



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: OP2016-004
Expiration Date: JUL 18 2021
Installation ID: 099-0002
Project Number: 2010-01-035

Installation Name and Address

River Cement Company DBA Buzzi
Unicem USA - Festus Plant
1000 River Cement Road
P.O. Box 1003
Festus, MO 63028
Jefferson County

Parent Company's Name and Address

RC Lonestar
100 Broadhead Road
Bethlehem PA, 18017

Installation Description:

The River Cement Festus Plant is a Portland cement manufacturing installation located in Jefferson County. The installation is located in an ozone non-attainment area. The installation is a major source of particulate matter, sulfur oxides, nitrogen oxides, volatile organic compounds, carbon monoxide, hazardous air pollutants and Greenhouse Gases (CO₂e). The River Cement Festus Plant's operations include quarrying and crushing of raw materials, raw material handling and storage, raw material grinding, kiln pyroprocessing, cement kiln dust handling, raw fuel grinding and handling, clinker cooling, clinker handling, and storage, finish mill system, and cement storage loadout.

for Michael Stouffer
Prepared by
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Kyra L Moore
Director or Designee
Department of Natural Resources
JUL 18 2016
Effective Date

Table of Contents

I. INSTALLATION EQUIPMENT LISTING	8
EMISSION UNITS WITH LIMITATIONS.....	8
EMISSION UNITS WITHOUT LIMITATIONS	13
II. PLANT WIDE EMISSION LIMITATIONS.....	14
Permit Condition PW001	14
10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants	14
Permit Condition PW002.....	15
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	15
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry	15
– Operations and Maintenance Plan - §63.1347.....	15
40 CFR Part 63, Subpart A, General Provisions – Operation and Maintenance Requirements - §63.6(e)(1) and (2).....	15
Permit Condition PW003.....	16
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	16
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry	16
– Compliance Requirements: Continuous Monitoring General Requirements - §63.1348(b)(1).....	16
Permit Condition PW004.....	17
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	17
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry	17
– Performance Testing Requirements - §63.1349	17
Permit Condition PW005.....	18
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	18
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry	18
– Alternate Monitoring Requirements Approval - §63.1350(o); and.....	18
– Development and Submittal (upon request) of Monitoring Plans - §63.1350(p).....	18
Permit Condition PW006.....	20
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	20
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry	20
– Notification Requirements - §63.1353;.....	20
– Reporting Requirements - §63.1354; and.....	20
– Record keeping Requirements - §63.1355	20
Permit Condition PW007.....	23
10 CSR 10-6.060 Construction Permits Required.....	23
Construction Permit No. 122005-005 & 122005-005A	23
III. EMISSION UNIT SPECIFIC EMISSION LIMITATIONS	24
EU1-Q-10 — PRIMARY CRUSHER.....	24
Permit Condition EU1-Q-10-001	24
10 CSR 10-6.060 Construction Permits Required — Construction Permit 052012-012	24
EU1-Q-15 AND EU1-Q-16 — ADDITIVES CRUSHER AND CONVEYORS	25
Permit Condition EU1-Q-15-001 and EU1-Q-16-001	25
10 CSR 10-6.060 Construction Permits Required.....	25

Construction Permit No. 122005-005A.....	25
Permit Condition EU1-Q-15-002 and EU1-Q-16-002	26
10 CSR 10-6.070 New Source Performance Regulations	26
40 CFR Part 60 Subpart OOO Standards of Performance for Nonmetallic Minerals Processing Plants ...	26
EU1-Q-17 AND EU1-Q-18 — ADDITIVES HOPPER AND CONVEYOR BELT	27
Permit Condition EU1-Q-17-001 and EU1-Q-18-001	27
10 CSR 10-6.070 New Source Performance Regulations	27
40 CFR Part 60 Subpart OOO Standards of Performance for Nonmetallic Minerals Processing Plants ...	27
EU2-R-01, EU2-R-02, 2-R-03A, 2-R-03B AND 2-R-03C — RAW MATERIAL AND CLINKER HANDLING (TRANSFER POINTS, CONVEYOR BELTS, CRUSHERS AND SCREENS)	29
Permit Condition EU2-R-01-001, EU2-R-02-001, 2-R-03A-001, 2-R-03B-001 and 2-R-03C-001	29
10 CSR 10-6.060 Construction Permits Required — Construction Permit 052012-012	29
EU2-R-04 – RAW MATERIAL HANDLING (SCREEN AND CONVEYOR BELT)	30
Permit Condition 2-R-04-001	30
10 CSR 10-6.400 Restriction of Emission of Particulate Matter from Industrial Processes	30
EU2-R-13 – RAW MATERIAL HANDLING (DISCHARGE FROM BELTS 202040/202240 TO BELT 220010).....	31
Permit Condition EU2-R-13-001	31
10 CSR 10-6.070 New Source Performance Regulations	31
40 CFR Part 60 Subpart OOO Standards of Performance for Nonmetallic Minerals Processing Plants ...	31
EU2-R-14, EU2-R-15, EU2-R-16, EU2-R-17, EU2-R-18 AND EU2-R-20 —RAW MATERIAL HANDLING (CONVEYOR BELTS, RAW MILL FEED BINS AND STORAGE DOME).....	32
Permit Condition EU2-R-14-001, EU2-R-15-001, EU2-R-16-001, EU2-R-17-001, EU2-R-18-001 and EU2-R-20-001.....	32
10 CSR 10-6.060 Construction Permits Required Construction Permit No. 122005-005A.....	32
Permit Condition EU2-R-14 -002, EU2-R-15-002, EU2-R-16-002, EU2-R-17-002 and EU2-R-20-002.....	33
10 CSR 10-6.070 New Source Performance Regulations	33
40 CFR Part 60 Subpart OOO Standards of Performance for Nonmetallic Minerals Processing Plants ...	33
Permit Condition EU2-R-18-002	34
10 CSR 10-6.070 New Source Performance Regulations	34
40 CFR Part 60 Subpart OOO Standards of Performance for Nonmetallic Minerals Processing Plants ...	34
Permit Condition EU2-R-18-003	35
10 CSR 10-6.060 Construction Permits Required Construction Permit No. 122005-005A.....	35
Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005.....	35
EU02-R19, EU2 R-21, EU2-R-22, EU2-R-23, EU2-R-24 AND EU2-R-25 — RAW MILL WEIGH HOPPERS	36
Permit Condition EU2-R-19-001, EU2-R-21-001, EU2-R-22-001, EU2-R-23-001, EU2-R-24-001and EU2- R-25-001	36
10 CSR 10-6.060 Construction Permits Required Construction Permit No. 122005-005A.....	36
Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005.....	36
Permit Condition EU2-R-19-002, EU2-R-21-002, EU2-R-22-002, EU2-R-23-002, EU2-R-24-002 and EU2-R-25-002.....	37
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	37
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Opacity §63.1345.....	37
EU3-G-10, EU3-G-11 AND EU3-G-11A — RAW MILL BLENDING AND STORAGE SILOS	39
Permit Condition EU3-G-11-001 and EU3-G-11A-001	39
10 CSR 10-6.060 Construction Permits Required — Construction Permit No. 012010-010	39
Permit Condition EU3-G-10-001, EU3-G-11-002 and EU3-G-11A-002	41
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	41
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Opacity §63.1345.....	41
EU3-G-12, EU3-G-15, EU3-G-17, EU3-G-18, EU3-G-19 AND EU3-G-20 - RAW MILL FEED BELTS.....	42

Permit Condition EU3-G-12-001, EU3-G-15-001, EU3-G-17-001, EU3-G-18-001, EU3-G-19-001 and EU3-G-20-001	42
10 CSR 10-6.060 Construction Permits Required Construction Permit No. 122005-005A.....	42
Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005.....	42
Permit Condition EU3-G-12-002, EU3-G-15-002, EU3-G-17-002, EU3-G-18-002, EU3-G-19-002 and EU3-G-20-002	43
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	43
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Opacity §63.1345.....	43
EU4-K-09 — PREHEATER/PRECALCINER KILN	45
Permit Condition EU4-K-09-001	45
10 CSR 10-6.060 Construction Permits Required Construction Permit No. 122005-005A.....	45
Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005.....	45
Permit Condition EU4-K-09-002	47
10 CSR 10-6.060 Construction Permits Required Construction Permit No. 122005-005A.....	47
Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005.....	47
Permit Condition EU4-K-09-003	48
10 CSR 10-6.060 Construction Permits Required Construction Permit No. 122005-005A.....	48
Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005.....	48
Permit Condition EU4-K-09-004	48
10 CSR 10-6.060 Construction Permits Required — Construction Permit No. 022010-005	48
Use of Alternate Fuel for the Cement Kiln	48
Permit Condition EU4-K-09-005	49
10 CSR 10-6.060 Construction Permits Required — Construction Permit No. 032013-003 and Amendment Permit No. 032013-003A (Amendment to Permit No. 032013-003) - Use of Alternate Fuel for the Cement Kiln	49
Permit Condition EU4-K-09-006.....	52
10 CSR 10-6.380 Control of NO _x Emissions From Portland Cement Kilns	52
Permit Condition EU4-K-09-007.....	54
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	54
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry	54
Permit Condition EU4-K-09-008.....	68
10 CSR 10-6.070 New Source Performance Regulations	68
40 CFR Part 60, Subpart F — Standards of Performance for Portland Cement Plants.....	68
EU4-K-10 — DISCHARGE FROM CLINKER COOLER TO CONVEYOR.....	73
Permit Condition EU4-K-10-001	73
10 CSR 10-6.060 Construction Permits Required Construction Permit No. 122005-005A.....	73
Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005.....	73
Permit Condition EU4-K-10-002.....	74
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	74
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Opacity §63.1345.....	74
EU4-K-11 AND EU4-K-13 — PAVED HAUL ROADS.....	75
Permit Condition EU4-K-11-001 and EU4-K-13-001	75
10 CSR 10-6.060 Construction Permits Required.....	75
Construction Permit No. 122005-005 & 122005-005A	75
EU5-L-03 AND EU5-L-05 THROUGH EU5-L-09 — CLINKER HANDLING & STORAGE.....	76
Permit Condition EU5-L-03-001, EU5-L-05-001, EU5-L-06-001, EU5-L-07-001 and EU5-L-09-001	76
10 CSR 10-6.400 Restriction of Emission of Particulate Matter from Industrial Processes	76
Permit Condition EU5-L-08-001	76
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	76

40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Open Clinker Storage Pile §63.1345(c).....	76
Permit Condition EU5-L-03-002, EU5-L-05-002, EU5-L-06-002, EU5-L-07-002 and EU5-L-09-002.....	77
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	77
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Opacity §63.1345.....	77
EU5-L-11 — CLINKER OFF SPEC BIN CONVEYING	78
Permit Condition EU5-L-11-001	78
10 CSR 10-6.060 Construction Permits Required Construction Permit No. 122005-005A.....	78
Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005.....	78
Permit Condition EU5-L-11 - 002	79
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	79
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Opacity §63.1345.....	79
EU5-L-12 AND 5-L-13 — CLINKER TRANSFER	81
Permit Condition EU5-L-12-001 and EU5-L-13-001	81
10 CSR 10-6.400 Restriction of Emission of Particulate Matter from Industrial Processes	81
Permit Condition EU5-L-12-002 and EU5-L-13-002.....	81
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	81
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Opacity §63.1345.....	81
EU5-L-14, EU5-L-15, EU5-L-16 AND EU5-L-19 — CLINKER TRANSFER.....	83
Permit Condition EU5-L-14-001, EU5-L-15-001, EU5-L-16-001 and EU5-L-19-001	83
10 CSR 10-6.060 Construction Permits Required Construction Permit No. 122005-005A.....	83
Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005.....	83
Permit Condition EU5-L-14-002, EU5-L-15-002, EU5-L-16-002 and EU5-L-19-002	84
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	84
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Opacity §63.1345.....	84
EU5-L-20 THROUGH EU5-L-29 — CLINKER TRANSFER AND HANDLING EQUIPMENT.....	86
Permit Condition EU5-L-20-001 through EU5-L-29-001	86
10 CSR 10-6.060 Construction Permits Required — Construction Permit No. 052012-012	86
Permit Condition EU5-L-20-002 through EU5-L-29-002	87
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	87
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Opacity §63.1345.....	87
EU5-L-30 — CLINKER LOADING FROM STORAGE PILE.....	88
Permit Condition EU5-L-30-001	88
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	88
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Opacity §63.1345.....	88
EU5-L-31A — HAUL ROAD: CLINKER STORAGE PILE TO PRIMARY CRUSHER (UNPAVED).....	89
Permit Condition EU5-L-31A-001	89
10 CSR 10-6.060 Construction Permits Required — Construction Permit No. 052012-012	89
EU6-F-01 THROUGH EU6-F-08, EU6-F-13 THROUGH EU6-F-18 AND EU6-F-20 FINISH MILLS AND ASSOCIATED TRANSFER POINTS	90
Permit Condition EU6-F-01-001 through EU6-F-04-001.....	90
10 CSR 10-6.400 Restriction of Emission of Particulate Matter from Industrial Processes	90
Permit Condition EU6-F-06-001 through 6-F-08, EU6-F-13-001 through EU6-F-18-001, and EU6-F-20-001.....	91
10 CSR 10-6.060 Construction Permits Required Construction Permit No. 122005-005A.....	91
Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005.....	91

Permit Condition EU6-F-01-002 through EU6-F-08-002, Permit Condition EU6-F-13-002 through EU6-F-16-002, Permit Condition EU6-F-17-002, EU6-F-18-002, EU6-F-20-002, Permit Condition 6-F-21-001..92	
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	92
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Opacity §63.1343 & §63.1345	92
Permit Condition EU6-F-04B-003.....	93
10 CSR 10-6.060 Construction Permits Required Construction Permit No. 122005-005A.....	93
Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005.....	93
EU6-F-19 – FINISH MILLS #3 FURNACE.....	94
Permit Condition EU6-F-19-001	94
10 CSR 10-6.060 Construction Permits Required Construction Permit No. 122005-005A.....	94
Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005.....	94
EU7-C-01 THROUGH EU7-C-10 AND EU7-C-12 THROUGH 7-C-16 CEMENT DISTRIBUTION OPERATION	95
Permit Condition EU7-C-01-001 through EU7-C-10-001 and Permit Condition EU7-C-12-001 through EU7-C-16-001.....	96
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	96
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Opacity §63.1345.....	96
Permit Condition EU7-C-01-002 through EU7-C-04-002, Permit Condition EU7-C-06-002 and Permit Condition EU7-C-12-002 through EU7-C-16-002	97
10 CSR 10-6.060 Construction Permits Required Construction Permit No. 122005-005A.....	97
Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005.....	97
Permit Condition 7-C-05-002, 7-C-07-002, and EU7-C-08-002 through EU7-C-10-002.....	98
10 CSR 10-6.400 Restriction of Emission of Particulate Matter from Industrial Processes	98
EU8-B-01, EU8-B-06A, EU8-B-10, EU8-B-11, EU8-B-12, EU8-B-12A, AND EU8-B-12B COKE/COAL AND ALTERNATE FUEL HANDLING OPERATION	98
Permit Condition EU8-B-01-001, EU8-B-06A-001 and Permit Condition EU8B-10-001, EU through EU8-B-12-001	99
10 CSR 10-6.070 New Source Performance Regulations	99
40 CFR Part 60 Subpart Y Standards of Performance for Coal Preparation Plants	99
Permit Condition EU8-B-12-002	100
10 CSR 10-6.400 Restriction of Emission of Particulate Matter from Industrial Processes	100
EU9-M-01 THROUGH EU9-M-03 AND EU9-M-16 THROUGH EU9-M-21 GYPSUM HANDLING.....	100
Permit Condition EU9-M-01-001 through EU9-M-03-001 and Permit Condition EU9-M-16-001 through EU9-M-21-001	100
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations	100
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Opacity §63.1343 & §63.1345	100
EU9-M-11 - DEGREASERS.....	102
Permit Condition E9-M-11-001	102
10 CSR 10-5.300 Control of Emissions from Solvent Cleaning.....	102
EU9-M-22 – EMERGENCY GENERATOR.....	104
Permit Condition EU9-M-22-001	104
10 CSR 10-6.070 New Source Performance Regulations	104
40 CFR Part 60, Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.....	104

IV. CORE PERMIT REQUIREMENTS	107
V. GENERAL PERMIT REQUIREMENTS	114
VI. ATTACHMENTS	119
ATTACHMENT A	120
Visible Emission Observations.....	120
ATTACHMENT B	121
Method 9 Opacity Emissions Observations	121
ATTACHMENT C	122
Solvent Containing Waste Transfer Log	122
ATTACHMENT D	123
Inspection/Maintenance/Repair/Malfunction Log.....	123
ATTACHMENT E	124
Purchase Records for Cold Cleaning Solvent	124
ATTACHMENT F.....	125
Employee Solvent Metal Cleaning Training Log.....	125
ATTACHMENT G	126
Inspection/Maintenance/Repair/Malfunction Log.....	126

I. Installation Equipment Listing

EMISSION UNITS WITH LIMITATIONS

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

Emission Unit #	Description of Emission Unit	Make/Model	Year Installed or Modified
Quarry Operations and Clinker Crushing Equipment			
1-Q-10	Primary Crusher Limestone	Traylor/TC	1964
1-Q-15	Additives Crusher and Conveyor	Bedeschi Model RL-850/2000 Serial #2000	2009
1-Q-16	Additives Conveying to Raw Mill Feed Bins	Custom Built	2009
1-Q-17	Additives Hopper	Bedeschi Model RL-850/2000 Serial #2000	2009
1-Q-18	Belt 205080 - Discharge to Clay Storage Dome	Custom Built	2009
Raw Material Handling and Storage			
2-R-01	TP: Primary Crusher Surge Bin Discharge – Belt 201040.05	Custom Built	1964
2-R-02	Belts 201040.05 & 202070 Discharge in Surge Bin; 202070 to 202090	Custom Built	1964
2-R-03A	Surge Bin Feeder	Syntron/F-66B	1964
2-R-03A	Vibrating Screen	Nico/FD4465	1973
2-R-03B	Secondary Crusher (202030.01)	Pennsylvania Crusher Model CD-19-50	1963
2-R-03B	Secondary Crusher (202230.01)	Pennsylvania Crusher Model CA-19-50	1973
2-R-03C	Secondary Crusher Discharge to Belt 202040	Pennsylvania Crusher Model CD-19-50	1963
2-R-03C	Secondary Crusher Discharge to Belt 202240	Pennsylvania Crusher Model CA-19-50	1973
2-R-04	Screen 202270	Hewitt-Robbins M-16	1963
2-R-04	Conveyor Belt 202070	Hewitt-Robbins M-16	1963
2-R-13	Discharge from Belt 202040 to Belt 220010	Custom Built	1995
2-R-13	Discharge from Belt 202240 to Belt 220010	Custom Built	2009
2-R-14	Belt 220070 - Raw Material Transfer to Storage Dome	Custom Built	2009

Emission Unit #	Description of Emission Unit	Make/Model	Year Installed or Modified
2-R-15	Belts 205060/205070 – Conveying to and Discharge into Raw Mill Feed Bins	Custom Built	2009
2-R-16	Raw Mill Feed Bins	Custom Built	2009
2-R-17	Raw Mill Feed Bins	Custom Built	2009
2-R-18	Enclosed Limestone Storage Dome	Custom Built	2009
2-R-19	Weigh Feeder #1 from Limestone Stock Pile	Bedeschi	2009
2-R-20	Weigh Feeder #2 – Transfer from Belt 205070 to Belt 205080	Bedeschi	2009
2-R-21	Mill Feed Bins Weigh Feeder #1 Discharge to Mill Feed Belt 233030	Emmebi Impianti SRL/50-07003	2009
2-R-22	Mill Feed Bins Weigh Feeder #2 Discharge to Mill Feed Belt 233030	Emmebi Impianti SRL/50-07004	2009
2-R-23	Mill Feed Bins Weigh Feeder #3 Discharge to Mill Feed Belt 233030	Emmebi Impianti SRL/50-07003	2009
2-R-24	Mill Feed Bins Weigh Feeder #4 Discharge to Mill Feed Belt 233030	Emmebi Impianti SRL/50-07004	2009
2-R-25	Mill Feed Bins Weigh Feeder #5 Discharge to Mill Feed Belt 233030	Emmebi Impianti SRL/50-07002	2009
3-G-10	Raw Meal Blending and Storage Silo #1	Custom Built	1965
3-G-10	Raw Meal Blending and Storage Silo #2	Custom Built	1965
3-G-10	Raw Meal Blending and Storage Silo #3	Custom Built	1965
3-G-10	Raw Meal Blending and Storage Silo #4	Custom Built	1965
3-G-11	Raw Material Storage Silos (2) – Dry Fly Ash	Custom Built	1998/2006/ 2009
3-G-11A	Dry Fly Ash Storage Silos Conveying	Custom Built	1998/2006/ 2009
3-G-12	Discharge from Mill Feed Belt 233030 to Inline Raw Mill	Custom Built	2009
3-G-13	Inline Raw Mill	Loesche/LM60.6	2009
3-G-15	Raw Mill Cyclones Conveying	Custom Built	2009
3-G-17	Conveying to Blending Silos	Custom Built	1965/2009
3-G-18	Kiln Feed Elevator Transfer to Conveyor and Discharge into Kiln Feed Bin	Custom Built	2009
3-G-19	Kiln Feed Bin Discharge to Preheater Elevator	Custom Built	2009
3-G-20	Preheater Elevator Discharge to Preheater	Custom Built	2009
Preheater - Precalciner Kiln – Clinker Cooler			
4-K-09	Preheater/Precalciner Kiln – Clinker Cooler System	KHD/IKN	2009
4-K-10	Discharge from Clinker Cooler to Conveyor – Clinker Transfer	KHD	2009
4-K-11	Haul Road (Paved): Calcium Hydroxide; Entrance to Bin		
4-K-13	Haul Road (Paved): Ammonia Hydroxide; Entrance to Tank		

