton/yr; vented to fabric filter (DC-42-2); installed 2001	Rexnord	EP-69
EU0500	CKD Unloading to Silo: CKD unloading from bucket elevator to CKD silo; MHDR 9.60 ton/yr; vented to fabric filter (DC-42-2); installed 2001	Polysius	EP-69
EU0510	Kiln Feed Airlift System: MHDR 190.42 ton/yr; vented to fabric filter (DC-42-1); installed 2001	Polysius	EP-70
EU0520	Pulverized Solid Fuel Day Bin: pulverized solid fuel transfer to storage bin; MHDR 11.42 ton/yr; vented to fabric filter (DC-41-3); installed 2001	Pfister	EP-76
EU0530	Clinker Transfer to Clinker Elevator: MHDR 117.42 ton/yr; vented to fabric filter (DC-47-1); installed 2001	Rexnord	EP-79
EU0540	Clinker Unloading to Hot Clinker Storage Bin: MHDR 5.87 ton/yr; vented to fabric filter (DC-47-1); installed 2001	WINBCO	EP-79
EU0550	Hot Clinker Storage Bin Transfer to Pan Conveyor: MHDR 5.87 ton/yr; vented to fabric filter (DC-47-1); installed 2001	NA	EP-79
EU0560	Clinker Elevator Unloading to Clinker Silo: MHDR 111.55 ton/yr; vented to fabric filter (DC-47-3); installed 2001	NA	EP-80
EU0570	Clinker/Gypsum Transfer Conveyor Unloading to Clinker Silo: MHDR 198.42 ton/yr; vented to fabric filter (DC-47-3); installed 2001	Dearborn-Mid-West	EP-80
EU0580	Clinker/Gypsum Reclaim Conveyor to Gypsum Silo: MHDR 198.42 ton/yr; vented to fabric filter (DC-73-2); installed 2001	NA	EP-81
EU0590	Clinker Truck Loadout: clinker loading to truck for transfer to mine/SCK I; MHDR 198.42 ton/yr; vented to fabric filter (DC-65-1); installed 2001	DCL	EP-82
EU0600	Hot Clinker Truck Loadout: hot clinker loading to truck for transfer to mine/SCK I; MHDR 198.42 ton/yr; vented to fabric filter (DC-47-2); installed 2001	DCL	EP-83
EU0610	Clinker/Gypsum Reclaim Hopper: truck unloading to gypsum/clinker reclaim hopper; MHDR 198.42 ton/hr; vented to fabric filter (DC-73-1); installed 2001	NA	EP-84
EU0620	Gypsum/Clinker Reclaim Conveyor: unloading to reclaim conveyor; MHDR 198.42 ton/yr; vented to fabric filter (DC-73-3); installed 2001	Dearborn-Mid-West	EP-85
EU0630	SCK II Finish Mill Weigh Hoppers: MHDR 80 ton/yr; vented to fabric filter (DC-52-3); installed 2001	NA	EP-86
EU0640	SCK II Finish Mill Elevator: MHDR 80 ton/hr; vented to fabric filter (DC-52-4); installed 2001	Rexnord	EP-88

EU0370 THROUGH EU0750 – STORAGE BINS, CONVEYING SYSTEM TRANSFER POINTS, BULK LOADING OR UNLOADING SYSTEMS (SCK II)			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0650	Cement Transfer to Headhouse: cement elevator transfer to cement silo headhouse airslide; MHDR 80 ton/yr; vented to fabric filter (DC-53-3); installed 2001	Beumer	EP-89
EU0660	Headhouse Transfer to Distribution Box: cement silo headhouse airslide transfer to headhouse distribution box; MHDR 80 ton/yr; vented to fabric filter (DC-61-6); installed 2001	DCL	EP-90
EU0670	Recycle from Silos to Headhouse: recycle from cement silos to cement silo headhouse; MHDR 4.0 ton/yr; vented to fabric filter (DC-61-6); installed 2001	NA	EP-90
EU0680	Cement Unloading to Interstice Cement Silo: MHDR 4.0 ton/yr; vented to fabric filter (DC-61-6); installed 2001	NA	EP-90
EU0690	Cement Silos #1 & #2: cement unloading to cement silos from headhouse; MHDR 40.0 ton/yr; vented to fabric filter (DC-53-1); installed 2001	NA	EP-91
EU0700	Cement Silos #3 & #4: cement unloading to cement silos from headhouse; MHDR 40.0 ton/yr; vented to fabric filter (DC-53-4); installed 2001	NA	EP-92
EU0710	Cement Truck Distribution Box: silo unloading to cement truck distribution box; MHDR 84.0 ton/yr; vented to fabric filter (DC-61-1); installed 2001	DCL	EP-93
EU0720	Cement Pump to Interstice or Blends: cement pump to interstice silo or blends cement bin; MHDR 4.0 ton/yr; vented to fabric filter (DC-61-4); installed 2001	DCL	EP-94
EU0730	Cement Recycle to Finish Mill: recycle airslide conveyor transfer to recycle pump; MHDR 4.0 ton/yr; vented to fabric filter (DC-61-5); installed 2001	DCL	EP-95
EU0740	Cement Truck Loadout #1: cement loading to trucks; MHDR 40.0 ton/yr; vented to fabric filter (DC-61-2); installed 2001	DCL	EP-96
EU0750	Cement Truck Loadout #2: cement loading to trucks; MHDR 40.0 ton/yr; vented to fabric filter (DC-61-3); installed 2001	DCL	EP-97

PERMIT CONDITION (EU0370 through EU0750)-001
 10 CSR 10-6.060 Construction Permits Required
 Construction Permit 0897-019G, Amended November 12, 2013

Operational Specifications:

- 1) BACT for PM₁₀ emissions is the use of baghouses designed to reduce PM₁₀ emissions by at least 99% on the following emission sources: [Construction Permit 0897-019G, Special Condition 3]
 - a) Raw material transfer to silos (EU0370 and EU0380) identified as EP-62;
 - b) Limestone transfer to silo (EU0390) identified as EP-64;
 - c) Raw material reclaim to tunnel conveyor transfer (EU0400 through EU0450) identified as EP-65;
 - d) Raw material tunnel conveyor transfer to raw material conveyor (EU0460) identified as EP-66;
 - e) Raw mill air separators unloading to homogenization silo (EU0470) identified as EP-67;

- f) Kiln feed mixing chamber (EU0480) identified as EP-68;
 - g) Unloading to cement kiln dust (CKD) bin from baghouse (EU0490 and EU0500) identified as EP-69;
 - h) Kiln feed air lift (EU0510) identified as EP-70;
 - i) Pulverized solid fuel day bin (EU0520) identified as EP-76
 - j) Clinker elevator and hot clinker silo (EU0530 through EU0550) identified as EP-79;
 - k) Clinker unloading from clinker/gypsum conveyor or clinker elevator to clinker silo (EU0560 and EU0570) identified as EP-80;
 - l) Clinker/gypsum conveyor unloading to gypsum silo (EU0580) identified as EP-81;
 - m) Clinker/gypsum conveyor transfer point (EU0620) identified as EP-85;
 - n) Clinker and gypsum unloading to finish mill conveyor (EU0630) identified as EP-86;
 - o) Cement transfer to silo headhouse and interstice (EU0650) identified as EP-89;
 - p) Cement silo headhouse and interstice (EU0660 through EU0680) identified as EP-90;
 - q) Cement unloading to cement silos #1 and #2 (EU0690) identified as EP-91;
 - r) Cement unloading to cement silos #3 and #4 (EU0700) identified as EP-92;
 - s) Cement unloading to cement loading distribution box (EU0710) identified as EP-93;
 - t) Cement pump to interstice or blends (EU0720) identified as EP-94;
 - u) Cement recycle to finish mill (EU0730) identified as EP-95; and
 - v) Cement truck loadouts #1 and #2 (EU0740 and EU0750) identified as EP-96 and EP-97.
- 2) BACT for PM₁₀ emissions for the clinker and hot clinker loadouts (EU0590 and EU0600), identified as EP-82 and EP-83, is the use of a telescoping chute and a baghouse. [Construction Permit 0897-019G, Special Condition 4]
- 3) BACT for PM₁₀ emissions for the truck unloading to clinker/gypsum hopper (EU0610) identified as EP-84 is the use of partial enclosures or wind guards. [Construction Permit 0897-019G, Special Condition 2]

Monitoring:

- 1) The permittee shall monitor and record the operating pressure drop across the baghouses at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
- 2) The permittee shall check and document the cleaning sequence of the baghouse every six (6) months.
- 3) The permittee shall inspect bags for leaks and wear every six (6) months.
- 4) The permittee shall inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods every six (6) months.

Recordkeeping:

- 1) The permittee shall document all pressure drop readings. (see Attachment B)
- 2) The permittee shall document all inspections, corrective actions, and instrument calibrations. (see Attachment C)
- 3) Attachments B and C contain logs including these recordkeeping requirements. These logs, or equivalent forms created by the permittee, must be used to certify compliance with this requirement.
- 4) All records shall be maintained for five (5) years. They shall be kept onsite for at least two (2) years. They may be kept in either hard-copy form or on computer media.
- 5) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon their verbal request and presentation of identification.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) and/or normal pressure drop range.
- 2) Reports of any deviations from monitoring (other than the pressure drop range), recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

PERMIT CONDITION (EU0370 through EU0750)-002

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
 40 CFR Part 63, Subpart A General Provisions and Subpart LLL National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry - Standards for Storage Bin, Conveying System Transfer Point, and Bulk Loading or Unloading System

Emission Limitation:

The permittee shall not cause or permit emissions to be discharged with opacity greater than 10 percent. [§63.1345]

Monitoring:

- 1) The permittee must conduct required opacity monitoring in accordance with the provisions of paragraphs §63.1350(f)(1)(i) through (vii) and in accordance with the monitoring plan developed under §63.1350(p). [§63.1350(f)]
- 2) If visible emissions are observed during any Method 22 visible emissions test conducted under paragraphs §63.1350(f)(1) or (2), the permittee must initiate, within one-hour, the corrective actions specified in the facility’s operation and maintenance plan as required in §63.1347. [§63.1350(f)(3)]

Recordkeeping/Reporting:

The permittee shall meet the recordkeeping and reporting requirements specified in Permit Condition PW002.

EU0760 THROUGH EU0790 – SOLID FUEL TRANSFER & STORAGE			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0760	Solid Fuel Unloading to Reclaim Hopper: MHDR 198.42 ton/yr; equipped with enclosure; installed 2001	NA	EP-71
EU0770	Solid Fuel Conveyor Transfer to Solid Fuel Conveyor: MHDR 198.42 ton/yr; two segments; vented to baghouse (DC-71-1); installed 2001	Dearborn-Mid-West	EP-72
EU0780	Solid Fuel Surge Bin #1: solid fuel mill conveyor unloading to solid fuel surge bin; MHDR 198.42 ton/hr; vented to baghouse (DC-71-3); installed 2001	WINBCO	EP-74
EU0790	Solid Fuel Surge Bin #2: solid fuel mill conveyor unloading to solid fuel surge bin; MHDR 198.42 ton/hr; vented to baghouse (DC-71-4); installed 2001	WINBCO	EP-75

PERMIT CONDITION (EU0760 through EU0790)-001

10 CSR 10-6.070 New Source Performance Regulations

40 CFR Part 60, Subpart A General Provisions and Subpart Y Standards of Performance for Coal Preparation Plants

Emission Limitation:

The owner or operator shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater.[60.254(a)]

Monitoring:

- 1) The permittee shall conduct opacity readings on these emission units using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required.
- 2) For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the permittee shall use Method 9 and the procedures in §60.11 to determine opacity.
- 3) The following monitoring schedule must be maintained:
 - a) The owner or operator must conduct a monthly one-minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to Part 60 of Chapter 40. The test must be conducted while the affected source is in operation.
 - b) If no visible emissions are observed in six consecutive monthly tests for any affected source, the permittee may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, the permittee must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
 - c) If no visible emissions are observed during the semi-annual test for any affected source, the permittee may decrease the frequency of testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual test, the permittee must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
 - d) If visible emissions are observed during any Method 22 test, the permittee must conduct a 6-minute test of opacity in accordance with Method 9 of Appendix A to Part 60 of Chapter 40. The Method 9 test must begin within one hour of any observation of visible emissions.
- 4) If the source reverts to monthly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachment D-1 or D-2), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment C)

- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment E)
- 4) Attachments C, D-1, D-2 and E contain logs including these recordkeeping requirements. These logs, or equivalent forms created by the permittee, must be used to certify compliance with this requirement.
- 5) All records shall be maintained for five (5) years. They shall be kept onsite for at least two (2) years. They may be kept in either hard-copy form or on computer media.
- 6) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon their verbal request and presentation of identification.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the permittee determined using the Method 9 test that the emission unit exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 3) For the purpose of reports required under Section 60.7(c), the permittee shall report semi-annually periods of excess emissions as follow: [§60.258(b)]
- 4) All six-minute average opacities that exceed the applicable standard. [§60.258(b)(3)]
- 5) The permittee shall submit the results of initial performance tests to the Administrator or delegated authority, consistent with the provisions of Section 60.8. The owner or operator who elects to comply with the reduced performance testing provisions of Sections 60.255(c) or (d) shall include in the performance test report identification of each affected facility that will be subject to the reduced testing. The owner or operator electing to comply with Section 60.255(d) shall also include information which demonstrates that the control devices are identical. [§60.258(c)]
- 6) After July 1, 2011, within 60 days after the date of completing each performance evaluation conducted to demonstrate compliance with this subpart, the permittee must submit the test data to EPA by successfully entering the data electronically into EPA's WebFIRE data base available at <http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main>. For performance tests that cannot be entered into WebFIRE (i.e., Method 9 of Appendix A-4 of this part opacity performance tests) the owner or operator of the affected facility must mail a summary copy to United States Environmental Protection Agency; Energy Strategies Group; 109 TW Alexander DR; mail code: D243-01; RTP, NC 27711. [§60.258(d)]

PERMIT CONDITION (EU0770 through EU0790)-002

10 CSR 10-6.060 Construction Permits Required

Construction Permit 0897-019G, Amended November 13, 2012

Operational Specifications:

- 1) BACT for PM₁₀ emissions is the use of baghouses designed to reduce PM₁₀ emissions by at least 99% on the following emission sources: [Construction Permit 0897-019G, Special Condition 3]
 - a) Solid fuel conveyors (EU0770) identified as EP-72;
 - b) Solid fuel surge bin number 1 (EU0780) identified as EP-74; and
 - c) Solid fuel surge bin number 2 (EU0790) identified as EP-75.

Monitoring:

- 1) The permittee shall monitor and record the operating pressure drop across the baghouses at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
- 2) The permittee shall check and document the cleaning sequence of the baghouse every six (6) months.
- 3) The permittee shall inspect bags for leaks and wear every six (6) months.
- 4) The permittee shall inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods every six (6) months.

Recordkeeping:

- 1) The permittee shall document all pressure drop readings. (see Attachment B)
- 2) The permittee shall document all inspections, corrective actions, and instrument calibrations. (see Attachment C)
- 3) Attachments B and C contain logs including these recordkeeping requirements. These logs, or equivalent forms created by the permittee, must be used to certify compliance with this requirement.
- 4) All records shall be maintained for five (5) years. They shall be kept onsite for at least two (2) years. They may be kept in either hard-copy form or on computer media.
- 5) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon their verbal request and presentation of identification.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) and/or normal pressure drop range.
- 2) Reports of any deviations from monitoring (other than the pressure drop range), recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

EU0800 – SOLID FUEL MILLING AND SEPARATION EU0810 – RAW MATERIAL GRINDING AND DRYING EU0820 – RAW MILL AIR SEPARATOR EU0830 – RAW MIX FEED TRANSFER TO PREHEATER/PRECALCINER EU0840 – PREHEATER/PRECALCINER ROTARY KILN			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0800	Solid Fuel Milling and Separation: MHDR 11.42 ton/hr; vented to fabric filters (DC-44-1 and DC-44-2); installed 2001	Williams	EP-77
EU0810	Raw Material Grinding and Drying: roller mill; MHDR 180.82 ton/yr; vented to fabric filter (DC-44-1); installed 2001	Polysius/ RM 41/20/315	EP-77
EU0820	Raw Mill Air Separator: MHDR 180.82 ton/hr vented to fabric filter (CD-44-1); installed 2001	Polysius/ SEPOL-315- RMPS	EP-77
EU0830	Raw Mix Feed Transfer to Preheater/Precalciner: MHDR 180.82 ton/hr; vented to fabric filter (DC-44-1); installed 2001	Polysius	EP-77
EU0840	Preheater/Precalciner Rotary Kiln: MHDR 180.82 ton/hr; vented to internal dry scrubbing and fabric filter (DC-44-1); installed 2001	Polysius	EP-77

PERMIT CONDITION EU0800-001

10 CSR 10-6.070 New Source Performance Regulations
40 CFR Part 60, Subpart A General Provisions and Subpart Y Standards of Performance for Coal Preparation Plants

Emission Limitation:

The permittee shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater. [60.254(a)]

Monitoring:

Solid Fuel Milling and Separation (EU0800) vents through the same emission stack as Raw Mill and Preheater/Precalciner Rotary Kiln System identified as EP-77. The monitoring, recordkeeping and reporting requirements established in Permit Condition (EU0810 through EU0840)-004 will ensure that Solid Fuel Milling and Separation (EU0800) will meet requirements of this permit condition. No further monitoring, recordkeeping or reporting is required for this permit condition.

PERMIT CONDITION (EU0800 through EU0840)-002

10 CSR 10-6.060 Construction Permits Required
Construction Permit 0897-019G, Amended November 13, 2012

The Permittee shall meet BACT for the Preheater/Precalciner Rotary Kiln System (EU0800 through EU0840), identified as EP-77. This permit condition lists the BACT emission limits and operational specifications.

Emission Limitation:

- 1) BACT for PM₁₀ emissions from the Raw Mill and Preheater/Precalciner Rotary Kiln System (EU0800 through EU0840), identified as EP-77, is an emission rate not to exceed 164.15 pounds per hour while the roller mill is not in operation and 49.95 pounds per hour while the roller mill is in operation. This limit is for total PM₁₀, consisting of both condensable and filterable fractions. [Construction Permit 0897-019G, Special Condition 7]
- 2) BACT for emissions of oxides of sulfur from the Raw Mill and Preheater/Precalciner Rotary Kiln System (EU0800 through EU0840), identified as EP-77, is an emission rate not to exceed 477.3 pounds per hour, three-hour average. [Construction Permit 0897-019G, Special Condition 16]
- 3) BACT for emissions of oxides of nitrogen from the Raw Mill and Preheater/Precalciner Rotary Kiln System (EU0800 through EU0840), identified as EP-77, is an emission rate not to exceed 1,894.8 tons in any consecutive 12-month period. [Construction Permit 0897-019G, Special Condition 19]
- 4) BACT for carbon monoxide emissions from the Raw Mill and Preheater/Precalciner Rotary Kiln System (EU0800 through EU0840), identified as EP-77, is an emission rate not to exceed 842 tons in any consecutive 12-month period. [Construction Permit 0897-019G, Special Condition 20]

Operational Specifications:

- 1) BACT for organic hazardous air pollutant (HAP) emissions from the Raw Mill and Preheater/Precalciner Rotary Kiln System (EU0800 through EU0840), identified as EP-77, is the use of good combustion practices. [Construction Permit 0897-019G, Special Condition 23]

- 2) BACT for heavy metal HAP emissions from the Raw Mill and Preheater/Precalciner Rotary Kiln System (EU0800 through EU0840), identified as EP-77, is the use of a fabric filter baghouse. [Construction Permit 0897-019G, Special Condition 24]
- 3) BACT for hydrogen chloride emissions from the Raw Mill and Preheater/Precalciner Rotary Kiln System (EU0800 through EU0840), identified as EP-77, is the inherent alkali environment of the preheater/precalciner rotary kiln. [Construction Permit 0897-019G, Special Condition 25]
- 4) BACT for sulfuric acid mist emissions from the Raw Mill and Preheater/Precalciner Rotary Kiln System (EU0800 through EU0840), identified as EP-77, is the inherent dry scrubbing of the preheater/precalciner rotary kiln system. [Construction Permit 0897-019G, Special Condition 26]

Monitoring/Recordkeeping:

- 1) The permittee shall demonstrate compliance with the PM₁₀ emissions limit from the Raw Mill and Preheater/Precalciner Rotary Kiln System (EU0800 through EU0840), identified as EP-77, through compliance demonstrations once every 30 months, consisting of three one-hour runs. [Construction Permit 0897-019G, Special Condition 7]
- 2) Continuous Emission Monitors (CEMs) shall be installed, operated, and calibrated to monitor carbon monoxide and oxides of nitrogen emissions from the Raw Mill and Preheater/Precalciner Rotary Kiln System (EU0800 through EU0840). Monthly records shall be kept providing the 12-month rolling totals of carbon monoxide and oxides of nitrogen emissions to verify compliance with the 1,894.8 tpy NO_x and 842 tpy CO emission limitations. [Construction Permit 0897-019G, Special Condition 21]
- 3) Compliance with the SO₂ emission limit given in Special Condition 16 (477.3 pounds per hour, three-hour average) for the raw mill and preheater/precalciner rotary kiln system (EP77) shall be demonstrated through the use of the required CEMS. Monthly records shall be kept providing the three hour average totals to verify compliance with the emission limitation of Special Condition 16.
 - a) The permittee shall install, certify, operate, calibrate, test, and maintain CEMS for SO₂ and any necessary auxiliary monitoring equipment in accordance with all applicable regulations. If there are conflicting regulatory requirements, the more stringent shall apply.
 - b) The permittee shall operate a data acquisition and handling system for the NO_x and SO₂ CEMS to calculate emissions in terms of the emission limitations specified in this amendment.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the permittee determined that the emission unit(s) exceeded the emission limitation(s).
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

PERMIT CONDITION (EU0800 through EU0840)-003

10 CSR 10-6.060 Construction Permits Required

Construction Permit 082004-016, Issued August 26, 2004

Construction Permit 082004-016D, Amended November 6, 2012

The conditions of this permit supersede all special conditions found in the previously issued construction permits (Permit Number 082004-016, 082004-016A, 082004-016B and 082004-016C) from the Air Pollution Control Program. All references to Special Conditions in the following permit text is in reference to the Special Conditions found in Construction Permit 082004-016D.

Emission Limitation:

- 1) Compliance with Previously Established Emission Limitations [Construction Permit 082004-016D, Special Condition 4]
 - a) When combusting any alternate fuels at this installation, the permittee shall continue to remain in compliance with all the limitations and/or requirements associated with the Preheater/Precalciner Rotary Kiln (EU0840) identified as EP-77 that were established in the Special Conditions in Air Pollution Control Program Permit Number 0897-019 and later amended in Air Pollution Control Program Permit Number 0897-019D. [Construction Permit 082004-016D, Special Condition 4.A]

{Note: The emission limitations established in the Special Conditions of Air Pollution Control Program Permit Number 0897-019D are provided in Permit Condition (EU0810 through EU0840)-002}
 - b) If the above limitations and/or requirements are revised in another New Source Review permit/amendment or in the installation’s Operating Permit, then the permittee shall remain in compliance with these revised limitations and/or requirements. [Construction Permit 082004-016D, Special Condition 4.B]

Operational Specifications:

- 1) Maximum Allowable Usage Levels for Alternate Fuels [Construction Permit 082004-016D, Special Condition 2]
 - a) The permittee shall not combust more of any alternate fuel in the Preheater/Precalciner Rotary Kiln (EU0840) at this installation than the amount listed in Table 1 (*below*) in any consecutive 12-month period. This usage of alternate fuels does not, in anyway, limit or otherwise restrict the combustion of either coal or coke in the above emission unit. [Construction Permit 082004-016D, Special Condition 2.A]

Table 1 - Fuel Limitations	
Number	Alternate Fuel and Usage Limitation
1.	24,450 Tons of Tire Derived Fuels (TDF) including whole and/or shredded tires, and/or rubber products
2.	26,877 Tons of Plastic Derived Fuels (PDF) {Note: This approval of the usage of PDF in the cement kiln initially includes only polystyrene and polyethylene based plastic materials. Additional types of plastics for use as PDF may be approved upon request of the installation and approval from the director in writing.}
3.	3,609,200 Gallons of No. 2 Fuel Oil or other Distillates Oils
4.	2,016,108 Gallons of No. 6 Fuel Oil or other Residual Oils
5.	2,534,873 Gallons of Used and/or Waste Oils {Note: The list of approved used and/or waste oils to be used as fuel in the cement kiln includes, but is not specifically limited to, crankcase oils from automobiles and trucks, used industrial lubricating oils, and other industrial oils such as oils used for heat transfer, etc.},
6.	25,265 Tons of Textile Products {Note: The textile products to be used as fuel in the cement kiln includes the face fiber of carpet products typically consisting of nylon or other polymers, a primary backing, an adhesive and a secondary backing.}
7.	23,238 tons of Animal Meal Material {Note: The list of possible Animal Meal materials to be used as fuel in the cement kiln includes dried meat and bone meal (MBM) but does not include material containing any horns, hair, hide trimmings, manure, stomach contents, added blood meal or poultry-by-products},

8.	30,077 Tons of Material containing Cellulose {Note: The list of approved cellulose materials to be used as fuel in the cement kiln includes, but is not specifically limited to, sawdust, wood chips, and paper},
9.	7,219 Million cubic feet of gasses from a Landfill Operation
10.	Mixture of Alternate Solid Fuels (ASF) Described Above <i>Note: The list of approved materials includes, but is not specifically limited to, solid fuels listed and described above. Amounts of each category of ASF will not exceed the individual permitted usage limit prescribed above.</i>
11.	90,000 Tons of Petroleum Coke Slag

- 2) Alternate Fuels Requirements [Construction Permit 082004-016D, Special Condition 3]
 - a) The permittee shall not introduce any alternate fuel (excludes coal and coke) into preheater/precalciner cement kiln (EP 77) which has less than a 5,000 Btu per pound heat content (as received). A different minimum Btu per pound heat content for the alternate fuels may be used if the new Btu per pound limitation is agreed to both by the permittee and the Director of the Air Pollution Control Program. [Construction Permit 082004-016D, Special Condition 3.A]
 - b) The permittee shall not introduce any alternate fuel into the preheater/precalciner cement kiln (EP77) which is considered a hazardous waste material. The permittee shall obtain certifications demonstrating that any new waste stream is non-hazardous. [Construction Permit 082004-016D, Special Condition 3.B]
 - c) The permittee shall not introduce any alternate fuel (excludes coal and coke) into the preheater/precalciner cement kiln (EP 77) which has chlorine content greater than 2.0 % by weight. [Construction Permit 082004-016D, Special Condition 3.C]
 - d) The permittee shall test the alternate fuel from each new supplier for chlorine content to verify compliance with the 2.0 % chlorine content limitation. [Construction Permit 082004-016D, Special Condition 3.D]
 - e) If deemed necessary by the Director, the permittee may be required to analyze the heat content or chlorine content of any of the above alternate fuels (as received). [Construction Permit 082004-016D, Special Condition 3.E]
- 3) Alternate Solid Fuel Requirements [Construction Permit 082004-016D, Special Condition 8]
 - a) The Alternate Solid Fuel Mixture shall be comprised of fuels from the following individual categories found in Table 1: [Construction Permit 082004-016D, Special Condition 8.A]
 - i) Rubber Derived Fuels (RDF)
 - ii) Plastic Derived Fuels (PDF)
 - iii) Textile Products
 - iv) Animal Meal Materials
 - v) Cellulosic Materials
 - b) The permittee shall categorize each shipment of alternate solid fuel and maintain records of the amount received such the individual category limits of alternate solid fuel in Table 1 are not exceeded. [Construction Permit 082004-016D, Special Condition 8.B]
 - c) The permittee shall conduct stack testing for a mixture of Alternate Solid Fuels in accordance with Special Condition Number 7 of Construction Permit 082004-016D, over a range of Btu values. [Construction Permit 082004-016D, Special Condition 8.C]
 - i) Each individual solid fuel category shall be represented in the mixture(s) for which testing is conducted.
 - ii) Prior to testing, the permittee shall test the material from each category for the following:
 1. Chlorine Content
 2. Metal HAPs

- iii) If, after the initial testing, the permittee wishes to establish a new Btu range for the mixture of Alternate Solid Fuels, the permittee will have to conduct new testing. [Construction Permit 082004-016D, Special Condition 8.E]
- d) The permittee shall monitor the Btu value of the Alternate Solid Fuel Mixture combusted in the preheater/precalciner such that they fall within the range of Btu values established during testing. [Construction Permit 082004-016D, Special Condition 8.D]

Testing:

- 1) Maximum Allowable Usage Levels for Alternate Fuels [Construction Permit 082004-016D, Special Condition 2]
 - a) If the permittee should conduct performance testing at a rate which would allow a higher annual usage rate than the limitation specified by Table 1 for an alternate fuel(s), then the usage rate at which the performance testing was conducted shall become the new maximum allowable annual usage rate for that alternate fuel and shall supersede the above restriction specified by Table 1 [Construction Permit 082004-016D, Special Condition 2.D]
- 2) Stack Testing Requirements for Alternate Fuels Proposed in this Permit [Construction Permit 082004-016D, Special Condition 5]
 - a) The permittee shall conduct, at a minimum, the performance testing indicated below for the usage of alternate fuels in the preheater/precalciner cement kiln (EP 77) to quantify the specific air pollutant emission rate(s) from these materials. Alternatively, the permittee may use one or more of the continuous emissions monitors associated with the preheater/precalciner cement kiln (EP 77) to quantify the specific air pollutant emission rate(s) from the usage of alternate fuels instead of these performance tests. [Construction Permit 082004-016D, Special Condition 5.A]
{Note: For Textile Products, Animal Meal Material and non-polystyrene/non-polyethylene based plastic materials, performance testing should be conducted as required by Special Condition Number 6.}

For Rubber Derived Fuels (RDF):

- 1. Particulate matter less than ten (10) microns in aerodynamic diameter (PM₁₀),
- 2. Sulfur Dioxides (SO₂),
- 3. Nitrogen Oxides (NO_x),
- 4. Volatile Organic Compounds (VOC),
- 5. Metal HAPs, and
- 6. Organic HAPs.

For Plastic Derived Fuels (Polystyrene and Polyethylene only):

- 1. Volatile Organic Compounds (VOC), and
- 2. Organic HAPs.

For No. 2 Fuel Oil and other Distillates Oils:

- 1. Nitrogen Oxides (NO_x),
- 2. Volatile Organic Compounds (VOC), and
- 3. Metal HAPs (especially Beryllium and Nickel).

For No. 6 Fuel Oil or other Residual Oils:

- 1. Sulfur Dioxides (SO₂),
- 2. Nitrogen Oxides (NO_x),
- 3. Lead (Pb) (or Lead Compounds),

4. Metal HAPs,
5. Organic HAPs, and
6. Mercury (Hg).

For Used and/or Waste Oils:

1. Sulfur Dioxides (SO₂),
2. Nitrogen Oxides (NO_x),
3. Volatile Organic Compounds (VOC),
4. Lead (Pb) (or Lead Compounds),
5. Metal HAPs,
6. Organic HAPs, and
7. Mercury (Hg).

For Cellulose Materials:

1. Particulate matter less than ten (10) microns in aerodynamic diameter (PM₁₀),
2. Sulfur Dioxides (SO₂),
3. Nitrogen Oxides (NO_x),
4. Carbon Monoxide (CO),
5. Hydrogen Chloride,
6. Dioxins/Furans,
7. Organic HAPs, and
8. Mercury (Hg).

For Landfill Gasses:

No additional emission testing is being requested prior to usage.

- b) Any of the performance testing for an alternate fuel may be altered and/or eliminated if additional information, supporting documentation and/or justifications are provided that are sufficient to address the reasons and/or concerns for the Air Pollution Control Program requesting the above test(s). To alter or eliminate one or more of the above testing requirements, the permittee shall submit a written request to the Air Pollution Control Program and receive approval from the director. [Construction Permit 082004-016D, Special Condition 5.B.2]
- c) Other Testing Requirements: [Construction Permit 082004-016D, Special Condition 5.B]
 - i) Further testing requirements may be added by the Air Pollution Control Program if it is determined that there are additional reasons and/or concerns about the air pollutant emission rates(s) from an alternate fuel. The Air Pollution Control Program shall inform the permittee of the reasons/concerns for requesting additional testing requirements. The request for any such additional testing must be completed before the initial performance tests specified by Special Condition Number 5.A have been conducted for that alternate fuel. [Construction Permit 082004-016D, Special Condition 5.B.1]
- d) The permittee shall conduct the required performance tests in accordance with the test methods and procedures outlined below, to determine the emission rates for these alternate fuel(s) and to demonstrate compliance with any emission/usage limitations established in Construction Permit 082004-016D for these materials. [Construction Permit 082004-016D, Special Condition 5.C]
 - i) The required performance testing for each alternate fuel should be conducted during periods of representative conditions for the specific material being tested and conducted at the

maximum anticipated process/usage rate for that alternate fuel, not to include periods of start-up, shutdown, or malfunction. The usage rate at which the performance testing is conducted shall become the maximum allowable hourly usage rate for that alternate fuel. [Construction Permit 082004-016D, Special Condition 5.C.1]

- ii) Any required performance tests shall be conducted, and data reduced, in accordance with the Environmental Protection Agency (EPA) approved testing methods listed below. [Construction Permit 082004-016D, Special Condition 5.C.2]
1. EPA Method 5 for Particulate Matter (PM),
 2. EPA Methods 201A and 202 for PM₁₀,
 3. EPA Method 6C for SO₂,
 4. EPA Method 8 for SO₃/H₂SO₄,
 5. EPA Method 7E for NO_x,
 6. EPA Method 25A or Method 18 for VOC,
 7. EPA Method 10 for CO
 8. EPA Method 12 or Method 29 for Lead,
 9. EPA Method 29 or Method 101 for Mercury,
 10. EPA Method 23 for Dioxins and Furans,
 11. EPA Method 321, Method 26 or Method 26A for Hydrogen Chloride,
 12. EPA Method 29 for Metal Emissions,
 13. EPA Method 320 or Method 18 for Organic HAPs, and
 14. EPA Method 108B or Method 108C for Arsenic,
 15. Alternate test method(s), in place of the methods listed above, may be used if requested by the facility and approved by the director.
- e) A completed Proposed Test Plan must be submitted to the Air Pollution Control Program at least 30 days prior to the proposed test date for conducting any such performance tests so that a pretest meeting may be arranged, if necessary, and to assure that the test date is acceptable for an observer to be present. The Proposed Test Plan must be approved by the director prior to conducting the above required emissions testing. [Construction Permit 082004-016D, Special Condition 5.D]
- f) Within 120 days after the initial usage of an alternate fuel, the permittee shall have conducted the required performance tests for that alternate fuel. If one (1) or more of the above air pollutants for which required testing is also required to be tested to demonstrate compliance with an applicable rule (such as 40 CFR Part 63 Subpart LLL, *National Emission Standard for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry, etc.*), then the permittee may conduct the performance testing according to the time frames indicated by the applicable regulation. [Construction Permit 082004-016D, Special Condition 5.E]
- g) Two (2) copies of a written report of the performance test results must be submitted to the director within 90 days of completion of the required performance testing. The report must include legible copies of the raw data sheets, analytical instrument laboratory data, and complete sample calculations from the required EPA Method for at least one (1) sample run for each air pollutant tested. [Construction Permit 082004-016D, Special Condition 5.F]
- h) The test report is to fully account for all operational and emission parameters addressed both in the permit conditions as well as in any other applicable state or federal rules/regulations. [Construction Permit 082004-016D, Special Condition 5.G]
- i) The above time frames associated with this performance testing condition may be extended upon request of the permittee and approved by the director. [Construction Permit 082004-016D, Special Condition 5.H]

- 3) Notification Requirement of Intent to Evaluate Other Alternate Fuels Not Specifically Identified in this Permit [Construction Permit 082004-016D, Special Condition 6]
- a) At least 30 days prior to proposed initial usage of an alternate fuel not specifically identified in this permit, the permittee shall notify the Air Pollution Control Program of their intention to evaluate the possible usage of an alternate fuel in their preheat/precalciner cement kiln (EP 77). the permittee shall, at a minimum, provide the following information in the above notification: [Construction Permit 082004-016D, Special Condition 6.A]
- i) The name and/or identity of each alternate fuel,
 - ii) The proposed initial date that the evaluation of the usage of a possible alternate fuel will begin,
 - iii) The chemical composition, physical characteristics and average fuel heating value of each alternate fuel,
 - iv) Any additional relevant supporting documentation that is readily available for an alternate fuel such as Material Safety Data Sheets, etc.,
 - v) The anticipated area or point where the proposed alternate fuel is to be fed to the Preheater/Precalciner Rotary Kiln (EU0840),
 - vi) The maximum amount (i.e. Tons, Gallons, etc.) of each alternate fuel that is being proposed to be combusted prior to conducting any required performance tests,
 - vii) The anticipated maximum amount of time that each alternate fuel will be used prior to conducting any required performance tests,
 - viii) Any additional processing and/or handling equipment that will be necessary to evaluate the combustion of an alternate fuel, and
 - ix) An estimate of the expected emissions from the proposed usage of the alternate fuel (if available).
- b) The permittee shall be approved to begin the evaluation of the usage of a proposed alternate fuel(s) on the initial usage date specified in the above notification, unless the Air Pollution Control Program takes one or more of the following actions prior to the initial usage date: [Construction Permit 082004-016D, Special Condition 6.B]
- i) The Air Pollution Control Program requests additional informational and/or documentation for a proposed alternate fuel and establishes an alternate time frame for when the evaluation of the proposed alternate fuel may begin, or
 - ii) The permittee is notified by the Air Pollution Control Program in writing that the approval to begin the evaluation of the proposed usage of an alternate fuel in the preheat/precalciner cement kiln (EP 77) has been denied. If the Air Pollution Control Program should deny such a request, the Air Pollution Control Program shall provide the reason(s) for this denial to begin the evaluation of the proposed usage of an alternate fuel to the company.
- 4) Stack Testing Requirements for Textile Products, Animal Meal Material, Non-Polystyrene/Non-Polyethylene based Plastic Materials and Other Alternate Fuels Not Specifically Identified in this permit. [Construction Permit 082004-016D, Special Condition 7]
- a) The permittee shall conduct, at a minimum, the performance testing indicated below for the usage of alternate fuels in the preheat/precalciner cement kiln (EP 77) to quantify the specific air pollutant emission rate(s) from these materials. Alternatively, the permittee may use one or more of the continuous emissions monitors associated with the preheater/precalciner cement kiln (EP 77) to quantify the specific air pollutant emission rate(s) from the usage of alternate fuels instead of these performance tests. [Construction Permit 082004-016D, Special Condition 7.A]
- i) Particulate Matter
 - ii) Particulate matter less than ten (10) microns in aerodynamic diameter (PM₁₀)

- iii) Sulfur Dioxides (SO₂),
 - iv) Sulfur Trioxides (SO₃) and/or Sulfuric Acid (H₂SO₄),
 - v) Nitrogen Oxides (NO_x),
 - vi) Volatile Organic Compounds (VOC),
 - vii) Carbon Monoxide (CO)
 - viii) Lead (Pb) (or Lead Compounds),
 - ix) Any or all Organic HAPs,
 - x) Any or all Metal HAPs,
 - xi) Hydrogen Chloride,
 - xii) Dioxins/Furans,
 - xiii) Mercury (Hg), and
 - xiv) Additional performance testing requirements from those specified above may be added by the Air Pollution Control Program if it is determined that there are additional reasons and/or concerns about the air pollutant emission rate(s) from the usage of an alternate fuel. The request for any such additional testing must be completed before the initial performance tests have been conducted for an alternate fuel.
- b) Any of the performance testing for an alternate fuel may be altered and/or eliminated, if additional information, supporting documentation and/or justifications are provided that are sufficient to address the reasons and/or concerns for the Air Pollution Control Program requesting the above test(s). To alter or eliminate one or more of the testing requirements, the permittee shall submit a written request to the Air Pollution Control Program and receive approval from the Director. [Construction Permit 082004-016D, Special Condition 7.B]
- c) The permittee shall conduct the required performance tests in accordance with the test methods and procedures outlined below, to determine the emission rates for these alternate fuel(s) and to demonstrate compliance with any emission/usage limitations established in this permit for these materials. [Construction Permit 082004-016D, Special Condition 7.C]
- i) The required performance testing for each alternate fuel should be conducted during periods of representative conditions for the specific material being tested and conducted at the maximum anticipated process/usage rates for that alternate fuel, not to include periods of start-up, shutdown, or malfunction. The usage rate at which the performance testing is conducted shall become the maximum allowable hourly usage rate for that alternate fuel.
 - ii) Any required performance tests shall be conducted, and data reduced, in accordance with the Environmental Protection Agency (EPA) approved testing methods listed below.
 - 1. EPA Method 5 for Particulate Matter (PM),
 - 2. EPA Methods 201A and 202 for PM₁₀,
 - 3. EPA Method 6C for SO₂,
 - 4. EPA Method 8 for SO₃/H₂SO₄,
 - 5. EPA Method 7E for NO_x,
 - 6. EPA Method 25A or Method 18 for VOC,
 - 7. EPA Method 10 for CO
 - 8. EPA Method 12 or Method 29 for Lead,
 - 9. EPA Method 29 or Method 101 for Mercury,
 - 10. EPA Method 23 for Dioxins and Furans,
 - 11. EPA Method 321, Method 26 or Method 26A for Hydrogen Chloride,
 - 12. EPA Method 29 for Metal Emissions,
 - 13. EPA Method 320 or Method 18 for Organic HAPs, and
 - 14. EPA Method 108B or Method 108C for Arsenic,

15. Alternate test method(s), in place of the methods listed above, may be used if requested by the permittee and approved by the director.
- d) A completed Proposed Test Plan must be submitted to the Air Pollution Control Program at least 30 days prior to the proposed test date for conducting any such performance tests so that a pretest meeting may be arranged, if necessary, and to assure that the test date is acceptable for an observer to be present. The Proposed Test Plan must be approved by the Director prior to conducting the above required emissions testing. [Construction Permit 082004-016D, Special Condition 7.D]
 - e) Within 120 days of the initial usage of an alternate fuel, the permittee shall have conducted the required performance tests for that alternate fuel. If one (1) or more of the above air pollutants for which testing is required by Special Condition Number 7.A is also required to be tested to demonstrate compliance with an applicable rule (such as 40 CFR Part 63 Subpart LLL, *National Emission Standard for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry, etc.*), then the permittee may conduct the performance testing according to the time frames indicated by the applicable regulation. [Construction Permit 082004-016D, Special Condition 7.E]
 - f) Two (2) copies of a written report of the performance test results must be submitted to the Director within 90 days of completion of the required performance testing. The report must include legible copies of the raw data sheets, analytical instrument laboratory data, and complete sample calculations from the required EPA Method for at least one (1) sample run for each air pollutant tested. [Construction Permit 082004-016D, Special Condition 7.F]
 - g) The test report is to fully account for all operational and emission parameters addressed both in the permit conditions as well as in any other applicable state or federal rules/regulations. [Construction Permit 082004-016D, Special Condition 7.G]
 - h) The above time frames associated with this performance testing condition may be extended upon request of the permittee and approval by the director. [Construction Permit 082004-016D, Special Condition 7.H]
- 5) Notification Requirement of Intent to Re-Evaluate the Usage of an Alternate Fuel(s) at a Highly Hourly Rate - If after conducting the initial performance tests for an alternate fuel, and the permittee should decide to redo the performance tests at a higher usage rate than was done under the previous testing, then the permittee shall complete the following: [Construction Permit 082004-016D, Special Condition 9]
- a) Notify the Air Pollution Control Program of the intention to reevaluate the usage of an alternate fuel(s) at a higher hourly rate at least ten days prior to beginning the reevaluation. This notification shall, at a minimum, provide the following information: [Construction Permit 082004-016D, Special Condition 9.A]
 - i) The name and/or identity of the alternate fuel being reevaluated,
 - ii) The proposed date that the reevaluation of the usage of the alternate fuel will begin,
 - iii) The maximum amount (i.e. Tons, Gallons, etc.) of the alternate fuel that is being proposed to be combusted prior to conducting any additional performance tests, and
 - iv) The anticipated maximum amount of time that the alternate fuel will be used prior to conducting the additional performance tests.
 - b) Performance testing for the reevaluation of the usage of an alternate fuel(s) at a higher hourly rate shall be conducted in accordance with the requirement detailed in Special Condition 7 of Construction Permit 082004-016D. [Construction Permit 082004-016D, Special Condition 9.B]
- 6) Additional Actions Required for Emission Increases Resulting from the Usage of an Alternate Fuel [Construction Permit 082004-016D, Special Condition 10]

- a) No later than thirty (30) days after any required performance test results are submitted, the permittee shall provide the Director with a report that establishes the potential emissions of each air pollutant tested for an alternate fuel. This report shall indicate the potential emission rates in pounds per hour, in pounds per unit of clinker production, and in tons per year from each alternate fuel tested in order that the Air Pollution Control Program may determine if any increase in the potential emissions will result from the usage of the alternate fuel(s). [Construction Permit 082004-016D, Special Condition 10.A]
- b) If the results of the above performance testing demonstrate that the emission rate for any of the air pollutant tested exceeds the previously calculated potential emissions for the usage of 100% coal (or 100% coke) in the preheater/precalciner kiln (as determined by subsequent performance testing or from Air Pollution Control Program Permit Number 0897-019 if no performance tests have been conducted for an air pollutant), then the permittee shall evaluate what effects the higher emission rates would have on the potential emissions from the preheater/precalciner kiln. The permittee shall submit the results of any such evaluation for Air Pollution Control Program review and approval. [Construction Permit 082004-016D, Special Condition 10.B]
- c) If it is determined that an increase in the potential emissions over the levels calculated for the usage of 100% coal (or 100% coke) in the preheater/precalciner kiln will occur, then one or more actions including, but not limited to, the following may be undertaken by the permittee and/or may be required by the Air Pollution Control Program depending on the amount of the increase in potential emissions. [Construction Permit 082004-016D, Special Condition 10.C]
- i) The permittee may amend this permit or submit another permit application to request a limitation/restriction and/or undertake other methods that will ensure that a significant increase in potential air emissions will not occur as a result of using the proposed alternate fuel. Any such limitation, restriction or other proposed method(s) must be reviewed and approved by the Director prior to the proposed solution becoming federally-enforceable, [Construction Permit 082004-016D, Special Condition 10.C.1]
- ii) The Air Pollution Control Program may require that additional screening and/or refined modeling be conducted to verify that the increase in potential emissions will not result in potential compliance issues with any National Ambient Air Quality Standard (NAAQS), with an increment area, and/or with the Risk Assessment Levels (RAL) associated with specific HAPs, [Construction Permit 082004-016D, Special Condition 10.C.2]
- iii) The Air Pollution Control Program may require that ambient monitoring be conducted for an air pollutant(s) with increased potential emissions from the usage of a proposed alternate fuel. If any ambient monitoring is required to be conducted, the permittee shall:
[Construction Permit 082004-016D, Special Condition 10.C.3]
1. Suspend the usage of the alternate fuel until the required ambient monitor(s) are in place and operating.
 2. Submit a Quality Assurance Project Plan (QAPP) describing the methods and procedures for conducting the required ambient air monitoring within 60 days of notification by the Air Pollution Control Program that ambient monitoring will be required. For any such required ambient monitoring, the monitoring site(s) should be located in the area where the highest estimated air pollutant concentrations are expected to occur in the ambient air. This monitoring shall be conducted using the reference method(s) as specified in 40 CFR, Part 50 Appendixes or by using an approved equivalent method(s), or if no reference or equivalent method exists, a method to be approved by the Air Pollution Control Program.
 3. Resolve or address, to Air Pollution Control Program's satisfaction, any Air Pollution Control Program recommendations on the QAPP within the time frames indicated in any