Emission Unit #	Description of Emission Unit	Make/Model	Year Installed or Modified
Klinker Handling and Storage			
5-L-03	Clinker Transfer from Belt 330311 to Elevators 330470/330480	Custom Built	1964
5-L-05	Clinker Elevators (330470/330480) – Clinker Transfer	Rex Chain Belt, Inc. MK100/200	1964
5-L-06	Three (3) Clinker Drag Conveyors – Discharge into Existing Silos #8 through #12	Jeffrey MFG. Co. SF6 Unit	1964
5-L-07	TP: 330420 to CLK Crusher 330430 or to Elevator 330440 & Elevator Discharge to Belt 330320 – Clinker Transfer	Rex Chain Belt, Inc. MK200	1964/2009
5-L-08	Clinker Stockpile		
5-L-09	Two (2) Clinker Reclaim Feeders Discharge to Belt 330420 – Clinker Transfer	Syntron/F-66-B	1964
5-L-11	Clinker off Spec Bin Conveying	KHD	2009
5-L-12	Clinker Diverters Discharge to New Clinker Conveyors	KHD	2009
5-L-13	Clinker Discharge to Belts 330311/330320	KHD	2009
5-L-14	Clinker transfer to Belt 330070	KHD	2009
5-L-15	Belt 330070 to Belt Conv. & Trip (330090/330200)	Custom Built	1964
5-L-16	Tripper Discharge into Converted Clinker Silos	Custom Built	1964
5-L-19	Off spec Clinker Bin Discharge	KHD	2009
5-L-20	Transfer onto Pan Conveyor 330377		
5-L-21	Transfer onto Pivoting Pan Conveyor 0330387		
5-L-22	Transfer from 330409 to 330429 or 330433		
5-L-23	Transfer from 330433 to Elevator 330439		
5-L-24	Belt Conveyor 330040 Discharge		
5-L-25	Transfer from Elevator 330439 to 330448		
5-L-26	Transfer onto Pan Conveyor 330448		
5-L-27	Transfer from 330448 to 330456		
5-L-28	Silo 2 and 3 Vents		
5-L-29	Silo 8 and 9 Vents		
5-L-30	Clinker Loading from Storage Pile		
5-L-31A	Haul road: Clinker Storage Pile to Primary Crusher (Unpaved)		
Finish Mills			
6-F-01	TP: Clinker & Gypsum Feeders to Belts 501010, 501065, 502045 (5 TP)	Merrick/Continental Equipment & Conveyor Co. WLSV	1963/1973
6-F-02	Finish Mill #1 (501075.05)	F.L. Smidth	1965
6-F-02	Finish Mill #2 (502055.01)	F.L. Smidth	1969

Emission Unit #	Description of Emission Unit	Make/Model	Year Installed or Modified
6-F-03	Finish Mill #2 Elevator (502085)	Rex Chain Belt, Inc. MK100	1964/1968
6-F-04A	Finish Mill #1 Elevator (501125)	Rex Chain Belt, Inc. MK100	1964
6-F-04B	#1 Finish Mill Air Separators (501150/501165)	Raymond/18 D.W. Mechanical Sep.	1963
6-F-05	#2 Finish Mill Air Separator (502115)	Krupp-Polysius Sepol NSV 230/0	2002
6-F-06	F-K Pumps (Finish Mills)	Fuller Co. FK 250-M-88	1988
6-F-07	Weigh Feeders to Belt 330200	Link Belt/Bedeschi Type B/CNSD 5	1967
6-F-08	Weigh Feeders to Belt 330200	Link Belt/Bedeschi Type B/CNSD 5	1963
6-F-13	Clinker & Gypsum Transfer to Conveyor and Discharge to Feed Elevator	Custom Built	2008
6-F-14	Clinker & Gypsum Transfer from Feed Elevator to Weigh Feeders and then Diverter	Custom Built	2008
6-F-15	Reject Bin Discharge to Conveyor and Conveyor Discharge to Elevator	Custom Built	2008
6-F-16	Finish Mill #3 (Large Vertical Mill)	Loesche LM 53.3 + 3C	2008
6-F-19	Finish Mill #3 Furnace	Hamworthy-Peabody M12/SN UIIGO188	2008
6-F-17	Discharge from Cement Coolers to Cement Silo Elevator	Custom Built	2008
6-F-18	Cement Silo Elevator Discharge to Cement Silos	Custom Built	2008
6-F-20	Air Slides from Bag Filter to Cement Cooler	Custom Built	2008
6-F-21	Dry Powder Additives Tank	Custom Built	2009

Cement Distribution

7-C-01	Cement Storage Silos	Custom Built	1964
7-C-02	Cement Pump Feed Bins (2 Pumps)	Fuller Co./H-2	1964
7-C-03	Barge Loadout Spouts	Custom Built	1965
7-C-04	Filling of Cement Storage Dom	Dome Technology	1992
7-C-05	TP: Cement Storage Dome Loadout: Feeders - Belt 563315	Cambelt	1993
7-C-06	TP: Cement from Belt 563315 to Belt 563315.15	Custom Built	1993/2009
7-C-07	Barge Loadout Surge Bin	Custom Built	1993
7-C-08	Truck Loadout Spout	Midwest International MD-30	1993

Emission Unit #	Description of Emission Unit	Make/Model	Year Installed or Modified
7-C-09	Railcar Loadout Spout	Midwest International/MD-30	1993
7-C-10	Combination Loading Spout	Midwest International MD-30	1993
7-C-12	New Cement Silo	Custom Built	2009
7-C-13	Discharge from New Cement Silo to Cement Elevator and Transfer to Belt 563315.15	Custom Built	2009
7-C-14	North Tower	Custom Built	2009
7-C-15	South Tower	Custom Built	2009
7-C-16	Tube Conveyor Loading	Custom Built	2009
Coal/Coke Handling			
8-B-01	Coal/Coke Barge Unloading		
8-B-06A	TP: Coke/Coal Belts 355030 to 355035 and 355035 to 355040 (2TP)		
8-B-10	North Side Fuel Silo (Coarse)	Custom Metals/2585	2004
8-B-11	South Side Fuel Silo (Coarse)	Custom Metals/2590	2004
8-B-12	Solid Fuel Mill System	Polsius	2004
8-B-12A	North Solid Fuel Silo (fine)		
8-B-12B	South Solid Fuel Silo (fine)		
Gypsum Handling			
9-M-01	Gypsum Unloading into Hopper	Custom Built	1964
9-M-02	TP: Gypsum Hopper Discharge onto Belt (508030)	Custom Built	1964
9-M-03	Gypsum Elevators (508040/508050) & Discharge to Silo	Rex Chain Belt Co.	1964
9-M-16	Synthetic Gypsum Loading into Hoppers		
9-M-17	Synthetic Gypsum Hopper Loadout FM2 Screw/Weigh Belt(2)	JC Steele/JBM Inc.	2010
9-M-18	Synthetic Gypsum Hopper Loadout FM3 Screw/Weigh Belt (2)	JC Steele/JBM Inc.	2010
9-M-19	Synthetic Gypsum Storage Building – Conveying	JBM Inc.	
9-M-20	Synthetic Gypsum Belt Transfers to FM3 (2)	JBM Inc.	2010
9-M-21	Synthetic Gypsum Hopper FM1 screw/Weigh Belt (2)		2013
Miscellaneous			
9-M-11	Degreaser #1, #2, #3 and #4	Heritage-Crystal Co/ 1678/1634	2004
9-M-22	Emergency Generator, 815 HP	Caterpillar/DM8518	2009

EMISSION UNITS WITHOUT LIMITATIONS

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

Emission Unit #	Description of Emission Unit
1-Q-01	Quarry Drilling
1-Q-02	Quarry Blasting
1-Q-03	Loading Haul Trucks from Quarry
1-Q-04A & B	South Haul Roads to Crusher
1-Q-04C & D	North Haul Roads to Crusher
1-Q-05	Limestone Storage Pile
1-Q-06	Sandstone Storage pile
1-Q-07A	Haul Road (Paved) Clay; Entry-Pile
1-Q-07B	Haul Road (Unpaved) Clay; Entry-Pile
1-Q-08	Clay and Substitute Storage Pile
1-Q-09	Raw Material Unloading at Primary Crusher
1-Q-09K	Clinker Unloading at Primary Crusher
1-Q-11A	Haul Road (Paved) Sand & Raw Material Sub; Entry-Pile
1-Q-11B	Haul Road (Unpaved) Sand & Raw Material Sub; Entry-Pile
1-Q-11C	Haul Road (Unpaved) Bottom Ash/Scales; Barge to Pile
1-Q-11D	Haul Road (Unpaved) Bottom Ash; Entry-Pile
1-Q-11E	Haul Road (Paved) Bottom Ash; Entry-Pile
1-Q-11F	Haul Road (Paved) to Fly Ash Silo
1-Q-12	Sand Storage Pile
1-Q-13	Bottom Ash Storage Pile
1-Q-14	Mill Scale Storage Pile
2-R-05	Crushed Limestone Stockpile
4-K-12	Calcium Hydroxide Tank and Discharge to Preheater
4-K-14	Ammonium Hydroxide Tank
5-L-10	Haul Road (Unpaved) Clinker; Barge to Pile
5-L-10A	Haul Road (Paved) Clinker; Barge to Pile
6-F-22	Haul Road: Dry Powder Additives Hauling (Paved)
5-L-31	Haul Road: Clinker Storage Pile to Primary Crusher (Paved)
7-C-11	Haul Road: Cement Hauling from Silos (Paved)
8-B-02	Haul Road: Coke Unloading Barge to Storage Pile
8-B-03A	Haul Road (Paved) Coke/Coal; Entry-Pile
8-B-03B	Haul Road (Unpaved) Coke/Coal; Entry-Pile
8-B-04	Coke/Coal Storage Stockpile
8-B-05	Coke Bins (355045 & 355050) Coarse
9-M-04	Gypsum Storage Pile
9-M-04H	Haul Road (Unpaved) Gypsum, Barge to Pile
9-M-05	9,000 Gallon Grinding Aid Storage Tank
9-M-10	140 Gallon Diesel Storage Tank #3
9-M-12	15,000 Gallon Diesel Storage Tank #4
9-M-13	560 Gallon Gasoline Storage Tank
9-M-14	560 Gallon Diesel Storage Tank #5
9-M-15	560 Gallon Kerosene Storage Tank

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. The plant wide conditions apply to all emission units at this installation except as noted in each plant wide permit condition. All emission units are listed in Section I under Emission Units with Limitations or Emission Units without Limitations.

Permit Condition PW001

10 CSR 10-6.220

Restriction of Emission of Visible Air Contaminants ¹

Emission Limitation:

- 1) Except as required under more stringent regulation, the permittee shall not cause or permit emissions to be discharged into the atmosphere from any new source any visible emissions with an opacity greater than 20%.
- 2) Exception: The permittee 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 the emission units using the procedures contained in USEPA 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(s) 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 using a certified Method 9 observer.
- 2) The following monitoring schedule must be maintained:
 - a) Monthly observations shall be conducted for a minimum of eight consecutive months after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two (2) months for a period of eight months. If a violation is noted, monitoring reverts to monthly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made semi-annually (i.e., once per reporting period). Observation shall be conducted during the January-June reporting period and during the July-December reporting period. If a violation is noted, monitoring reverts to monthly.
- 3) If the source reverts to monthly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

¹ 10 CSR 10-6.220 – Permit Condition PW001 does not apply to emission units regulated by 40 CFR Part 60 Subparts Y and OOO and 40 CFR Part 63 Subparts LLL.

Record Keeping:

- 1) The permittee shall maintain records of all observation results (see Attachment A), 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.
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment B)

Reporting:

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

Permit Condition PW002

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

– Operations and Maintenance Plan - §63.1347

40 CFR Part 63, Subpart A, General Provisions – Operation and Maintenance Requirements - §63.6(e)(1) and (2)

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.

Emission Limitation:

- 1) Failure to comply with any provision of the operations and maintenance plan developed in accordance with §63.1347 is a violation of the standard. [§63.1347(b)]
- 2) Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards. [§63.6(e)(1)(iii)]

Monitoring:

- 1) At all times, including periods of startup, shutdown, and malfunction, the permittee shall operate and maintain any affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards. [§63.6(e)(1)(i)]
- 2) Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan required in §63.6(e)(3) of this section. [§63.6(e)(1)(ii)]

Record Keeping:

The permittee shall keep a copy of the Operations and Maintenance plan on-site at all times. The plan shall be made available immediately for inspection to the Department of Natural Resources personnel upon request.

Permit Condition PW003

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

– Compliance Requirements: Continuous Monitoring General Requirements - §63.1348(b)(1)

Note: Permit Condition PW003 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.

Continuous Monitoring Requirements:

The permittee must demonstrate compliance with the emissions standards and operating limits by using the performance test methods and procedures in §§63.1350 and 63.8 for each affected source.

- 1) The permittee must monitor and collect data according to §63.1350 and the site-specific monitoring plan required by §63.1350(p). [§63.1348(b)(1)(i)]
- 2) Except for periods of startup and shutdown, monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee must operate the monitoring system and collect data at all required intervals at all times the affected source is operating. [§63.1348(b)(1)(ii)]
- 3) The permittee may not use data recorded during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities in calculations used to report emissions or operating levels. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The permittee must use all the data collected during all other periods in assessing the operation of the control device and associated control system. [§63.1348(b)(1)(iii)]
- 4) Clinker production. The permittee is subject to limitations on mercury emissions (lb/MM tons of clinker) (see Permit Condition EU4-K-09-007) under §63.1343(b) and must determine the hourly production rate of clinker according to the requirements of §63.1350(d). [§63.1348(b)(1)(iv)]

Permit Condition PW004

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

– Performance Testing Requirements - §63.1349

Note: Permit Condition PW004 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.

Conditions for Performance Test:

The permittee shall conduct performance tests under such conditions as the Director specifies to the permittee based on representative performance of the affected source for the period being tested. Upon request, the permittee must make available to the Administrator such records as may be necessary to determine the conditions of performance tests. [§63.1349(e)]

Performance Test Frequency

Except as provided in §63.1348(b), performance tests are required at regular intervals for affected sources that are subject to a dioxin, total 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)]

Record Keeping:

The permittee must be documented performance test results in complete test reports that contain the information required by §63.1349(a)(1) through (a)(10), as well as all other relevant information. As described in §63.7(c)(2)(i), the permittee must make available to the Administrator prior to testing, if requested, the site-specific test plan to be followed during performance testing. For purposes of determining exhaust gas flow rate to the atmosphere from a coal mill stack, the permittee must either install, operate, calibrate and maintain an instrument for continuously measuring and recording the exhaust gas flow rate according to the requirements in paragraphs § 63.1350(n)(1) through (10) of this subpart or use the maximum design exhaust gas flow rate. For purposes of determining the combined emissions from kilns that exhaust kiln gases to a coal mill that exhausts through a separate stack, instead of installing a CEMS on the coal mill stack, the permittee may use the results of the initial and subsequent performance test to demonstrate compliance with the relevant emissions limit.. [§63.1349(a)]

- 1) A brief description of the process and the air pollution control system; [§63.1349(a)(1)]
- 2) Sampling location description(s); [§63.1349(a)(2)]
- 3) A description of sampling and analytical procedures and any modification to standard procedures; [§63.1349(a)(3)]
- 4) Test results; [§63.1349(a)(4)]
- 5) Quality assurance procedures and results; [§63.1349(a)(5)]
- 6) Records of operating conditions during the test, preparation of standards, and calibration procedures; [§63.1349(a)(6)]
- 7) Raw data sheets for field sampling and field and laboratory analyses; [§63.1349(a)(7)]
- 8) Documentation of calculation; [§63.1349(a)(8)]
- 9) All data recorded and used to establish parameters for compliance monitoring; and [§63.1349(a)(9)]
- 10) Any other information required by the test method. [§63.1349(a)(10)]

Performance Test Reporting Requirements:

- 1) The permittee must submit the information specified in §63.1349(d)(1)(i) and (d)(2) no later than 60 days following the initial performance test. All reports must be signed by the facility's manager. [§63.1349(d)(1)]
 - a) The initial performance test data as recorded under paragraph (b) of this section. [§63.1349(d)(1)(i)]
 - b) The values for the site-specific operating limits or parameters established pursuant to §63.1349(b)(1), §63.1349(b)(3), §63.1349(b)(6) and §63.1349(b)(7) as applicable, and a description, including sample calculations, of how the operating parameters were established during the initial performance test. [§63.1349(d)(1)(ii)]
- 2) As of December 31, 2011 and within 60 days after the date of completing each performance evaluation or test, as defined in §63.2, conducted to demonstrate compliance with this subpart, the permittee must submit the relative accuracy test audit data and performance test data, except opacity data, to EPA by successfully submitting the data electronically to EPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool (ERT) (see http://www.epa.gov/ttn/chief/ert/ert_tool.html). [§63.1349(d)(2)]

Permit Condition PW005

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

– Alternate Monitoring Requirements Approval - §63.1350(o); and

– Development and Submittal (upon request) of Monitoring Plans - §63.1350(p)

Note: Permit Condition PW005 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.

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 §63.1350(o)(1) through (o)(6). [§63.1350(o)]

- 1) The Administrator will not approve averaging periods other than those specified in this section, unless the permittee documents, using data or information, that the longer averaging period will ensure that emissions do not exceed levels achieved during the performance test over any increment of time equivalent to the time required to conduct three runs of the performance test. [§63.1350(o)(1)]
- 2) If the application to use an alternate monitoring requirement is approved, the permittee must continue to use the original monitoring requirement until approval is received to use another monitoring requirement. [§63.1350(o)(2)]
- 3) The permittee must submit the application for approval of alternate monitoring requirements no later than the notification of performance test. The application must contain the following information: [§63.1350(o)(3)]
 - a) Data or information justifying the request, such as the technical or economic infeasibility, or the impracticality of using the required approach; [§63.1350(o)(3)(i)]

- b) A description of the proposed alternative monitoring requirement, including the operating parameter to be monitored, the monitoring approach and technique, the averaging period for the limit, and how the limit is to be calculated; and [§63.1350(o)(3)(ii)]
 - c) Data or information documenting that the alternative monitoring requirement would provide equivalent or better assurance of compliance with the relevant emission standard. [§63.1350(o)(iii)]
- 4) The Administrator will notify the permittee of the approval or denial of the application within 90 calendar days after receipt of the original request, or within 60 calendar days of the receipt of any supplementary information, whichever is later. The Administrator will not approve an alternate monitoring application unless it would provide equivalent or better assurance of compliance with the relevant emission standard. Before disapproving any alternate monitoring application, the Administrator will provide: [§63.1350(o)(4)]
- a) Notice of the information and findings upon which the intended disapproval is based; and [§63.1350(o)(4)(i)]
 - b) Notice of opportunity for the permittee to present additional supporting information before final action is taken on the application. This notice will specify how much additional time is allowed for the permittee to provide additional supporting information. [§63.1350(o)(4)(ii)]
- 5) The permittee is responsible for submitting any supporting information in a timely manner to enable the Administrator to consider the application prior to the performance test. Neither submittal of an application, nor the Administrator's failure to approve or disapprove the application relieves the permittee of the responsibility to comply with any provision of this subpart. [§63.1350(o)(5)]
- 6) The Administrator may decide at any time, on a case-by-case basis that additional or alternative operating limits, or alternative approaches to establishing operating limits, are necessary to demonstrate compliance with the emission standards of 40 CFR Part 63, Subpart LLL. [§63.1350(o)(6)]

Development and Submittal (upon request) of Monitoring Plans:

If the permittee demonstrates compliance with any applicable emission limit through performance stack testing or other emissions monitoring, the permittee must develop a site-specific monitoring plan according to the requirements in §63.1350(p)(1) through (4). This requirement also applies to the permittee if the permittee petition the EPA Administrator for alternative monitoring parameters under paragraph (o) of §63.1350 and §63.8(f). If the permittee use a bag leak detection system (BLDS), the permittee must also meet the requirements specified in paragraph §63.1350(p)(5). [§63.1350(p)]

- 1) For each continuous monitoring system (CMS) required in this section, the permittee must develop, and submit to the permitting authority for approval upon request, a site-specific monitoring plan that addresses §63.1350(p)(1)(i) through (iii). The permittee must submit this site-specific monitoring plan, if requested, at least 60 days before the initial performance evaluation of CMS. . [§63.1350(p)(1)]
- a) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device); [§63.1350(p)(1)(i)]
 - b) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and [§63.1350(p)(1)(ii)]
 - c) Performance evaluation procedures and acceptance criteria (e.g., calibrations). [§63.1350(p)(1)(iii)]
- 2) In the site-specific monitoring plan, the permittee must also address §63.1350(p)(2)(i) through (iii).

- a) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1), (c)(3), and (c)(4)(ii); [§63.1350(p)(2)(i)]
- b) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d); and [§63.1350(p)(2)(ii)]
- c) Ongoing Record Keeping and reporting procedures in accordance with the general requirements of §63.10(c), (e)(1), and (e)(2)(i). [§63.1350(p)(2)(iii)]
- 3) The permittee must conduct a performance evaluation of each CMS in accordance with the site-specific monitoring plan. [§63.1350(p)(3)]
- 4) The permittee must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan. [§63.1350(p)(4)]

Permit Condition PW006

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

– Notification Requirements - §63.1353;

– Reporting Requirements - §63.1354; and

– Record keeping Requirements - §63.1355

Note: Permit Condition PW006 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.

Notification Requirements:

- 1) The notification provisions of 40 CFR Part 63, Subpart A that apply and those that do not apply to owners and operators of affected sources subject to this subpart are listed in Table 1 of this subpart. If any State requires a notice that contains all of the information required in a notification listed in this section, the permittee may send the Administrator a copy of the notice sent to the State to satisfy the requirements of this section for that notification. [§63.1353(a)]
- 2) The permittee shall comply with the notification requirements in §63.9 as listed in §63.1353(b)(1) through (b)(6). [§63.1353(b)]
 - a) Initial notifications as required by §63.9(b) through (d). For the purposes of this subpart, a Title V or 40 CFR Part 70 permit application may be used in lieu of the initial notification required under §63.9(b), provided the same information is contained in the permit application as required by §63.9(b), and the State to which the permit application has been submitted has an approved operating permit program under Part 70 of this Chapter and has received delegation of authority from the EPA. Permit applications shall be submitted by the same due dates as those specified for the initial notification. [§63.1353(b)(1)]
 - b) Notification of performance tests, as required by §§63.7 and 63.9(e). [§63.1353(b)(2)]
 - c) 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)]
 - d) 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)]
 - e) Notification of compliance status, as required by §63.9(h). [§63.1353(b)(5)]
 - f) 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 this Subpart LLL. [§63.1353(b)(6)]

Record Keeping:

- 1) The permittee shall maintain files of all information (including all reports and notifications) required by this section 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 (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) 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) of 40 CFR Part 63; 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 record keeping or reporting requirements. [§63.1355(b)(3)]
- 3) In addition to the record keeping requirements in §63.1355(b), the permittee 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 cement kiln dust (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. [§§ 63.1350(d)(3) and 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)]

Reporting:

- 1) The reporting provisions of Subpart A of 40 CFR Part 63 that apply and those that do not apply to owners or operators of affected sources subject to 40 CFR Part 63 are listed in Table 1 of 40 CFR Part 63. If any State requires a report that contains all of the information required in a report listed in this section, the permittee may send the Administrator a copy of the report sent to the State to satisfy the requirements of this section for that report. [§63.1354(a)]
- 2) The permittee shall comply with the reporting requirements specified in § 63.10 of the general provisions of this 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 of an affected source 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 of an affected source who is 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) The permittee shall submit a summary report semiannually which contains the information specified in §63.10(e)(3)(vi). In addition, the summary report shall include: [§63.1354(b)(9)]
 - i) All exceedances of maximum control device inlet gas temperature limits specified in §63.1346(a) and (b); [§63.1354(b)(9)(i)]
 - ii) All failures to calibrate thermocouples and other temperature sensors as required under §63.1350(g)(1)(iii); and [§63.1354(b)(9)(ii)]
 - iii) The results of any combustion system component inspections conducted within the reporting period as required under §63.1347(a)(3). [§63.1354(b)(9)(iv)]
 - iv) All failures to comply with any provision of the operation and maintenance plan developed in accordance with §63.1347(a). [§63.1354(b)(9)(v)]
 - v) Monthly rolling average mercury, THC, PM, and HCl (if applicable) emissions levels in the units of the applicable emissions limit for each kiln, clinker cooler, and raw material dryer. [§63.1354(b)(9)(vi)]
- 3) The semiannual report required by paragraph §63.1354(b)(9) must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. 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 PW007

10 CSR 10-6.060 Construction Permits Required
Construction Permit No. 122005-005 & 122005-005A
Special Condition 16 – General Reporting Conditions

Note: Permit Condition PW007 is applicable to each emission unit authorized to be constructed and operated by Construction Permit No. 122005-005 and its amendment 122005-005A as indicated in the Emission Unit Specific Emission Limitations section.

Reporting: [Construction Permit 122005-005A, Special Condition 16]

- 1) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the day in which emissions exceed the limits established by Construction Permit No. 122005-005A.
[Construction Permit 122005-005A, Special Condition 16.A]
- 2) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the day in which operation of equipment at this installation is not in accordance with any operational limitation or condition established by Construction Permit No. 122005-005A.
[Construction Permit 122005-005A, Special Condition 16.B]
- 3) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the date in which it is discovered that emission factors used in Construction Permit No. 122005-005A (or permit application) underestimated actual emissions. [Construction Permit 122005-005A, Special Condition 16.D]

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.

EU1-Q-10 — Primary Crusher	
Emission Unit	Description
EU1-Q-10	Primary Crusher (201010.01) – Limestone and Clinker (1-Q-10K) PM Control Device – None

Permit Condition EU1-Q-10-001
10 CSR 10-6.060 Construction Permits Required — Construction Permit 052012-012

Operational Limitation:

- 1) The permittee shall not process any material other than limestone and clinker in the primary crusher (1-Q-10) and the secondary crusher (2-R-03B) except during emergency periods when the additives crusher (1-Q-15) is rendered inoperable.
[Construction Permit 052012-012, Special Condition 6A]
- 2) During emergency periods defined above, the permittee shall not process more than 35,000 tons each of sand and clay/correctives on a 12-month rolling total through the existing primary crusher (1-Q-10) and secondary crusher (2-R-03B). [Construction Permit 052012-012, Special Condition 6B]
- 3) The permittee shall not process more than 200,000 tons of clinker on a 12-month rolling total through the existing primary crusher (1-Q-10K) and secondary crusher (2-R-03BK). [Construction Permit 052012-012, Special Condition 6C]

Monitoring/Record Keeping:

- 1) The permittee shall maintain an accurate record of the quantity of sand, clay/corrective materials and clinkers processed in the existing primary crusher (1-Q-10) and secondary crusher (2-R-03B). The installation shall record the monthly and running 12-month totals of sand, clay/corrective materials and clinker processed through the primary and secondary crushers.
[Construction Permit 052012-012, Special Condition 6D]
- 2) The permittee shall maintain an operating and maintenance log for the additives crusher (1-Q-15) which shall include the following; [Construction Permit 052012-012, Special Condition 6E]
 - a) Incidents of malfunction(s) including the date(s), time and duration of the event, the probable cause, any corrective actions taken and the impact on emissions due to the malfunction, and
 - b) Any maintenance activities conducted on the units, such as parts replacement, replacement of equipment, etc.
- 3) The permittee shall keep records in accordance with the General Record Keeping and Reporting Requirements stated in Section V of this permit.

Reporting:

The permittee shall report to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which any record required by this permit shows an exceedance of a limitation imposed by this permit.

EU1-Q-15 and EU1-Q-16 — Additives Crusher and Conveyors	
Emission Unit	Description
EU1-Q-15	Additives Crusher and Conveyor – Secondary crushing/screening of clay/correctives. PM Control Device – Fabric Filter (205031)
EU1-Q-16	Additives Conveyor – Additives conveying to raw mill feed. PM Control Device – Fabric Filter (205041)

Permit Condition EU1-Q-15-001 and EU1-Q-16-001
10 CSR 10-6.060 Construction Permits Required Construction Permit No. 122005-005A Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005

Emission Limitation:

The permittee shall not emit more than 0.0085 grains per actual cubic foot (gr/acf) of PM₁₀ from any of the baghouses associated with EU1-Q-15 and EU1-Q-16.
[Construction Permit 122005-005A, Special Condition 8.A]

Operational Limitation/Equipment Specification:

- 1) The permittee shall enclose and vent all of the emission units to the baghouses as specified in the construction permit (Construction Permit 122005-005) application. The enclosure of the emissions units specified shall be constructed and maintained such that no visible emissions [zero percent (0%) opacity from the enclosure] are allowed to occur from these sources except through the gasses exiting from the baghouses. [Construction Permit 122005-005A, Special Condition 2.D]
- 2) The baghouses must be in use at all times when that associated emission unit is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. These 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.
[Construction Permit 122005-005A, Special Condition 2.E]
- 3) Appropriate replacement filters for each baghouse shall be kept on hand at all times. These replacement filters 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 122005-005A, Special Condition 2.G]

Monitoring:

The permittee shall monitor and record the operating pressure drop across the baghouses at least once in every 24-hour period when the associated emission unit is in operation.
[Construction Permit 122005-005A, Special Condition 2.F]

Record Keeping:

The permittee shall maintain an operating and maintenance log for each baghouse which shall include the following: [Construction Permit 122005-005A, Special Condition 2.H]

- 1) Incidents of malfunction(s) including the date(s) and duration of the event, the probable cause, any corrective actions taken and the impact on emissions due to the malfunction,

- 2) Any maintenance activities conducted on the unit, such as parts replacement, replacement of equipment, etc., and
- 3) A written record of regular inspection schedule, the date and results of all inspections including any actions or maintenance activities that result from that inspection.

Reporting:

The permittee shall comply with the reporting requirements as specified in Permit Condition PW007.

Permit Condition EU1-Q-15-002 and EU1-Q-16-002

10 CSR 10-6.070 New Source Performance Regulations

40 CFR Part 60 Subpart OOO Standards of Performance for Nonmetallic Minerals Processing Plants

Emission Limitation:

- 1) For Additives Crusher and Conveyors (EU1-Q-15 and EU1-Q-16), the permittee must meet a PM limit of 0.032 gram per dry standard cubic meter (g/dscm) (0.014 grain per dry standard cubic foot (gr/dscf)). [Table 2 to Subpart OOO]
- 2) EU1-Q-15-002 and EU1-Q-16-002 are not subject to Permit Condition PW001.

Monitoring:

The permittee must conduct quarterly 30-minute visible emissions inspections using EPA Method 22 (40 CFR Part 60, Appendix A-7). The Method 22 (40 CFR Part 60, Appendix A-7) test shall be conducted while the baghouse is operating. The test is successful if no visible emissions are observed. If any visible emissions are observed, the permittee must initiate corrective action within 24 hours to return the baghouse to normal operation. The permittee must record each Method 22 (40 CFR part 60, Appendix A-7) test, including the date and any corrective actions taken, in the logbook required under §60.676(b). The permittee may establish a different baghouse-specific success level for the visible emissions test (other than no visible emissions) by conducting a PM performance test according to §60.675(b) simultaneously with a Method 22 (40 CFR Part 60, Appendix A-7) to determine what constitutes normal visible emissions from the emission unit's baghouse when it is in compliance with the applicable PM concentration limit in Table 2 of this subpart. The revised visible emissions success level must be incorporated into the permit for the affected facility.
[40 CFR 60.674(c)]

Test Methods and Procedures:

- 1) The permittee shall determine compliance with the PM standards in §60.672(a) as follows:
[40 CFR 60.675(b)]
 - a) Except as specified in paragraphs (e)(3) and (4) of this section, Method 5 of Appendix A-3 of this part or Method 17 of Appendix A-6 of this part shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5 (40 CFR Part 60, Appendix A-3), if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter. [40 CFR 60.675(b)(1)]
 - b) Method 9 of Appendix A-4 of 40 CFR Part 60 and the procedures in §60.11 shall be used to determine opacity. [40 CFR 60.675(b)(2)]

Record Keeping:

The permittee must record each periodic inspection required under §60.674(c), including dates and any corrective actions taken, in a logbook (in written or electronic format) (see Attachment B). The permittee must keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Administrator upon request. [40 CFR 60.676(b)(1)]

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 this subpart. [40 CFR 60.676(f)]
- 2) Notifications and reports required under this subpart and under subpart A of this part to demonstrate compliance with this subpart need only to be sent to the EPA Region 7 or the Air Pollution Control Program which has been delegated authority according to §60.4(b). [40 CFR 60.676(k)]

EU1-Q-17 and EU1-Q-18 — Additives Hopper and Conveyor Belt	
Emission Unit	Description
EU1-Q-17	Additives Hopper; uncontrolled source
EU1-Q-18	Conveyor Belt 205080 – Discharge to clay storage building 205090. Uncontrolled source within an enclosed structure

Permit Condition EU1-Q-17-001 and EU1-Q-18-001

10 CSR 10-6.070 New Source Performance Regulations
40 CFR Part 60 Subpart OOO Standards of Performance for Nonmetallic Minerals Processing Plants

Emission Limitation:

- 1) Additives Hopper (EU1-Q-17) – According to §60.672(b), the permittee must meet the fugitive emissions limit of 10 percent opacity for additive hopper. [40 CFR 60.672(b) and Table 3 to Subpart OOO]
- 2) Conveyor Belt 205080 (EU1-Q-18) - The permittee must meet the fugitive emissions limit of 7 percent opacity for conveyor belt 205080 (enclosed structure) openings. [40 CFR 60.672(e)(1)]
- 3) EU1-Q-17-001 and EU1-Q-18-001 are not subject to Permit Condition PW001.

Monitoring:

The permittee must demonstrate compliance with the fugitive emission limits by conducting an initial performance test according to §60.11 of this part and §60.675 of this subpart.
[Table 3 to Subpart OOO]

Test Methods and Procedures:

- 1) In determining compliance with the particulate matter standards in §60.672(b) or §60.672(e)(1), the permittee shall use Method 9 of Appendix A-4 and the procedures in §60.11, with the following additions: [40 CFR 60.675(c)(1)]
 - a) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet). [40 CFR 60.675(c)(1)(i)]
 - b) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9 of Appendix A-4 of 40 CFR Part 60, Section 2.1) must be followed.
[40 CFR 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. [40 CFR 60.675(c)(1)(iii)]
- d) When determining compliance with the fugitive emissions standard for EU1-Q-17 and EU1-Q-18, the duration of the Method 9 (40 CFR Part 60, Appendix A-4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in the emission limitation of this permit condition must be based on the average of the five 6-minute averages. [40 CFR 60.675(c)(3)]
- 2) To demonstrate compliance with the fugitive emission limits for buildings specified in §60.672(e)(1), the permittee must complete the testing specified in §60.672(d)(1). Performance tests must be conducted while all affected facilities inside the building are operating. [40 CFR 60.675(d)]
 - a) If the building encloses any affected facility that commences construction, modification, or reconstruction on or after April 22, 2008, the permittee of the affected facility must conduct an initial Method 9 (40 CFR part 60, Appendix A-4) performance test according to this section and §60.11. [40 CFR 60.675(d)(1)]
- 3) The permittee may use the following as alternatives to the reference methods and procedures specified in §675: [40 CFR 60.675(e)]
 - a) For the method and procedures of §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: [40 CFR 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. [40 CFR 60.675(e)(1)(i)]
 - ii) Separate the emissions so that the opacity of emissions from each affected facility can be read. [40 CFR 60.675(e)(1)(ii)]
 - b) A single visible emission observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions are met: [40 CFR 60.675(e)(2)]
 - i) No more than three emission points may be read concurrently. [40 CFR 60.675(e)(2)(i)]
 - ii) All three emission points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points. [40 CFR 60.675(e)(2)(ii)]
 - iii) If an opacity reading for any one of the three emission points equals or exceeds the applicable standard, then the observer must stop taking readings for the other two points and continue reading just that single point. [40 CFR 60.675(e)(2)(iii)]

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 this subpart, including reports of opacity observations made using Method 9 (40 CFR part 60, Appendix A-4) to demonstrate compliance with §60.672(b) and (e). [40 CFR 60.676(f)]
- 2) Notifications and reports required under this subpart and under subpart A of this part to demonstrate compliance with this subpart need only to be sent to the EPA Region 7 or the Air Pollution Control Program which has been delegated authority according to §60.4(b). [40 CFR 60.676(k)]

EU2-R-01, EU2-R-02, 2-R-03A, 2-R-03B and 2-R-03C — Raw Material and Clinker Handling (Transfer Points, Conveyor Belts, Crushers and Screens)	
Emission Unit	Description
EU2-R-01	TP: Primary Crusher Surge Bin Discharge – Belt 201040.05 PM Control Device – Fabric Filter (201031)
EU2-R-02	Belt 201040.05 & 202070 Discharge in Surge Bin; 202070 to 202090 PM Control Device – Fabric Filter (202011)
EU2-R-03A	Surge Bin Feeder PM Control Device – Fabric Filter (202031)
	Vibrating Screen PM Control Device – Fabric Filter (202231)
EU2-R-03B	Secondary Crusher 202030.01 PM Control Device – Fabric Filter (202031)
	Secondary Crusher 202230.01 PM Control Device – Fabric Filter (202231)
EU2-R-03C	Secondary Crusher Discharge onto Belt 202040 PM Control Device – Fabric Filter (202031)
	Secondary Crusher Discharge onto Belt 202240 PM Control Device – Fabric Filter (202231)

**Permit Condition EU2-R-01-001, EU2-R-02-001, 2-R-03A-001, 2-R-03B-001
and 2-R-03C-001**

10 CSR 10-6.060 Construction Permits Required — Construction Permit 052012-012

Operational Limitation:

- 1) Control Device Requirement – Baghouse [Construction Permit 052012-012, Special Condition 3]
 - a) The permittee shall control emissions from the EU2-R-01, EU2-R-02, 2-R-03A, 2-R-03B and 2-R-03C using baghouses as specified in the construction permit 052012-012 application.
 - b) The baghouses 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 such that the Department of Natural Resources' employees may easily observe them.
 - c) 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).
 - d) 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.
 - e) The permittee shall maintain an operating and maintenance log for the baghouses which shall include the following:
 - i) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - ii) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
- 2) Capture Device Requirements [Construction Permit 052012-012, Special Condition 4]

- a) The permittee shall use hoods to capture emissions from the emission units EU2-R-01, EU2-R-02, 2-R-03A, 2-R-03B and 2-R-03C. A hood is a shaped inlet to a pollution control system that does not totally surround emissions from an emission unit.
- b) The maximum distance between the hood inlet and the emission source shall not exceed 1.5 times the diameter of the exhaust duct in accordance with “The American Conference of Governmental Industrial Hygienists (ACGIH). Industrial Ventilation – A Manual of Recommended Practice, 23rd Edition.”

Record Keeping and Reporting:

The permittee shall maintain all records required by Construction Permit 052012-012 in accordance with the requirements of 10 CSR 10-6.065(6)(C)1.C General Record Keeping and Reporting Requirements, as stated in Section V of this permit.

[Construction Permit 052012-012, Special Condition 7.A]

EU2-R-04 – Raw Material Handling (Screen and Conveyor Belt)	
Emission Unit	Description
EU2-R-04	Screen 202250 PM Control Device – Fabric Filter (202051)
	Conveyor Belt 220070 PM Control Device – Fabric Filter (202051)

Permit Condition 2-R-04-001
10 CSR 10-6.400 Restriction of Emission of Particulate Matter from Industrial Processes

Emission Limitation:

- 1) The permittee shall not emit particulate matter in excess of 68.96 lb/hr from Screen 202270 and Conveyor Belt 202070
- 2) The permittee shall not cause, allow or permit the emission of particulate matter from Screen 202270 and Conveyor Belt 202070 (EU2-R-04) in a concentration in excess of 0.30 grain per standard cubic foot of exhaust gases.

Note: The emission rates in this permit condition apply to the sources individually and not the aggregated sources.

Monitoring/Record Keeping/Reporting:

Not required (See Statement of Basis).

EU2-R-13 – Raw Material Handling (Discharge from Belts 202040/202240 to Belt 220010)	
Emission Unit	Description
EU2-R-13	Discharge from Belt 202040 to Belt 220010 PM Control Device – Fabric Filter (202051)
	Discharge from Belt 202240 to Belt 220010 PM Control Device – Fabric Filter (2022241)

Permit Condition EU2-R-13-001

10 CSR 10-6.070 New Source Performance Regulations
40 CFR Part 60 Subpart OOO Standards of Performance for Nonmetallic Minerals Processing Plants

Emission Limitation:

- 1) The permittee must meet a PM limit of 0.032 gram per dry standard cubic meter (g/dscm) (0.014 grain per dry standard cubic foot (gr/dscf)) for the discharge belts (EU2-R-13). [40 CFR 60.672(a) and Table 2 to Subpart OOO].
- 2) The permittee must meet the opacity limit of 7 percent for the control devices. [40 CFR 60.672(a) and Table 2 to Subpart OOO]
- 3) The discharge belts (EU2-R-13) are not subject to Permit Condition PW001.

Monitoring:

- 1) The permittee shall conduct opacity readings on each emission unit using the procedures contained in USEPA Test Method 22. The permittee is only required to take readings when the emission unit is operating and when the weather conditions allow. If the permittee observes no visible or other significant emissions using these procedures, then no further observations are 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 permittee must maintain the following monitoring schedule:
 - a) The permittee shall conduct weekly observations for a minimum of eight (8) consecutive weeks after permit issuance.
 - b) Should the permittee observe no violations of this regulation during this period then-
 - i) The permittee may observe once every two (2) weeks for a period of eight (8) weeks.
 - ii) If a violation is noted, monitoring reverts to weekly.
 - iii) Should no violation of this regulation be observed during this period then-
 - (1) The permittee may observe once per month.
 - (2) If a violation is noted, monitoring reverts to weekly.
- 3) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Record Keeping:

- 1) The permittee shall maintain records of all observation results (see Attachment A), 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.

- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment B)

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

EU2-R-14, EU2-R-15, EU2-R-16, EU2-R-17, EU2-R-18 and EU2-R-20 —Raw Material Handling (Conveyor Belts, Raw Mill Feed Bins and Storage Dome)	
Emission Unit	Description
EU2-R-14	Belt 220070 – Raw material transfer to storage dom. PM Control Device – Fabric Filter (220071)
EU2-R-15	Belts 205060/205070 – Conveying to and discharging into raw mill feed bins. PM Control Device – Fabric Filter (205061)
EU2-R-16	Raw Mill Feed Bins. PM Control Device – Fabric Filter (205236)
EU2-R-17	Raw Mill Feed Bins. PM Control Device – Fabric Filter (205216)
EU2-R-18	Enclosed Limestone Storage Dome. PM Control Device – Fabric Filter (220075)
EU2-R-20	Transfer from Belt 205070 to Belt 205080. PM Control Device – Fabric Filter (205081)

**Permit Condition EU2-R-14-001, EU2-R-15-001, EU2-R-16-001, EU2-R-17-001,
EU2-R-18-001 and EU2-R-20-001**

10 CSR 10-6.060 Construction Permits Required
 Construction Permit No. 122005-005A
 Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005

Emission Limitation:

The permittee shall not emit more than 0.0085 grains per actual cubic foot (gr/acf) of PM₁₀ from any of the baghouses associated with the EU2-R-14, EU2-R-15, EU2-R-16, EU2-R-17, EU2-R-18 and EU2-R-20. [Construction Permit 122005-005A, Special Condition 8.A]

Operational Limitation/Equipment Specification:

- 1) The permittee shall enclose and vent all of the emission units to the baghouses as specified in the construction permit (Construction Permit 122005-005) application. The enclosure of the emissions units specified shall be constructed and maintained such that no visible emissions [zero percent (0%) opacity from the enclosure] are allowed to occur from these sources except through the gasses exiting from the baghouses. [Construction Permit 122005-005A, Special Condition 2.D]
- 2) The baghouses must be in use at all times when that associated emission unit is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. These 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.

[Construction Permit 122005-005A, Special Condition 2.E]

- 3) Appropriate replacement filters for each baghouse shall be kept on hand at all times. These replacement filters 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 122005-005A, Special Condition 2.G]

Monitoring:

The permittee shall monitor and record the operating pressure drop across the baghouses at least once in every 24-hour period when the associated emission unit is in operation.

[Construction Permit 122005-005A, Special Condition 2.F]

Record Keeping:

The permittee shall maintain an operating and maintenance log for each baghouse which shall include the following: [Construction Permit 122005-005A, Special Condition 2.H]

- 1) Incidents of malfunction(s) including the date(s) and duration of the event, the probable cause, any corrective actions taken and the impact on emissions due to the malfunction,
- 2) Any maintenance activities conducted on the unit, such as parts replacement, replacement of equipment, etc., and
- 3) A written record of regular inspection schedule, the date and results of all inspections including any actions or maintenance activities that result from that inspection.

Reporting:

The permittee shall comply with the reporting requirements as specified in Permit Condition PW010

**Permit Condition EU2-R-14 -002, EU2-R-15-002, EU2-R-16-002, EU2-R-17-002
and EU2-R-20-002**

10 CSR 10-6.070 New Source Performance Regulations

40 CFR Part 60 Subpart OOO Standards of Performance for Nonmetallic Minerals Processing Plants

Emission Limitation:

- 1) For EU2-R-14, EU2-R-15, EU2-R-162, EU2-R-17 and EU2-R-20, the permittee must meet a PM limit of 0.032 gram per dry standard cubic meter (g/dscm) (0.014 grain per dry standard cubic foot (gr/dscf)). [[40 CFR 60.672(a) and Table 2 to Subpart OOO]
- 2) These emission units are not subject to Permit Condition PW001.

Monitoring:

The permittee must conduct quarterly 30-minute visible emissions inspections using EPA Method 22 (40 CFR Part 60, Appendix A-7). The Method 22 (40 CFR Part 60, Appendix A-7) test shall be conducted while the baghouse is operating. The test is successful if no visible emissions are observed. If any visible emissions are observed, the permittee of the affected facility must initiate corrective action within 24 hours to return the baghouse to normal operation. The permittee must record each Method 22 (40 CFR part 60, Appendix A-7) test, including the date and any corrective actions taken, in the logbook required under §60.676(b). The permittee may establish a different baghouse-specific success level for the visible emissions test (other than no visible emissions) by conducting a PM performance test according to §60.675(b) simultaneously with a Method 22 (40 CFR Part 60, Appendix A-7) to determine what constitutes normal visible emissions from that affected facility's baghouse when it is in

compliance with the applicable PM concentration limit in Table 2 of this subpart. The revised visible emissions success level must be incorporated into the permit for the affected facility.

[40 CFR 60.674(c)]

Test Methods and Procedures:

The permittee shall determine compliance with the PM standards in §60.672(a) as follows:

[40 CFR 60.675(b)]

- 1) Except as specified in paragraphs (e)(3) and (4) of this section, Method 5 of Appendix A–3 of this part or Method 17 of Appendix A–6 of this part shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5 (40 CFR Part 60, Appendix A–3), if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter. [40 CFR 60.675(b)(1)]
- 2) Method 9 of Appendix A–4 of 40 CFR Part 60 and the procedures in §60.11 shall be used to determine opacity. [40 CFR 60.675(b)(2)]

Record Keeping:

The permittee must record each periodic inspection required under §60.674(c), including dates and any corrective actions taken, in a logbook (in written or electronic format) (see Attachment B). The permittee must keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Administrator upon request. [40 CFR 60.676(b)(1)]

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 this subpart. [40 CFR 60.676(f)]
- 2) Notifications and reports required under this subpart and under subpart A of this part to demonstrate compliance with this subpart need only to be sent to the EPA Region 7 or the Air Pollution Control Program which has been delegated authority according to §60.4(b). [40 CFR 60.676(k)]

Permit Condition EU2-R-18-002

10 CSR 10-6.070 New Source Performance Regulations

40 CFR Part 60 Subpart OOO Standards of Performance for Nonmetallic Minerals Processing Plants

Emission Limitation:

- 1) The baghouse (Fabric Filter 205081) that controls emissions from the enclosed limestone storage dome is exempt from the applicable stack PM concentration limit (and associated performance testing) in Table 2 of Subpart OOO but must meet the applicable stack opacity limit and compliance requirements in Table 2 of Subpart OOO. [40 CFR 60.672(f)]
 - a) For enclosed limestone storage dome, the permittee must meet an opacity limit of 7 percent for dry control devices on individual enclosed storage bins.
[40 CFR 60.672(a) and Table 2 to Subpart OOO]
- 2) This emission unit is not subject to Permit Condition PW001.

Monitoring:

The permittee must conduct quarterly 30-minute visible emissions inspections using EPA Method 22 (40 CFR Part 60, Appendix A–7). The Method 22 (40 CFR Part 60, Appendix A–7) test shall be conducted while the baghouse is operating. The test is successful if no visible emissions are observed.

If any visible emissions are observed, the permittee must initiate corrective action within 24 hours to return the baghouse to normal operation. The permittee must record each Method 22 (40 CFR part 60, Appendix A-7) test, including the date and any corrective actions taken, in the logbook required under §60.676(b). The permittee may establish a different baghouse-specific success level for the visible emissions test (other than no visible emissions) by conducting a PM performance test according to §60.675(b) simultaneously with a Method 22 (40 CFR Part 60, Appendix A-7) to determine what constitutes normal visible emissions from the enclosed limestone storage dome's baghouse when it is in compliance with the applicable PM concentration limit in Table 2 of this subpart. The revised visible emissions success level must be incorporated into the permit for the enclosed limestone storage dome. [40 CFR 60.674(c)]

Test Methods and Procedures:

The permittee shall use Method 9 of Appendix A-4 of 40 CFR Part 60 and the procedures in §60.11 to determine opacity. [40 CFR 60.675(b)(2)]

Record Keeping:

The permittee must record each periodic inspection required under §60.674(c), including dates and any corrective actions taken, in a logbook (in written or electronic format) (see Attachment B). The permittee must keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Director upon request. [40 CFR 60.676(b)(1)]

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 this subpart. [40 CFR 60.676(f)]
- 2) Notifications and reports required under this subpart and under subpart A of this part to demonstrate compliance with this subpart need only to be sent to the EPA Region 7 or the Air Pollution Control Program which has been delegated authority according to §60.4(b). [40 CFR 60.676(k)]

Permit Condition EU2-R-18-003

10 CSR 10-6.060 Construction Permits Required
Construction Permit No. 122005-005A
Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005

Operational Limitation:

Operational Requirement – Enclosed Limestone Stockpile/Storage Building:
[Construction Permit 122005-005A, Special Condition 12]

- 1) The permittee shall keep all doors, windows, and other openings to the ambient air of the enclosed limestone stockpile/storage building (2-R-18) closed at all times while in operation and for 30 minutes subsequent to the shutdown of the unloading conveyor system (2-R-18) to allow settling of PM₁₀ to occur.
- 2) Should maintenance personnel be required to enter the enclosed limestone stockpile/storage building (2-R-18) while the unloading conveyor system (2-R-18) is in operation, or during the 30 minute settling period, doors shall not remain open for any reason other than to allow passage into and out of the building.
- 3) The permittee shall maintain an operating and maintenance log for the stockpile/storage building which shall include the following:
 - a) Incidents of malfunction(s) including the date(s), time and duration of the event, the probable cause, any corrective actions taken and the impact on emissions due to the malfunction, and

- b) Any maintenance activities conducted on the unit, such as parts replacement, replacement of equipment, etc.

Reporting:

The permittee shall comply with the reporting requirements as specified in Permit Condition PW007.

EU02-R19, EU2 R-21, EU2-R-22, EU2-R-23, EU2-R-24 and EU2-R-25 — Raw Mill Weigh Hoppers	
Emission Unit	Description
EU2-R-19	Weigh Feeder #1 from Limestone Stock Pile – Raw mill weigh hopper PM Control Device – Fabric Filter (233031)
EU2-R-21	Mill Feed Bins Weigh Hopper #1 Discharge to Mill Feed Belt – Raw mill weigh hopper. PM Control Device – Fabric Filter (233235)
EU2-R-22	Mill Feed Bins Weigh Hopper #2 Discharge to Mill Feed Belt – Raw mill weigh hopper. PM Control Device – Fabric Filter (233235)
EU2-R-23	Mill Feed Bins Weigh Hopper #3 Discharge to Mill Feed Belt – Raw mill weigh hopper.. PM Control Device – Fabric Filter (233235)
EU2-R-24	Mill Feed Bins Weigh Hopper #4 Discharge to Mill Feed Belt – Raw mill weigh hopper. PM Control Device – Fabric Filter (233235)
EU2-R-25	Mill Feed Bins Weigh Hopper #5 Discharge to Mill Feed Belt – Raw mill weigh hopper. PM Control Device – Fabric Filter (233235)

**Permit Condition EU2-R-19-001, EU2-R-21-001, EU2-R-22-001, EU2-R-23-001,
EU2-R-24-001 and EU2-R-25-001**

10 CSR 10-6.060 Construction Permits Required
 Construction Permit No. 122005-005A
 Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005

Emission Limitation:

The permittee shall not emit more than 0.0085 grains per actual cubic foot (gr/acf) of PM₁₀ from any of the baghouses associated with EU02-R19, EU2 R-21, EU2-R-22, EU2-R-23, EU2-R-24 and EU2-R-25. [Construction Permit 122005-005A, Special Condition 8.A]

Operational Limitation/Equipment Specification:

- 1) The permittee shall enclose and vent all of the emission units to the baghouses as specified in the construction permit (Construction Permit 122005-005) application. The enclosure of the emissions units specified shall be constructed and maintained such that no visible emissions [zero percent (0%) opacity from the enclosure] are allowed to occur from these sources except through the gasses exiting from the baghouses. [Construction Permit 122005-005A, Special Condition 2.D]
- 2) The baghouses must be in use at all times when that associated emission unit is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. These 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. [Construction Permit 122005-005A, Special Condition 2.E]

- 3) Appropriate replacement filters for each baghouse shall be kept on hand at all times. These replacement filters 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 122005-005A, Special Condition 2.G]

Monitoring:

The permittee shall monitor and record the operating pressure drop across the baghouses at least once in every 24-hour period when the associated emission unit is in operation.
[Construction Permit 122005-005A, Special Condition 2.F]

Record Keeping:

The permittee shall maintain an operating and maintenance log for each baghouse which shall include the following: [Construction Permit 122005-005A, Special Condition 2.H]

- 1) Incidents of malfunction(s) including the date(s) and duration of the event, the probable cause, any corrective actions taken and the impact on emissions due to the malfunction,
- 2) Any maintenance activities conducted on the unit, such as parts replacement, replacement of equipment, etc., and
- 3) A written record of regular inspection schedule, the date and results of all inspections including any actions or maintenance activities that result from that inspection.

Reporting:

The permittee shall comply with the reporting requirements as specified in Permit Condition PW007.

**Permit Condition EU2-R-19-002, EU2-R-21-002, EU2-R-22-002, EU2-R-23-002,
EU2-R-24-002 and EU2-R-25-002**

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the
Portland Cement Manufacturing Industry – Opacity §63.1345

Emission Limitation:

- 1) The permittee shall not cause to be discharged any gases from Raw Mill Weigh Hoppers (EU02-R19, EU2 R-21, EU2-R-22, EU2-R-23, EU2-R-24 and EU2-R-25) which exhibit opacity in excess of ten percent. [§63.1345]
- 2) These emission units are not subject to Permit Condition PW001.

Performance Testing:

Opacity Tests: The permittee must conduct opacity tests in accordance with Method 9 of Appendix A-4 to 40 CFR Part 60. The duration of the Method 9 performance test must be 3 hours (30 6-minute averages), except that the duration of the Method 9 performance test may be reduced to 1 hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) indicated below apply:

- 1) There are no individual readings greater than 10 percent opacity; [§63.1349(b)(2)(i)]
 - 2) There are no more than three readings of 10 percent for the first 1-hour period. [§63.1349(b)(2)(ii)]
- For batch processes that are not run for 3-hour periods or longer, compile observations totaling 3 hours when the unit is operating. [§63.1349(b)(2)]

Compliance Requirement:

The permittee must demonstrate compliance with the opacity emissions standards by using the monitoring methods and procedures in §63.1350(f) based on the maximum 6-minute average opacity

exhibited during the performance test period. The permittee must initiate corrective actions within one hour of detecting visible emissions above the applicable limit. [§63.1348(b)(3)(i)]

Monitoring:

- 1) *Opacity monitoring requirements.* The permittee must conduct required emissions monitoring in accordance with the provisions of §63.1350(f)(1)(i) through (f)(1)(vii) and in accordance with the monitoring plan developed under §63.1350(p). The permittee must also develop an opacity monitoring plan in accordance with §63.1350(p)(1) through (p)(4). [§63.1350(f)]
- 2) *Corrective actions.* If visible emissions are observed during any Method 22 visible emissions test conducted under §63.1350(f)(1), the permittee must initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan provisions in §63.1347.. [§63.1350(f)(3)]

Record Keeping:

- 1) The permittee shall maintain files of all information (including all reports and notifications) required by this section 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 (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) 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 record keeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the permittee shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU3-G-10, EU3-G-11 and EU3-G-11A — Raw Mill Blending and Storage Silos	
Emission Unit	Description
EU3-G-10	Raw Mill Blending and Storage Silo #1 PM Control Device – Fabric Filter (233756)
	Raw Mill Blending and Storage Silo #2 PM Control Device – Fabric Filter (233750)
	Raw Mill Blending and Storage Silo #3 PM Control Device – Fabric Filter (233770)
	Raw Mill Blending and Storage Silo #4 PM Control Device – Fabric Filter (233760)
EU3-G-11	Raw Material Storage Silos (2) – Dry Fly Ash PM Control Device – Fabric Filter (205285)
EU3-G-11A	Dry Fly Ash Storage Silos Conveying PM Control Device – Fabric Filter (205340)

Permit Condition EU3-G-11-001 and EU3-G-11A-001

10 CSR 10-6.060 Construction Permits Required — Construction Permit No. 012010-010

Emission Limitation:

- 1) The permittee shall not emit more than 0.0085 grains per actual cubic foot (gr/acf) of PM₁₀ and shall not exceed 500 actual cubic foot per minute (acfm) from the new fly ash conveying system baghouse (3-G-11A). [Construction Permit 0120010-010, Special Condition 2.A]
- 2) The permittee shall not emit more than 0.0085 grains per actual cubic foot (gr/acf) of PM₁₀ from the silos baghouse (3-G-11). [Construction Permit 0120010-010, Special Condition 2.B]

Operational Limitation/Equipment Specification:

- 1) Control Requirements for the Fly Ash Silos and the Fly Ash Silo Conveying System:
 - a) The permittee shall control PM₁₀ emissions from the fly ash silos (3-G-11) and the fly ash silo conveying system (3-G-11A) using baghouses as specified in the Construction Permit 0120010-010 application. [Construction Permit 0120010-010, Special Condition 1.A]
 - b) The permittee shall completely enclose the fly ash conveying system (3-G-11A) as specified in the Construction Permit 0120010-010 application. The enclosure shall be constructed and maintained such that no visible emissions (zero percent (0%) opacity) are allowed to occur from these sources except through the gas exiting the stacks of the baghouses. [Construction Permit 0120010-010, Special Condition 1.B]
 - c) The baghouses specified by special condition no. 1.A. Constriction Permit 0120010-001 shall be in use at all times when the associated equipment is in operation and 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. [Construction Permit 0120010-010, Special Condition 1.C]
 - d) Appropriate replacement filters for each baghouse specified by special condition no. 1.A. Constriction Permit 0120010-001 shall be kept on hand at all times. These replacement filters shall be made of fibers appropriate for operating conditions expected to occur (e.g. temperature limits, acidic and alkali resistance, abrasion resistance and etc.). [Construction Permit 0120010-010, Special Condition 1.E]

2) Processing Rate Restrictions:

The permittee shall not process more than 169,396 tons of fly ash at the installation in any consecutive 12-month period. [Construction Permit 0120010-010, Special Condition 3.A]

Monitoring:

The permittee shall monitor and record the operating pressure drop across the baghouses specified by special condition no. 1.A. of Construction Permit 0120010-010 at least once in every twenty-four (24) hour period when the associated equipment is in operation. [Construction Permit 0120010-010, Special Condition 1.D]

Record Keeping:

- 1) The permittee shall maintain an accurate record of the quantity of fly ash processed at the installation. The installation shall record the monthly and running 12-month totals of fly ash processed at the installation. [Construction Permit 0120010-010, Special Condition 3.B]
- 2) The permittee shall maintain an operating and maintenance log for each baghouse which shall include the following: [Construction Permit 0120010-010, Special Condition 1.F]
 - a) Incidents of malfunction(s) including the date(s) and duration of the event, the probable cause, any corrective actions taken and the impact on emissions due to the malfunction,
 - b) Any maintenance activities conducted on the unit, such as parts replacement, replacement of equipment, etc., and
 - c) A written record of regular inspection schedule, the date and results of all inspections including any actions or maintenance activities that result from that inspection.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the day in which emissions exceed the limits established by this permit. [Construction Permit 0120010-010, Special Condition 4.A]
- 2) The permittee shall report to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the day in which operation of equipment at this installation is not in accordance with any operational limitation or condition established by this permit. [Construction Permit 0120010-010, Special Condition 4.B]

Permit Condition EU3-G-10-001, EU3-G-11-002 and EU3-G-11A-002

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the
Portland Cement Manufacturing Industry – Opacity §63.1345

Emission Limitation:

- 1) The permittee shall not cause to be discharged any gases from of each Raw Mill Blending and Storage Silos (EU3-G-10, EU3-G-11 and EU3-G-11A) which exhibit opacity in excess of ten percent.. [§63.1345]
- 2) These emission units are not subject to Permit Condition PW001.