- such comments. A completed QAPP must be approved by the director of the Air Pollution Control Program prior to conducting the required ambient air monitoring.
4. Begin the required ambient air monitoring within 60 days of receiving Air Pollution Control Program approval of the QAPP and continue the ambient monitoring for a period of at least one year. The schedule for ambient monitoring may be adjusted, upon approval of the director.
 5. Submit the results of the ambient monitoring to the Air Pollution Control Program's Technical Support Section based on the reporting schedule indicated in the QAPP.
 6. Report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after becoming aware that an exceedance of a NAAQS, increment or the Risk Assessment Levels (RAL) associated with specific HAPs has occurred at a monitoring site(s).
 7. The Air Pollution Control Program shall evaluate the need for continued ambient monitoring data collection after one year and report the results of the evaluation to the permittee. Based on the evaluation, the director may extend the ambient air monitoring program for an additional time period, if deemed necessary.
- iv) The Air Pollution Control Program may require that BACT analysis and/or other requirements of 10 CSR 10-6.060, Section (8) and/or Section (9) be conducted if the increase in potential emissions from usage of a proposed alternate fuel will be above the level of significance (de minimis levels), [Construction Permit 082004-016D, Special Condition 10.C.4]
- v) Other steps and/or requirements as necessary to insure compliance with any applicable air pollution control rules, Department of Natural Resources' rules, or any other applicable federal, state, or local agency regulations. [Construction Permit 082004-016D, Special Condition 10.C.5]

Monitoring/Recordkeeping:

- 1) Maximum Allowable Usage Levels for Alternate Fuels [Construction Permit 082004-016D, Special Condition 2]
 - a) The permittee shall maintain an accurate record of the amount of each alternate fuel combusted in the Preheater/Precalciner Rotary Kiln (EU0840) and shall record the monthly and running 12-month totals of alternate fuel usage to demonstrate compliance with the limitations in Table 1. [Construction Permit 082004-016D, Special Condition 2.B]

Reporting:

- 1) Maximum Allowable Usage Levels for Alternate Fuels [Construction Permit 082004-016D, Special Condition 2]
 - a) The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the end of the month during which the records indicate that the source exceeds the limitation of Table 1. [Construction Permit 082004-016D, Special Condition 2.C]

EU0850 – CLINKER COOLER			
EU0860 – CLINKER TRANSFER TO COOLER OUTLET CONVEYOR			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0850	Clinker Cooler: cools clinker product leaving the kiln; MHDR 117.42 ton/hr; vented to fabric filter (CD-49-1); installed 2001	Polysius/ REPOL-RS	EP-78
EU0860	Clinker Transfer to Cooler Outlet Conveyor: MHDR 117.42; vented to fabric filter (CD-49-1); installed 2001	Aumund	EP-78

PERMIT CONDITION (EU0850 and EU0860)-001

10 CSR 10-6.060 Construction Permits Required
Construction Permit 0897-019G, Amended November 13, 2012

Emission Limitation:

BACT for PM₁₀ emissions from the Clinker Cooler System (EU0850 and EU0860) identified as EP-78 is an emission rate not to exceed 11.74 pounds per hour, 24-hour average. [Construction Permit 0897-019G, Special Condition 10]

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the permittee determined that the emission unit(s) exceeded the emission limitation(s).
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

PERMIT CONDITION (EU0850 and EU0860)-002

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart A General Provisions and Subpart LLL National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry - Standards for Clinker Cooler and Conveying System Transfer Point

Emission Limitations until September 5, 2015:

- 1) The permittee shall not cause to be discharged into the atmosphere from the Clinker Cooler (EU0850) any gases which: [§63.1345(a)]
 - a) Contain particulate matter in excess of 0.1 lb per ton of clinker. [§63.1343(b)]
 - b) Exhibit opacity greater than ten percent. [§63.1345(a)(2)]

Emission Limitations after September 5, 2015:

- 2) The permittee shall not cause to be discharged into the atmosphere from the Clinker Cooler (EU0850) any gases which: [§63.1345(a)]
 - a) Contain particulate matter in excess of 0.07 lb per ton of clinker. [§63.1343(b)]
 - b) Exhibit opacity greater than ten percent. [§63.1345(a)(2)]

Performance Testing:

- 1) *Initial Performance Test Requirements.* The permittee must demonstrate compliance with the emissions standards and operating limits by using the test methods and procedures in §§63.1349 and 63.7. [§63.1348(a)]
 - a) The first day of the 30 operating day performance test is the first day after the compliance date following completion of the field testing and data collection that demonstrates that the CPMS or CEMS has satisfied the relevant CPMS performance evaluation or CEMS performance specification (e.g., PS 2, 12A, or 12B) acceptance criteria. The performance test period is complete at the end of the 30th consecutive operating day. See §63.1341 for definition of operating day and § 63.1348(b)(1) for the CEMS operating requirements. The source has the option of performing the compliance test earlier than the compliance date if desired. [Note to §63.1348(a)]
 - b) *PM Compliance.* The permittee must demonstrate compliance with the PM emissions standards by using the test methods and procedures in §63.1349(b)(1) and §63.7. [§63.1348(b)(1)]
 - c) *Opacity Limit Compliance.* The permittee must demonstrate compliance with the opacity standard by using the test methods and procedures in §63.1349(b)(1) and §63.7. [§63.1348(b)(2)]
 - d) Performance test results shall be documented in complete test reports that contain the information required by §63.1349(a)(1) through (a)(10), as well as all other relevant information. The plan to be followed during testing shall be made available to the director prior to testing, if requested. [§63.1349(a)]
- 2) Performance tests required under §§63.1349(b)(1) and (b)(2) shall be repeated every five years, except that permittee is not required to repeat the initial performance test of opacity for the clinker cooler. [§63.1349(c)]

Monitoring:

- 1) *PM monitoring requirements.* [§63.1350(b)]
 - a) *PM CPMS.* The permittee will use a PM CPMS to establish a site-specific operating limit corresponding to the results of the performance test demonstrating compliance with the PM limit. The permittee will conduct the performance test using Method 5 or Method 5I at Appendix A-3 to Part 60 of this chapter. The permittee will use the PM CPMS to demonstrate continuous compliance with this operating limit. The permittee must repeat the performance test annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test using the procedures in §63.1349(b)(1)(i) through (vi). The permittee must also repeat the test if you change the analytical range of the instrument, or if the permittee you replaces the instrument itself or any principle analytical component of the instrument that would alter the relationship of output signal to in-stack PM concentration. [§63.1350(b)(1)(i)]
 - b) To determine continuous compliance, the permittee must use the PM CPMS output data for all periods when the process is operating and the PM CPMS is not out-of-control. The permittee must demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (milliamps) on a 30 operating day rolling average basis, updated at the end of each new kiln operating day. [§63.1350(b)(1)(ii)]
 - c) For any exceedance of the 30 process operating day PM CPMS average value from the established operating parameter limit, the permittee must:
 - i) Within 48 hours of the exceedance, visually inspect the APCD; If inspection of the APCD identifies the cause of the exceedance, take corrective action as soon as possible and return the PM CPMS measurement to within the established value; and

- ii) Within 30 days of the exceedance or at the time of the annual compliance test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit and to verify or re-establish the PM CPMS operating limit within 45 days. The permittee is not required to conduct additional testing for any exceedances that occur between the time of the original exceedance and the PM emissions compliance test required under this paragraph. [§63.1350(b)(1)(iii)(A) through (C)]
 - d) PM CPMS exceedances leading to more than four required performance tests in a 12-month process operating period (rolling monthly) constitute a presumptive violation of this subpart. [§63.1350(b)(1)(iv)]
- 2) *Clinker production monitoring requirements.* In order to determine clinker production, the permittee must: [§63.1350(d)]
 - a) Determine hourly clinker production by one of two methods:
 - i) Install, calibrate, maintain, and operate a permanent weigh scale system to measure and record weight rates in tons-mass per hour of the amount of clinker produced. The system of measuring hourly clinker production must be maintained within ± 5 percent accuracy, or
 - ii) Install, calibrate, maintain, and operate a permanent weigh scale system to measure and record weight rates in tons-mass per hour of the amount of feed to the kiln. The system of measuring feed must be maintained within ± 5 percent accuracy. Calculate your hourly clinker production rate using a kiln-specific feed to clinker ratio based on reconciled clinker production determined for accounting purposes and recorded feed rates. Update this ratio monthly. Note that if this ratio changes at clinker reconciliation, you must use the new ratio going forward, but you do not have to retroactively change clinker production rates previously estimated. [§63.1350(d)(1)(i) and (ii)]
 - b) Determine, record, and maintain a record of the accuracy of the system of measuring hourly clinker production (or feed mass flow if applicable) before initial use (for new sources) or by the effective compliance date of this rule (for existing sources). During each quarter of source operation, you must determine, record, and maintain a record of the ongoing accuracy of the system of measuring hourly clinker production (or feed mass flow). [§63.1350(d)(2)]
 - c) If the permittee measured clinker production directly, record the daily clinker production rates; if the permittee measures the kiln feed rates and calculate clinker production, record the hourly kiln feed and clinker production rates. [§63.1350(d)(3)]
 - d) Develop an emissions monitoring plan in accordance with paragraphs §63.1350(p)(1) through (p)(4). [§63.1350(d)(4)]
- 3) *Parameter monitoring requirements.* If The permittee has an operating limit that requires the use of a CMS, you must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the procedures in paragraphs §63.1350(m)(1) through (4) by the compliance date specified in § 63.1351. The permittee must also meet the applicable specific parameter monitoring requirements in paragraphs §63.1350(m)(5) through (11) that are applicable. [§63.1350(m)]
 - a) *Specific pressure monitoring requirements.* If the permittee has an operating limit that requires the use of a pressure measurement device, the permittee must meet the requirements in paragraphs §63.1350(m)(6)(i) through (vi). [§63.1350(m)(6)]
 - b) *Specific pH monitoring requirements.* If the permittee has an operating limit that requires the use of a pH measurement device, the permittee must meet the requirements in paragraphs §63.1350(m)(7)(i) through (iii). [§63.1350(m)(7)]
 - c) *Mass flow rate (for sorbent injection) monitoring requirements.* If the permittee has an operating limit that requires the use of equipment to monitor sorbent injection rate (e.g., weigh belt, weigh hopper, or hopper flow measurement device), the permittee must meet the requirements in

paragraphs §63.1350(m)(9)(i) through (iii). These requirements also apply to the sorbent injection equipment of a dry scrubber. [§63.1350(m)(9)]

- d) *Bag leak detection monitoring requirements.* If the permittee elects to use a fabric filter bag leak detection system to comply with the requirements of this subpart, the permittee must install, calibrate, maintain, and continuously operate a BLDS as specified in paragraphs §63.1350(m)(10)(i) through (viii). [§63.1350(m)(10)]
- e) For each BLDS, the permittee must initiate procedures to determine the cause of every alarm within eight hours of the alarm. The permittee must alleviate the cause of the alarm within 24 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:
 - i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;
 - ii) Sealing off defective bags or filter media;
 - iii) Replacing defective bags or filter media or otherwise repairing the control device;
 - iv) Sealing off a defective fabric filter compartment;
 - v) Cleaning the BLDS probe or otherwise repairing the BLDS; or
 - vi) Shutting down the process producing the PM emissions.[§63.1350(m)(11)(i) - (vi)]
- 4) *Continuous Flow Rate Monitoring System.* The permittee must install, operate, calibrate, and maintain instruments, according to the requirements in paragraphs §63.1350(n)(1) through (10), for continuously measuring and recording the stack gas flow rate to allow determination of the pollutant mass emissions rate to the atmosphere from sources subject to an emissions limitation that has a pounds per ton of clinker unit. [§63.1350(n)]
- 5) *Alternate monitoring requirements approval.* The permittee may submit an application to the Administrator for approval of alternate monitoring requirements to demonstrate compliance with the emission standards of this subpart, except for emission standards for THC, subject to the provisions of paragraphs §63.1350(o)(1) through (6). [§63.1350(o)]
- 6) *Development and submittal (upon request) of monitoring plans.* If the permittee demonstrates compliance with any applicable emissions limit through performance stack testing or other emissions monitoring, the permittee must develop a site-specific monitoring plan according to the requirements in paragraphs §63.1350(p)(1) through (4). This requirement also applies to the permittee if the permittee petitions the EPA Administrator for alternative monitoring parameters under paragraph §63.1350(o) and §63.8(f). If the permittee uses a BLDS, the permittee must also meet the requirements specified in paragraph §63.1350(p)(5). [§63.1350(p)]
- 7) *BLDS monitoring plan.* Each monitoring plan must describe the items in paragraphs [§63.1350(p)(5)(i) through (v). At a minimum, the permittee must retain records related to the site-specific monitoring plan and information discussed in paragraphs §63.1350(m)(1) through (4), §63.1350(m)(10) and §63.1350(11) for a period of 5 years, with at least the first 2 years on-site;
 - a) Installation of the BLDS;
 - b) Initial and periodic adjustment of the BLDS, including how the alarm set-point will be established;
 - c) Operation of the BLDS, including quality assurance procedures;
 - d) How the BLDS will be maintained, including a routine maintenance schedule and spare parts inventory list;
 - e) How the BLDS output will be recorded and stored. [§63.1350(p)(5)(i) through (iv)]

Recordkeeping/Reporting:

The permittee shall meet the recordkeeping and reporting requirements specified in Permit Condition PW002..

EU0870 THROUGH EU0890 – FINISH MILL (SCK II)			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0870	SCK II Finish Mill Feed Belt: conveyor; MHDR 80 ton/hr; vented to baghouse (DC-52-2); installed 2001	Dearborn Mid-West	EP-87
EU0880	SCK II Finish Mill Clinker Grinding: MHDR 80 ton/hr; vented to baghouse (DC-52-2); installed 2001	Polysius	EP-87
EU0890	SCK II Finish Mill Air Separator: MHDR 80 ton/hr; vented to baghouse (DC-52-1); installed 2001	Polysius	EP-87

PERMIT CONDITION (EU0870 through EU0890)-001

10 CSR 10-6.060 Construction Permits Required
 Construction Permit 0897-019G, Amended November 13, 2012

Emission Limitation:

BACT for PM₁₀ emissions from the finish mill and cement air separation (EU0870 through EU0890), identified as EP 87, is an emission rate not to exceed 3.46 pounds per hour, 24-hour average.
 [Construction Permit 0897-019G, Special Condition 13]

Monitoring:

- 1) The permittee shall monitor and record the operating pressure drop across the baghouses at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
- 2) The permittee shall check and document the cleaning sequence of the baghouse every six (6) months.
- 3) The permittee shall inspect bags for leaks and wear every six (6) months.
- 4) The permittee shall inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods every six (6) months.

Recordkeeping:

- 1) The permittee shall document all pressure drop readings. (see Attachment B)
- 2) The permittee shall document all inspections, corrective actions, and instrument calibrations. (see Attachment C)
- 3) Attachments B and C contain logs including these recordkeeping requirements. These logs, or equivalent forms created by the permittee, must be used to certify compliance with this requirement.
- 4) All records shall be maintained for five (5) years. They shall be kept onsite for at least two (2) years. They may be kept in either hard-copy form or on computer media.
- 5) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon their verbal request and presentation of identification.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) and/or normal pressure drop range.
- 2) Reports of any deviations from monitoring (other than the pressure drop range), recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

PERMIT CONDITION (EU0870 through EU0890)-002

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart A General Provisions and Subpart LLL National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry - Standards For Finish Mills

Emission Limitation:

The permittee must not cause to be discharged any gases from these affected sources which exhibit opacity in excess of ten percent. [§63.1345]

Monitoring:

- 1) The permittee must monitor opacity by conducting daily visible emissions observations of the mill sweep and air separator PM control devices (PMCD) of these affected sources in accordance with the procedures of Method 22 of Appendix A-7 to 40 CFR Part 60. The duration of the Method 22 performance test must be six minutes. [§63.1350(f)(2)(i)]
- 2) Within 24 hours of the end of the Method 22 performance test in which visible emissions were observed, the permittee must conduct a follow up Method 22 performance test of each stack from which visible emissions were observed during the previous Method 22 performance test. [§63.1350(f)(2)(ii)]
- 3) If visible emissions are observed during the follow-up Method 22 performance test required by paragraph §63.1350(f)(2)(ii) from any stack from which visible emissions were observed during the previous Method 22 performance test required by paragraph §63.1350(f)(2)(i), the permittee must then conduct an opacity test of each stack from which emissions were observed during the follow up Method 22 performance test in accordance with Method 9 of Appendix A-4 to Part 60 of this chapter. The duration of the Method 9 test must be 30 minutes. [§63.1350(f)(2)(iii)]
- 4) If visible emissions are observed during any Method 22 visible emissions test conducted under paragraphs §63.1350(f)(1) or (2), the permittee must initiate, within one-hour, the corrective actions specified in the facility's operation and maintenance plan as required in §63.1347. [§63.1350(f)(3)]

Recordkeeping/Reporting:

The permittee shall meet the recordkeeping and reporting requirements specified in Permit Condition PW002..

EU0900 THROUGH EU0970 – CEMENT BLENDING SYSTEM			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0900	Cement Blending System Cement Bin: loading cement bin; MHDR 265 ton/hr; vented to baghouse; installed 2005	NA	EP-144-1
EU0910	Cement Blending System Slag Bin: loading slag bin; MHDR 66 ton/hr; vented to baghouse; installed 2005	NA	EP-146-1
EU0920	Cement Bin Unloading: bin unloading to surge hopper; MHDR 265 ton/hr; vented to baghouse; installed 2005	NA	EP-144-2
EU0930	Slag Bin Unloading: bin unloading to surge hopper; MHDR 66 ton/hr; vented to baghouse; installed 2005	NA	EP-146-2
EU0940	Transfer to Blender: transfer from screw conveyor to continuous blender; MHDR 331 installed 2005	NA	EP-147-3
EU0950	Blending System Loadout #1: transfer from blender to loadout spout; MHDR 331 ton/hr; vented to baghouse; installed 2005	NA	EP-148-1
EU0960	Blending System Loadout #2: transfer from spout to truck; MHDR 331 ton/hr; vented to baghouse; installed 2005	NA	EP-148-2
EU0970	Blending System Loadout #3: transfer from dust collector to spout; MHDR 0.39 ton/hr; vented to baghouse; installed 2005	NA	EP-148-3

<p>PERMIT CONDITION (EU0900 through EU0970)-001 10 CSR 10-6.060 Construction Permits Required Construction Permit 092005-015, Issued July 15, 2005</p>

Operational Specifications:

The permittee shall control emissions from the Cement Blending Operation (EU0900 through EU0970) using baghouses as specified in the Construction Permit 092005-015 application. The baghouses shall be operated and maintained in accordance with the manufacturer's specifications. The baghouses shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that the Department of Natural Resources' employees may easily observe them. Replacement filters for the baghouses shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance). [Construction Permit 092005-015 Special Condition 1]

Monitoring:

- 1) The permittee shall monitor and record the operating pressure drop across the baghouses at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty. [Construction Permit 092005-015 Special Condition 2]
- 2) The permittee shall check and document the cleaning sequence of the baghouse every six (6) months.
- 3) The permittee shall inspect bags for leaks and wear every six (6) months.
- 4) The permittee shall inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods every six (6) months.

Recordkeeping:

- 1) The permittee shall document all pressure drop readings. (see Attachment B)

- 2) The permittee shall document all inspections, corrective actions, and instrument calibrations. (see Attachment C)
- 3) Attachments B and C contain logs including these recordkeeping requirements. These logs, or equivalent forms created by the permittee, must be used to certify compliance with this requirement.
- 4) All records shall be maintained for five (5) years. They shall be kept onsite for at least two (2) years. They may be kept in either hard-copy form or on computer media.
- 5) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon their verbal request and presentation of identification.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) and/or normal pressure drop range.
- 2) Reports of any deviations from monitoring (other than the pressure drop range), recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

PERMIT CONDITION (EU0900 through EU0970)-002

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
 40 CFR Part 63, Subpart A General Provisions and Subpart LLL National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry - Standards for Storage Bin, Conveying System Transfer Point, and Bulk Loading or Unloading System

Emission Limitation:

The permittee shall not cause or permit emissions to be discharged with opacity greater than 10 percent. [§63.1345]

Monitoring:

- 1) The permittee must conduct required opacity monitoring in accordance with the provisions of paragraphs §63.1350(f)(1)(i) through (vii) and in accordance with the monitoring plan developed under §63.1350(p). [§63.1350(f)]
- 2) If visible emissions are observed during any Method 22 visible emissions test conducted under paragraphs §63.1350(f)(1) or (2), the permittee must initiate, within one-hour, the corrective actions specified in the facility's operation and maintenance plan as required in §63.1347. [§63.1350(f)(3)]

Recordkeeping/Reporting:

The permittee shall meet the recordkeeping and reporting requirements specified in Permit Condition PW002..

EU0980 AND EU0990 – CEMENT BLENDING SYSTEM HAUL ROADS			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0980	Slag Hauling: hauling slag to bin; MHDR 1.3 VMT/hr; control method - sweeping of paved roads; installed 2005	NA	EP-145-1
EU0990	Blended Cement Hauling: MHDR 1.3 VMT/hr; control method - sweeping of paved roads; installed 2005	NA	EP-149-1

PERMIT CONDITION (EU0980 and EU0990)-001

10 CSR 10-6.060 Construction Permits Required
 Construction Permit 092005-015, Issued July 15, 2005

Operational Specifications:

- 1) Maintenance and/or repair of the road surfaces used for slag and blended cement hauling (EU0980 and EU0990), identified as EP-145 and EP-149, will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating. [Construction Permit 092005-015 Special Condition 4]
- 2) The permittee shall periodically water, wash and/or otherwise clean all of the paved portions of the haul roads as necessary to achieve control of fugitive emissions from these areas while the plant is operating. [Construction Permit 092005-015 Special Condition 5]

Monitoring & Recordkeeping

The Permittee shall document any maintenance performed or any periodic haul road watering to comply with the fugitive dust requirements of Construction Permit 092005-015. The permittee shall use Attachment C or an equivalent form for this purpose.

Reporting:

Reports of any deviations from operational requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

EU1000 THROUGH EU1070 – CEMENT KILN DUST (CKD) LOADING SYSTEM			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU1000	CKD Transfer to Collecting Screw: transfer from dust collector to collecting screw; MHDR 1.10 ton/hr; vented to bypass dust collector	NA	EP-150-1
EU1010	CKD Transfer to Small Screw: transfer from collecting screw to small screw; MHDR 1.10 ton/hr; vented to bypass dust collector	NA	EP-150-2
EU1020	CKD Transfer to Cooling Screw: transfer from small screw to cooling screw; MHDR 1.10 ton/hr; vented to bypass dust collector	NA	EP-150-3
EU1030	CKD Transfer to Loadout Spout #1: transfer from cooling screw to loadout spout; MHDR 1.10 ton/hr; vented to bypass dust collector	NA	EP-150-4
EU1040	CKD Loadout to Truck #1: transfer from loading spout to truck; MHDR 1.10 ton/hr; vented to bypass dust collector	NA	EP-151
EU1050	CKD Transfer to Storage Silo #1: truck unloading to loadout silo; MHDR 25.0 ton/hr; vented to loadout dust collector	NA	EP-153
EU1060	CKD Transfer to Loadout Spout #2: transfer from bin to loadout spout; MHDR 25.0 ton/hr; vented to loadout dust collector	NA	EP-154-1
EU1070	CKD Loadout to Truck #2: transfer from loading spout to truck; MHDR 25.0 ton/hr; vented to loadout dust collector	NA	EP-154-2

PERMIT CONDITION (EU1000 through EU1070)-001

10 CSR 10-6.060 Construction Permits Required
Construction Permit 062006-002, Issued June 2, 2006

Operational Specifications:

The permittee shall control emissions from the cement kiln dust loading system (EU1000 through EU1080), identified as EP-150-1, EP-150-2, EP-150-3, EP-150-4, EP-151, EP-153, EP-154-1, EP-154-2 and EP-157, using dust collectors as specified in the Construction Permit 062006-002 permit application. The dust collectors shall be operated and maintained in accordance with the manufacturer's specifications. The dust collectors shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that the Department of Natural Resources' employees may easily observe them. Replacement filters for the dust collectors shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance). [Construction Permit 062006-002 Special Condition 1.]

Monitoring:

- 1) The permittee shall monitor and record the operating pressure drop across the dust collectors at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty. [Construction Permit 062006-002 Special Condition 2]
- 2) The permittee shall check and document the cleaning sequence of the baghouse every six (6) months.
- 3) The permittee shall inspect bags for leaks and wear every six (6) months.
- 4) The permittee shall inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods every six (6) months.

Recordkeeping:

- 1) The permittee shall document all pressure drop readings. (see Attachment B)
- 2) The permittee shall maintain an operating and maintenance log for the dust collectors which shall include the following: [Construction Permit 062006-002 Special Condition 3]
 - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
- 3) All inspections, corrective actions, and instrument calibration shall be recorded. (see Attachment C)
- 4) Attachments B and C contain logs including these recordkeeping requirements. These logs, or equivalent forms created by the permittee, must be used to certify compliance with this requirement.
- 5) All records shall be maintained for five (5) years. They shall be kept onsite for at least two (2) years. They may be kept in either hard-copy form or on computer media.
- 6) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon their verbal request and presentation of identification.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) and/or normal pressure drop range.

- 2) Reports of any deviations from monitoring (other than the pressure drop range), recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

PERMIT CONDITION (EU1000 through EU1070)-002

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
 40 CFR Part 63, Subpart A General Provisions and Subpart LLL National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry - Standards for Storage Bin, Conveying System Transfer Point, and Bulk Loading or Unloading System

Emission Limitation:

The permittee shall not cause or permit emissions to be discharged with opacity greater than ten percent. [§63.1345]

Monitoring:

- 1) The permittee must conduct required opacity monitoring in accordance with the provisions of paragraphs §63.1350(f)(1)(i) through (vii) and in accordance with the monitoring plan developed under §63.1350(p). [§63.1350(f)]
- 2) If visible emissions are observed during any Method 22 visible emissions test conducted under paragraphs §63.1350(f)(1) or (2), the permittee must initiate, within one-hour, the corrective actions specified in the facility’s operation and maintenance plan as required in §63.1347. [§63.1350(f)(3)]

Recordkeeping/Reporting:

The permittee shall meet the recordkeeping and reporting requirements specified in Permit Condition PW002..

EU1090 THROUGH EU1100– CEMENT KILN DUST (CKD) HAULING ROADS

Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU1090	CKD Hauling to Silo: truck hauling to existing loadout silo; MHDR 0.60 vehicle miles traveled/hr; control device - sweeping of paved road	NA	EP-152
EU1100	CKD Sales Hauling: truck hauling off property; MHDR 0.60 vehicle miles traveled/hr; control device - sweeping of paved road	NA	EP-155

PERMIT CONDITION (EU1090 through EU1100)-001

10 CSR 10-6.060 Construction Permits Required
 Construction Permit 062006-002, Issued June 2, 2006

Operational Specifications:

- 1) Maintenance and/or repair of the road surfaces used for cement kiln dust hauling (EU1090 through EU1110), identified as EP-152, EP-155 and EP-156, will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating. [Construction Permit 062006-002 Special Condition 1)]

- 2) The permittee shall periodically water, wash and/or otherwise clean all of the paved portions of the haul roads as necessary to achieve control of fugitive emissions from these areas while the plant is operating. [Construction Permit 062006-002 Special Condition 2]

Monitoring & Recordkeeping

The Permittee shall document any maintenance performed or any periodic haul road watering to comply with the fugitive dust requirements of Construction Permit 062006-002. The permittee shall use Attachment C or an equivalent form for this purpose.

Reporting:

Reports of any deviations from operational requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

EU1120 – UNDERGROUND LIMESTONE MINE			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU1120	Underground Limestone Mine: quarrying operations including drilling, blasting, hauling, loading, and unloading; MHDR 529.1 ton/hr; emissions through single vent; installed 1996	NA	EP-104

PERMIT CONDITION EU1120-001
10 CSR 10-6.060 Construction Permits Required Construction Permit 0897-019G, Amended November 13, 2012

Operational Specifications:

All existing quarrying operations present prior to the activities outlined in Construction Permit 0897-019G shall only be conducted within the underground limestone mine. [Construction Permit 0897-019G, Special Condition 27]

Reporting:

- 1) If an equipment malfunction occurs which requires the short-term reinstatement of above ground surface quarrying activities, the permittee shall report, following the procedures of 10 CSR 10-6.050, *Start-Up, Shutdown, and Malfunction Conditions*, the occurrence to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, within 15 days of said occurrence. [Construction Permit 0897-019G, Special Condition 27]
- 2) Reports of any deviations from operational requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

PERMIT CONDITION EU1120-002
10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit to be discharged into the atmosphere from any source any visible emissions with an opacity greater than 20%.

- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60%.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are required only when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must be maintained:
 - a) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly;
 - b) Weekly observations shall be conducted for a minimum of eight (8) consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made once every two (2) weeks for a period of eight (8) weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then monitoring returns to monthly.
- 3) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachment D-1 or D-2), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment C)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment E)
- 4) Attachments C, D-1, D-2 and E contain logs including these recordkeeping requirements. These logs, or equivalent forms created by the permittee, must be used to certify compliance with this requirement.
- 5) All records shall be maintained for five (5) years. They shall be kept onsite for at least two (2) years. They may be kept in either hard-copy form or on computer media.
- 6) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon their verbal request and presentation of identification.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the permittee determined using the Method 9 test that the emission unit exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

EU1130 – SAFETY-KLEEN PARTS WASHER			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU1130	Safety-Kleen Parts Washer: Stoddard solvent cold cleaning degreasing units	Safety-Kleen	EP-57

PERMIT CONDITION EU1130-001
10 CSR 10-2.210 Control of Emissions from Solvent Metal Cleaning

Emission Limitations:

- 1) The permittee shall not operate or allow the operation of any cold cleaner using a cold cleaning solvent with a vapor pressure greater than 1.0 mmHg at twenty degrees Celsius (20°C). Exemptions are as follows:
 - a) Any cold cleaner with a liquid surface area of one (1) square foot or less or a maximum capacity of one (1) gallon or less shall be exempt from the requirements listed above.
 - b) Air-tight or airless cleaning systems shall be exempt from the requirements listed above if the following requirements are met.
 - i) The equipment is operated in accordance with the manufacturer’s specifications and operated with a door or other pressure sealing apparatus that is in place during all cleaning and drying cycles.
 - ii) All waste solvents are stored in properly identified and sealed containers, and managed in compliance with the Missouri Hazardous Waste Management Commission rules codified at 10 CSR 25, as applicable. All associated pressure relief devices shall not allow liquid solvents to drain out.
 - iii) Spills during solvent transfer shall be wiped up immediately or managed in compliance with the Missouri Hazardous Waste Commission rules codified at 10 CSR 25, as applicable, and the used wipe rags shall be stored in closed containers.
 - iv) A differential pressure gauge shall be installed to indicate the sealed chamber pressure.
 - c) Janitorial and institutional cleaning shall be exempt from the requirements listed above.
- 2) The permittee may use an alternate method for reducing cold cleaning emissions if the level of emission control is equivalent to or greater than the requirements listed above. This alternate method must be approved by the director.

Operational Limitation/Equipment Specifications:

- 1) Each cold cleaner shall have a cover which will prevent the escape of solvent vapors from the solvent bath while in the closed position or an enclosed reservoir which will limit the escape of solvent vapors from the solvent bath whenever parts are not being processed in the cleaner.
- 2) When one or more of the following conditions exist, the design of the cover shall be such that it can be easily operated with one hand such that minimal disturbing of the solvent vapors in the tank occurs. (For covers larger than ten square feet, this shall be accomplished by either mechanical assistance such as spring loading or counterweighting or by power systems):
 - a) The solvent volatility is greater than 0.3 psi measured at one hundred degrees Fahrenheit (100°F), such as in mineral spirits;
 - b) The solvent is agitated; or
 - c) The solvent is heated.
- 3) Each cold cleaner shall have a drainage facility which will be internal so that parts are enclosed under the cover while draining.

- 4) If an internal drainage facility cannot fit into the cleaning system and the solvent volatility is less than 0.6 psi measured at one hundred degrees Fahrenheit (100°F), then the cold cleaner shall have an external drainage facility which provides for the solvent to drain back into the solvent bath.
- 5) Solvent sprays, if used, shall be a solid fluid stream (not a fine, atomized or shower-type spray) and at a pressure which does not cause splashing above or beyond the freeboard.
- 6) A permanent conspicuous label summarizing the operating procedures shall be affixed to the equipment.
- 7) Any cold cleaner which uses a solvent that has a solvent volatility greater than 0.6 psi measured at one hundred degrees Fahrenheit (100°F) or heated above one hundred twenty degrees Fahrenheit (120°F) must use one of the following control devices:
 - a) A freeboard ratio of at least 0.75;
 - b) Water cover (solvent must be insoluble in and heavier than water); or
 - c) Other control systems with a mass balance demonstrated overall VOC emissions reduction efficiency greater than or equal to sixty-five percent (65%). These control systems must receive approval from the director prior to their use.
- 8) Each cold cleaner shall be operated as follows:
 - a) Cold cleaner covers shall be closed whenever parts are not being handled in the cleaners or the solvent must drain into an enclosed reservoir.
 - b) Cleaned parts shall be drained in the freeboard area for at least fifteen seconds or until dripping ceases, whichever is longer.
 - c) Whenever a cold cleaner fails to perform within the specified operating parameters, the unit shall be shut down immediately and shall remain shut down until trained service personnel are able to restore operation within the established parameters.
 - d) Solvent leaks shall be repaired immediately or the degreaser shall be shut down until the leaks are repaired.
 - e) Any waste material removed from a cold cleaner shall be disposed of by one of the following methods and in accordance with the Missouri Hazardous Waste Management Commission rules codified at 10 CSR 10-25, as applicable:
 - i) Reduction of the waste material to less than twenty percent (20%) VOC solvent by distillation and proper disposal of the still bottom waste; or
 - ii) Stored in closed containers for transfer to a contract reclamation service; or a disposal facility approved by the director.
 - f) Waste solvent shall be stored in covered containers only.
- 9) Operators must be trained as follows:
 - a) Only persons trained in at least the operational and equipment requirements specified in this rule for their particular solvent metal cleaning process shall be permitted to operate the equipment.
 - b) The supervisor of any person who operates a solvent metal cleaning process shall receive equal or greater operational training than the operator.
 - c) Refresher training shall be given to all solvent metal cleaning equipment operators at least once each twelve months.

Monitoring:

The permittee shall monitor the throughputs of the solvents monthly and maintain material safety data sheets of the cleanup solvents used at the installation.

Recordkeeping:

- 1) The permittee shall keep monthly inventory records of solvent types and amounts purchased and solvent consumption. These records shall include all types and amounts of solvent containing waste material transferred to either a contract reclamation service or to a disposal facility and all amounts distilled on the premises. The records also shall include maintenance and repair logs for both the degreaser and any associated control equipment. The director may require additional recordkeeping if necessary to adequately demonstrate compliance with this rule.
- 2) The permittee shall maintain records which include for each purchase of cold cleaning solvent:
 - a) The name and address of the solvent supplier;
 - b) The date of purchase;
 - c) The type of solvent; and
 - d) The vapor pressure of the solvent in mmHg at twenty degrees Celsius (20°C) (sixty-eight degrees Fahrenheit (68°F)).
- 3) The permittee shall keep records of solvent metal cleaning training for each employee.
- 4) All records required shall be retained for five (5) years and shall be made available to the director upon request.

Reporting:

Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

IV. Core Permit Requirements

The installation shall comply with each of the following requirements. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

10 CSR 10-6.050 Start-up, Shutdown and Malfunction Conditions

- 1) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the director within two business days, in writing, the following information:
 - a) Name and location of installation;
 - b) Name and telephone number of person responsible for the installation;
 - c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
 - d) Identity of the equipment causing the excess emissions;
 - e) Time and duration of the period of excess emissions;
 - f) Cause of the excess emissions;
 - g) Air pollutants involved;
 - h) Best estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;
 - i) Measures taken to mitigate the extent and duration of the excess emissions; and
 - j) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
- 2) The permittee shall submit the paragraph 1 information list to the director in writing at least ten days prior to any maintenance, start-up or shutdown, which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event cannot be given ten days prior to the planned occurrence, it shall be given as soon as practicable prior to the release. If an unplanned excess release of emissions exceeding one hour occurs during maintenance, start-up or shutdown, the director shall be notified verbally as soon as practical during normal working hours and no later than the close of business of the following working day. A written notice shall follow within ten working days.
- 3) Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under Section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the paragraph 1 list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under Section 643.080 or 643.151, RSMo.
- 4) Nothing in this rule shall be construed to limit the authority of the director or commission to take appropriate action, under Sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.
- 5) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

10 CSR 10-6.060 Construction Permits Required

The permittee shall not commence construction, modification, or major modification of any installation subject to this rule, begin operation after that construction, modification, or major modification, or begin operation of any installation which has been shut down longer than five years without first obtaining a permit from the permitting authority.

10 CSR 10-6.065 Operating Permits

The permittee shall file a complete application for renewal of this operating permit at least six months before the date of permit expiration. In no event shall this time be greater than eighteen months. [10 CSR 10-6.065(6)(B)1.A(V)] The permittee shall retain the most current operating permit issued to this installation on-site. [10 CSR 10-6.065(6)(C)1.C(II)] The permittee shall immediately make such permit available to any Missouri Department of Natural Resources personnel upon request. [10 CSR 10-6.065(6)(C)3.B]

10 CSR 10-6.110 Submission of Emission Data, Emission Fees and Process Information

- 1) The permittee shall complete and submit an Emission Inventory Questionnaire (EIQ) in accordance with the requirements outlined in this rule.
- 2) The permittee shall pay an annual emission fee per ton of regulated air pollutant emitted according to the schedule in the rule. This fee is an emission fee assessed under authority of RSMo. 643.079 to satisfy the requirements of the Federal Clean Air Act, Title V.
- 3) The fees shall be due April 1 each year for emissions produced during the previous calendar year. The fees shall be payable to the Department of Natural Resources and shall be accompanied by the Emissions Inventory Questionnaire (EIQ) form or equivalent approved by the director.

10 CSR 10-6.130 Controlling Emissions During Episodes of High Air Pollution Potential

This rule specifies the conditions that establish an air pollution alert (yellow/orange/red/purple), or emergency (maroon) and the associated procedures and emission reduction objectives for dealing with each. The permittee shall submit an appropriate emergency plan if required by the Director.

10 CSR 10-6.150 Circumvention

The permittee shall not cause or permit the installation or use of any device or any other means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission or air contaminant which violates a rule of the Missouri Air Conservation Commission.

10 CSR 10-6.170 Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin

- 1) The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive particulate matter emissions to go beyond the premises of origin in quantities that the particulate matter may be found on surfaces beyond the property line of origin. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the director.
- 2) The permittee shall not cause nor allow to occur any fugitive particulate matter emissions to remain visible in the ambient air beyond the property line of origin.

- 3) Should it be determined that noncompliance has occurred, the director may require reasonable control measures as may be necessary. These measures may include, but are not limited to, the following:
 - a) Revision of procedures involving construction, repair, cleaning and demolition of buildings and their appurtenances that produce particulate matter emissions;
 - b) Paving or frequent cleaning of roads, driveways and parking lots;
 - c) Application of dust-free surfaces;
 - d) Application of water; and
 - e) Planting and maintenance of vegetative ground cover.

10 CSR 10-6.180 Measurement of Emissions of Air Contaminants

- 1) The director may require any person responsible for the source of emission of air contaminants to make or have made tests to determine the quantity or nature, or both, of emission of air contaminants from the source. The director may specify testing methods to be used in accordance with good professional practice. The director may observe the testing. All tests shall be performed by qualified personnel.
- 2) The director may conduct tests of emissions of air contaminants from any source. Upon request of the director, the person responsible for the source to be tested shall provide necessary ports in stacks or ducts and other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants.
- 3) The director shall be given a copy of the test results in writing and signed by the person responsible for the tests.

10 CSR 10-2.100 Open Burning Restrictions

- 1) The permittee shall not conduct, cause, permit or allow a salvage operation, the disposal of trade wastes or burning of refuse by open burning.
- 2) Exception - Open burning of trade waste or vegetation may be permitted only when it can be shown that open burning is the only feasible method of disposal or an emergency exists which requires open burning.
- 3) Any person intending to engage in open burning shall file a request to do so with the director. The request shall include the following:
 - a) The name, address and telephone number of the person submitting the application; The type of business or activity involved; A description of the proposed equipment and operating practices, the type, quantity and composition of trade wastes and expected composition and amount of air contaminants to be released to the atmosphere where known;
 - b) The schedule of burning operations;
 - c) The exact location where open burning will be used to dispose of the trade wastes;
 - d) Reasons why no method other than open burning is feasible; and
 - e) Evidence that the proposed open burning has been approved by the fire control authority which has jurisdiction.
- 4) Upon approval of the open burning permit application by the director, the person may proceed with the operation under the terms of the open burning permit. Be aware that such approval shall not exempt Audubon Material, Inc. – Sugar Creek Plant from the provisions of any other law, ordinance or regulation.
- 5) The permittee shall maintain files with letters from the director approving the open burning operation and previous DNR inspection reports.

10 CSR 10-2.070 Restriction of Emission of Odors

No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one volume of odorous air is diluted with seven volumes of odor-free air for two separate trials not less than 15 minutes apart within the period of one hour. **This requirement is not federally enforceable.**

10 CSR 10-6.100 Alternate Emission Limits

Proposals for alternate emission limitations shall be submitted on Alternate Emission Limits Permit forms provided by the department. An installation owner or operator must obtain an Alternate Emission Limits Permit in accordance with 10 CSR 10-6.100 before alternate emission limits may become effective.

- 1) The permittee shall follow the procedures and requirements of 40 CFR Part 61, Subpart M for any activities occurring at this installation which would be subject to provisions for 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos.
- 2) The permittee shall conduct monitoring to demonstrate compliance with registration, certification, notification, and Abatement Procedures and Practices standards as specified in 40 CFR Part 61, Subpart M.

10 CSR 10-6.080 Emission Standards for Hazardous Air Pollutants and 40 CFR Part 61 Subpart M National Emission Standard for Asbestos

- 1) The permittee shall follow the procedures and requirements of 40 CFR Part 61, Subpart M for any activities occurring at this installation which would be subject to provisions for 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos.
- 2) The permittee shall conduct monitoring to demonstrate compliance with registration, certification, notification, and Abatement Procedures and Practices standards as specified in 40 CFR Part 61, Subpart M.

10 CSR 10-6.250 Asbestos Abatement Projects – Certification, Accreditation, and Business Exemption Requirements

The permittee shall conduct all asbestos abatement projects within the procedures established for certification and accreditation by 10 CSR 10-6.250. This rule requires individuals who work in asbestos abatement projects to be certified by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires training providers who offer training for asbestos abatement occupations to be accredited by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires persons who hold exemption status from certain requirements of this rule to allow the department to monitor training provided to employees. Each individual who works in asbestos abatement projects must first obtain certification for the appropriate occupation from the department. Each person who offers training for asbestos abatement occupations must first obtain accreditation from the department. Certain business entities that meet the requirements for state-approved exemption status must allow the department to monitor training classes provided to employees who perform asbestos abatement.

Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone

- 1) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:

- a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
 - b) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
 - c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
 - d) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
- 2) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
- a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
 - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).
 - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
 - f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
- 3) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A, Production and Consumption Controls.
- 4) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.
- 5) The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR Part 82*

10 CSR 10-6.280 Compliance Monitoring Usage

- 1) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and

- c) Any other monitoring methods approved by the director.
- 2) Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred by a permittee:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, “Operating Permits”, and incorporated into an operating permit; and
 - c) Compliance test methods specified in the rule cited as the authority for the emission limitations.
- 3) The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
 - a) Applicable monitoring or testing methods, cited in:
 - i) 10 CSR 10-6.030, “Sampling Methods for Air Pollution Sources”;
 - ii) 10 CSR 10-6.040, “Reference Methods”;
 - iii) 10 CSR 10-6.070, “New Source Performance Standards”;
 - iv) 10 CSR 10-6.080, “Emission Standards for Hazardous Air Pollutants”; or
 - b) Other testing, monitoring, or information gathering methods, if approved by the director, that produce information comparable to that produced by any method listed above.

V. General Permit Requirements

The installation shall comply with each of the following requirements. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued,

10 CSR 10-6.065(6)(C)1.B Permit Duration

This permit is issued for a term of five years, commencing on the date of issuance. This permit will expire at the end of this period unless renewed.

10 CSR 10-6.065(6)(C)1.C General Recordkeeping and Reporting Requirements

- 1) Recordkeeping
 - a) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
 - b) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any Missouri Department of Natural Resources' personnel upon request.
- 2) Reporting
 - a) All reports shall be submitted to the Air Pollution Control Program, Enforcement Section, P. O. Box 176, Jefferson City, MO 65102.
 - b) The permittee shall submit a report of all required monitoring by:
 - i) October 1st for monitoring which covers the January through June time period, and
 - ii) April 1st for monitoring which covers the July through December time period.
 - iii) Exception. Monitoring requirements which require reporting more frequently than semi-annually shall report no later than 30 days after the end of the calendar quarter in which the measurements were taken.
 - c) Each report shall identify any deviations from emission limitations, monitoring, recordkeeping, reporting, or any other requirements of the permit, this includes deviations or Part 64 exceedances.
 - d) Submit supplemental reports as required or as needed. Supplemental reports are required no later than ten days after any exceedance of any applicable rule, regulation or other restriction. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken.
 - i) Notice of any deviation resulting from an emergency (or upset) condition as defined in paragraph (6)(C)7.A of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if the permittee wishes to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and the permittee can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.