Performance Testing:

Opacity Tests: The permittee must conduct opacity tests in accordance with Method 9 of Appendix A–4 to 40 CFR Part 60. The duration of the Method 9 performance test must be 3 hours (30 6-minute averages), except that the duration of the Method 9 performance test may be reduced to 1 hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) indicated below apply:

- 1) There are no individual readings greater than 10 percent opacity; [§63.1349(b)(2)(i)]
 - 2) There are no more than three readings of 10 percent for the first 1-hour period. [§63.1349(b)(2)(ii)]
- For batch processes that are not run for 3-hour periods or longer, compile observations totaling 3 hours when the unit is operating. [§63.1349(b)(2)]

Compliance Requirement:

The permittee must demonstrate compliance with the opacity emissions standards by using the monitoring methods and procedures in §63.1350(f) based on the maximum 6-minute average opacity exhibited during the performance test period. The permittee must initiate corrective actions within one hour of detecting visible emissions above the applicable limit. [§63.1348(b)(3)(i)]

Monitoring:

- 1) *Opacity monitoring requirements.* The permittee must conduct required emissions monitoring in accordance with the provisions of §63.1350(f)(1)(i) through (f)(1)(vii) and in accordance with the monitoring plan developed under §63.1350(p). The permittee must also develop an opacity monitoring plan in accordance with §63.1350(p)(1) through (p)(4). [§63.1350(f)]
- 2) *Corrective actions.* If visible emissions are observed during any Method 22 visible emissions test conducted under §63.1350(f)(1), the permittee must initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan provisions in §63.1347.. [§63.1350(f)(3)]

Record Keeping:

- 1) The permittee shall maintain files of all information (including all reports and notifications) required by this section 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 (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) 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 record keeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the permittee source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU3-G-12, EU3-G-15, EU3-G-17, EU3-G-18, EU3-G-19 and EU3-G-20 - Raw Mill Feed Belts	
Emission Unit	Description
EU3-G-12	Discharge from Mill Feed Belt 233030 to Inline Raw Mill PM Control Device – Fabric Filter (233371)
EU3-G-15	Raw Mill Cyclones Conveying PM Control Device – Fabric Filter (233572)
EU3-G-17	Conveying to Blending Silos PM Control Device – Fabric Filter (233756/233750/233770/233760)
EU3-G-18	Kiln Feed Elevator Transfer to Conveyor and Discharge into Kiln Feed Bin. PM Control Device – Fabric Filter (303061)
EU3-G-19	Kin Feed Bin Discharge to Preheater Elevator PM Control Device – Fabric Filter (303115)
EU3-G-20	Preheater Elevator Discharge to into Preheater PM Control Device – Fabric Filter (303131)

Permit Condition EU3-G-12-001, EU3-G-15-001, EU3-G-17-001, EU3-G-18-001, EU3-G-19-001 and EU3-G-20-001

10 CSR 10-6.060 Construction Permits Required
 Construction Permit No. 122005-005A
 Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005

Emission Limitation:

The permittee shall not emit more than 0.0085 grains per actual cubic foot (gr/acf) of PM₁₀ from any of the baghouses associated with the EU3-G-12, EU3-G-15, EU3-G-17, EU3-G-18, EU3-G-19 and EU3-G-20. [Construction Permit 122005-005A, Special Condition 8.A]

Operational Limitation/Equipment Specification:

- 1) The permittee shall enclose and vent all of the emission units to the baghouses as specified in the construction permit (Construction Permit 122005-005) application. The enclosure of the emissions units specified shall be constructed and maintained such that no visible emissions [zero percent (0%) opacity from the enclosure] are allowed to occur from these sources except through the gasses exiting from the baghouses. [Construction Permit 122005-005A, Special Condition 2.D]
- 2) The baghouses must be in use at all times when that associated emission unit is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. These 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.

[Construction Permit 122005-005A, Special Condition 2.E]

- 3) Appropriate replacement filters for each baghouse shall be kept on hand at all times. These replacement filters 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 122005-005A, Special Condition 2.G]

Monitoring:

The permittee shall monitor and record the operating pressure drop across the baghouses at least once in every 24-hour period when the associated emission unit is in operation.

[Construction Permit 122005-005A, Special Condition 2.F]

Record Keeping:

The permittee shall maintain an operating and maintenance log for each baghouse which shall include the following: [Construction Permit 122005-005A, Special Condition 2.H]

- 1) Incidents of malfunction(s) including the date(s) and duration of the event, the probable cause, any corrective actions taken and the impact on emissions due to the malfunction,
- 2) Any maintenance activities conducted on the unit, such as parts replacement, replacement of equipment, etc., and
- 3) A written record of regular inspection schedule, the date and results of all inspections including any actions or maintenance activities that result from that inspection.

Reporting:

The permittee shall comply with the reporting requirements as specified in Permit Condition PW007.

**Permit Condition EU3-G-12-002, EU3-G-15-002, EU3-G-17-002, EU3-G-18-002,
EU3-G-19-002 and EU3-G-20-002**

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the
Portland Cement Manufacturing Industry – Opacity §63.1345

Emission Limitation:

- 1) The permittee shall not cause to be discharged any gases from each Raw Mill Feed Belts (EU3-G-12, EU3-G-15, EU3-G-17, EU3-G-18, EU3-G-19 and EU3-G-20) which exhibit opacity in excess of ten percent. [§63.1345]
- 2) These emission units are not subject to Permit Condition PW001.

Performance Testing:

Opacity Tests: The permittee must conduct opacity tests in accordance with Method 9 of Appendix A-4 to 40 CFR Part 60. The duration of the Method 9 performance test must be 3 hours (30 6-minute averages), except that the duration of the Method 9 performance test may be reduced to 1 hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) indicated below apply:

- 1) There are no individual readings greater than 10 percent opacity; [§63.1349(b)(2)(i)]
 - 2) There are no more than three readings of 10 percent for the first 1-hour period. [§63.1349(b)(2)(ii)]
- For batch processes that are not run for 3-hour periods or longer, compile observations totaling 3 hours when the unit is operating. [§63.1349(b)(2)]

Compliance Requirement:

The permittee must demonstrate compliance with the opacity emissions standards by using the monitoring methods and procedures in §63.1350(f) based on the maximum 6-minute average opacity exhibited during the performance test period. The permittee must initiate corrective actions within one hour of detecting visible emissions above the applicable limit. [§63.1348(b)(3)(i)]

Monitoring:

- 1) *Opacity monitoring requirements.* The permittee must conduct required emissions monitoring in accordance with the provisions of §63.1350(f)(1)(i) through (f)(1)(vii) and in accordance with the monitoring plan developed under §63.1350(p). The permittee must also develop an opacity monitoring plan in accordance with §63.1350(p)(1) through (p)(4). [§63.1350(f)]
- 2) *Corrective actions.* If visible emissions are observed during any Method 22 visible emissions test conducted under §63.1350(f)(1), the permittee must initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan provisions in §63.1347.. [§63.1350(f)(3)]

Record Keeping:

- 1) The permittee shall maintain files of all information (including all reports and notifications) required by this section 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 (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) 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 record keeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the permittee shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU4-K-09 — Preheater/Precalciner Kiln	
Emission Unit	Description
EU4-K-09	Preheater/Precalciner Kiln (PH/PC) – Clinker Cooler System Clinker production line that operates with an in-line raw mill (3-G-13) and coal/petroleum coke-fired preheater/precalciner kiln system with associated bagfilters. PM Control Device – Fabric Filters (305420/305430, 305440/305450)

Permit Condition EU4-K-09-001

10 CSR 10-6.060 Construction Permits Required
Construction Permit No. 122005-005A
Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005
Best Available Control Technology (BACT) – Carbon Monoxide (CO)

Emission Limitation:

- 1) The permittee shall not emit more than 2.73 pounds of CO per ton of clinker produced from the PH/PC kiln system based on a 30-day rolling average.
[Construction Permit 122005-005A, Special Condition 3.B]
- 2) The permittee shall not emit more than 1,200 pounds of CO per hour of operation from the PH/PC kiln system based on a 1-hour average.
[Construction Permit 122005-005A, Special Condition 3.C]

Operational Limitation/Equipment Specification:

- 1) The permittee shall use good combustion practices at all times for the PH/PC kiln system (4-K-09) in order to meet BACT.
[Construction Permit 122005-005A, Special Condition 3.A]
- 2) Continuous Emission Monitoring System (CEMS) –PH/PC Kiln System
[Construction Permit 122005-005A, Special Condition 4]
 - a) The permittee shall install, calibrate, maintain and operate a CEMS for measuring CO emissions discharged to the atmosphere and record the output of the system for purposes of showing compliance with the CO emission limitations in Special Conditions 3.B and 3.C of Construction Permit 122005-005A.
 - b) The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 4A (PS4A) and Performance Specification 6 (PS6) requirements.
 - c) The specifications of 40 CFR 60, Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit.

Monitoring/Record Keeping:

Compliance with all non-New Source Performance Standards (NSPS) CO emissions limits of this permit shall be demonstrated through the use of the required CEMS. The permittee shall use the procedures described in 40 CFR §75.32 to determine monitor availability.

[Construction Permit 122005-005A, Special Condition 4.D]

- 1) The CEMS required by this permit shall be operated and data recorded during all periods of operation except for CEMS breakdown and repairs. Data will be recorded during calibration checks and zero and span adjustments, although this data should not be used for calculation of hourly values.

- 2) The 1-hour average CO concentrations and flow rates measured by the CEMS required by this permit shall be used to calculate compliance with the emission standards of this permit. At least 2 data points must be used to calculate each 1-hour average.
- 3) For each hour of missing CO emissions data, The permittee shall substitute data by:
 - a) Whenever the monitor data availability is equal to or greater than 95.0%, the permittee shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:
 - i) For a missing data period less than or equal to 24 hours, substitute, as applicable, for each missing hour, the arithmetic average of the flow rates or CO concentrations recorded by a monitoring system during the previous 2,160 quality- assured monitor operating hours, as determined using the procedure in Appendix C to 40 CFR Part 75.
 - ii) For a missing data period greater than 24 hours, substitute as applicable, for each missing hour, the greater of:
 - (1) The 90th percentile hourly flow rate or the 90th percentile CO concentration recorded by a monitoring system during the previous 2,160 quality-assured monitor operating hours, as determined using the procedure in Appendix C to 40 CFR Part 75; or
 - (2) The average of the recorded hourly flow rates or CO concentrations recorded by a monitoring system for the hour before and the hour after the missing data period.
 - b) Whenever the monitor data availability is at least 90.0% but less than 95.0%, the permittee shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:
 - i) For a missing data period of less than or equal to 8 hours, substitute, as applicable, the arithmetic average hourly flow rate or CO concentration recorded by a monitoring system during the previous 2,160 quality-assured monitor operating hours, as determined using the procedure in Appendix C to 40 CFR Part 75.
 - ii) For a missing date period greater than 8 hours, substitute, as applicable, for each missing hour, the greater of:
 - (1) The 95th percentile hourly flow rate or the 95th percentile CO concentration recorded by a monitoring system during the previous 2,160 quality-assured monitor operating hours, as determined using the procedure in Appendix C to 40 CFR Part 75; or
 - (2) The average of the hourly flow rates or CO concentrations recorded by a monitoring system for the hour before and the hour after the missing data period.
 - c) If the monitor availability is less than 90%, the permittee shall obtain actual emission data by an alternative testing or monitoring method approved by the Department.

Reporting:

The permittee shall comply with the reporting requirements as specified in Permit Condition PW007.

Permit Condition EU4-K-09-002

10 CSR 10-6.060 Construction Permits Required
Construction Permit No. 122005-005A
Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005
PM₁₀ Emission Limits

Emission Limitation:

- 1) The permittee shall not emit more than 0.1925 pounds of filterable PM₁₀ per ton of clinker from the PH/PC kiln system (4-K-09). [Construction Permit 122005-005A, Special Condition 8.B]
- 2) The permittee shall not emit more than 1.7325 pounds of total PM₁₀ per ton of clinker from the PH/PC kiln system (4-K-09). [Construction Permit 122005-005A, Special Condition 8.C]

Operational Limitation/Equipment Specification:

- 1) The permittee shall enclose and vent all of the emission units to the baghouses as specified in the construction permit (Construction Permit 122005-05) application. The enclosure of the emissions units specified shall be constructed and maintained such that no visible emissions [zero percent (0%) opacity from the enclosure] are allowed to occur from these sources except through the gasses exiting from the baghouses. [Construction Permit 122005-005A, Special Condition 2.D]
- 2) The baghouses must be in use at all times when that associated emission unit is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. These 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.
[Construction Permit 122005-005A, Special Condition 2.E]
- 3) Appropriate replacement filters for each baghouse shall be kept on hand at all times. These replacement filters 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 122005-005A, Special Condition 2.G]

Monitoring:

The permittee shall monitor and record the operating pressure drop across the baghouses at least once in every 24-hour period when the associated emission unit is in operation.
[Construction Permit 122005-005A, Special Condition 2.F]

Record Keeping:

The permittee shall maintain an operating and maintenance log for each baghouse which shall include the following: [Construction Permit 122005-005A, Special Condition 2.H]

- 1) Incidents of malfunction(s) including the date(s) and duration of the event, the probable cause, any corrective actions taken and the impact on emissions due to the malfunction,
- 2) Any maintenance activities conducted on the unit, such as parts replacement, replacement of equipment, etc., and
- 3) A written record of regular inspection schedule, the date and results of all inspections including any actions or maintenance activities that result from that inspection.

Reporting:

The permittee shall comply with the reporting requirements as specified in Permit Condition PW007.

Permit Condition EU4-K-09-003

10 CSR 10-6.060 Construction Permits Required
Construction Permit No. 122005-005A
Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005
Restriction on the Maximum Amount of Clinker Production Allowed from the PH/PC Kiln System

Emission Limitation:

The permittee shall not produce over 2,220,000 tons of clinker from the PH/PC kiln system (4-K-09) in any consecutive 12-month period.

[Construction Permit 122005-005A, Special Condition 9.A]

Monitoring/Record Keeping:

The permittee shall maintain an accurate record of clinker production from the PH/PC kiln system (4-K-09). The installation shall record the monthly and running 12-month totals of clinker production from this emission unit. [Construction Permit 122005-005A, Special Condition 2.B]

Reporting:

The permittee shall comply with the reporting requirements as specified in Permit Condition PW007.

Permit Condition EU4-K-09-004

10 CSR 10-6.060 Construction Permits Required — Construction Permit No. 022010-005
Use of Alternate Fuel for the Cement Kiln

Operational Limitation:

The permittee shall not combust filter cake material in amounts greater than 22,030 tons per year. The filter cake material will be used as an alternate fuel for coal or petroleum coke in the kiln system.

[Construction Permit 022010-005, Special Condition 1]

Monitoring:

Chemical Analysis of Filter Cake Material Requirement:

[Construction Permit 022010-005, Special Condition 2]

- 1) The permittee shall verify the metals content of the filter cake by testing. The permittee shall test those metals that contribute to the emissions of any Hazardous Air Pollutant (HAP). The metal content of the filter cake material cannot exceed an amount that will cause the HAP emissions to be greater than the Screen Modeling Action Level (SMAL) for that HAP. [Construction Permit 022010-005, Special Condition 2.A]
- 2) The permittee shall verify sulfur content of the filter cake by testing. The sulfur content of the filter cake material cannot exceed that of coal or petroleum coke.
[Construction Permit 022010-005, Special Condition 2.B]
- 3) Testing shall be conducted on a sample of filter cake material from each vendor. In addition, testing shall be conducted at least once every year while the filter cake material is being used as an alternative fuel. [Construction Permit 022010-005, Special Condition 2.D]

Record Keeping/Reporting:

- 1) The permittee shall maintain a record of the metal and sulfur content of the coal and petroleum coke being used in the kiln for comparison against the test results of the filter cake. [Construction Permit 022010-005, Special Condition 2.C]

- 2) The permittee shall maintain a record of all test results for not less than five (5) years and shall make them available to any Missouri Department of Natural Resources' personnel upon request.
[Construction Permit 022010-005, Special Condition 2.D]
- 3) If the test results show that the metal and/or sulfur content of the filter cake material is higher than that of coal/petroleum coke and the resulting HAP emission rate is greater than the SMAL for any HAP, the permittee shall apply for a new construction permit to account for the revised information.
[Construction Permit 022010-005, Special Condition 2.E]

Permit Condition EU4-K-09-005

10 CSR 10-6.060 Construction Permits Required — Construction Permit No. 032013-003 and Amendment Permit No. 032013-003A (Amendment to Permit No. 032013-003) - Use of Alternate Fuel for the Cement Kiln

Annual Alternate Fuels Usage Restriction:

- 1) The permittee shall not combust more than 125,000 tons of alternate fuel in the preheater/precalciner cement kiln (EP 4-K-09) in any consecutive 12-month period.
[Construction Permit 032013-003 and 032013-003A, Special Condition 1.A]
- 2) The permittee shall maintain an accurate record of the amount of alternate fuel combusted in the preheater/precalciner cement kiln (EP 4-K-09) and shall record the monthly and running 12-month totals of alternate fuel usage to demonstrate compliance with the limitations established in Special Condition 1.A. [Construction Permit 032013-003 and 032013-003A, Special Condition 1.B]

Alternate Fuels Requirements:

- 1) The permittee shall not introduce any alternate fuel (excludes coal and coke) into the preheater/precalciner cement kiln (EP 4-K-09) which has less than a 5,800 Btu per pound heat content (as received). [Construction Permit 032013-003 and 032013-003A, Special Condition 2.A]
- 2) The permittee shall only accept and combust alternate fuels from any one or combination of the following non-hazardous secondary material groups:
[Construction Permit 032013-003 and 032013-003A, Special Condition 2.B]
 - a) Group 1 - Commercial and Industrial By-Products and Waste: including, but not limited to, off-specification products, plastics, rubber components, tire manufacturing by products such as tire fluff and buffings, biomass (e.g. agricultural processing residues), paper, cardboard, waxed cardboard, fibers, textiles, polyurethane foam, and rubberized asphalt.
 - b) Group 2 - Construction and Demolition Debris (C&D): including, but not limited to materials from C&D sites such as scrap wood, scrap tires, non-asbestos shingles, carpet, plastics void of PVCs, non-recyclable paper and plastics.
 - c) Group 3 - Domestic Waste: the separated fraction of residential streams including, but not limited to, paper, cardboard, plastics, and fabrics.
- 3) The permittee shall not introduce any alternate fuel (excludes coal and coke) into the preheater/precalciner cement kiln (EP 4-K-09) which has constituent concentrations greater than the following: [Amendment Permit 032013-003A, Special Condition 2.C]

Item	Description	Limit
1	Ash	18.0% by weight
2	Sulfur	2.5% by weight
3	Chlorides	0.55% by weight
4	Antimony	45 parts per million
5	Arsenic	13.0 parts per million
6	Beryllium	0.2 parts per million
7	Cadmium	2.0 parts per million
8	Chromium	55 parts per million
9	Lead	53.0 parts per million
10	Mercury	0.20 parts per million
11	Nickel	200 parts per million

- 4) The permittee shall test each alternate fuel from each supplier for heat content and each constituent concentration to verify compliance with Special Condition 2.A. and 2.C. of Construction Permit 032013-003 and 032013-003A.

Compliance with Previously Established Emission Limitations:

- 1) When combusting any alternate fuels at this installation, the permittee shall continue to remain in compliance with all of the limitations and/or requirements associated with the preheater/precalciner cement kiln (EP 4-K-09) that were established in the Special Conditions of Permit Number 122005-005 (Permit Conditions EU4-K-09-001 through EU4-K-09-004) and later amended in Permit Number 122005-005A (Permit Condition EU4-K-09-001).
 [Construction Permit 032013-003 and 032013-003A, Special Condition 3.A]
- 2) If the emission limitations established in Permit Number 122005-005 (Emission Limitations in Permit Conditions EU4-K-09-001 through EU4-K-09-004) and later amended in Permit Number 122005-005A (Emission Limitations in Permit Condition EU4-K-09-001) 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 032013-003 and 032013-003A, Special Condition 3.B]

Stack Testing Requirements for Alternate Fuels Proposed in Construction Permit 032013-003:

- 1) 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 4-K-09) to quantify the specific air pollutant emission rate(s) from these materials and to demonstrate compliance with any emission/usage limitations established in this permit for these materials. [Construction Permit 032013-003 and 032013-003A, Special Condition 4A]

Pollutant	Requirement
CO	Test annually over a 48-hour test period
SO ₂	Test annually over a 48-hour test period
NO _x	Test annually over a 48-hour test period
VOC	Test and monitor as required by 40 CFR Part 63 Subpart LLL for THC
PM	Test and monitor as required by 40 CFR Part 63 Subpart LLL.
PM ₁₀	Test annually with 4 test runs for mill-on and mill-off
PM _{2.5}	Test annually with 4 test runs for mill-on and mill-off

- 2) Alternatively, the permittee may use one or more of the continuous emissions monitors associated with the preheater/precalciner cement kiln (EP 4-K-09) to quantify the specific air pollutant emission rate(s) from the usage of alternate fuels instead of these performance tests. [Construction Permit 032013-003 and 032013-003A, Special Condition 4.B]
- 3) The permittee shall conduct the above performance testing for each alternate fuel 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 032013-003 and 032013-003A, Special Condition 4.C]
- 4) The permittee shall submit a completed Proposed Test Plan 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 032013-003 and 032013-003A, Special Condition 4.D]
- 5) 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 testing is required by Special Condition Number 4.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 032013-003 and 032013-003A, Special Condition 4.E]
- 6) The permittee shall submit two (2) copies of a written report of the performance test results 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 032013-003 and 032013-003A, Special Condition 4.F]
- 7) 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 032013-003 and 032013-003A, Special Condition 4.G]
- 8) 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 032013-003 and 032013-003A, Special Condition 4.H]
- 9) No later than 30 days after the performance test results are submitted, the permittee shall provide the director with a report that establishes compliance with the projected actual emissions of the tested pollutants listed in Special Condition 4.A. The emission rates shall be reported in pounds per hour and tons per year so that the Air Pollution Control Program may verify the emissions of this project. If the difference between the projected actual emissions and the baseline actual emissions are greater than what was indicated in this permit, then the permittee shall submit an application for an amendment to this permit to correct the emissions calculations. [Construction Permit 032013-003 and 032013-003A, Special Condition 4.I]

Record Keeping/ Reporting:

- 1) The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. [Construction Permit 032013-003 and 032013-003A, Special Condition 5.AC]
- 2) The permittee shall report to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which any record required by this permit shows an exceedance of a limitation imposed by this permit. [Construction Permit 032013-003 and 032013-003A, Special Condition 5.B]

Permit Condition EU4-K-09-006

10 CSR 10-6.380 Control of NO_x Emissions From Portland Cement Kilns

General Provisions:

- 1) The permittee shall not operate the kiln during the period starting May 1 and ending September 30 of each year, unless the kiln operates with the following: [10 CSR 10-6.380(3)(A)]:
 - a) Low-NO_x burners; [10 CSR 10-6.380(3)(A)1.] or
 - b) An emission rate of : [10 CSR 10-6.380(3)(A)4.D]
 - i) For preheater/precalciner kilns—2.7 pounds of NO_x per ton of clinker produced, averaged over the period from May 1 through September 30 of each year; or
- 2) *Excess Emissions During Start-Up, Shutdown, or Malfunction.* If the permittee provides notice of excess emissions pursuant to state rule 10 CSR 10-6.050(3)(B), the director will determine whether the excess emissions are attributable to start-up, shutdown or malfunction conditions, pursuant to rule 10 CSR 10-6.050(3)(C). If the director determines that the excess emissions are attributable to such conditions, and if such excess emissions cause a kiln to exceed the applicable emission limits in this rule, the director will determine whether enforcement action is warranted, as provided in rule 10 CSR 10-6.050(3)(C). If the director determines that the excess emissions are attributable to a start-up, shutdown, or malfunction condition and does not warrant enforcement action, those emissions would not be included in the calculation of ozone season NO_x emissions.
[10 CSR 10-6.380(3)(C)]

Monitoring: [10 CSR 10-6.380(4)(C)]

- 1) Complying with 10 CSR 10-6.380(3)(A)1. The permittee shall maintain and operate the device according to the manufacturer's specifications as approved by the permitting agency. The monitoring shall:
 - a) Include parameters indicated in the manufacturer's specifications and recommendations for the low-NO_x burner or mid-kiln firing system as approved by the permitting agency; and
 - b) Identify the specific operation conditions to be monitored and correlation between the operating conditions and NO_x emission rate.
- 2) The permittee shall conduct subsequent performance tests, on an annual basis to comply with 10 CSR 10-6.380(3)(A)4.D, consistent with the requirements of 10 CSR 10-6.380(5).
- 3) The permittee may comply with the requirements in 10 CSR 10-6.380(4)(C)1. through the use of an alternative compliance method approved by the staff director and incorporated in the federally approved SIP.
- 4) Any deviation from the operating conditions or specifications, which result in an increase in NO_x emissions, established in 10 CSR 10-6.380(4)(C) constitute a violation of this rule, unless the permittee demonstrates to the satisfaction of the director that the deviation did not result in an increase in NO_x emissions.

Test Methods: [10 CSR 10-6.380(5)]

NOx emission level testing shall use one (1) of the following methods as specified by 40 CFR Part 60 Appendix A—Reference Methods:

- 1) Method 7—Determination of Nitrogen Oxide Emissions from Stationary Sources;
- 2) Method 7A—Determination of Nitrogen Oxide Emissions from Stationary Sources—Ion Chromatographic Method;
- 3) Method 7C—Determination of Nitrogen Oxide Emissions from Stationary Sources—Alkaline-Permanganate/Colorimetric Method;
- 4) Method 7D—Determination of Nitrogen Oxide Emissions from Stationary Sources—Alkaline-Permanganate/Ion Chromatographic Method; or
- 5) Method 7E—Determination of Nitrogen Oxide Emissions from Stationary Sources (Instrumental Analyzer Procedure).

Record Keeping: [10 CSR 10-6.380(4)(B)]

- 1) The permittee shall produce and maintain records, which shall include, but are not limited to the results of any initial performance test, the results of any subsequent performance tests, the date, time and duration of any start-up, shutdown or malfunction in the operation of Preheater/Precalciner Kiln or the emissions monitoring equipment, as applicable.
- 2) Daily cement kiln clinker production in tons per day.
- 3) Any applicable monitoring data.
- 4) All records required to be produced or maintained shall be retained on-site for a minimum of five (5) years and made available upon request.

Reporting: [10 CSR 10-6.380(4)(A)]

The permittee shall comply with the following requirements:

- 1) The permittee shall submit to the staff director by October 31 of each year, an annual report documenting for Preheater/Precalciner Kiln:
 - a) The emissions, in pounds of NOx per ton of clinker produced from each affected Portland cement kiln during the period from May 1 through September 30;
 - b) The results of any performance testing; and
 - c) Cement kiln clinker production, in tons, from May 1 through September 30; and
- 2) If the permittee elects to comply with 10 CSR 10-6-380(3)(A)3. or (3)(A)5, the permittee will supply, starting April 2008, the staff with a report as specified in the compliance plan.

Permit Condition EU4-K-09-007

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry

Particulate Matter (PM), Dioxin and Furan (D/F), Mercury, Total Hydrocarbon (THC), and Hydrogen Chloride (HCl)²

Emission Limitation:

The permittee shall meet the following requirements

1) *PM Emission Standards:*

PM emissions limit from new kilns that combine kiln exhaust and clinker cooler gas shall be calculated using the following equation (Equation 2 of §63.1343) during normal operation:
[§63.1343(b)(2)]

$$PM_{alt} = (0.0020 \times 1.65) \left[\frac{Q_k + Q_c + Q_{ab} + Q_{cm}}{7000} \right]$$

Where:

0.002 = The PM exhaust concentration (gr/dscf) equivalent to 0.01 lb per ton clinker where clinker cooler and kiln exhaust gas are not combined

1.65 = The conversion factor of lb feed per lb clinker

Q_k = The exhaust flow of the kiln (dscf/ton raw feed)

Q_c = The exhaust flow of the clinker cooler (dscf/ton raw feed).

Q_{ab} = The exhaust flow of the alkali bypass (dscf/ton feed).

Q_{cm} = The exhaust flow of the coal mill (dscf/ton feed).

7000 = The conversion factor for grains (gr) per lb.

2) *Dioxin and Furan (D/F) Emission Standards:* [§63.1343(b)(1)]

Dioxin and Furan (D/F) emissions shall be limited to 0.20 nanogram per dry cubic meter (ng/dscm) (TEQ), corrected to 7% oxygen. If the average temperature at the inlet to the first particulate matter control device during the D/F performance test is 400 °F or less this limit is changed to 0.40 ng/dscm (1.7 × 10⁻¹⁰ gr per dscf) (TEQ) (normal operation)

3) *Mercury Emission Standards:* [§63.1343(b)(1)]

Mercury emissions shall be limited to 55 lb/million tons clinker, 30-day rolling average (normal operation).

4) *Total Hydrocarbon (THC) Emission Standard:* [§63.1343(b)(1)]

Total hydrocarbon emissions (measured as propane) shall be limited to 24 parts per million by

² The compliance date for facilities subject to 40 CFR Part 63, Subpart LLL is September 9, 2015. River Cement has requested a compliance extension until September 9, 2016, according to the provisions under 40 CFR §63.6(i), because River Cement asserts it needs additional time to demonstrate compliance for Hydrogen Chloride (HCl) CEMS and Mercury (Hg) CEMS compliance limits. The Missouri Department of Natural Resources' Air Pollution Control Program, in coordination with U.S. Environmental Protection Agency, Region 7, by a letter to River Cement, dated June 24, 2015 approved a one-year compliance extension request regarding Part 63 Subpart LLL, limited to HCL and HG compliance limit demonstrations as described in the approval letter.

volume, dry (ppmvd), 30-day rolling average (normal operation), corrected to 7% oxygen.

Any source subject to the 24 ppmvd THC limit may elect to meet an alternative limit of 12 ppmvd for total organic HAP.

5) *Hydrogen Chloride (HCl) Emissions Standard:* [§63.1343(b)(1)]

Hydrogen chloride emissions shall be limited to 3 parts per million by volume, dry (ppmvd), corrected to 7% oxygen (normal operation).

Operating Limits for Kilns:

- 1) The permittee must operate the kiln such that the temperature of the gas at the inlet to the kiln particulate matter control device (PMCD) does not exceed the applicable temperature limit specified in §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 §63.1346(b) and established during the performance test when the raw mill was operating, is not exceeded, except during periods of startup/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 §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 10 percent. [§63.1346(a)(2)]
- 2) The temperature limit for affected sources meeting the limits of §63.1346(a) 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 must comply with a mercury limit specified in §63.1343, this paragraph no longer applies. [§63.1346(f)]
- 4) During periods of startup and shutdown the permittee must meet the requirements listed in (g)(1) through (4) of §63.1346. [§63.1346(g)]
 - a) During startup the permittee must use any one or combination of the following clean fuels: natural gas, synthetic natural gas, propane, distillate oil, synthesis gas (syngas), and ultra-low sulfur diesel (ULSD) until the kiln reaches a temperature of 1200 degrees Fahrenheit. [§63.1346(g)(1)]
 - b) Combustion of the primary kiln fuel may commence once the kiln temperature reaches 1200 degrees Fahrenheit. [§63.1346(g)(2)]
 - c) All air pollution control devices must be turned on and operating prior to combusting any fuel. [§63.1346(g)(3)]
 - d) The permittee must keep records as specified in §63.1355 (see Permit Condition PW006) during periods of startup and shutdown. [§63.1346(g)(4)]

Performance Testing:

1) *PM Emissions Tests* [§63.1349(b)(1)]

- a) The permittee shall demonstrate initial compliance by conducting a performance test using Method 5 or Method 5I at Appendix A-3 to 40 CFR Part 60. The permittee must also monitor continuous performance through use of a PM continuous parametric monitoring system (PM CPMS). [§63.1349(b)(1)]
 - i) For PM CPMS, the permittee will establish a site-specific operating limit. If the PM performance test demonstrates the PM emission levels to be below 75 percent of the emission limit the permittee will use the average PM CPMS value recorded during the PM compliance test, the milliamp equivalent of zero output from the PM CPMS, and the average PM result of the compliance test to establish the operating limit. If the PM compliance test demonstrates the PM emission levels to be at or above 75 percent of the emission limit the permittee will use the average PM CPMS value recorded during the PM compliance test to establish the operating limit. The permittee will use the PM CPMS to demonstrate continuous compliance with the permittee's 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. [§63.1349(b)(1)(i)]
 - (1) The permittee's PM CPMS must provide a 4-20 milliamp output and the establishment of its relationship to manual reference method measurements must be determined in units of milliamps. [§63.1349(b)(1)(i)(A)]
 - (2) The permittee's PM CPMS operating range must be capable of reading PM concentrations from zero to a level equivalent to three times the permittee's allowable emission limit. If the permittee's PM CPMS is an auto-ranging instrument capable of multiple scales, the primary range of the instrument must be capable of reading PM concentration from zero to a level equivalent to three times the permittee's allowable emission limit. [§63.1349(b)(1)(i)(B)]
 - (3) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, record and average all milliamp output values from the PM CPMS for the periods corresponding to the compliance test runs (e.g., average all the permittee's PM CPMS output values for three corresponding 2-hour Method 5I test runs). [§63.1349(b)(1)(i)(C)]
 - ii) The permittee shall determine the operating limit as specified in §63.1349 (b)(1)(iii) through (iv). If the PM performance test demonstrates PM emission levels to be below 75 percent of the emission limit the permittee will use the average PM CPMS value recorded during the PM compliance test, the milliamp equivalent of zero output from the PM CPMS, and the average PM result of your compliance test to establish your operating limit. If the PM compliance test demonstrates the PM emission levels to be at or above 75 percent of the emission limit the permittee will use the average PM CPMS value recorded during the PM compliance test to establish the operating limit. The permittee must verify an existing or establish a new operating limit after each repeated performance test. The permittee must repeat the performance test at least annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test. [§63.1349(b)(1)(ii)]
 - iii) If the average of the three Method 5 or 5I compliance test runs is below 75 percent of the PM emission limit, the permittee must calculate an operating limit by establishing a relationship of PM CPMS signal to PM concentration using the PM CPMS instrument zero, the average PM CPMS values corresponding to the three compliance test runs, and the average PM

concentration from the Method 5 or 5I compliance test with the procedures in §63.1349 (b)(1)(iii)(A) through (D). [§63.1349(b)(1)(iii)]

- (1) Determine the PM CPMS instrument zero output with one of the following procedures. [§63.1349(b)(1)(iii)(A)]
- (a) Zero point data for in-situ instruments should be obtained by removing the instrument from the stack and monitoring ambient air on a test bench. [§63.1349(b)(1)(iii)(A)(1)]
 - (b) Zero point data for extractive instruments should be obtained by removing the extractive probe from the stack and drawing in clean ambient air. [§63.1349(b)(1)(iii)(A)(2)]
 - (c) The zero point may also be established by performing manual reference method measurements when the flue gas is free of PM emissions or contains very low PM concentrations (e.g., when the permittee's process is not operating, but the fans are operating or the permittee's source is combusting only natural gas) and plotting these with the compliance data to find the zero intercept. [§63.1349(b)(1)(iii)(A)(3)]
 - (d) If none of the steps in §63.1349 (b)(1)(iii)(A)(1) through (3) are possible, the permittee must use a zero output value provided by the manufacturer. [§63.1349(b)(1)(iii)(A)(4)]
- (2) Determine the PM CPMS instrument average in milliamps, and the average of the corresponding three PM compliance test runs, using the following equation (Equation 3 of §63.1349): [§63.1349(b)(1)(iii)(B)]

$$\bar{x} = \frac{1}{n} \sum_1^n X_1, \bar{y} = \frac{1}{n} \sum_1^n Y_1 \quad (Eq. 3)$$

Where:

X_1 = The PM CPMS data points for the three runs constituting the performance test.

Y_1 = The PM concentration value for the three runs constituting the performance test.

n = The number of data points.

- (3) With the instrument zero expressed in milliamps, the three run average PM CPMS milliamp value, and the three run PM compliance test average, determine a relationship of lb/ton-clinker per milliamp with the following equation (Equation 4 §63.1349). [§63.1349(b)(1)(iii)(C)]

$$R = \frac{Y_1}{(X_1 - z)} \quad (Eq. 4)$$

Where:

R = The relative lb/ton-clinker per milliamp for the PM CPMS.

Y_1 = The three run average lb/ton-clinker PM concentration.

X_1 = The three run average milliamp output from the PM CPMS.

z = The milliamp equivalent of the instrument zero determined from (b)(1)(iii)(A).

- (4) Determine the source specific 30-day rolling average operating limit using the lb/ton-clinker per milliamp value from Equation 4 in Equation 5, below. This sets the operating limit at the PM CPMS output value corresponding to 75 percent of the emission limit. [§63.1349(b)(1)(iii)(D)]

$$O_1 = z + \frac{0.75(L)}{R} \quad (\text{Eq. 5})$$

Where:

O_1 = The operating limit for the PM CPMS on a 30-day rolling average, in milliamps.

L = The source emission limit expressed in lb/ton clinker.

z = The instrument zero in milliamps, determined from (1)(i).

R = The relative lb/ton-clinker per milliamp for the PM CPMS, from Equation 4.

- iv) If the average of the three PM compliance test runs is at or above 75 percent of your PM emission limit the permittee must determine the operating limit by averaging the PM CPMS milliamp output corresponding to the three PM performance test runs that demonstrate compliance with the emission limit using Equation 6, below. [§63.1349(b)(1)(iv)]

$$O_h = \frac{1}{n} \sum_{i=1}^n X_i \quad (\text{Eq. 6})$$

Where:

X_1 = The PM CPMS data points for all runs i .

n = The number of data points.

O_h = The site specific operating limit, in milliamps.

- v) To determine continuous operating compliance, the permittee must record the PM CPMS output data for all periods when the process is operating, and use all the PM CPMS data for calculations when the source 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. Use Equation 7 to determine the 30 kiln operating day average. [§63.1349(b)(1)(v)]

$$30 \text{ kiln operating day} = \frac{\sum_{i=1}^n H_{pvi}}{n} \quad (\text{Eq. 7})$$

Where:

H_{pvi} = The hourly parameter value for hour i .

n = The number of valid hourly parameter values collected over 30 kiln operating days.

- vi) For each performance test, conduct at least three separate test runs under the conditions that exist when the affected source is operating at the highest load or capacity level reasonably expected to occur. Conduct each test run to collect a minimum sample volume of 2 dscm for determining compliance with a new source limit and 1 dscm for determining compliance with an existing source limit. Calculate the average of the results from three consecutive runs, including applicable sources as required by (D)(viii), to determine compliance. The permittee need not determine the particulate matter collected in the impingers (“back half”) of the Method 5 or Method 5I particulate sampling train to demonstrate compliance with the

PM standards of this subpart. This shall not preclude the permitting authority from requiring a determination of the “back half” for other purposes. [§63.1349(b)(1)(vi)]

vii) For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report must also include the make and model of the PM CPMS instrument, serial number of the instrument, analytical principle of the instrument (e.g. beta attenuation), span of the instruments primary analytical range, milliamp value equivalent to the instrument zero output, technique by which this zero value was determined, and the average milliamp signals corresponding to each PM compliance test run. [§63.1349(b)(1)(vii)]

viii) When there is an inline coal mill with a separate stack associated with a kiln, the main exhaust and inline coal mill must be tested simultaneously and the combined emission rate of PM from the kiln and inline coal mill must be computed for each run using the following equation (Equation 8 of §63.1349). [§63.1349(b)(1)(viii)]

$$E_{Cm} = \frac{E_K + E_B + E_C}{P} \quad (Eq. 8)$$

Where:

E_{Cm} = Combined hourly emission rate of PM from the kiln and bypass stack and/or inline coal mill, lb/ton of kiln clinker production.

E_K = Hourly emissions of PM emissions from the kiln, lb.

E_B = Hourly PM emissions from the alkali bypass stack, lb.

E_C = Hourly PM emissions from the inline coal mill stack, lb.

P = Hourly clinker production, tons.

ix) The owner or operator of a kiln with an in-line raw mill and subject to limitations on PM emissions shall demonstrate initial compliance by conducting separate performance tests while the raw mill is under normal operating conditions and while the raw mill is not operating. [§63.1349(b)(1)(viii)]

2) *D/F Emissions Tests* [§63.1349(b)(3)]

The permittee shall conduct a performance test using Method 23 of Appendix A-7 to 40 CFR Part 60.

- a) Each performance test must consist of three separate runs conducted under representative conditions. The duration of each run must be at least 3 hours, and the sample volume for each run must be at least 2.5 dscm (90 dscf). [§63.1349(b)(3)(i)]
- b) The temperature at the inlet to the kiln or in-line kiln/raw mill PMCD must be continuously recorded during the period of the Method 23 test, and the continuous temperature record(s) must be included in the performance test report. [§63.1349(b)(3)(ii)]
- c) Hourly average temperatures must be calculated for each run of the performance test. [§63.1349(b)(3)(iii)]
- d) The run average temperature must be calculated for each run, and the average of the run average temperatures must be determined and included in the performance test report and will determine the applicable temperature limit in accordance with §63.1344(b). [§63.1349(b)(3)(iv)]
- e) Performance tests required under §63.1349(b)(3) shall be repeated every 30 months. [§63.1349(c)]

3) *THC Emissions Test* [§63.1349(b)(4)]

- a) The permittee must operate a CEMS in accordance with the requirements in §63.1350(i). For the purposes of conducting the accuracy and quality assurance evaluations for CEMS, the THC span

value (as propane) is 50 ppmvd and the reference method (RM) is Method 25A of Appendix A to 40 CFR Part 60. [§63.1349(b)(4)(i)]

- b) Use the THC CEMS to conduct the initial compliance test for the first 30 kiln operating days of kiln operation after the compliance date of the rule. See §63.1348(a). [§63.1349(b)(4)(ii)]
- c) Instead of conducting the performance test specified in §63.1349(b)(4), the permittee may conduct a performance test to determine emissions of total organic HAP by following the procedures in §63.1349(b)(7). [§63.1349(b)(4)(v)]

4) *Mercury emissions tests.* [§63.1349(b)(5)]

The permittee shall operate a mercury CEMS or a sorbent trap monitoring system in accordance with the requirements of §63.1350(k). The initial compliance test must be based on the first 30 operating days in which the affected source operates using a mercury CEMS or a sorbent trap monitoring system after the compliance date of the rule. See § 63.1348(a).

- a) 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 §63.1350(k)(5). [§63.1349(b)(5)(i)]
- b) Calculate the emission rate using the following equation (Equation 10 of §63.1349): [§63.1349(b)(5)(ii)]

$$E_{30D} = K \frac{\sum_{i=1}^n C_i Q_i}{P} \quad (\text{Eq. 10})$$

Where:

E_{30D} = 30-day rolling emission rate of mercury, lb/MM ton of clinker.

C_i = Concentration of mercury for operating hour, $\mu\text{g}/\text{scm}$.

Q_i = Volumetric flow rate of effluent gas for operating hour i , where C_i and Q_i are on the same basis (either wet or dry), scm/hr .

K = conversion factor, $1\text{lb}/454,000,000 \mu\text{g}$.

N = Number of operating hours in a 30 kiln operating day period.

P = 30 days of clinker production during the same time period as the mercury emissions measured, million tons.

5) *HCl emissions tests.* [§63.1349(b)(6)]

The permittee must conduct performance testing by the following method:

- a) If the source is not controlled by a wet scrubber, tray tower or dry sorbent injection system, the permittee must operate a CEMS in accordance with the requirements of §63.1350(l)(1). See §63.1348(a). [§63.1349(b)(6)(ii)(A)]
- b) The initial compliance test must be based on the 30 kiln operating days that occur after the compliance date of this rule in which the affected source operates using a HCl CEMS. Hourly HCl concentration data must be obtained according to §63.1350(l). [§63.1349(b)(6)(ii)(B)]
- c) As an alternative to paragraph (b)(6)(i)(B) of §63.1349, the permittee may choose to monitor SO_2 emissions using a CEMS in accordance with the requirements of § 63.1350(l)(3). The permittee must establish an SO_2 operating limit equal to the highest 1 hour average recorded during the HCl stack test. This operating limit will apply only for demonstrating HCl compliance.