- ii) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.
- iii) Any other deviations identified in the permit as requiring more frequent reporting than the permittee's semi-annual report shall be reported on the schedule specified in this permit, and no later than ten days after any exceedance of any applicable rule, regulation, or other restriction.
- e) Every report submitted shall be certified by the responsible official, except that, if a report of a deviation must be submitted within ten days after the deviation, the report may be submitted without a certification if the report is resubmitted with an appropriate certification within ten days after that, together with any corrected or supplemental information required concerning the deviation.
- f) The permittee may request confidential treatment of information submitted in any report of deviation.

10 CSR 10-6.065(6)(C)1.D Risk Management Plan Under Section 112(r)

The permittee shall comply with the requirements of 40 CFR Part 68, Accidental Release Prevention Requirements. If the permittee has more than a threshold quantity of a regulated substance in process, as determined by 40 CFR Section 68.115, the permittee shall submit a Risk Management Plan in accordance with 40 CFR Part 68 no later than the latest of the following dates:

- 1) June 21, 1999;
- 2) Three years after the date on which a regulated substance is first listed under 40 CFR Section 68.130; or
- 3) The date on which a regulated substance is first present above a threshold quantity in a process.

10 CSR 10-6.065(6)(C)1.F Severability Clause

In the event of a successful challenge to any part of this permit, all uncontested permit conditions shall continue to be in force. All terms and conditions of this permit remain in effect pending any administrative or judicial challenge to any portion of the permit. If any provision of this permit is invalidated, the permittee shall comply with all other provisions of the permit.

10 CSR 10-6.065(6)(C)1.G General Requirements

- 1) The permittee must comply with all of the terms and conditions of this permit. Any noncompliance with a permit condition constitutes a violation and is grounds for enforcement action, permit termination, permit revocation and re-issuance, permit modification or denial of a permit renewal application.
- 2) The permittee may not use as a defense in an enforcement action that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit
- 3) The permit may be modified, revoked, reopened, reissued or terminated for cause. Except as provided for minor permit modifications, the filing of an application or request for a permit modification, revocation and reissuance, or termination, or the filing of a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- 4) This permit does not convey any property rights of any sort, nor grant any exclusive privilege.
- 5) The permittee shall furnish to the Air Pollution Control Program, upon receipt of a written request and within a reasonable time, any information that the Air Pollution Control Program reasonably may require to determine whether cause exists for modifying, reopening, reissuing or revoking the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to

the Air Pollution Control Program copies of records required to be kept by the permittee. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 10 CSR 10-6.065(6)(C)1.

10 CSR 10-6.065(6)(C)1.H Incentive Programs Not Requiring Permit Revisions

No permit revision will be required for any installation changes made under any approved economic incentive, marketable permit, emissions trading, or other similar programs or processes provided for in this permit.

10 CSR 10-6.065(6)(C)1.I Reasonably Anticipated Operating Scenarios

If the permittee elects to cease burning nonhazardous solid waste and become subject to 40 CFR 63 Subpart LLL (MACT LLL), the permittee must meet all the initial compliance testing requirements (using the test methods and procedures in §§63.1349 and 63.7) each time it becomes subject to MACT LLL, even if it was previously subject to MACT LLL. [§63.1348(a)]

The applicable emission and operating limits are outlined in Attachment G.

10 CSR 10-6.065(6)(C)1.J Emissions Trading

None

10 CSR 10-6.065(6)(C)3 Compliance Requirements

- 1) Any document (including reports) required to be submitted under this permit shall contain a certification signed by the responsible official.
- 2) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized officials of the Missouri Department of Natural Resources, or their authorized agents, to perform the following (subject to the installation's right to seek confidential treatment of information submitted to, or obtained by, the Air Pollution Control Program):
 - a) Enter upon the premises where a permitted installation is located or an emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
 - b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c) Inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - d) As authorized by the Missouri Air Conservation Law, Chapter 643, RSMo or the Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the terms of this permit, and all applicable requirements as outlined in this permit.
- 3) All progress reports required under an applicable schedule of compliance shall be submitted semi-annually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following:
 - a) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and
 - b) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
- 4) The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards,

or work practices. These certifications shall be submitted annually by April 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, as well as the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and Part 64 exceedances and excursions must be included in the compliance certifications. The compliance certification shall include the following:

- a) The identification of each term or condition of the permit that is the basis of the certification;
- b) The current compliance status, as shown by monitoring data and other information reasonably available to the installation;
- c) Whether compliance was continuous or intermittent;
- d) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period; and
- e) Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

10 CSR 10-6.065(6)(C)6 Permit Shield

- 1) Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date that this permit is issued, provided that:
 - a) The application requirements are included and specifically identified in this permit, or
 - b) The permitting authority, in acting on the permit revision or permit application, determines in writing that other requirements, as specifically identified in the permit, are not applicable to the installation, and this permit expressly includes that determination or a concise summary of it.
- 2) Be aware that there are exceptions to this permit protection. The permit shield does not affect the following:
 - a) The provisions of Section 303 of the Act or Section 643.090, RSMo concerning emergency orders,
 - b) Liability for any violation of an applicable requirement which occurred prior to, or was existing at, the time of permit issuance,
 - c) The applicable requirements of the acid rain program,
 - d) The authority of the Environmental Protection Agency and the Air Pollution Control Program of the Missouri Department of Natural Resources to obtain information, or
 - e) Any other permit or extra-permit provisions, terms or conditions expressly excluded from the permit shield provisions.

10 CSR 10-6.065(6)(C)7 Emergency Provisions

- 1) An emergency or upset as defined in 10 CSR 10-6.065(6)(C)7.A shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emissions limitations. To establish an emergency- or upset-based defense, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, the following:
 - a) That an emergency or upset occurred and that the permittee can identify the source of the emergency or upset,
 - b) That the installation was being operated properly,
 - c) That the permittee took all reasonable steps to minimize emissions that exceeded technology-based emissions limitations or requirements in this permit, and
 - d) That the permittee submitted notice of the emergency to the Air Pollution Control Program within two working days of the time when emission limitations were exceeded due to the

emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.

- 2) Be aware that an emergency or upset shall not include noncompliance caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

10 CSR 10-6.065(6)(C)8 Operational Flexibility

An installation that has been issued a Part 70 operating permit is not required to apply for or obtain a permit revision in order to make any of the changes to the permitted installation described below if the changes are not Title I modifications, the changes do not cause emissions to exceed emissions allowable under the permit, and the changes do not result in the emission of any air contaminant not previously emitted. The permittee shall notify the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, at least seven days in advance of these changes, except as allowed for emergency or upset conditions. Emissions allowable under the permit means a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that establishes an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

- 1) Section 502(b)(10) changes. Changes that, under Section 502(b)(10) of the Act, contravene an express permit term may be made without a permit revision, except for changes that would violate applicable requirements of the Act or contravene federally enforceable monitoring (including test methods), recordkeeping, reporting or compliance requirements of the permit.
 - a) Before making a change under this provision, The permittee shall provide advance written notice to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, describing the changes to be made, the date on which the change will occur, and any changes in emission and any permit terms and conditions that are affected. The permittee shall maintain a copy of the notice with the permit, and the Air Pollution Control Program shall place a copy with the permit in the public file. Written notice shall be provided to the EPA and the Air Pollution Control Program as above at least seven days before the change is to be made. If less than seven days' notice is provided because of a need to respond more quickly to these unanticipated conditions, the permittee shall provide notice to the EPA and the Air Pollution Control Program as soon as possible after learning of the need to make the change.
 - b) The permit shield shall not apply to these changes.

10 CSR 10-6.065(6)(C)9 Off-Permit Changes

- 1) Except as noted below, the permittee may make any change in its permitted operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. Insignificant activities listed in the application, but not otherwise addressed in or prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the off-permit provisions of this section. Off-permit changes shall be subject to the following requirements and restrictions:
 - a) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; the permittee may not change a permitted installation without a permit revision if this change is subject to any requirements under Title IV of the Act or is a Title I modification;

- b) The permittee must provide written notice of the change to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, no later than the next annual emissions report. This notice shall not be required for changes that are insignificant activities under 10 CSR 10-6.065(6)(B)3. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change.
- c) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes; and
- d) The permit shield shall not apply to these changes.

10 CSR 10-6.020(2)(R)12 Responsible Official

The application utilized in the preparation of this permit was signed by Richard J. Reuter, Plant Manager. The Air Pollution Control Program was informed that Rahul Desai is now the responsible official. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Director of the Air Pollution Control Program of the change. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

10 CSR 10-6.065(6)(E)6 Reopening-Permit for Cause

This permit may be reopened for cause if:

- 1) The Missouri Department of Natural Resources (MDNR) receives notice from the Environmental Protection Agency (EPA) that a petition for disapproval of a permit pursuant to 40 CFR § 70.8(d) has been granted, provided that the reopening may be stayed pending judicial review of that determination,
 - 2) The Missouri Department of Natural Resources or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,
 - 3) Additional applicable requirements under the Act become applicable to the installation; however, reopening on this ground is not required if—:
 - a) The permit has a remaining term of less than three years;
 - b) The effective date of the requirement is later than the date on which the permit is due to expire;or
 - c) The additional applicable requirements are implemented in a general permit that is applicable to the installation and the installation receives authorization for coverage under that general permit,
 - 4) The installation is an affected source under the acid rain program and additional requirements (including excess emissions requirements), become applicable to that source, provided that, upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit;
- or

- 5) The Missouri Department of Natural Resources or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

10 CSR 10-6.065(6)(E)1.C Statement of Basis

This permit is accompanied by a statement setting forth the legal and factual basis for the draft permit conditions (including references to applicable statutory or regulatory provisions). This Statement of Basis, while referenced by the permit, is not an actual part of the permit.

VI. Attachments

Attachments follow.

ATTACHMENT D-2
Method 22 (Outdoor) Observation Log

This recordkeeping sheet or an equivalent form may be used for the recordkeeping requirements of 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*.

Method 22 (Outdoor) Observation Log		
Emission Unit		
Observer	Date	
Sky Conditions		
Precipitation		
Wind Direction	Wind Speed	
Sketch process unit: Indicate the position relative to the source and sun; mark the potential emission points and/or the observing emission points.		
Observation Clock Time	Observation Period Duration (minute: second)	Accumulative Emission Time (minute: second)
Begin Observation		
End Observation		

ATTACHMENT E
Method 9 Opacity Emissions Observations

This recordkeeping sheet or an equivalent form may be used for the recordkeeping requirements of 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*.

Method 9 Opacity Emissions Observations								
Company					Observer			
Location					Observer Certification Date			
Date					Emission Unit			
Time					Control Device			
Hour	Minute	Seconds				Steam Plume (check if applicable)		Comments
		0	15	30	45	Attached	Detached	
	0							
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
SUMMARY OF AVERAGE OPACITY								
Set Number	Time				Opacity			
	Start	End	Sum	Average				

Readings ranged from _____ to _____ % opacity.

Was the emission unit in compliance at the time of evaluation? _____
 YES NO Signature of Observer _____

ATTACHMENT F

10 CSR 10-6.400 Compliance Demonstration for the Underground Limestone Mine (EU1120)

This form may be used to demonstrate that the Underground Limestone Mine (EU1120) is assumed to always be in compliance with 10 CSR 10-6.400.

Allowable Emission Rate Limit

Emission Rate Limit (lb/hr) $E = 55.0(P)^{0.11} - 40$

Where: P = process weight rate

PM Emission Rate

Emission Rate (lb/hr) = MHDR (ton/hr) x PM Emission Factor (lb/ton) x (1-Control Efficiency/100)

EU #	Emission Unit Description	Process Weight Rate (ton/hr)	Emission Factor (lb/ton)	EF Source	Inherent PM Control Efficiency Underground Activity (%)	Emission Rate (lb/hr)	Allowable Emission Rate (lb/hr)
EU1120	Underground Mine: Drilling	529.1	0.00016	SCC 30502009	90	0.008	69.64
	Underground Mine: Blasting	529.1	0.016	2006 EIQ	90	0.847	69.64
	Underground Mine: Bulk Material Loading Operation	529.1	0.0096	AP-42 Sec 13.2.4	90	0.508	69.64
	Underground Mine: Truck Unloading	529.1	0.0096	AP-42 Sec 13.2.4	90	0.508	69.64
	Underground Mine: Primary Crushing	529.1	0.009	Table 8.19.1-1 AP-42, 9/85	90	0.476	69.64
	Underground Mine: Raw Material Transfer	529.1	0.0096	AP-42 Sec 13.2.4	90	0.508	69.64
	Underground Mine: Raw Material Transfer	529.1	0.0096	AP-42 Sec 13.2.4	90	0.508	69.64
	Underground Mine: Raw Material Transfer	529.1	0.0096	AP-42 Sec 13.2.4	90	0.508	69.64

PM Concentration

Emission rate (gr/dscf) = Emission Rate (lb/hr) x (7000 grains/lb)/Stack flow rate (SCFM)/60(min/hr)

Flow rates converted from actual to standard conditions using the ideal gas law.

EU #	Emission Unit Description	Emission Rate (lb/hr)	Stack Temp °F	Stack Flow		Controlled Emission Rate (gr/scf)	Allowable Emission Rate (gr/scf)
				ACFM	SCFM		
EU1120	Underground Mine: Drilling	3.87	80	300,000	294,444	0.002	0.3
	Underground Mine: Blasting						
	Underground Mine: Bulk Material Loading Operation						
	Underground Mine: Truck Unloading						
	Underground Mine: Primary Crushing						
	Underground Mine: Raw Material Transfer						
	Underground Mine: Raw Material Transfer						
	Underground Mine: Raw Material Transfer						

ATTACHMENT G

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations 40 CFR Part 63, Subpart A General Provisions and Subpart LLL National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry - Standards for In-Line Kiln/Raw Mill

Emission Limitations until September 5, 2015:

- 1) *Emission limits in effect prior to September 9, 2010.* Since this source was subject to a PM, mercury, THC, D/F, or opacity emissions limit prior to September 9, 2010, the permittee must continue to meet the limits shown in Table 2 to 40 CFR 63 subpart LLL until September 9, 2015. [§63.1343(d)]
 - a) The provisions of §63.1343 apply to the Raw Mill and Preheater/Precalciner Rotary Kiln System (EU0810 through EU0840). All gaseous, mercury and D/F emission limits are on a dry basis, corrected to seven percent oxygen. All total hydrocarbon (THC) emission limits are measured as propane. The block averaging periods to demonstrate compliance are hourly for 20 ppmv total hydrocarbon (THC) limits and monthly for the 50 ppmv THC limit. [§63.1343, Table 2]
 - b) The permittee shall not cause to be discharged into the atmosphere from the Raw Mill and Preheater/Precalciner Rotary Kiln System (EU0810 through EU0840) any gases which:
 - i) Contain particulate matter in excess of 0.15 kg per Mg (0.30 lb per ton) of feed (dry basis) to the kiln. When there is an alkali bypass associated with a kiln or in-line kiln/raw mill, the combined particulate matter emissions from the kiln or in-line kiln/raw mill and the bypass stack are subject to this emission limit. [§63.1343, Table 2, Item #1]
 - ii) Exhibit opacity greater than 20 percent. [§63.1343, Table 2, Item #1]
 - iii) Contain D/F in excess of:
 - A.) 0.20 ng per dscm (8.7×10^{-11} gr per dscf) (TEQ); or
 - B.) 0.40 ng per dscm (1.7×10^{-10} gr per dscf) (TEQ) when the average of the performance test run average temperatures at the inlet to the particulate matter control device is 204 °C (400 °F) or less. [§63.1343, Table 2, Item #1]

Emission Limitations after September 5, 2015:

- 1) The provisions of §63.1343 apply to the Raw Mill and Preheater/Precalciner Rotary Kiln System (EU0810 through EU0840). All D/F, HCl, and total hydrocarbon (THC) emissions limit are on a dry basis. The D/F, HCl, and THC limits for kilns are corrected to seven percent oxygen. All THC emissions limits are measured as propane. Standards for mercury and THC are based on a rolling 30-day average. If using a CEMS to determine compliance with the HCl standard, this standard is based on a rolling 30-day average. The permittee must ensure appropriate corrections for moisture are made when measuring flow rates used to calculate mercury emissions. The 30-day period means 30 consecutive kiln operating days excluding periods of startup and shutdown. All emissions limits for kilns currently in effect that are superseded by the limits below continue to apply until the compliance date of the limits below, or until the source certifies compliance with the limits below, whichever is earlier. [§63.1343(a)]
 - a) The permittee shall not cause to be discharged into the atmosphere from the Raw Mill and Preheater/Precalciner Rotary Kiln System (EU0810 through EU0840) any gases which:
 - i) Contain particulate matter in excess of 0.035 kg per Mg (0.07 lb per ton) of feed (dry basis) to the kiln. When there is an alkali bypass associated with a kiln or in-line kiln/raw mill, the combined particulate matter emissions from the kiln or in-line kiln/raw mill and the bypass stack are subject to this emission limit. [§63.1343, Table 1, Item #1]

- ii) Exhibit opacity greater than ten percent. [§63.1343, Table 1, Item #13]
- iii) Contain D/F in excess of:
 - A.) 0.20 ng per dscm (8.7×10^{-11} gr per dscf) (TEQ); or
 - B.) 0.40 ng per dscm (1.7×10^{-10} gr per dscf) (TEQ) when the average of the performance test run average temperatures at the inlet to the particulate matter control device is 204 °C (400 °F) or less. [§63.1343, Table 1, Item #1]
- iv) Contain mercury (Hg) in excess of 55 lb/MM tons clinker. [§63.1343, Table 1, Item #1]
- v) Contain total hydrocarbon (THC) in excess of 24 ppmv. [§63.1343, Table 1, Item #1]
- vi) Contain hydrochloric acid (HCl) in excess of 3 ppmv. [§63.1343, Table 1, Item #2]

Operational Specifications:

- 1) The permittee must operate the kiln such that the temperature of the gas at the inlet to the kiln PM control device (PMCD) and alkali bypass PMCD, if applicable, does not exceed the applicable temperature limit specified in paragraph §63.1346(b). The permittee must operate the in-line kiln/raw mill, such that: [§63.1346(a)]
 - a) When the raw mill of the in-line kiln/raw mill is operating, the applicable temperature limit for the main in-line kiln/raw mill exhaust, specified in paragraph §63.1346(b) and established during the performance test when the raw mill was operating, is not exceeded, except during periods of startup and shutdown when the temperature limit may be exceeded by no more than 10 percent. [§63.1346(a)(1)]
 - b) When the raw mill of the in-line kiln/raw mill is not operating, the applicable temperature limit for the main in-line kiln/raw mill exhaust, specified in paragraph §63.1346(b) and established during the performance test when the raw mill was not operating, is not exceeded, except during periods of startup/shutdown when the temperature limit may be exceeded by no more than ten percent. [§63.1346(a)(2)]
 - c) If the in-line kiln/raw mill is equipped with an alkali bypass, the applicable temperature limit for the alkali bypass specified in paragraph §63.1346(b) and established during the performance test, with or without the raw mill operating, is not exceeded, except during periods of startup/shutdown when the temperature limit may be exceeded by no more than ten percent. [§63.1346(a)(3)]
- 2) The temperature limit for affected sources meeting the limits of paragraph §63.1346(a) or paragraphs §63.1346(a)(1) through (a)(3) is determined in accordance with §63.1349(b)(3)(iv). [§63.1346(b)]
- 3) No kiln may use as a raw material or fuel any fly ash where the mercury content of the fly ash has been increased through the use of activated carbon, or any other sorbent, unless the facility can demonstrate that the use of that fly ash will not result in an increase in mercury emissions over baseline emissions (i.e., emissions not using the fly ash). The facility has the burden of proving there has been no emissions increase over baseline. Once the kiln is in compliance with a mercury emissions limit specified in § 63.1343, this paragraph no longer applies. [§63.1346(f)]
- 4) §63.1346(g) During periods of startup and shutdown the permittee must meet the requirements listed in §63.1346(g)(1) through (4). [§63.1346(g)]
- 5) *General duty to minimize emissions.* At all times the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [§63.1348(d)]

Performance Testing:

- 1) The permittee shall demonstrate compliance with the emission limits of §63.1343 using the test methods and procedures in §63.1349(b) and §63.7. Performance test results shall be documented in complete test reports that contain the information required by §63.1349(a)(1) through (a)(10), as well as all other relevant information. The plan to be followed during testing shall be made available to the director prior to testing, if requested. [§63.1349(a)]
- 2) Except as provided in § 63.1348(b), performance tests are required at regular intervals for affected sources that are subject to a dioxin, organic HAP or HCl emissions limit and must be repeated every 30 months except for pollutants where that specific pollutant is monitored using CEMS. Tests for PM are repeated every 12 months. [§63.1349(c)]

Changes in Operations:

- 1) If the permittee plans to undertake a change in operations that may adversely affect compliance with an applicable standard, operating limit, or parametric monitoring value under this subpart, the source must conduct a performance test as specified in §63.1349(b). [§63.1348(c)(1)]
- 2) In preparation for and while conducting a performance test required in § 63.1349(b), you the permittee may operate under the planned operational change conditions for a period not to exceed 360 hours, provided that the conditions in (c)(2)(i) through (c)(2)(iv) of this section are met. the permittee must submit temperature and other monitoring data that are recorded during the pretest operations. [§63.1348(c)(2)]
 - a) The permittee must provide the Administrator written notice at least 60 days prior to undertaking an operational change that may adversely affect compliance with an applicable standard under this subpart for any source, or as soon as practicable where 60 days advance notice is not feasible. Notice provided under this paragraph must include a description of the planned change, the emissions standards that may be affected by the change, and a schedule for completion of the performance test required under paragraph §63.1348(c)(1), including when the planned operational change period would begin. [§63.1348(c)(2)(i)]
 - b) The performance test results must be documented in a test report according to §63.1349(a). [§63.1348(c)(2)(ii)]
 - c) A test plan must be made available to the Administrator prior to performance testing, if requested. [§63.1348(c)(2)(iii)]
 - d) The performance test must be completed within 360 hours after the planned operational change period begins. [§63.1348(c)(2)(iv)]

Monitoring requirements:

- 1) All continuous monitoring data for periods of startup and shutdown must be compiled and averaged separately from data gathered during other operating periods. [§63.1350(a)(2)]
- 2) For each existing unit that is equipped with a CMS, maintain the average emissions or the operating parameter values within the operating parameter limits established through performance tests. [§63.1350(a)(3)]
- 3) Any instance where the permittee fails to comply with the continuous monitoring requirements of this section is a violation. [§63.1350(a)(4)]
- 4) *PM monitoring requirements.* [§63.1350(b)]
 - a) *PM CPMS.* The permittee will use a PM CPMS to establish a site-specific operating limit corresponding to the results of the performance test demonstrating compliance with the PM limit. The permittee will conduct the performance test using Method 5 or Method 5I at Appendix A-3 to Part 60 of this chapter. The permittee will use the PM CPMS to demonstrate continuous

compliance with this operating limit. The permittee must repeat the performance test annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test using the procedures in §63.1349(b)(1)(i) through (vi). The permittee must also repeat the test if you change the analytical range of the instrument, or if the permittee you replaces the instrument itself or any principle analytical component of the instrument that would alter the relationship of output signal to in-stack PM concentration. [§63.1350(b)(1)(i)]