6) *HCl Emissions Tests with SO_2 Monitoring.* [§63.1349(b)(8)]

If the permittee chooses to monitor SO_2 emissions using a CEMS to demonstrate HCl compliance, the permittee must follow the procedures in (b)(8)(i) through (ix) of §63.1349 (listed below) and in

accordance with the requirements of §63.1350(1)(3). The permittee must establish an SO₂ operating limit equal to the average of the SO₂ emissions recorded during the HCl stack test. This operating limit will apply only for demonstrating HCl compliance.

- a) The permittee must use Method 321 of appendix A to 40 CFR Part 63 to determine emissions of HCl. Each performance test must consist of three separate runs under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with §63.7(e). Each run must be conducted for at least one hour. [§63.1349(b)(8)(i)]
- b) At the same time that the permittee is conducting the performance test for HCl, the permittee must also determine a site-specific SO₂ emissions limit by operating an SO₂ CEMS in accordance with the requirements of §63.1350(1). The duration of the performance test must be three hours and the average SO₂ concentration (as calculated from the 1-minute averages) during the 3-hour test must be calculated. You must establish your SO₂ operating limit and determine compliance with it according to paragraphs (b)(8)(vii) and (viii) of §63.1349. [§63.1349(b)(8)(ii)]
- c) The permittee must use the fraction of time the raw mill is on and the fraction of time that the raw mill is off and calculate this limit as a weighted average of the SO₂ levels measured during raw mill on and raw mill off testing. [§63.1349(b)(8)(iii)]
- d) The SO₂ CEMS must be calibrated and operated according to the requirements of §60.63(f). [§63.1349(b)(8)(iv)]
- e) The SO₂ CEMS measurement scale must be capable of reading SO₂ concentrations consistent with the requirements of §60.63(f), including mill on or mill off operation. [§63.1349(b)(8)(v)]
- f) The permittee must conduct separate performance tests while the raw mill is operating (“mill on”) and while the raw mill is not operating (“mill off”). Using the fraction of time the raw mill is on and the fraction of time that the raw mill is off, calculate this limit as a weighted average of the THC levels measured during raw mill on and raw mill off compliance testing with Equation 17. [§63.1349(b)(8)(vi)]

$$R = (y * t) + x * (t - 1) \quad (Eq.17)$$

Where:

- R = Operating limit as SO₂ , ppmvw.
- y = Average SO₂ CEMS value during mill on operations, ppmvw.
- t = Percentage of operating time with mill on, expressed as a decimal.
- x = Average SO₂ CEMS value during mill off operations, ppmvw.
- t-1 = Percentage of operating time with mill off, expressed as a decimal.

- g) To determine continuous compliance with the SO₂ operating limit, the permittee must record the SO₂ CEMS output data for all periods when the process is operating and the SO₂ CEMS is not out-of-control. The permittee must demonstrate continuous compliance by using all quality-assured hourly average data collected by the SO₂ CEMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (ppmvw) on a 30 operating day rolling average basis, updated at the end of each new kiln operating day. Use Equation 18 to determine the 30 kiln operating day average. [§63.1349(b)(8)(vii)]

$$30 \text{ kiln operating day} = \frac{\sum_{i=1}^n H_{pvi}}{n} \quad (Eq. 16)$$

Where:

H_{pvi} = The hourly parameter value for hour i , ppmvw.

n = The number of valid hourly parameter values collected over 30 kiln operating days.

- h) The permittee must use EPA Method 321 of appendix A to part 60 of this chapter to determine HCl emissions. For each performance test, conduct at least three separate runs under the conditions that exist when the affected source is operating at the highest load or capacity level reasonably expected to occur. The permittee must conduct three separate test runs with the raw mill on, and three separate runs under the conditions that exist when the affected source is operating at the highest load or capacity level reasonably expected to occur with the mill off. [§63.1349(b)(8)(viii)]
- i) If the SO₂ level exceeds by 10 percent or more your site-specific SO₂ emissions limit, the permittee must [§63.1349(b)(8)(ix)]
 - i) As soon as possible but no later than 30 days after the exceedance, conduct an inspection and take corrective action to return the SO₂ CEMS measurements to within the established value, and [§63.1349(b)(8)(ix)(A)]
 - ii) Within 90 days of the exceedance or at the time of the annual compliance test, whichever comes first, conduct another performance test to determine compliance with the HCl limit and to verify or re-establish your site-specific SO₂ emissions limit. [§63.1349(b)(8)(ix)(B)]

Monitoring:

- 1) Following the compliance date, the permittee must demonstrate compliance with this subpart on a continuous basis by meeting the requirements of §63.1350. [§63.1350(a)(1)]
- 2) 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)]
- 3) 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)]
- 4) Any instance where the permittee fails to comply with the continuous monitoring requirements of this section is a violation. [§63.1350(a)(4)]
- 5) *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 40 CFR Part 60. 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) of this subpart. The permittee must also repeat the test if the permittee changes the analytical range of the instrument, or if the permittee 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: [§63.1350(b)(1)(iii)]
 - i) Within 48 hours of the exceedance, visually inspect the APCD; [§63.1350(b)(1)(iii)(A)]
 - ii) 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 [§63.1350(b)(1)(iii)(B)]
 - iii) 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)(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)]
- 6) *Clinker production monitoring requirements.* [§63.1350(d)]
 - a) Determine hourly clinker production by one of two methods: [§63.1350(d)(1)]
 - 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 [§63.1350(d)(1)(i)]
 - 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 the 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. This ratio must be updated monthly. Note that if this ratio changes at clinker reconciliation, the permittee must use the new ratio going forward, but the permittee does not have to retroactively change clinker production rates previously estimated. [§63.1350(d)(1)(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 within 30 days of the effective date of this rule (for existing sources). During each quarter of source operation, the permittee 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)]
- 7) *D/F monitoring requirements.* [§63.1350(g)]

The permittee shall comply with the monitoring requirements of §63.1350(g)(1) through (g)(6) to demonstrate continuous compliance with the D/F emissions standard. The permittee must also develop an emission monitoring plan in accordance with (p)(1) through (p)(4) §63.1350. (see Permit Condition PW005). [§63.1350(g)]

 - a) The permittee must install, calibrate, maintain, and continuously operate a continuous monitor to record the temperature of the exhaust gases from the kiln and in-line kiln/raw mill at the inlet to, or upstream of, the kiln and in-line kiln/raw mill. [§63.1350(g)(1)]
 - 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). [§63.1350(g)(1)(i)]

- 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 Director. [§63.1350(g)(1)(ii)]
 - iii) The calibration of all thermocouples and other temperature sensors must be verified at least once every three months. [§63.1350(g)(1)(iii)]
 - b) The permittee must monitor and continuously record the temperature of the exhaust gases from the kiln at the inlet to the kiln. [§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)]
- 8) *THC Monitoring Requirements.*
The permittee must comply with the monitoring requirements of §63.1350(i)(1) and (i)(2). The permittee must also develop an emission monitoring plan in accordance with (p)(1) through (p)(4) §63.1350. (see Permit Condition PW005). [§63.1350(i)]
- a) The permittee must install, operate, and maintain a THC continuous emission monitoring system in accordance with Performance Specification 8 of Appendix B to 40 CFR Part 60 and comply with all of the requirements for continuous monitoring systems found in the general provisions, Subpart A of 40 CFR Part 63. The permittee must operate and maintain each CEMS according to the quality assurance requirements in Procedure 1 of Appendix F in 40 CFR Part 60. [§63.1350(i)(1)]
- 9) *Total organic HAP monitoring requirements.*
If the permittee is complying with the total organic HAP emissions limits, the permittee must continuously monitor THC according to §63.1350(i)(1) and (2) or in accordance with Performance Specification 15 of Appendix B to 40 CFR Part 60 and comply with all of the requirements for continuous monitoring systems found in the general provisions, 40 CFR Part 63 Subpart At. The permittee must operate and maintain each CEMS according to the quality assurance requirements in Procedure 1 of appendix F in 40 CFR Part 60. In addition, the permittee must follow the monitoring requirements in paragraphs (m)(1) through (m)(4) of §63.1350. The permittee must also develop an emission monitoring plan in accordance with (p)(1) through (p)(4) of §63.1350. (see Permit Condition PW005). [§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 40 CFR Part 60 or an integrated sorbent trap monitoring system in accordance with Performance Specification 12B (PS 12B) of Appendix B to 40 CFR Part 60. The permittee must monitor mercury according to §63.1350 (k)(1) through (k)(5). The permittee must also develop an emission monitoring plan in accordance with (p)(1) through (p)(4) of §63.1350 (see Permit Condition PW005). [§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 5 µg/m³ 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 (k)(2)(i) and (ii) of §63.1350. [§63.1350(k)(2)]
- i) Include a second span that encompasses the Hg emission concentrations expected to be encountered during “mill off” conditions. This second span may be rounded to a multiple of 5 µg/m³ of total mercury. The requirements of PS 12A, shall be followed for this second span with the exception that a RATA with the mill off is not required. [§63.1350(k)(2)(i)]
- ii) Quality assure any data above the span value established in paragraph (k)(1) of this section using the following procedure. Any time two consecutive one-hour average measured concentration of Hg exceeds the span value the permittee must, within 24 hours before or after, introduce a higher, “above span” Hg reference gas standard to the Hg CEMS. The “above span” reference gas must meet the requirements of PS 12A, Section 7.1, must be of a concentration level between 50 and 150 percent of the highest hourly concentration measured during the period of measurements above span, and must be introduced at the probe. Record and report the results of this procedure as the permittee would for a daily calibration. The “above span” calibration is successful if the value measured by the Hg CEMS is within 20 percent of the certified value of the reference gas. If the value measured by the Hg CEMS exceeds 20 percent of the certified value of the reference gas, then the permittee must normalize the one-hour average stack gas values measured above the span during the 24-hour period preceding or following the “above span” calibration for reporting based on the Hg CEMS response to the reference gas as shown in equation 19 below:

$$\frac{\text{Certified reference gas volume}}{\text{Measured value of reference gas}} \times \text{Measured stack gas result} \quad (\text{EQ.19})$$

= Normalized stack gas result

Only one ‘above span’ calibration is needed per 24 hour period. [§63.1350(k)(2)(ii)]

- 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 (k)(3)(i) through (iv) of §63.135: [§63.1350(k)(3)]
- i) For stack Hg concentrations >1 µg/dscm, ≤10% of section 1 mass; [§63.1350(k)(3)(i)]
- ii) For stack Hg concentrations ≤1 µg/dscm and >0.5 µg/dscm, ≤20% of section 1 mass; [§63.1350(k)(3)(ii)]
- iii) For stack Hg concentrations ≤0.5 µg/dscm and >0.1 µg/dscm, ≤50% of section 1 mass; and [§63.1350(k)(3)(iii)]
- iv) For stack Hg concentrations ≤0.1 µg/dscm, no breakthrough criterion assuming all other QA/QC specifications are met. [§63.1350(k)(3)(iv)]
- 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 (n)(1) through (10) of §63.1350. [§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)]
- g) If the permittee uses a mercury CEMS, 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 §63.1350 (n)(1) through (n)(10). [§63.1350(k)(4)]

11) *HCl monitoring requirements.*

The permittee must monitor HCl emissions continuously according to paragraph (l)(1) or (2) and paragraphs (m)(1) through (4) of §63.1350. The permittee must also develop an emissions monitoring plan in accordance with paragraphs (p)(1) through (4) of §63.1350. [§63.1350(l)]

- a) If the permittee monitors compliance with the HCl emissions limit by operating an HCl CEMS, the permittee must do so in accordance with Performance Specification 15 (PS 15) of Appendix B to 40 CFR Part 60, or, upon promulgation, in accordance with any other performance specification for HCl CEMS in Appendix B to 40 CFR Part 60. The permittee must operate, maintain, and quality assure a HCl CEMS installed and certified under PS 15 according to the quality assurance requirements in Procedure 1 of Appendix F to 40 CFR Part 60 except that the Relative Accuracy Test Audit requirements of Procedure 1 must be replaced with the validation requirements and criteria of sections 11.1.1 and 12.0 of PS 15. If the permittee installs and operates an HCl CEMS in accordance with any other performance specification for HCl CEMS in Appendix B to 40 CFR Part 60, the permittee must operate, maintain and quality assure the HCl CEMS using the procedure of appendix F to 40 CFR Part 60 applicable to the performance specification. The permittee must use Method 321 of Appendix A to 40 CFR Part 63 as the reference test method for conducting relative accuracy testing. The span value and calibration requirements in paragraphs (l)(1)(i) and (ii) of §63.1350 apply to HCl CEMS other than those installed and certified under PS 15. [§63.1350(l)(1)]
 - i) The permittee must use a span value for any HCl CEMS that represents the intended upper limit of the HCl concentration measurement range during normal inline raw “mill on” operation. The span value should be a concentration equivalent to approximately two times the emissions standard and it may be rounded to the nearest multiple of 5 ppm of HCl. The HCl CEMS data recorder output range must include the full range of expected HCl 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(l)(1)(i)]
 - ii) In order to quality assure data measured above the span value, the permittee must use one of the two options in paragraphs (l)(1)(ii)(A) and (B) of §63.1350. [§63.1350(l)(1)(ii)]
 - (1) Include a second span that encompasses the HCl emission concentrations expected to be encountered during “mill off” conditions. This second span may be rounded to a multiple of 5 µg/m³ of total HCl. The requirements of the appropriate HCl monitor performance specification, shall be followed for this second span with the exception that a RATA with the mill off is not required. [§63.1350(l)(1)(ii)(A)]
 - (2) Quality assure any data above the span value established in paragraph (l)(1)(i) of §63.1350 using the following procedure. Any time the average measured concentration of HCl exceeds or is expected to exceed the span value for greater than two hours the

permittee must, within a period 24 hours before or after the `above span' period, introduce a higher, `above span' HCl reference gas standard to the HCl CEMS. The `above span' reference gas must meet the requirements of the applicable performance specification and be of a concentration level between 50 and 100 percent of the highest hourly concentration measured during the period of measurements above span, and must be introduced at the probe. Record and report the results of this procedure as the permittee would for a daily calibration. The `above span' calibration is successful if the value measured by the HCl CEMS is within 20 percent of the certified value of the reference gas. If the value measured by the HCl CEMS is not within 20 percent of the certified value of the reference gas, then the permittee must normalize the stack gas values measured above span as described in §63.1350(l)(1)(ii)(C) below. If the `above span' calibration is conducted during the period when measured emissions are above span and there is a failure to collect the required minimum number of data points in an hour due to the calibration duration, then the permittee must determine the emissions average for that missed hour as the average of hourly averages for the hour preceding the missed hour and the hour following the missed hour. [§63.1350(l)(1)(ii)(B)]

- (3) In the event that the `above span' calibration is not successful (i.e., the HCl CEMS measured value is not within 20 percent of the certified value of the reference gas), then the permittee must normalize the one-hour average stack gas values measured above the span during the 24-hour period preceding or following the `above span' calibration for reporting based on the HCl CEMS response to the reference gas as shown in Equation 20 below: [§63.1350(l)(1)(ii)(C)]

$$\frac{\text{Certified reference gas volume}}{\text{Measured value of reference gas}} \times \text{Measured stack gas result} \quad (\text{EQ. 20})$$

= Normalized stack gas result

Only one `above span' calibration is needed per 24-hour period. [§63.1350(l)(1)(ii)(C)]

- 12) *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 (m)(1) through (4) of §63.1350 by the compliance date specified in §63.1351. The permittee must also meet the applicable specific parameter monitoring requirements in §63.1350(m)(5) through (11) that are applicable to the permittee. [§63.1350(m)]
- 13) *Continuous Flow Rate Monitoring System.* The permittee must install, operate, calibrate, and maintain instruments, according to the requirements in paragraphs (n)(1) through (10) of §63.1350, 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(o)]
- 14) The permittee shall develop an emissions monitoring plan in accordance with §63.1350 (o)(1) through (o)(4) and §63.1350 (p)(1) through (p)(4) as stated in Permit Condition PW005 of this permit.

Record Keeping:

- 1) In addition to the recordkeeping requirements stated in Permit Condition PW006 of this permit, the permittee shall also keep the following records:

- a) Annual records of the amount of cement kiln dust (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)]
- b) The daily clinker production rates and kiln feed rates. [§§ 63.1350(d)(3) and 63.1355(e)]
- 2) In addition to the recordkeeping requirements in §63.1355(b) [see Permit Condition PW006 of this permit], the permittee shall maintain all records required by §63.10(c) for an affected source equipped with a continuous monitoring system. [§63.1355(c)]

Reporting:

- 1) The permittee shall comply with the reporting requirements for the performance test stated in Permit Condition: PW006.
- 2) 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)]
- 3) As required by §63.10(e)(3), the permittee shall submit an excess emissions and continuous monitoring system performance report for any event when the continuous monitoring system data indicates the source is not in compliance with the applicable emission limitation or operating parameter limit. [§63.1354(b)(8)]
- 4) If the total continuous monitoring system downtime for any CEM or any continuous monitoring system (CMS) for the reporting period is ten percent (10%) or greater of the total operating time for the reporting period, the permittee shall submit an excess emissions and continuous monitoring performance report along with the summary report (mentioned in PW006). [§63.1354(b)(10)]

Permit Condition EU4-K-09-008

10 CSR 10-6.070 New Source Performance Regulations
40 CFR Part 60, Subpart F — Standards of Performance for Portland Cement Plants

Emission Limitation/Standards:

The permittee may not discharge into the atmosphere from Preheater Precalciner Kiln any gases which:
§60.62

- 1) Exceed 1.50 pounds of nitrogen oxide (NO_x) per ton of clinker on a 30-operating day rolling average. An operating day includes all valid data obtained in any daily 24-hour period during which the kiln operates and excludes any measurements made during the daily 24-hour period when the kiln was not operating. [§60.62(a)(3)]
- 2) Exceed 0.4 pounds of sulfur dioxide (SO₂) per ton of clinker on a 30-operating day rolling average, unless the permittee is demonstrating a 90 percent SO₂ emissions reduction measured across the SO₂ control device. An operating day includes all valid data obtained in any daily 24-hour period during which the kiln operates, and excludes any measurements made during the daily 24-hour period when the kiln was not operating. [§60.62(a)(4)]

Monitoring:

- 1) Clinker production monitoring requirements: The permittee must monitor and record the hourly clinker production rate as stated in Permit Condition EU4-K-09-007.
- 2) The permittee must install, operate, calibrate, and maintain an instrument for continuously monitoring and recording the concentration by volume of NO_x emissions into the atmosphere for any kiln subject to the NO_x emissions limit in §60.62(a)(3).. [§60.63(d)]
- 3) The permittee must install, operate, calibrate, and maintain an instrument for continuously monitoring and recording the concentration by volume of SO₂ emissions into the atmosphere for any

kiln subject to the SO₂ emissions limit in §60.62(a)(4). If the permittee is complying with the alternative 90 percent SO₂ emissions reduction emission limit, the permittee must also continuously monitor and record the concentration by volume of SO₂ present at the wet scrubber inlet.