- b) To determine continuous compliance, the permittee must use the PM CPMS output data for all periods when the process is operating and the PM CPMS is not out-of-control. The permittee must demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (milliamps) on a 30 operating day rolling average basis, updated at the end of each new kiln operating day. [§63.1350(b)(1)(ii)]
 - c) For any exceedance of the 30 process operating day PM CPMS average value from the established operating parameter limit, the permittee must:
 - i) Within 48 hours of the exceedance, visually inspect the APCD; If inspection of the APCD identifies the cause of the exceedance, take corrective action as soon as possible and return the PM CPMS measurement to within the established value; and
 - ii) Within 30 days of the exceedance or at the time of the annual compliance test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit and to verify or re-establish the PM CPMS operating limit within 45 days.
 - iii) The permittee is not required to conduct additional testing for any exceedances that occur between the time of the original exceedance and the PM emissions compliance test required under this paragraph. [§63.1350(b)(1)(iii)(A) through (C)]
 - d) PM CPMS exceedances leading to more than four required performance tests in a 12-month process operating period (rolling monthly) constitute a presumptive violation of this subpart. [§63.1350(b)(1)(iv)]
- 5) *Clinker production monitoring requirements.* In order to determine clinker production, the permittee must: [§63.1350(d)]
- a) Determine hourly clinker production by one of two methods:
 - i) Install, calibrate, maintain, and operate a permanent weigh scale system to measure and record weight rates in tons-mass per hour of the amount of clinker produced. The system of measuring hourly clinker production must be maintained within ± 5 percent accuracy, or
 - ii) Install, calibrate, maintain, and operate a permanent weigh scale system to measure and record weight rates in tons-mass per hour of the amount of feed to the kiln. The system of measuring feed must be maintained within ± 5 percent accuracy. Calculate your hourly clinker production rate using a kiln-specific feed to clinker ratio based on reconciled clinker production determined for accounting purposes and recorded feed rates. Update this ratio monthly. Note that if this ratio changes at clinker reconciliation, you must use the new ratio going forward, but you do not have to retroactively change clinker production rates previously estimated. [§63.1350(d)(1)(i) and (ii)]
 - b) Determine, record, and maintain a record of the accuracy of the system of measuring hourly clinker production (or feed mass flow if applicable) before initial use (for new sources) or by the effective compliance date of this rule (for existing sources). During each quarter of source operation, you must determine, record, and maintain a record of the ongoing accuracy of the system of measuring hourly clinker production (or feed mass flow). [§63.1350(d)(2)]

- c) If you measure clinker production directly, record the daily clinker production rates; if you measure the kiln feed rates and calculate clinker production, record the hourly kiln feed and clinker production rates. [§63.1350(d)(3)]
- d) Develop an emissions monitoring plan in accordance with paragraphs §63.1350(p)(1) through (p)(4). [§63.1350(d)(4)]
- 6) *D/F monitoring requirements.* The permittee must comply with the monitoring requirements of paragraphs §63.1350(g)(1) through (g)(6) and paragraphs §63.1350(m)(1) through (m)(4) to demonstrate continuous compliance with the D/F emissions standard. The permittee must also develop an emissions monitoring plan in accordance with paragraphs §63.1350(p)(1) through (p)(4). [§63.1350(g)]
 - a) The permittee must install, calibrate, maintain, and continuously operate a CMS to record the temperature of the exhaust gases from the kiln and alkali bypass, if applicable, at the inlet to, or upstream of, the kiln and/or alkali bypass PMCDs.
 - i) The temperature recorder response range must include zero and 1.5 times the average temperature established according to the requirements in §63.1349(b)(3)(iv).
 - ii) The calibration reference for the temperature measurement must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator.
 - iii) The calibration of all thermocouples and other temperature sensors must be verified at least once every three months. [§63.1350(g)(1)(i) through (iii)]
 - b) The permittee must monitor and continuously record the temperature of the exhaust gases from the kiln and alkali bypass, if applicable, at the inlet to the kiln and/or alkali bypass PMCD. [§63.1350(g)(2)]
 - c) The required minimum data collection frequency must be one minute. [§63.1350(g)(3)]
 - d) Calculate the rolling three-hour average temperature using the average of 180 successive one-minute average temperatures. See § 63.1349(b)(3). [§63.1350(g)(4)]
 - e) When the operating status of the raw mill of the in-line kiln/raw mill is changed from off to on or from on to off, the calculation of the three-hour rolling average temperature must begin anew, without considering previous recordings. [§63.1350(g)(5)]
- 7) *Monitoring requirements for sources using sorbent injection.* If you are subject to an operating limit on D/F emissions that employs carbon injection as an emission control technique, you must comply with the additional monitoring requirements of paragraphs §63.1350(h)(1) and (h)(2) and paragraphs §63.1350(m)(1) through (m)(4) and §63.1350(m)(9). The permittee must also develop an emissions monitoring plan in accordance with paragraphs §63.1350(p)(1) through (p)(4). [§63.1350(h)]
 - a) Install, operate, calibrate, and maintain a continuous monitor to record the rate of activated carbon injection. The accuracy of the rate measurement device must be ± 1 percent of the rate being measured.
 - i) Verify the calibration of the device at least once every three months.
 - ii) Each hour, calculate the three-hour rolling average activated carbon injection rate for the previous three hours of process operation. See §63.1349(b)(3).
 - iii) When the operating status of the raw mill of the in-line kiln/raw mill is changed from off to on or from on to off, the calculation of the three-hour rolling average activated carbon injection rate must begin anew, without considering previous recordings. [§63.1350(h)(1)(i) through (iii)]
- 8) *THC Monitoring Requirements.* The permittee must comply with the monitoring requirements of paragraphs §63.1350(i)(1) and (i)(2) and §63.1350(m)(1) through (m)(4). The permittee must also develop an emissions monitoring plan in accordance with paragraphs §63.1350(p)(1) through (p)(4).

- a) The permittee must install, operate, and maintain a THC continuous emission monitoring system in accordance with Performance Specification 8A of Appendix B to Part 60 of this chapter and comply with all of the requirements for continuous monitoring systems found in the general provisions, Subpart A of this part. The permittee must operate and maintain each CEMS according to the quality assurance requirements in Procedure 1 of Appendix F in Part 60 of this chapter. [§63.1350(i)(1)]
- b) Performance tests on alkali bypass and coal mill stacks must be conducted using Method 25A in Appendix A to 40 CFR Part 60 and repeated annually. [§63.1350(i)(2)]
- 9) *Total organic HAP monitoring requirements.* If you are complying with the total organic HAP emissions limits, you must continuously monitor THC according to paragraph §63.1350(i)(1) and (2) or in accordance with Performance Specification 15 of Appendix B to Part 60 of this chapter and comply with all of the requirements for continuous monitoring systems found in the general provisions, Subpart A of this part. You must operate and maintain each CEMS according to the quality assurance requirements in Procedure 1 of Appendix F in Part 60 of this chapter. In addition, the permittee must follow the monitoring requirements in paragraphs §63.1350(m)(1) through (m)(4). The permittee must also develop an emissions monitoring plan in accordance with paragraphs §63.1350(p)(1) through (p)(4). [§63.1350(j)]
- 10) *Mercury Monitoring Requirements.* The permittee must install and operate a mercury continuous emissions monitoring system (Hg CEMS) in accordance with Performance Specification 12A (PS 12A) of Appendix B to Part 60 of this chapter or an integrated sorbent trap monitoring system in accordance with Performance Specification 12B (PS 12B) of Appendix B to Part 60 of this chapter. The permittee must monitor mercury continuously according to paragraphs §63.1350(k)(1) through (5). The permittee must also develop an emissions monitoring plan in accordance with paragraphs §63.1350(p)(1) through (4). [§63.1350(k)]
 - a) The permittee must use a span value for any Hg CEMS that represents the mercury concentration corresponding to approximately two times the emissions standard and may be rounded up to the nearest multiple of five $\mu\text{g}/\text{m}^3$ of total mercury or higher level if necessary to include Hg concentrations which may occur (excluding concentrations during in-line raw “mill off” operation). As specified in PS 12A, Section 6.1.1, the data recorder output range must include the full range of expected Hg concentration values which would include those expected during “mill off” conditions. Engineering judgments made and calculations used to determine the corresponding span concentration from the emission standard shall be documented in the site-specific monitoring plan and associated records. [§63.1350(k)(1)]
 - b) In order to quality assure data measured above the span value, the permittee must use one of the two options in paragraphs §63.1350(k)(2)(i) and (ii). [§63.1350(k)(2)]
 - c) The permittee must operate and maintain each Hg CEMS or an integrated sorbent trap monitoring system according to the quality assurance requirements in Procedure 5 of Appendix F to Part 60 of this chapter. During the RATA of integrated sorbent trap monitoring systems required under Procedure 5, the permittee may apply the appropriate exception for sorbent trap section 2 breakthrough in §63.1350(k)(3)(i) through (iv). [§63.1350(k)(3)]
 - d) Relative accuracy testing of mercury monitoring systems under PS 12A, PS 12B, or Procedure 5 must be conducted at normal operating conditions. If a facility has an inline raw mill, the testing must occur with the raw mill on. [§63.1350(k)(4)]
 - e) If the permittee uses a Hg CEMS or an integrated sorbent trap monitoring system, the permittee must install, operate, calibrate, and maintain an instrument for continuously measuring and recording the exhaust gas flow rate to the atmosphere according to the requirements in paragraphs §63.1350(n)(1) through (10). If kiln gases are diverted through an alkali bypass or to

a coal mill and exhausted through separate stacks, the permittee must account for the mercury emitted from those stacks by following the procedures in §63.1350(k)(5)(i) through (iv).
[§63.1350(k)(5)]

- f) If the permittee operates an integrated sorbent trap monitoring system conforming to PS 12B, the permittee may use a monitoring period at least 24 hours but no longer than 168 hours in length. The permittee should use a monitoring period that is a multiple of 24 hours (except during relative accuracy testing as allowed in PS 12B). [§63.1350(k)(6)]

11) *Parameter monitoring requirements.* If the permittee has an operating limit that requires the use of a CMS, the permittee must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the procedures in paragraphs §63.1350(m)(1) through (4) by the compliance date specified in § 63.1351. The permittee must also meet the applicable specific parameter monitoring requirements in paragraphs §63.1350(m)(5) through (11) that are applicable to you. [§63.1350(m)]

- a) *Specific pressure monitoring requirements.* If the permittee has an operating limit that requires the use of a pressure measurement device, the permittee must meet the requirements in paragraphs §63.1350(m)(6)(i) through (vi). [§63.1350(m)(6)]
- b) *Specific pH monitoring requirements.* If the permittee has an operating limit that requires the use of a pH measurement device, the permittee must meet the requirements in paragraphs §63.1350(m)(7)(i) through (iii). [§63.1350(m)(7)]
- c) *Mass flow rate (for sorbent injection) monitoring requirements.* If the permittee has an operating limit that requires the use of equipment to monitor sorbent injection rate (e.g., weigh belt, weigh hopper, or hopper flow measurement device), the permittee must meet the requirements in paragraphs §63.1350(m)(9)(i) through (iii). These requirements also apply to the sorbent injection equipment of a dry scrubber. [§63.1350(m)(9)]
- d) *Bag leak detection monitoring requirements.* If the permittee elects to use a fabric filter bag leak detection system to comply with the requirements of this subpart, you must install, calibrate, maintain, and continuously operate a BLDS as specified in paragraphs §63.1350(m)(10)(i) through (viii). [§63.1350(m)(10)]
- e) For each BLDS, the owner or operator must initiate procedures to determine the cause of every alarm within 8 hours of the alarm. The owner or operator must alleviate the cause of the alarm within 24 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:
- i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;
 - ii) Sealing off defective bags or filter media;
 - iii) Replacing defective bags or filter media or otherwise repairing the control device;
 - iv) Sealing off a defective fabric filter compartment;
 - v) Cleaning the BLDS probe or otherwise repairing the BLDS; or
 - vi) Shutting down the process producing the PM emissions.[§63.1350(m)(11)(i) through (vi)]

12) *Continuous Flow Rate Monitoring System.* The permittee must install, operate, calibrate, and maintain instruments, according to the requirements in paragraphs §63.1350(n)(1) through (10), for continuously measuring and recording the stack gas flow rate to allow determination of the pollutant mass emissions rate to the atmosphere from sources subject to an emissions limitation that has a pounds per ton of clinker unit. [§63.1350(n)]

13) *Alternate monitoring requirements approval.* The permittee may submit an application to the Administrator for approval of alternate monitoring requirements to demonstrate compliance with the

emission standards of this subpart, except for emission standards for THC, subject to the provisions of paragraphs §63.1350(o)(1) through (6). [§63.1350(o)]

- 14) *Development and submittal (upon request) of monitoring plans.* If the permittee demonstrates compliance with any applicable emissions limit through performance stack testing or other emissions monitoring, the permittee must develop a site-specific monitoring plan according to the requirements in paragraphs §63.1350(p)(1) through (4). This requirement also applies to the permittee if the permittee petitions the EPA Administrator for alternative monitoring parameters under paragraph §63.1350(o) and §63.8(f). If you use a BLDS, you must also meet the requirements specified in paragraph §63.1350(p)(5). [§63.1350(p)]
- 15) *BLDS monitoring plan.* Each monitoring plan must describe the items in paragraphs [§63.1350(p)(5)(i) through (v)]. At a minimum, the permittee must retain records related to the site-specific monitoring plan and information discussed in paragraphs §63.1350(m)(1) through (4), §63.1350(m)(10) and §63.1350(11) for a period of five years, with at least the first two years on-site;
- a) Installation of the BLDS;
 - b) Initial and periodic adjustment of the BLDS, including how the alarm set-point will be established;
 - c) Operation of the BLDS, including quality assurance procedures;
 - d) How the BLDS will be maintained, including a routine maintenance schedule and spare parts inventory list;
 - e) How the BLDS output will be recorded and stored. [§63.1350(p)(5)(i) through (iv)]

Recordkeeping/Reporting:

Recordkeeping and reporting requirements are listed in Permit Condition PW002.

ATTACHMENT H Abbreviations and Acronyms

%	percent
°F	degrees Fahrenheit
acfm	actual cubic feet per minute
BACT	Best Available Control Technology
BMPs	Best Management Practices
Btu	British thermal unit
CAM	Compliance Assurance Monitoring
CAS	Chemical Abstracts Service
CEMS	Continuous Emission Monitor System
CFR	Code of Federal Regulations
CO	carbon monoxide
CO₂	carbon dioxide
CO₂e	carbon dioxide equivalent
COMS	Continuous Opacity Monitoring System
CSR	Code of State Regulations
dscf	dry standard cubic feet
EIQ	Emission Inventory Questionnaire
EP	Emission Point
EPA	Environmental Protection Agency
EU	Emission Unit
fps	feet per second
ft	feet
GACT	Generally Available Control Technology
GHG	Greenhouse Gas
gpm	gallons per minute
gr	grains
GWP	Global Warming Potential
HAP	Hazardous Air Pollutant
hr	hour
hp	horsepower
lb	pound
lbs/hr	pounds per hour
MACT	Maximum Achievable Control Technology
µg/m³	micrograms per cubic meter
m/s	meters per second
Mgal	1,000 gallons

MW megawatt
MHDR maximum hourly design rate
MMBtu Million British thermal units
MMCF million cubic feet
MSDS..... Material Safety Data Sheet
NAAQS.... National Ambient Air Quality Standards
NESHAPs..National Emissions Standards for Hazardous Air Pollutants
NO_x nitrogen oxides
NSPS New Source Performance Standards
NSR..... New Source Review
PM..... particulate matter
PM_{2.5} particulate matter less than 2.5 microns in aerodynamic diameter
PM₁₀..... particulate matter less than 10 microns in aerodynamic diameter
ppm parts per million
PSD Prevention of Significant Deterioration
PTE potential to emit
RACT Reasonable Available Control Technology
RAL Risk Assessment Level
SCC..... Source Classification Code
scfm..... standard cubic feet per minute
SIC Standard Industrial Classification
SIP..... State Implementation Plan
SMAL Screening Model Action Levels
SO_x sulfur oxides
SO₂ sulfur dioxide
tph tons per hour
tpy tons per year
VMT vehicle miles traveled
VOC Volatile Organic Compound

STATEMENT OF BASIS

Permit Reference Documents

These documents were relied upon in the preparation of the operating permit. Because they are not incorporated by reference, they are not an official part of the operating permit.

- 1) Part 70 Operating Permit Application, received October 17, 2005;
- 2) 2006 Emissions Inventory Questionnaire, received June 4, 2007; and
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition; and
- 4) U.S. EPA Factor Information Retrieval Data System (FIRE), version 6.25.

Historical Notes

Audubon Materials, Inc. - Sugar Creek Plant was issued OP 2000-099 on September 11, 2000. Since the issuance of OP 2000-099, a new cement manufacturing facility was constructed at the installation. The following notes explain the differences between this operating permit and OP 2000-099:

- 1) OP 2000-099 included several emission units associated with Sugar Creek Plant I (SCK I) which were shut down in 2001 when the new cement manufacturing facility (SCK II) was constructed. The following emission units were removed from the installation and are not included in the operating permit:

OP 2000-099 EU ID

- a) EU0010 through EU0090
 - b) EU0110 through EU0440
 - c) EU0460
 - d) EU0700
- 2) The following table lists emission units included in both OP 2000-099 and this operating permit but whose EU ID # has been changed:

Current EU ID #	Emission Unit Description	OP 2000-099 EU #'s
EU0010	Gypsum Unloading Station	EU0100
EU0040	Clinker Loadout Station #2	EU0450
EU0050	Gypsum Silos	EU0470
EU0060	Clinker/Gypsum Feed Conveyor	EU0470
EU0070	SCK I Finish Mill #1 Feed Belt	EU0480
EU0080	SCK I Finish Mill #1 Weigh Hopper	EU0490
EU0230	SCK I Finish Mill #1 Clinker Grinding	EU0500
EU0240	SCK I Finish Mill #1 Air Separator	EU0510
EU0090	SCK I Finish Mill #2 Feed Belt	EU0520
EU0100	SCK I Finish Mill #2 Weigh Hopper	EU0530
EU0250	SCK I Finish Mill #2 Clinker Grinding	EU0550
EU0260	SCK I Finish Mill #2 Air Separator	EU0560
EU0110	SCK I Finish Mill #2 Fringe Tank	EU0540
EU0120	SCK I Finish Mill #3 Feed Belt	EU0570

Current EU ID #	Emission Unit Description	OP 2000-099 EU #'s
EU0130	SCK I Finish Mill #3 Weigh Hopper	EU0580
EU0270	SCK I Finish Mill #3 Clinker Grinding	EU0590
EU0280	SCK I Finish Mill #3 Air Separator	EU0600
EU0140	Cement Storage Silos	EU0610
EU0145	Cement Storage Silos	NA
EU0150	Pneumatic Pump #1	EU0620
EU0160	Pneumatic Pump #2	EU0630
EU0170	Cement Silo Unloading Truck #1	EU0640
EU0180	Cement Silo Unloading Truck #2	EU0650
EU0190	Barge Loadout Station	EU0660
EU0200	Railroad Loadout Station	EU0670
EU0210	Truck Loadout Station #1	EU0680
EU0220	Truck Loadout Station #2	EU0690
EU1130	Safety-Kleen Parts Washer	EU0730

- 3) This operating permit includes the following new or modified emission units that were added or modified when the new cement manufacturing facility (SCK II) was constructed.

Current EU ID #

- a) EU0020 and EU0030
- b) EU0290 through EU1120.

- 4) Audubon Materials, Inc. DBA Central Plains Cement Company is a wholly owned subsidiary of Eagle Materials Inc of Dallas, Texas. Eagle Materials Inc purchased the Sugar Creek cement plant from Lafarge North America Inc on November 30, 2012. The facility was set up as a subsidiary of Eagle Materials Inc. called Audubon Materials, Inc. Soon after they started DBA Central Plains Cement Company LLC.

Applicable Requirements Included in the Operating Permit but Not in the Application or Previous Operating Permits

In the operating permit application, the installation indicated they were not subject to the following regulation(s). However, in the review of the application, the agency has determined that the installation is subject to the following regulation(s) for the reasons stated.

None

Other Air Regulations Determined Not to Apply to the Operating Permit

The Air Pollution Control Program (APCP) has determined the following requirements to not be applicable to this installation at this time for the reasons stated.

None

Construction Permit Revisions

The following revisions were made to construction permits for this installation:

- 1) Air Pollution Control Program Construction Permit 0184-055A authorized the installation of the SCK I Finish Mill #3 System (EU0120, EU0130, EU0270 and E0280)
 - a) This construction permit listed 40 CFR Part 60 Subpart F, *Standards of Performance for Portland Cement Plants*, as an applicable rule. However, according to §63.1356(a) of 40 CFR Part 63, Subpart LLL, because this source is subject to the provisions Subpart LLL, it is exempt from any otherwise applicable new source performance standard contained in Subpart F.
 - b) This construction permit listed 10 CSR 10-2.030, *Restriction of Emission of Particulate Matter from Industrial Processes*, as an applicable rule. This rule was rescinded on March 30, 2001 and replaced by 10 CSR 10-6.400. 10 CSR 10-6.400 is included in the operating permit.
- 2) Air Pollution Control Program Construction Permit 0790-002 authorized the use of non-hazardous waste water to cool the kiln gases from two rotary kiln cement kilns. These two rotary kilns were replaced under the authorization of Construction Permit 0897-019. Therefore, the requirements of this construction permit are not included in the operating permit.
- 3) Air Pollution Control Program Construction Permit 0891-005, issued 8/13/1991, amended 3/2/1992 and 4/21/1994 authorized the processing of non-hazardous industrial wastes for a portion of the limestone, clay and coal normally used in the rotary kiln cement kilns. The kilns used in this cement manufacturing process were replaced under the authorization of Construction Permit 0897-019. Therefore, the requirements of this construction permit are not included in the operating permit.
- 4) Air Pollution Control Program Construction Permit 1192-0016 authorized the installation of a hopper and weigh feeder to meter clay onto the crusher. These process units have been removed from the facility. Therefore, the requirements of this construction permit are not included in the operating permit.
- 5) Air Pollution Control Program Construction Permit 0596-027 authorized the construction of Deep Limestone Mine (EU1120).
 - a) This construction permit listed Part 60 Subpart F, *Standards of Performance for Portland Cement Plants*, as an applicable rule. However, the EPA applicability determination dated 6/12/1995 (Control Number 9600050) states that Subpart F begins with the raw material storage facility. The raw material storage facility is not located at the deep limestone mine.
 - b) This construction permit listed 10 CSR 10-3.080, *Restriction of Emission of Visible Air Contaminants*, as an applicable rule. This rule was rescinded on May 30, 2000 and replaced by 10 CSR 10-6.220. 10 CSR 10-6.220 has been included in the operating permit.
- 6) Air Pollution Control Program Construction Permit 0897-019
- 7) Air Pollution Control Program Construction Permit 0897-019A
- 8) Air Pollution Control Program Construction Permit 0897-019B
- 9) Air Pollution Control Program Construction Permit 0897-019C
- 10) Air Pollution Control Program Construction Permit 0897-019D
- 11) Air Pollution Control Program Construction Permit 0897-019E
- 12) Air Pollution Control Program Construction Permit 0897-019F
- 13) Air Pollution Control Program Construction Permit 0897-019G
 - a) Construction Permit 0897-019 authorized the installation of the Raw Mill and Preheater/Precalciner Rotary Kiln System (EU0800 through EU0840), Clinker Cooler System

(EU0850 and EU0860) and aggregate operation. The special conditions in Construction Permit 0897-019 and each of its amendments have been superseded by Construction Permit 0897-019G. Therefore, the requirements of Construction Permit 0897-019 and Amendments A through F are not included in the operating permit.

- 14) Air Pollution Control Program Construction Permit 0897-019D
- a) The performance tests and subsequent reporting required by Special Conditions 8, 9, 11, 12, 14, 15, 17, and 18 has been completed and therefore are not included in the operating permit.
 - b) The CEM certification protocols required to be submitted by Special Condition 22 has been submitted by the permittee; therefore, the submittal requirements are not included in the operating permit.
- 15) Air Pollution Control Program Construction Permit 012002-004 authorized the installation of the Clinker Reclaim System (EU0020 and EU0030)
- a) This construction permit listed 40 CFR Part 60, Subpart F *Standards of Performance for Portland Cement Plants* as an applicable rule. According to §63.1356(a) of 40 CFR Part 63, Subpart LLL, because this source is subject to the provisions Subpart LLL, it is exempt from any otherwise applicable new source performance standard contained in Subpart F.
 - b) This construction permit listed 10 CSR 10-6.400, *Restriction of Emission of Particulate Matter from Industrial Processes* as applicable to Clinker Unloading (EU0020). However, according to §(1)(B)7, this rule does not apply to fugitive emission sources.
- 16) Air Pollution Control Program Construction Permit 072004-028 authorized the installation of a chlorine bypass system on the Raw Mill and Preheater/Precalciner Rotary Kiln System (EU0800 through EU0840).
- a) Special Condition 1 required the on-going compliance with the previously established BACT limitations of Construction Permit 0897-019C and any future revisions in another New Source Review permit/amendment or in the installation's Operating Permit. Construction Permit 0897-019C was amended after the chlorine bypass modification in 2006 with the issuance of Construction Permit 0897-019D. The new BACT limitations that are established in Construction Permit 0897-019D are included Permit Condition (EU0800 through EU0840)-002.
 - b) Special Condition 2 required stack testing for Dioxins/Furan from the cement kiln no later than 180 days after the initial start-up of the chlorine bypass system. Since this testing has been completed, the requirements of this special condition are not included in the operating permit.
- 17) Air Pollution Control Program Construction Permit 082004-016 authorized the use of a number of alternate fuels in place of a portion of the coal that was currently being combusted in the Raw Mill and Preheater/Precalciner Rotary Kiln System (EU0800 through EU0840).
- a) Special Condition 1.A of this construction permit was amended by Construction Permit 082004-016A. The amendment increased the quantity of landfill gas allowed to be combusted in the kiln. The amended allowance has been included in Permit Condition (EU0800 through EU0840)-003.
 - b) Special Condition 3 required the on-going compliance with the previously established BACT limitations of Construction Permit 0897-019C and any future revisions in another New Source Review permit/amendment or in the installation's Operating Permit. Construction Permit 0897-019C was amended in 2006 with the issuance of Construction Permit 0897-019D. The new

BACT limitations are established in Construction Permit 0897-019D are included Permit Condition (EU0800 through EU0840)-002.

- 18) Air Pollution Control Program Construction Permit 112004-014 authorized the installation of the Weathered Clinker Reclaim System identified as EP-143. According to Steve Kidwell, this system has been removed. The system is not included in the operating permit
- 19) Air Pollution Control Program Construction Permit 092005-015 authorized the construction of a Cement Blending System (EU0900 through EU0990).
 - a) This construction permit listed 40 CFR Part 60, Subpart F *Standards of Performance for Portland Cement Plants* as an applicable rule. According to §63.1356(a) of 40 CFR Part 63, Subpart LLL, because this source is subject to the provisions Subpart LLL, it is exempt from any otherwise applicable new source performance standard contained in Subpart F.
- 20) Air Pollution Control Program Construction Permit 062006-002 authorized the installation of a Cement Kiln Dust (CKD) Loading System (EU1000 through EU1110). There were no permit revisions made to this construction permit.
- 21) Air Pollution Control Program Construction Permit 112008-011 authorized the construction of a new bottom ash storage pile and an expansion of an existing coal storage pile. There were no permit revisions made to this construction permit.
- 22) Air Pollution Control Program Construction Permit 022009-005 authorized the construction of two (2) screens and associated equipment. There were no permit revisions made to this construction permit.

New Source Performance Standards (NSPS) Applicability

- 1) 40 CFR Part 60, Subpart F *Standards of Performance for Portland Cement Plants*
 - a) According to §63.1356(a) of 40 CFR Part 63, Subpart LLL, sources subject to the provisions of Subpart LLL are exempt from any otherwise applicable new source performance standard contained in Subpart F.
- 2) 40 CFR Part 60, Subpart Y *Standards of Performance for Coal Preparation Plants*
 - a) According to §60.251(h), coal storage systems, which are an affected facility under Subpart Y, do not include open storage piles. In addition, EPA applicability determination dated 2/24/1977 (Control Number Y002) states that unloading operations to open storage piles are exempt from Subpart Y. Therefore, Unloading to Solid Fuel Stockpile (EU0350) and Solid Fuel Stockpile (EU0360) are not subject to this rule.
 - b) Pulverized Solid Fuel Day Bin (EU0520) is not subject to this rule because according to §63.1340(b)(7), each conveying system transfer point including those associated with coal preparation used to convey coal from the mill to the kiln is an affected source under 40 CFR Part 63 Subpart LLL. In addition, according to §63.1356(b), the requirements of Part 60 Subpart Y do not apply to conveying system transfer points used to convey coal from the mill to the kiln that are associated with coal preparation at a portland cement plant.

- 3) 40 CFR Part 60, Subpart Kb *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984* does not apply to the diesel storage tank or the ethanolamine storage tank or totes because the tanks' capacities are each less than 20,000 gallons.
- 4) 40 CFR Part 60, Subpart OOO *Standards of Performance for Nonmetallic Mineral Processing Plants*
 - a) According to §63.1356(a) of 40 CFR Part 63, Subpart LLL, sources subject to the provisions of Subpart LLL are exempt from any otherwise applicable new source performance standard contained in Subpart OOO.
 - b) According to §60.672(d), truck dumping of nonmetallic minerals into any feed hopper is exempt from the requirements of Subpart OOO, §60.672. Therefore there are no opacity limitations for Raw Material Truck Unloading to Dump Hopper (EU0320).
- 5) 40 CFR Part 60, Subpart CCCC *Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for Which Construction is Commenced After November 30, 1999, or for Which Modification or Reconstruction is Commenced After June 1, 2001*
 - a) This unit meets the definition of an existing Commercial and Industrial Solid Waste Incineration (CISWI) unit as described in §60.2015(a) and §60.2265, and is subject to the provisions of this rule per §60.2010(b).
 - b) The compliance date for existing CISWI sources subject to standards in the CISWI rule is five years after the date of publication (February 7, 2018) of the final rule (40 CFR 60 Subpart CCCC) or three years after the state plan is approved (40 CFR 60 Subpart DDDD), whichever happens earlier.

Maximum Achievable Control Technology (MACT) Applicability

- 1) 40 CFR Part 63, Subpart LLL *National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry*
 - a) Raw Materials Truck Unloading to Dump Hopper (EU0320), Raw Materials Roller Mill Crusher (EU0330), Raw Materials Dump Hopper Unloading to Conveyor (EU0340) and LCM Fines Transfer/Emergency Limestone Hopper (EU0345) are not subject to this rule because the first affected source under Subpart LLL in the sequence of materials handling operations is the raw material storage, which is just prior to the raw mill. These units are prior to the raw material storage.
- 2) 40 CFR Part 63, Subpart T *National Emission Standards for Halogenated Solvent Cleaning*
 - a) This rule does not apply to Safety Kleen Parts Washer (EU1130) because this unit uses Safety Kleen Stoddard Petroleum Solvent which is a nonhalogenated solvent.

None of the other MACT standards apply.

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

40 CFR Part 61, Subpart M *National Emission Standard for Asbestos*, applies to the installation because of the renovation and demolition parts of the subpart which makes the subpart applicable to all sources. It is included as a core permit requirement.

Compliance Assurance Monitoring (CAM) Applicability

40 CFR Part 64, *Compliance Assurance Monitoring (CAM)*

Raw Mill and Preheater/Precalciner Rotary Kiln System (EU0800 through EU0840) uses a control device to achieve compliance with a relevant standard and has a pre-control emissions that exceed major source threshold. However, Raw Mill and Preheater/Precalciner Rotary Kiln System (EU0800 through EU0840) is not subject to this rule because the emissions are subject to Section 112 of the Clean Air Act and therefore are exempt from Part 64.

Other Regulatory Determinations

1) 10 CSR 10-6.220 *Restriction of Emission of Visible Air Contaminants*

- a) This rule was not applied to sources that are also subject to 10 CSR 10-6.075, 40 CFR Part 63, Subpart LLL because the requirements of Subpart LLL are more restrictive than the requirements of 10 CSR 10-6.220.
- b) This rule was not applied to sources that are subject to 10 CSR 10-6.070, 40 CFR Part 60, Subpart OOO because according to §(1)(H), emission sources regulated by 40 CFR Part 60 and 10 CSR 10-6.070 are exempt.
- c) This rule was not applied to sources that are subject to 10 CSR 10-6.070, 40 CFR Part 60, Subpart Y because according to §(1)(H), emission sources regulated by 40 CFR Part 60 and 10 CSR 10-6.070 are exempt.

2) 10 CSR 10-6.260 *Restriction of Emission of Sulfur Compounds*

- a) The Raw Mill and Preheater/Precalciner Rotary Kiln (EU0840) is subject to this rule. As shown in the calculations below, the unit is in compliance with this rule when meeting the 477.3 lb/hr SO_x emission limit established by Construction Permit 0897-019G and contained in Permit Condition (EU0800 through EU0840)-002.

$$\text{ppmv} = \frac{\text{SO}_x \text{ emission rate (lbs)}}{\text{(hr)}} \times \frac{(\text{ft}^3)}{\text{air density (lb)}} \times \frac{(\text{min})}{\text{standard air flow rate (ft}^3)} \times \frac{\text{hr}}{60 \text{ min}} \times \frac{\text{MW air}}{\text{MW SO}_2} \times 10^6$$

$$\text{ppmv} = \frac{477.3 \text{ lbs SO}_x}{\text{hr}} \times \frac{\text{ft}^3}{0.0749 \text{ lb air}} \times \frac{\text{min}}{176,667 \text{ ft}^3} \times \frac{\text{hr}}{60 \text{ min}} \times \frac{29.95}{64} \times 10^6 = 281 \ll 500 \text{ ppmv}$$

3) 10 CSR 10-6.400 *Restriction of Emission of Particulate Matter from Industrial Processes*

- a) This rule is applicable to the sources listed in the following tables. As shown in the tables, these sources are in compliance with both the PM Emission Rate and the PM Concentration provided that the required control devices are in operation and working properly.

Allowable PM Emission Rate

Allowable rates were calculated using the following equations:

- i) For process weight rates of 60,000 lb/hr or less:

$$E = 4.10(P)^{0.67}$$

- ii) For process weight rates of greater than 60,000 lb/hr:

$$E = 55.0(P)^{0.11} - 40$$

Where:

E = rate of emission in lb/hr

P = process weight rate in ton/hr

PM Emission Rate

Emission Rate (lb/hr) = P (ton/hr) x PM Emission Factor (lb/ton) x (1-control efficiency/100)

EU #	EQ EP #	Emission Unit Description	Process Weight Rate (ton/hr)	PM Emission Factor (lb/ton)	Overall Control Efficiency (%)	Controlled Emission Rate (lb/hr)	Allowable Emission Rate (lb/hr)
EU0040	29	Clinker Loadout Station #2	42	0.045	99	0.02	42.97
EU0060	33	Clinker/Gypsum Feed Conveyors	20	0.2	99	0.04	30.51
EU0070	34	SCK I Finish Mill #1 Feed Belt	32	0.369	99.35	0.077	40.52
EU0080	34	SCK I Finish Mill #1 Weigh Hopper	32	1.446	99.35	0.30	40.52
EU0230	34	SCK I Finish Mill #1 Clinker Grinding	32	96	99.35	19.97	40.52
EU0240	34	SCK I Finish Mill #1 Air Separator	32	4.308	99.35	0.90	40.52
EU0090	35	SCK I Finish Mill #2 Feed Belt	36	0.369	99.35	0.09	41.57
EU0100	35	SCK I Finish Mill #2 Weigh Hopper	36	1.446	99.35	0.34	41.57
EU0250	35	SCK I Finish Mill #2 Clinker Grinding	36	96	99.35	22.46	41.57
EU0260	35	SCK I Finish Mill #2 Air Separator	36	4.308	99.35	1.01	41.57
EU0110	35A	SCK I Finish Mill #2 Fringe Tank	98	0.72	99.35	0.46	51.07
EU0120	36	SCK I Finish Mill #3 Feed Belt	30	0.369	99.35	0.07	40.04
EU0130	36	SCK I Finish Mill #3 Weigh Hopper	30	1.446	99.35	0.28	40.04
EU0270	36	SCK I Finish Mill #3 Clinker Grinding	30	96	99.35	18.72	40.04
EU0280	37	SCK I Finish Mill #3 Air Separator	30	4.308	99.35	0.84	40.04
EU0140	38	Cement Storage Silos	98	0.72	99	0.71	51.07
EU0150	39	Pneumatic Pump #1	49	0.3	99	0.15	44.39
EU0160	40	Pneumatic Pump #2	49	0.3	99	0.15	44.39
EU0170	41	Cement Silo Unloading Truck #1	49	0.72	99	0.35	44.39
EU0180	42	Cement Silo Unloading Truck #2	49	0.72	99	0.35	44.39
EU0190	43	Barge Loadout Station	49	0.4	99	0.20	44.39
EU0200	44	Railroad Loadout Station	49	0.4	99	0.20	44.39
EU0210	45	Truck Loadout Station #1	49	0.4	99	0.20	44.39
EU0220	47	Truck Loadout Station #2	49	0.4	99	0.20	44.39
EU0590	82	Clinker Truck Loadout	198.42	0.045	99	0.09	58.42
EU0600	83	Hot Clinker Truck Loadout	198.42	0.045	99	0.09	58.42
EU0610	84	Clinker/Gypsum Reclaim Hopper	198.42	0.2	99	0.40	58.42
EU0640	88	SCK II Finish Mill Elevator	80	0.72	99.35	0.58	49.06
EU0900	144-1	Cement Blending System Cement Bin	265	0.72	99	1.91	61.61
EU0910	146-1	Cement Blending System Slag Bin	66	0.72	99.35	0.48	47.20
EU0920	144-2	Cement Bin Unloading	265	0.005	99	0.01	61.61
EU0940	147-3	Transfer to Blender	331	0.045	99	0.15	64.12
EU0950	148-1	Blending System Loadout #1	331	0.045	99	0.15	64.12
EU0960	148-2	Blending System Loadout #2	331	0.045	99	0.15	64.12
EU1050	153	CKD Transfer to Storage Silo #1	25	0.72	99	0.18	35.43
EU1060	154-1	CKD Transfer to Loadout Spout #2	25	0.045	99	0.01	35.43
EU1070	154-2	CKD Loadout to Truck #2	25	0.4	99	0.10	35.43
EU1080	157	CKD Transfer to Storage Silo #2	25	0.72	99	0.18	35.43

PM Concentration

Emission rate (gr/dscf) = Emission Rate (lb/hr) x (7000 grains/lb)/Stack Flow Rate (SCFM)/(60 min/hr)
 Flow rates converted from actual to standard conditions using the ideal gas law.

EU #	EIQ EP #	Controlled Emission Rate (lb/hr)	Stack Temp (°F)	Stack Flow		Controlled Emission Rate (gr/scf)	Allowable Emission Rate (gr/scf)
				ACFM	SCFM		
EU0030	27B	15.18	120	11,000	10,052	0.176	0.3
EU0040	29	0.02	120	1,500	1,371	0.002	0.3
EU0050	32	0.04	70	50	50	0.093	0.3
EU0060	33	0.04	120	1,500	1,371	0.003	0.3
EU0070	34	21.24	180	20,000	16,844	0.147	0.3
EU0080	34						
EU0230	34						
EU0240	34						
EU0090	35	23.90	180	20,000	16,563	0.168	0.3
EU0100	35						
EU0250	35						
EU0260	35						
EU0110	35A	0.46	180	3000	2,484	0.022	0.3
EU0120	36	19.07	180	12,000	9,938	0.224	0.3
EU0130	36						
EU0270	36						
EU0280	37	0.84	180	21,000	17,391	0.006	0.3
EU0140	38	0.71	120	10,000	9,138	0.009	0.3
EU0145	38B	0.71	120	10,000	9,138	0.009	0.3
EU0150	39	0.15	120	1,500	1,371	0.013	0.3
EU0160	40	0.15	120	1,500	1,371	0.013	0.3
EU0170	41	0.35	120	5,000	4,569	0.009	0.3
EU0180	42	0.35	120	5,000	4,569	0.009	0.3
EU0190	43	0.20	120	4,000	3,655	0.006	0.3
EU0200	44	0.20	120	4,000	3,655	0.006	0.3
EU0210	45	0.20	120	3,300	3,016	0.008	0.3
EU0220	47	0.20	120	3,300	3,016	0.008	0.3
EU0580	81	0.60	68	3,302	3,315	0.021	0.3
EU0590	82	0.09	365	6,000	3,855	0.003	0.3
EU0600	83	0.09	365	2,000	1,285	0.008	0.3
EU0610	84	0.40	68	30,000	30,114	0.002	0.3
EU0640	88	0.58	185	9,700	7,971	0.008	0.3
EU0900	144-1	1.91	220	2,750	2,143	0.104	0.3
EU0910	146-1	0.48	140	1,200	1,060	0.052	0.3
EU0920	144-2	0.02	140	1,200	1,060	0.002	0.3

EU #	EIQ EP #	Controlled Emission Rate (lb/hr)	Stack Temp (°F)	Stack Flow		Controlled Emission Rate (gr/scf)	Allowable Emission Rate (gr/scf)
				ACFM	SCFM		
EU0930	146-2						
EU0940	147-3	0.45	200	2,000	1,606	0.032	0.3
EU0950	148-1						
EU0960	148-2						
EU0970	148-3						
EU1050	153	0.72	120	5,000	4,569	0.018	0.3
EU1060	154-1	0.445	120	3,300	3,016	0.017	0.3
EU1070	154-2						
EU1080	157	0.72	NA	NA	NA	NA	0.3

- b) This rule was not applied to fugitive sources because according to §(1)(B)7, fugitive emissions are exempt.
- c) The PM emission limitations established by this rule were not applied to the Raw Mill and Preheater/Precliner Rotary Kiln System (EU0810 through EU0840) because the unit is subject to a BACT limit contained in Permit Condition (EU0810 through EU0840)-002.
- d) The PM emission limitations established by this rule were not applied to the Clinker Cooler System (EU0850 and EU0860) because the PM limitations which are established by 40 CFR Part 63 Subpart LLL and contained in Permit Condition (EU0850 and EU0860)-002 are more stringent.

10 CSR 10-6.400 Allowable PM Emission Rate (E)

For process weight rates of greater than 60,000 lb/hr:
 $E = 55.0(P)^{0.11} - 40 = 55.0(117.42)^{0.11} - 40 = 52.90 \text{ lb/hr}$

Where:

P = process weight rate in ton/hr = 117.42 ton/hr

40 CFR Part 63 Subpart LLL Allowable PM Emission Rate (E)

PM limit = 0.1 lb/ton feed [§63.1343(c)]

$E = 0.1 \text{ lb/ton} \times 117.42 \text{ ton/hr} = 11.74 \text{ lb/hr}$

- e) The PM emission limitations established by this rule were not applied to the SCK II Finish Mill (EU0870 through EU0890) because the BACT emission limitations established by Construction Permit 0897-019G and contained in Permit Condition (EU0870 through EU0890)-001 are more stringent.

10 CSR 10-6.400 Allowable PM Emission Rate (E)

For process weight rates of greater than 60,000 lb/hr:
 $E = 55.0(P)^{0.11} - 40 = 55.0(80)^{0.11} - 40 = 49.06 \text{ lb/hr}$

P = process weight rate in ton/hr = 80 ton/hr

Construction Permit 0897-019G Allowable PM Emission Rate (E)

BACT for PM₁₀ emissions from EU0870 through EU0890 is an emission rate not to exceed 3.46 pounds per hour, 24-hour average. Assuming PM is twice PM₁₀, the emission limit is 6.92 lb/ton.

- f) This rule was not applied to the following sources because the according to §(1)(B)(11), emission units that at a maximum design capacity have a potential to emit less than one-half (0.5) pounds per hour of particulate matter are exempt. The following table demonstrates that these units have the potential to emit less than 0.5 lb/hr.

EU #	EU Description	MHDR (ton/hr)	Emission Factor (lb/ton)	EF Source	PM Emission Rate (lb/hr)
EU0520	Pulverized Solid Fuel Day Bin	11.42	0.02	FIRE: SCC 3-05-010-08	0.23
EU0540	Clinker Unloading to Hot Clinker Storage Bin	5.87	0.045	AP-42 Sec 13.2.4	0.26
EU0550	Hot Clinker Storage Bin Transfer to Pan Conveyor	5.87	0.045	AP-42 Sec 13.2.4	0.26
EU0930	Slag Bin Unloading	66	0.005	FIRE: SCC 3-05-011-08	0.34
EU0970	Blending System Loadout #3	0.30	0.045	AP-42 Sec 13.2.4	0.02
EU1000	CKD Transfer to Collecting Screw	1.1	0.045	AP-42 Sec 13.2.4	0.05
EU1010	CKD Transfer to Small Screw	1.1	0.045	AP-42 Sec 13.2.4	0.05
EU1020	CKD Transfer to Cooling Screw	1.1	0.045	AP-42 Sec 13.2.4	0.05
EU1030	CKD Transfer to Loadout Spout #1	1.1	0.045	AP-42 Sec 13.2.4	0.05
EU1040	CKD Loadout to Truck #1	1.1	0.4	FIRE: ¹ SCC 3-05-006-19	0.44

Notes:

1 - Assumed PM emission factor = twice PM₁₀ emission factor

- g) This rule was not applied to the following sources because the according to §(1)(B)(15), any particulate matter emission unit that is subject to a federally enforceable requirement to install, operate, and maintain a particulate matter control device system that controls at least ninety percent (90%) of particulate matter emissions is exempt:

EU #	EQ EP #	Emission Unit Description	
EU0030	27B	Clinker Conveying	≥99% control required by Construction Permit 012002-004
EU0370	62	Raw Material Transfer to Tripper Belt	≥99% control required by Construction Permit 0897-019G
EU0380	62	Tripper Belt Unloading to Bins	
EU0390	64	Unloading to Limestone Storage Bin	
EU0400	65	Sand Transfer to Tunnel Conveyor	
EU0410	65	Ash Transfer to Tunnel Conveyor	
EU0420	65	Iron Mill Scale Transfer to Tunnel Conveyor	
EU0430	65	Kaolin Clay Transfer to Tunnel Conveyor	
EU0440	65	Limestone Transfer to Tunnel Conveyor #1	
EU0450	65	Limestone Transfer to Tunnel Conveyor #2	

EU #	EQ EP #	Emission Unit Description		
EU0460	66	Tunnel Conveyor To Raw Mill Conveyor		
EU0470	67	Homogenization Silo		
EU0480	68	Raw Mix Storage Bin		
EU0490	69	CKD Transfer to Bucket Elevator		
EU0500	69	CKD Unloading to Silo		
EU0510	70	Kiln Feed Airlift System		
EU0530	79	Clinker Transfer to Clinker Elevator		
EU0560	80	Clinker Elevator Unloading to Clinker Silo		
EU0570	80	Clinker/Gypsum Transfer Conveyor Unloading to Clinker Silo		
EU0580	81	Clinker/Gypsum Reclaim Conveyor to Gypsum Silo		
EU0620	85	Gypsum/Clinker Reclaim Conveyor		
EU0630	86	SCK II Finish Mill Weigh Hoppers		
EU0650	89	Cement Transfer to Headhouse		
EU0660	90	Headhouse Transfer to Distribution Box:		
EU0670	90	Recycle from Silos to Headhouse		
EU0680	90	Cement Unloading to Interstice Cement Silo		
EU0690	91	Cement Silos #1 & #2		
EU0700	92	Cement Silos #3 & #4		
EU0710	93	Cement Truck Distribution Box		
EU0720	94	Cement Pump to Interstice or Blends		
EU0730	95	Cement Recycle to Finish Mill		
EU0740	96	Cement Truck Loadout #1		
EU0750	97	Cement Truck Loadout #2:		
EU0770	72	Solid Fuel Transfer to Solid Fuel Conveyor		≥99% control required by Construction Permit 0897-019G
EU0780	74	Solid Fuel Surge Bin #1		
EU0790	75	Solid Fuel Surge Bin #2		

Greenhouse Gas Emissions

Previous actual emissions reported to U.S. EPA (EPA’s Clean Air Markets website) demonstrate that this installation is a major source for greenhouse gases. Major stationary sources are required by the Clean Air Act (CAA) to obtain Part 70 operating permits. While Part 70 permits generally do not establish new emissions limits, they consolidate applicable requirements, as defined in Missouri State Regulations 10 CSR 10-6.020(2)(A)23, into a comprehensive air permit. At the time of permit issuance, there were no applicable GHG requirements for this source.

Other Regulations Not Cited in the Operating Permit or the Above Statement of Basis

Any regulation which is not specifically listed in either the Operating Permit or in the above Statement of Basis does not appear, based on this review, to be an applicable requirement for this installation for one or more of the following reasons:

1. The specific pollutant regulated by that rule is not emitted by the installation;
2. The installation is not in the source category regulated by that rule;
3. The installation is not in the county or specific area that is regulated under the authority of that rule;
4. The installation does not contain the type of emission unit which is regulated by that rule;
5. The rule is only for administrative purposes.

Should a later determination conclude that the installation is subject to one or more of the regulations cited in this Statement of Basis or other regulations which were not cited, the installation shall determine and demonstrate, to the Air Pollution Control Program's satisfaction, the installation's compliance with that regulation(s). If the installation is not in compliance with a regulation which was not previously cited, the installation shall submit to the Air Pollution Control Program a schedule for achieving compliance for that regulation(s).

Prepared by:

Jason Dickneite
Environmental Engineer

Mr. Rahul Desai
Audubon Materials, Inc. – Sugar Creek Plant
2200 N. Courtney Road
Sugar Creek, MO 64050

Re: Audubon Materials, Inc. – Sugar Creek Plant, 095-0030
Permit Number: **OP2014-005**

Dear Mr. Desai:

Enclosed with this letter is your Part 70 operating permit. Please review this document carefully. Operation of your installation in accordance with the rules and regulations cited in this document is necessary for continued compliance. It is very important that you read and understand the requirements contained in your permit.

You may appeal this permit to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.078.16 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you have any questions or need additional information regarding this permit, please do not hesitate to contact Jason Dickneite at the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by telephone at (573) 751-4817. Thank you for your time and attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Michael J. Stansfield, P.E.
Operating Permit Unit Chief

MJS:jdk

Enclosures

c: Kansas City Regional Office
PAMS File: 2005-10-036

Mr. Steve Kidwell
Audubon Materials Inc Sugar Creek Plant
Regional Environmental Manager
2200 N. Courtney Road
Sugar Creek, MO 64050

RE: Part 70 Operating Permit, Project: 2005-10-036
Response to Comments

Dear Mr. Kidwell

The Missouri Air Pollution Control Program (APCP) has received comments submitted during the public comment period on the draft Part 70 Operating Permit for Audubon Materials LLC - Sugar Creek Plant. The APCP has revised your draft operating permit in response to all comments received. Enclosed is the APCP's response to these comments and a copy of the revised operating permit which is being submitted to the Environmental Protection Agency (EPA) for their review.

The EPA has 45 days from the receipt of this operating permit to notify the Missouri APCP of any objections. If the EPA has no objections, your operating permit will be issued shortly after this period. If the EPA does have objections, additional changes or revisions may be required to the operating permit to respond to the EPA's comments.

If you have any questions or additional comments, please contact Jason Dickneite at the departments' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or by telephone at (573) 751-4817. Thank you for your time and attention.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Jason Dickneite
Environmental Engineer

JD/kjc

Enclosure: Proposed Final Title V Operating Permit
Response to Public Comments

c: Kansas City Regional Office
PAMS File 2005-10-036

MEMORANDUM

DATE: January 9, 2014

TO: 2005-10-036; Audubon Material Inc. – Sugar Creek

FROM: Jason Dicnkneite, Environmental Engineer

SUBJECT: Response to Public Comments

The following comments were received by Bob Cheever of the Environmental Protection Agency on October 28, 2013. The comments are addressed in the order in which they appear within the letter.

- (1) The Sugar Creek cement plant has been identified and operated under several different names during the recent past. The site's current identification according to Dun & Bradstreet is Audubon Materials LLC DBA (doing business as) Central Plains Cement Company. Audubon Materials LLC DBA Central Plains Cement Company is a wholly owned subsidiary of Eagle Materials Inc of Dallas, Texas. Eagle Materials Inc purchased the Sugar Creek cement plant from Lafarge North America Inc in September 2012. According to Eagle Materials 2013 Annual Report, Eagle Materials is the parent company and they operate the Sugar Creek, Missouri plant under the name Central Plains Cement Company.

Therefore, EPA recommends MDNR modify the permit cover sheet to accurately reflect the Sugar Creek cement plant parent company name and address and the installation name and address. Additionally, the continuity of site ownership is critical, during operating permit preparation and review, to insure that all applicable requirements are included from previous construction permit(s) and enforcement action settlements. Therefore EPA recommends that MDNR also include an expanded installation

description, which fully and accurately captures the Sugar Creek cement plant ownership history, in either Section I or the Statement of Basis.

Response: The history has been placed in the Statement of Basis and the cover page has been approved by the facility.

- (2) Permit condition PW001 and PW002 both incorporate maximum achievable control technology regulations from 40 CFR Part 63, Subpart A and Subpart LLL. Both permit conditions include a note which indicates the permit condition is applicable to each affected source subject to the provisions of 40 CFR Part 63, Subpart LLL. EPA recommends MDNR list all the specific emission unit numbers which comprise the “affected source” subject to PW001 and/or PW002.

Response: The note was edited to state” Permit Condition PW002 is applicable to each affected source subject to the provisions of 40 CFR Part 63, Subpart LLL as indicated in the Emission Unit Specific Emission Limitations section.”

- (3) Permit Conditions PW001, PW002 and PW003 indiscriminately refer to the responsible compliance individual as “Audubon Materials LLC,” “owner or operator,” “permittee,” and “you.” The term “permittee” is the customary convention used in operating permits to indicate compliance responsibility. Therefore, EPA recommends MDNR replace the terms “Audubon Materials LLC,” “owner or operator” and “you” with “permittee.”

Response: The APCP agrees with your comment and the draft permit has been modified.

- (4) PW003 includes the best available control technology (BACT) limit for the control of PM₁₀. However, the statements in emission limitation 1) and 2) do not specify the individual responsible for achieving the BACT limit and how the BACT limit is to be achieved. EPA suggests MDNR consider an alternate wording approach for emission limitation 1) and 2) such as:

1) The permittee shall meet the BACT limit for control of PM₁₀ emissions from paved roads through:

a) Periodic Washing

i) Permittee shall periodically sweep, water and wash all of the paved portions of the haul road as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

ii) Permittee shall maintain and/or repair road surfaces as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while plant is operating.

b) High efficiency recirculative air sweeper

i) Permittee shall operate the high efficiency recirculative air sweeper in accordance with manufacturer's specifications to obtain the highest efficiency possible (90 to 95%).

2) Permittee shall meet the BACT limit for PM₁₀ emissions from unpaved roads through the use of an emulsion application at the manufacturer's specified rate.

Response: The APCP agrees with your comment and the draft permit has been modified.

- (5) Permit Conditions EU0010-001, (EU0020 and EU0030)-001, (EU0020 and EU0030)-002, (EU0040 through EU0220)-001, (EU0230 through EU0280)-001, (EU0370 through EU0750)-002, (EU0870 through EU0890)-002, (EU0900 through EU0970)-002, and (EU1000 through EU1070)-002 all have an emission limitation which says “the permittee must not cause to be discharged any gases from these affected sources which exhibit opacity in excess of 10 percent.” Additionally each record keeping and reporting requirement for these permit conditions indicate the requirements are listed in permit condition PW002. However, there is no stated permittee requirement.

Therefore, EPA recommends MDNR consider an alternative wording in these emission limitations such as: “The permittee shall not cause or permit emissions to be discharged with opacity greater than 10 percent (%).” This approach recognizes the affected source as the specified emission units described in each permit condition. Also, EPA recommends MDNR consider rewording the record keeping and reporting requirement to say: “The permittee shall meet the record keeping and reporting requirements specified in permit condition PW002.”

Response: The APCP agrees with your comment and the draft permit has been modified.

- (6) All thirty-three (33) of the permit conditions detailed in Section III (Emission Unit Specific Emission Limitations) indiscriminately refer to the responsible compliance individual as “Audubon Materials LLC—Sugar Creek Facility,” “owner or operator,” ”installation,” “permittee,” and “you.” The term “permittee” is the customary convention used in operating permits to indicate compliance responsibility. Therefore, EPA recommends MDNR replace the terms “Audubon Materials LLC—Sugar Creek Facility,” “owner or operator” ”installation,” and “you” with “permittee.”

Response: The APCP agrees with your comment and the draft permit has been modified.

- (7) The emission limitation in Permit Condition (EU0020 and EU0030)-001 restricts PM₁₀ to less than 15 tons in any consecutive 12-month period. However, the limitation does not incorporate the approved compliance calculation methodology, control efficiency and emission factor specified in Construction Permit #012002-004. Therefore, EPA recommends MDNR add the words “in accordance with calculation methodology, control efficiency and emission factor shown on Attachment A” to the emission limitation.

Additionally, monitoring and record keeping requirement 2 requires the permittee to record pressure drop across a baghouse. Attachment B is a suggested data collection record, however, Attachment B is not referenced in this permit requirement. Therefore, EPA recommends MDNR include a reference to Attachment B in requirement 2 under the monitoring and record keeping portion of this permit condition.

Also, there are several references to “special conditions” in Permit Condition (EU0020 and EU0030)-001. Operating permits do not contain “special conditions” However, all appropriate construction permit special conditions must be included in the operating

permit. Therefore EPA recommends MDNR review the use of “special conditions” and determine applicability of the wording and remove or provide a reference, as applicable.

Response: The APCP agrees with your comment and the draft permit has been modified.

- (8) The emission limitations in Permit Conditions (EU0040 through EU0220)-002 and (EU0230 through EU0280)-002 do not include the compliance individual responsible for maintaining the specified limits. Therefore, EPA recommends MDNR consider modifying emission limitation 1) to say: “the permittee shall limit particular matter emissions for the following sources to less than the appropriate allowable emission rates as shown in the following table;” and modify emission limitation 2 to say: “The permittee shall limit PM in exhaust gases to less than 0.30 grains per standard cubic feet. Also, the monitoring requirements do not specify who is maintaining baghouses; calibrating, maintaining and operating instruments and controls; checking and documenting pressure drop and undertaking corrective action, etc. EPA recommends MDNR consider modifying the wording in the monitoring requirement for this permit condition as follows:

The permittee shall:

- 1) Maintain baghouse pressure drop within normal operating range when emission unit are in operation;
- 2) Calibrate, maintain and operate all instruments and controls according to manufacturer’s specification and recommendations;
- 3) Check and document baghouse pressure drop daily whenever the emission unit is in operation. If pressure drop falls out of the normal range, take corrective action as soon as practicable but within 8 hours to return pressure drop to normal;
- 4) Check and document cleaning sequence of the baghouse every 6 months;
- 5) Inspect bas for leaks and wear every 6 months; and
- 6) Inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods every 6 months.

Additionally, not all of the record keeping requirements as shown include a specific reference to the compliance individual and therefore, EPA recommends MDNR consider the following for inclusion as the record keeping requirements:

The permittee shall:

- 1) Document all pressure drop readings (see attachment B);
- 2) Record all inspections, corrective actions and instrument calibrations (see attachment C);
- 3) Use Attachments B and C or equivalent forms to certify compliance; and
- 4) Maintain all record for five (%) years; keeping at least two (2) years onsite. Records may be kept in either hard-copy form or on computer media.

Response: The APCP agrees with your comment and the draft permit has been modified.

- (9) The emission limitations for Permit Condition EU0310-001 includes the best available control technology (BACT) limit for the control of PM₁₀. However, the statements in emission limitation 1) and 2) do not specify the individual responsible for achieving the BACT limit and how the BACT limit is to be achieved. EPA suggests MDNR consider an alternate wording approach for emission limitation 1) such as:
- 1) The permittee shall meet the BACT limit for control of PM₁₀ emissions from the limestone stockpile (EU0310) identified as EP-60 through the use of partial enclosures or wind guards.
 - 2) Permittee shall limit the cumulative 12-month throughput for the limestone stockpile (EU0310) identified as EP-60 to less than 1,336,900 tons.

Additionally, the monitoring and record keeping requirement for this permit condition does not specify how the permittee is to maintain an accurate monthly record of the limestone stockpile throughput. MDNR's customary practice is to specify the data collection sheet and include as an attachment and EPA recommends that this customary practice be included with this permit condition.

Response: The emission limitations were reworded as suggested, but an attachment was not made for demonstrating compliance with the annual throughput limitation for brevity reasons, and because of the simplicity of the requirement and that the unit has been operating and demonstrating compliance with the limitation since 1997.

- (10) The operational specification in Permit Condition (EU0320 through EU0340)-001 lists the best available control technology (BACT) requirement, however, the specification as written does not require any action on the part of the permittee. Additionally, the permit condition lacks monitoring and record keeping requirements to verify compliance with the BACT limitations which forms the basis for reporting.

EPA recommends MDNR revised the operational specification in Permit Condition (EU0320 through EU0340)-001 to require the permittee to perform necessary activities to achieve BACT and to include appropriate monitoring and record keeping to verify compliance with BACT.

Response: Since there are no guidelines for inspecting the enclosure, monitoring would not be appropriate. The enclosure is either there or is not. The permit condition just requires the use of it.

- (11) The operational specification in Permit Condition (EU0350 through EU0360)-001 lists the best available control technology (BACT) requirement, however, the specification as written does not require any action on the part of the permittee. Additionally, the permit condition lacks monitoring and record keeping requirements to verify compliance with the BACT limitations which forms the basis for reporting.

EPA recommends MDNR revised the operational specification in Permit Condition (EU0350 through EU0360)-001 to require the permittee to perform necessary activities to

achieve BACT and to include appropriate monitoring and record keeping to verify compliance with BACT.

Response: Since there are no guidelines for inspecting the enclosure, monitoring would not be appropriate. The enclosure is either there or is not. The permit condition just requires the use of it.

- (12) The operational specification in Permit Condition (EU0370 through EU0750)-001 lists the best available control technology (BACT) requirement, however, the specification as written does not require any action on the part of the permittee. Additionally, the monitoring requirements and record keeping requirements 2), 3), 4), and 5) in this permit condition lack are not worded such as to cause the permittee to perform any action to verify compliance with the BACT limitations which forms the basis for reporting.

EPA recommends MDNR revised the operational specification in Permit Condition (EU0370 through EU0750)-001 to require the permittee to perform necessary activities to achieve BACT and to include appropriate monitoring and record keeping wording which will require the permittee to verify compliance with BACT.

Response: The APCP agrees with your comment and the draft permit has been modified.

- (13) The operational specification in Permit Condition (EU0770 through EU0790)-002 lists the best available control technology (BACT) requirement, however, the specification as written does not require any action on the part of the permittee. Additionally, the monitoring requirements and record keeping requirements 2), 3), 4), and 5) in this permit condition lack are not worded such as to cause the permittee to perform any action to verify compliance with the BACT limitations which forms the basis for reporting.

EPA recommends MDNR revised the operational specification in Permit Condition (EU0770 through EU0790)-002 to require the permittee to perform necessary activities to achieve BACT and to include appropriate monitoring and record keeping wording which will require the permittee to verify compliance with BACT.

Response: The APCP agrees with your comment and the draft permit has been modified.

- (14) The emission limitations and operational specifications in Permit Condition (EU0800 through EU0840)-002 lists the best available control technology (BACT) requirements, however, the limitations and specifications as written does not require any action on the part of the permittee. Additionally, the monitoring requirements and record keeping requirements in this permit condition are not worded such as to cause the permittee to perform any action to verify compliance with the BACT limitations which forms the basis for reporting.

EPA recommends MDNR revised the emission limitations and operational specification in Permit Condition (EU0800 through EU0840)-002 to require the permittee to perform

necessary activities to achieve BACT and to include appropriate monitoring and record keeping wording which will require the permittee to verify compliance with BACT.

Response: The APCP agrees with your comment and the draft permit has been modified.

- (15) Permit Conditions (EU0800 through EU0840)-002 and (EU0800 through EU0840)-003 both contain several requirements as specified in “Special Conditions.” Operating permits do not contain “Special Conditions,” however, applicable special conditions from all construction permits shall be included in the operating permit. It appears MDNR has incorporated the appropriate special conditions, therefore EPA recommends MDNR insert the appropriate “permit condition requirement” in lieu including the specified “Special Condition.”

Response: The APCP agrees with your comment on Permit Condition (EU0800 through EU0840)-002 and the draft permit has been modified.

- (16) The emission limitation in Permit Condition (EU0850 and EU0860)-001 lists the best available control technology (BACT) requirement, however, the specification as written does not require any action on the part of the permittee. Additionally, the permit condition lacks monitoring and record keeping requirements to verify compliance with the BACT limitations which forms the basis for reporting.

EPA recommends MDNR revised the operational specification in Permit Condition (EU0850 and EU0860)-001 to require the permittee to perform necessary activities to achieve BACT and to include appropriate monitoring and record keeping to verify compliance with BACT.

Response: Compliance with the permit condition is demonstrated in Permit Condition (EU0850 and EU0860)-002.

- (17) The record keeping and reporting requirement for Permit Condition (EU0850 and EU0860)-002 indicate the reporting and record keeping requirements are listed in permit condition PW002. However, there is no stated permittee action. Therefore, EPA recommends MDNR consider rewording the record keeping and reporting requirement to say: “The permittee shall meet the record keeping and reporting requirements specified in permit condition PW002.”

Response: The APCP agrees with your comment and the draft permit has been modified.

- (18) The emission limitation in Permit Conditions (EU0870 through EU0890)-001 does not include the compliance individual responsible for maintaining the specified limits. Therefore, EPA recommends MDNR consider modifying emission limitation 1) to say: “the permittee shall limit particular matter emissions less than 10 microns in diameter (PM10) from the finish mill and cement air separation (EU0870 through EU0890), identified as EP87 to less than 3.46 pounds per hour on a 24-hour rolling average.

Also, the monitoring requirements do not specify who is maintaining baghouses; calibrating, maintaining and operating instruments and controls; checking and documenting pressure drop and undertaking corrective action, etc. EPA recommends MDNR consider modifying the wording in the monitoring requirement for this permit condition as follows:

The permittee shall:

- 1) Maintain baghouse pressure drop within normal operating range when emission unit are in operation;
- 2) Calibrate, maintain and operate all instruments and controls according to manufacturer's specification and recommendations;
- 3) Check and document baghouse pressure drop daily whenever the emission unit is in operation. If pressure drop falls out of the normal range, take corrective action as soon as practicable but within 8 hours to return pressure drop to normal;
- 4) Check and document cleaning sequence of the baghouse every 6 months;
- 5) Inspect bas for leaks and wear every 6 months; and
- 6) Inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods every 6 months.

Finally, not all of the record keeping requirements as shown include a specific reference to the compliance individual and therefore, EPA recommends MDNR consider the following for inclusion as the record keeping requirements:

The permittee shall:

- 1) Document all pressure drop readings (see attachment B);
- 2) Record all inspections, corrective actions and instrument calibrations (see attachment C);
- 3) Use Attachments B and C or equivalent forms to certify compliance; and
- 4) Maintain all record for five (5) years; keeping at least two (2) years onsite. Records may be kept in either hard-copy form or on computer media.

Response: The APCP agrees with your comment and the draft permit has been modified.

- (19) The operational specifications in Permit Condition (EU0980 and EU0990)-001 lists the control technology requirement established in Construction Permit #092005-015, however, the specification as written does not require any action on the part of the permittee. Additionally, the permit condition lacks monitoring and record keeping requirements to verify compliance with the operation specifications which form the basis for reporting.

EPA recommends MDNR revised the operational specification in Permit Condition (EU0980 and EU0990)-001 to require the permittee to perform necessary activities to achieve the operational specification and to include appropriate monitoring and record keeping to verify compliance.

Response: The APCP agrees with your comment and the draft permit has been modified.

- (20) The operational specifications in Permit Condition (EU1090 through EU1100)-001 lists the control technology requirement established in Construction Permit #062006-002, however, the specification as written does not require any action on the part of the permittee. Additionally, the permit condition lacks monitoring and record keeping requirements to verify compliance with the operation specifications which form the basis for reporting.

EPA recommends MDNR revised the operational specification in Permit Condition (EU1090 through EU1100)-001 to require the permittee to perform necessary activities to achieve the operational specification and to include appropriate monitoring and record keeping to verify compliance.

Response: The APCP agrees with your comment and the draft permit has been modified.

- (21) The operational specifications in Permit Condition EU1120-001 lists the control technology requirement established in Construction Permit #0897-019G, however, the specification as written does not require any action on the part of the permittee. Additionally, the permit condition lacks monitoring and record keeping requirements to verify compliance with the operation specifications which form the basis for reporting.

EPA recommends MDNR revised the operational specification in Permit Condition EU1120-001 to require the permittee to perform necessary activities to achieve the operational specification and to include appropriate monitoring and record keeping to verify compliance.

Response: Compliance can be demonstrated by inspection. Periodic monitoring is not appropriate since the requirement only involves the location of the quarry.

- (22) The draft operating permit contains several acronyms, some of which are defined elsewhere in the draft permit and some which are not defined in the permit. EPA suggests that MDNR consider including a list of common acronyms as either an attachment to the permit or as a section in either the permit or the statement of basis.

Response: The APCP agrees with your comment. An attachment with abbreviations and acronyms has been added to the permit.

JD/kjc