[§60.63(e)]

- 4) The NO_x and SO₂ CEMS required under paragraphs (d) and (e) of §60.63 must be installed, operated and maintained according to Performance Specification 2 of appendix B of this part and the requirements §60.63(f)(1) through (5). [§60.63(f)]
 - a) The span value of each NO_x CEMS monitor must be set at 125 percent of the maximum estimated hourly potential NO_x emission concentration that translates to the applicable emissions limit at full clinker production capacity. [§60.63(f)(1)]
 - b) The permittee must conduct performance evaluations of each NO_x CEMS monitor according to the requirements in § 60.13(c) and Performance Specification 2 of Appendix B to Part 60. The permittee must use Methods 7, 7A, 7C, 7D, or 7E of Appendix A-4 to Part 60 for conducting the relative accuracy evaluations. The method ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses," (incorporated by reference—see § 60.17) is an acceptable alternative to Method 7 or 7C of Appendix A-4 to Part 60. [§60.63(f)(2)]
 - c) The span value for the SO₂ CEMS monitor is the SO₂ emission concentration that corresponds to 125 percent of the applicable emissions limit at full clinker production capacity and the expected maximum fuel sulfur content. [§60.63(f)(3)]
 - d) The permittee must conduct performance evaluations of each SO₂ CEMS monitor according to the requirements in § 60.13(c) and Performance Specification 2 of Appendix B to Part 60. The permittee must use Methods 6, 6A, or 6C of Appendix A-4 to Part 60 for conducting the relative accuracy evaluations. The method ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses," (incorporated by reference—see § 60.17) is an acceptable alternative to Method 6 or 6A of appendix A-4 to Part 60. [§60.63(f)(4)]
 - e) The permittee must comply with the quality assurance requirements in Procedure 1 of Appendix F to Part 60 for each NO_x and SO₂ CEMS, including quarterly accuracy determinations for monitors, and daily calibration drift tests. [§60.63(f)(5)]
- 5) For each CEMS required under §60.63 (c) through (e): [§60.63(g)]
 - a) The permittee must operate the monitoring system and collect data at all required intervals at all times the affected source is operating, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments). [§60.63(g)(1)]
 - b) The permittee may not use data recorded during the monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities in calculations used to report emissions or operating levels. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The permittee must use all the data collected during all other periods in reporting emissions or operating levels. [§60.63(g)(2)]
 - c) The permittee must meet the requirements of § 60.13(h) when determining the 1-hour averages of emissions data. [§60.63(g)(3)]
- 6) The permittee must install, operate, calibrate, and maintain instruments for continuously measuring and recording the stack gas flow rate to allow determination of the pollutant mass emissions rate to the atmosphere for each kiln subject to the PM emissions limits in § 60.62(a)(1)(ii) and (iii) and (b)(1)(i) and (ii), the NO_x emissions limit in § 60.62(a)(3), or the SO₂ emissions limit in §

60.62(a)(4) according to the requirements in §60.63(h)(1) through (10), where appropriate, of this section. [§60.63(h)]

- a) The permittee must install each sensor of the flow rate monitoring system in a location that provides representative measurement of the exhaust gas flow rate at the sampling location of the NO_x and/or SO₂ CEMS, taking into account the manufacturer's recommendations. The flow rate sensor is that portion of the system that senses the volumetric flow rate and generates an output proportional to that flow rate. [§60.63(h)(1)]
 - b) The flow rate monitoring system must be designed to measure the exhaust gas flow rate over a range that extends from a value of at least 20 percent less than the lowest expected exhaust flow rate to a value of at least 20 percent greater than the highest expected exhaust gas flow rate. [§60.63(h)(2)]
 - c) The flow rate monitoring system must have a minimum accuracy of 5 percent of the flow rate. [§60.63(h)(3)]
 - d) The flow rate monitoring system must be equipped with a data acquisition and recording system that is capable of recording values over the entire range specified in §60.63 (h)(2). [§60.63(h)(4)]
 - e) The signal conditioner, wiring, power supply, and data acquisition and recording system for the flow rate monitoring system must be compatible with the output signal of the flow rate sensors used in the monitoring system. [§60.63(h)(5)]
 - f) The flow rate monitoring system must be designed to measure a minimum of one cycle of operational flow for each successive 15-minute period. [§60.63(h)(6)]
 - g) The flow rate sensor must be able to determine the daily zero and upscale calibration drift (CD) (see sections 3.1 and 8.3 of Performance Specification 2 in Appendix B to Part 60 for a discussion of CD). [§60.63(h)(7)]
 - i) Conduct the CD tests at two reference signal levels, zero (e.g., 0 to 20 percent of span) and upscale (e.g., 50 to 70 percent of span). [§60.63(h)(7)(i)]
 - ii) The absolute value of the difference between the flow monitor response and the reference signal must be equal to or less than 3 percent of the flow monitor span. [§60.63(h)(7)(ii)]
 - h) The permittee must perform an initial relative accuracy test of the flow rate monitoring system according to section 8.2 of Performance Specification 6 of appendix B to this part, with the exceptions noted in §60.63 (h)(8)(i) and (ii). [§60.63(h)(8)]
 - i) The relative accuracy test is to evaluate the flow rate monitoring system alone rather than a continuous emission rate monitoring system. [§60.63(h)(8)(i)]
 - ii) The relative accuracy of the flow rate monitoring system shall be no greater than 10 percent of the mean value of the reference method data. [§60.63(h)(8)(ii)]
 - i) The permittee must verify the accuracy of the flow rate monitoring system at least once per year by repeating the relative accuracy test specified in §60.63 (h)(8). [§60.63(h)(9)]
 - j) The permittee must operate the flow rate monitoring system and record data during all periods of operation of the affected facility including periods of startup, shutdown, and malfunction, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments). [§60.63(h)(10)]
- 7) Development and Submittal (Upon Request) of Monitoring Plans. To demonstrate 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 §60.63 (i)(1) through (4). This requirement also applies to the permittee if you petition the EPA Administrator for

alternative monitoring parameters under § 60.13(3)(i). If the permittee uses a bag leak detector system (BLDS), the permittee must also meet the requirements specified in paragraph § 63.1350(m)(10) of this chapter. [§60.63(i)]

- a) For each continuous monitoring system (CMS) required in this section, the permittee must develop, and submit to the permitting authority for approval upon request, a site-specific monitoring plan that addresses §60.63(i)(1)(i) through (iii). The permittee must submit this site-specific monitoring plan, if requested, at least 30 days before the initial performance evaluation of the CMS. [§60.63(i)(1)]
 - i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device); [§60.63(i)(1)(ii)]
 - ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and [§60.63(i)(1)(ii)]
 - iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations). [§60.63(i)(1)(iii)]
- b) In the site-specific monitoring plan, the permittee must also address §60.63 (i)(2)(i) through (iii). [§60.63(i)(2)]
 - i) Ongoing operation and maintenance procedures in accordance with the general requirements of § 63.8(c)(1), (c)(3), and (c)(4)(ii); [§60.63(i)(2)(i)]
 - ii) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d); and [§60.63(i)(2)(ii)]
 - iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 63.10(c), (e)(1), and (e)(2)(i). [§60.63(i)(2)(iii)]
- c) The permittee must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan. [§60.63(i)(3)]
- d) The permittee must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan. [§60.63(i)(4)]

Test methods and Procedures

- 1) In conducting the performance tests and relative accuracy tests required in § 60.8, the permittee must use reference methods and procedures and the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b). [§60.64(a)]
- 2) Calculate and record the rolling 30 kiln operating day average emission rate daily of NO_x and SO₂ according to the procedures §63.64(c)(1) and (2). [§60.64(c)]
 - a) Calculate the rolling 30 kiln operating day average emissions according to the following equation (Equation 6 of §60.64): [§60.64(c)(1)]

$$E_{30D} = K \frac{\sum_{i=1}^n C_i Q_i}{P} \quad (\text{Eq. 6})$$

Where:

E_{30D} = 30 kiln operating day average emission rate of NO_x or SO₂, lb/ton of clinker.

C_i = Concentration of NO_x or SO₂ for hour i, ppm.

Q_i = Volumetric flow rate of effluent gas for hour i, where, where C_i and Q_i are on the same basis (either wet or dry), scf/hr.

P = 30 days of clinker production during the same time period as the NO_x or SO₂ emissions measured, tons.

K = Conversion factor, 1.194×10^{-7} for NO_x and 1.660×10^{-7} for SO₂, lb/scf/ppm.

N = Number of kiln operating hours over 30 kiln operating days.

- b) For each kiln operating hour for which the permittee does not have at least one valid 15-minute CEMS data value, use the average emissions rate (lb/hr) from the most recent previous hour for which valid data are available. [§60.64(c)(2)]
- 3) Within 60 days after the date of completing each performance test (see § 60.8) as required by this subpart the permittee must submit the results of the performance tests conducted to demonstrate compliance under this subpart to the EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through the EPA's Central Data Exchange (CDX) (<http://www.epa.gov/cdx>). Performance test data must be submitted in the file format generated through use of the EPA's Electronic Reporting Tool (ERT) (see <http://www.epa.gov/ttn/chief/ert/index.html>). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk, flash drive or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to the EPA via CDX as described earlier in this paragraph. At the discretion of the delegated authority, the permittee must also submit these reports, including the CBI, to the delegated authority in the format specified by the delegated authority. For any performance test conducted using test methods that are not listed on the ERT Web site, the permittee must submit the results of the performance test to the Director at the appropriate address listed in § 63.13. [§60.64(d)(1)]
- 4) Within 60 days after the date of completing each CEMS performance evaluation test as defined in §63.2, the permittee must submit relative accuracy test audit (RATA) data to the EPA's CDX by using CEDRI in accordance with paragraph (d)(1) of this section. Only RATA pollutants that can be documented with the ERT (as listed on the ERT Web site) are subject to this requirement. For any performance evaluations with no corresponding RATA pollutants listed on the ERT Web site, the permittee must submit the results of the performance evaluation to the Director at the appropriate address listed in § 63.13. [§60.64(d)(2)]

Record Keeping and Reporting: [§60.65]

- 1) The permittee shall submit reports of excess emissions. The content of these reports must comply with the requirements in § 60.7(c). Notwithstanding the provisions of § 60.7(c), such reports shall be submitted semiannually. [§60.65(a)]
- 2) The permittee shall submit semiannual reports of the malfunction information required to be recorded by §60.7(b). These reports shall include the frequency, duration, and cause of any incident resulting in deenergization of any device controlling kiln emissions or in the venting of emissions directly to the atmosphere. [§60.65(b)]
- 3) The requirements of §60.65 remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, 42 U.S.C. 7411, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected sources within the State will be relieved of the obligation to comply with this section, provided that they comply with the requirements established by the State. [§60.65(c)]

EU4-K-10 — Discharge from Clinker Cooler to Conveyor

Emission Unit	Description
EU4-K-10	Clinker Transfer - Discharge from clinker cooler to conveyor PM Control Device – Fabric Filter (330011)

Permit Condition EU4-K-10-001

10 CSR 10-6.060 Construction Permits Required
Construction Permit No. 122005-005A
Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005

Emission Limitation:

The permittee shall not emit more than 0.0085 grains per actual cubic foot (gr/acf) of PM₁₀ from the baghouse associated with the EU4-K-10.

[Construction Permit 122005-005A, Special Condition 8.A]

Operational Limitation/Equipment Specification:

- 1) The permittee shall enclose and vent the emission unit to the baghouse as specified in the construction permit (Construction Permit 122005-005) application. The enclosure of the emissions unit specified shall be constructed and maintained such that no visible emissions [zero percent (0%) opacity from the enclosure] are allowed to occur from this source except through the gasses exiting from the baghouse. [Construction Permit 122005-005A, Special Condition 2.D]
- 2) The baghouse must be in use at all times when that associated emission unit is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. These baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauge or meter shall be located such that the Department of Natural Resources' employees may easily observe them.
[Construction Permit 122005-005A, Special Condition 2.E]
- 3) Appropriate replacement filters for the baghouse shall be kept on hand at all times. These replacement filters 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 122005-005A, Special Condition 2.G]

Monitoring:

The permittee shall monitor and record the operating pressure drop across the baghouse at least once in every 24-hour period when the associated emission unit is in operation.

[Construction Permit 122005-005A, Special Condition 2.F]

Record Keeping:

The permittee shall maintain an operating and maintenance log for the baghouse which shall include the following: [Construction Permit 122005-005A, Special Condition 2.H]

- 1) Incidents of malfunction(s) including the date(s) and duration of the event, the probable cause, any corrective actions taken and the impact on emissions due to the malfunction,
- 2) Any maintenance activities conducted on the unit, such as parts replacement, replacement of equipment, etc., and
- 3) A written record of regular inspection schedule, the date and results of all inspections including any actions or maintenance activities that result from that inspection.

Reporting:

The permittee shall comply with the reporting requirements as specified in Permit Condition PW007.

Permit Condition EU4-K-10-002

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the
Portland Cement Manufacturing Industry – Opacity §63.1345

Emission Limitation:

- 1) The permittee shall not cause to be discharged any gases from EU4-K-10 which exhibit opacity in excess of ten percent.. [§63.1345]
- 2) This emission unit is not subject to Permit Condition PW001.

Performance Testing:

Opacity Tests: The permittee must conduct opacity tests in accordance with Method 9 of Appendix A–4 to 40 CFR Part 60. The duration of the Method 9 performance test must be 3 hours (30 6-minute averages), except that the duration of the Method 9 performance test may be reduced to 1 hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) indicated below apply:

- 1) There are no individual readings greater than 10 percent opacity; [§63.1349(b)(2)(i)]
 - 2) There are no more than three readings of 10 percent for the first 1-hour period. [§63.1349(b)(2)(ii)]
- For batch processes that are not run for 3-hour periods or longer, compile observations totaling 3 hours when the unit is operating. [§63.1349(b)(2)]

Compliance Requirement:

The permittee must demonstrate compliance with the opacity emissions standards by using the monitoring methods and procedures in §63.1350(f) based on the maximum 6-minute average opacity exhibited during the performance test period. The permittee must initiate corrective actions within one hour of detecting visible emissions above the applicable limit. [§63.1348(b)(3)(i)]

Monitoring:

- 1) *Opacity monitoring requirements.* The permittee must conduct required emissions monitoring in accordance with the provisions of §63.1350(f)(1)(i) through (f)(1)(vii) and in accordance with the monitoring plan developed under §63.1350(p). The permittee must also develop an opacity monitoring plan in accordance with §63.1350(p)(1) through (p)(4). [§63.1350(f)]
- 2) *Corrective actions.* If visible emissions are observed during any Method 22 visible emissions test conducted under §63.1350(f)(1), the permittee must initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan provisions in §63.1347.. [§63.1350(f)(3)]

Record Keeping:

- 1) The permittee shall maintain files of all information (including all reports and notifications) required by this section 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 (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) 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 record keeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the permittee shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU4-K-11 and EU4-K-13 — Paved Haul Roads	
Emission Unit	Description
EU4-k-11	Haul Road (Paved): Calcium Hydroxide; Entrance to Bin
EU4-K-13	Haul Road (Paved): Ammonia Hydroxide; Entrance to Tank

Permit Condition EU4-K-11-001 and EU4-K-13-001
10 CSR 10-6.060 Construction Permits Required Construction Permit No. 122005-005 & 122005-005A Special Condition 10 - Haul Road Operating Conditions - Special Condition 10

Haul Road Paving/Sweeping: [Construction Permit 122005-005A, Special Condition 10]

- 1) The permittee shall pave the haul roads (4-K-11 and 4-K-13) with materials such as asphalt, concrete, and/or other materials(s). The pavement will be applied in accordance with industry standards. The paving shall be completed prior to the startup of the new PH/PC kiln system.
- 2) Maintenance and/or repair of the surfaces 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.
- 3) The permittee shall periodically water, wash and/or otherwise clean all of the paved portions of the haul road(s) as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

EU5-L-03 and EU5-L-05 through EU5-L-09 — Clinker Handling & Storage	
Emission Unit	Description
EU5-L-03	Clinker Transfer from Belt 330310 to Elevators 330470/330480 PM Control Device – Fabric Filter (330481)
EU5-L-05	Clinker Elevators (330470/330480) PM Control Devices – Fabric Filters (330471/330474)
EU5-L-06	Three Clinker Drag Conveyors – Discharge into existing clinker silos PM Control Devices – Fabric Filters (330591/330601/330611)
EU5-L-07	TP: Clinker Elevator Discharge to Belt 330320 PM Control Device – Fabric Filter (330311)
EU5-L-08	Clinker Storage Pile PM Control Device – None
EU5-L-09	Two Clinker Reclaim Feeders Discharge to Belt 330420 PM Control Device – Fabric Filters (330401/330411)

Permit Condition EU5-L-03-001, EU5-L-05-001, EU5-L-06-001, EU5-L-07-001 and EU5-L-09-001

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

Emission Limitation:

- 1) The permittee shall not emit particulate matter in excess of 64.11 lb/hr from EU5-L-03, EU5-L-05, EU5-L-06, EU5-L-07 and EU5-L-09.
- 2) No person shall cause, allow or permit the emission of particulate matter from any source in a concentration in excess of 0.30 grain per standard cubic foot of exhaust gases.

Note: The emission rates in this permit condition apply to the sources individually and not the aggregated sources.

Monitoring/Record Keeping/Reporting:

Not required (See Statement of Basis).

Permit Condition EU5-L-08-001

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
 40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Open Clinker Storage Pile §63.1345(c)

Emission Limitation:

The permittee must prepare, and operate an open clinker storage pile in accordance with, the fugitive dust emissions control measures, described in their operation and maintenance plan (see §63.1347 of Subpart LLL, Permit Condition PW002), that is appropriate for the site conditions as specified in paragraphs (c)(1) through (3) of this section. The operation and maintenance plan must also describe the measures that will be used to minimize fugitive dust emissions from piles of clinker, such as accidental spillage, that are not part of open clinker storage piles. [§63.1345(c)]

- 1) The operation and maintenance plan must identify and describe the location of each current or future open clinker storage pile and the fugitive dust emissions control measures the permittee will use to minimize fugitive dust emissions from each open clinker storage pile. [§63.1345(c)(1)]
- 2) For open clinker storage piles, the operations and maintenance plan must specify that one or more of the following control measures will be used to minimize to the greatest extent practicable fugitive dust from open clinker storage piles: Locating the source inside a partial enclosure, installing and operating a water spray or fogging system, applying appropriate chemical dust suppression agents, use of a wind barrier, compaction, use of tarpaulin or other equally effective cover or use of a vegetative cover. The permittee must select, for inclusion in the operations and maintenance plan, the fugitive dust control measure or measures listed in this paragraph that are most appropriate for site conditions. The plan must also explain how the measure or measures selected are applicable and appropriate for site conditions. In addition, the plan must be revised as needed to reflect any changing conditions at the source. [§63.1345(c)(2)]
- 3) Temporary piles of clinker that result from accidental spillage or clinker storage cleaning operations must be cleaned up within 3 days. [§63.1345(c)(3)]

**Permit Condition EU5-L-03-002, EU5-L-05-002, EU5-L-06-002, EU5-L-07-002
and EU5-L-09-002**

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the
Portland Cement Manufacturing Industry – Opacity §63.1345

Emission Limitation:

- 1) The permittee shall not cause to be discharged any gases from EU5-L-03-002, EU5-L-05-002, EU5-L-06-002, EU5-L-07-002 and EU5-L-09-002 any gases which exhibit opacity in excess of ten percent.. [§63.1345]
- 2) These emission units are not subject to Permit Condition PW001.

Performance Testing:

Opacity Tests: The permittee must conduct opacity tests in accordance with Method 9 of Appendix A-4 to 40 CFR Part 60. The duration of the Method 9 performance test must be 3 hours (30 6-minute averages), except that the duration of the Method 9 performance test may be reduced to 1 hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) apply.

- 1) There are no individual readings greater than 10 percent opacity; [§63.1349(b)(2)(i)]
 - 2) There are no more than three readings of 10 percent for the first 1-hour period. [§63.1349(b)(2)(ii)]
- For batch processes that are not run for 3-hour periods or longer, compile observations totaling 3 hours when the unit is operating. [§63.1349(b)(2)]

Compliance Requirement:

The permittee must demonstrate compliance with the opacity emissions standards by using the monitoring methods and procedures in §63.1350(f) based on the maximum 6-minute average opacity exhibited during the performance test period. The permittee must initiate corrective actions within one hour of detecting visible emissions above the applicable limit. [§63.1348(b)(3)(i)]

Monitoring:

- 1) *Opacity monitoring requirements.* The permittee must conduct required emissions monitoring in accordance with the provisions of §63.1350(f)(1)(i) through (f)(1)(vii) and in accordance with the

monitoring plan developed under §63.1350(p). The permittee must also develop an opacity monitoring plan in accordance with §63.1350(p)(1) through (p)(4). [§63.1350(f)]

- 2) *Corrective actions.* If visible emissions are observed during any Method 22 visible emissions test conducted under §63.1350(f)(1), the permittee must initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan provisions in §63.1347.. [§63.1350(f)(3)]

Record Keeping:

- 1) The permittee shall maintain files of all information (including all reports and notifications) required by this section 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 (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) 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 record keeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the permittee source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU5-L-11 — Clinker Off Spec Bin Conveying	
Emission Unit	Description
EU5-L-11	Clinker Off Spec Bin Conveying – Clinker conveying PM Control Device – Fabric Filter (330701)

Permit Condition EU5-L-11-001
10 CSR 10-6.060 Construction Permits Required Construction Permit No. 122005-005A Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005

Emission Limitation:

The permittee shall not emit more than 0.0085 grains per actual cubic foot (gr/acf) of PM₁₀ from the baghouse associated with the EU5-L-11.

[Construction Permit 122005-005A, Special Condition 8.A]

Operational Limitation/Equipment Specification:

- 1) The permittee shall enclose and vent the emission unit to the baghouse as specified in the construction permit (Construction Permit 122005-005) application. The enclosure of the emission

unit specified shall be constructed and maintained such that no visible emissions [zero percent (0%) opacity from the enclosure] are allowed to occur from these source except through the gasses exiting from the baghouse. [Construction Permit 122005-005A, Special Condition 2.D]

- 2) The baghouse must be in use at all times when that associated emission unit is in operation, and 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 such that the Department of Natural Resources' employees may easily observe them.

[Construction Permit 122005-005A, Special Condition 2.E]

- 3) Appropriate replacement filters for the baghouse shall be kept on hand at all times. These replacement filters 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 122005-005A, Special Condition 2.G]

Monitoring:

The permittee shall monitor and record the operating pressure drop across the baghouse at least once in every 24-hour period when the associated emission unit is in operation.

[Construction Permit 122005-005A, Special Condition 2.F]

Record Keeping:

The permittee shall maintain an operating and maintenance log for the baghouse which shall include the following: [Construction Permit 122005-005A, Special Condition 2.H]

- 1) Incidents of malfunction(s) including the date(s) and duration of the event, the probable cause, any corrective actions taken and the impact on emissions due to the malfunction,
- 2) Any maintenance activities conducted on the unit, such as parts replacement, replacement of equipment, etc., and
- 3) A written record of regular inspection schedule, the date and results of all inspections including any actions or maintenance activities that result from that inspection.

Reporting:

The permittee shall comply with the reporting requirements as specified in Permit Condition PW007.

Permit Condition EU5-L-11 - 002

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the
Portland Cement Manufacturing Industry – Opacity §63.1345

Emission Limitation:

- 1) The permittee shall not cause to be discharged any gases from Clinker Off Spec Bin Conveying (EU5-L-11) which exhibit opacity in excess of ten percent.. [§63.1345]
- 2) This emission unit is not subject to Permit Condition PW001.

Performance Testing:

Opacity Tests: The permittee must conduct opacity tests in accordance with Method 9 of Appendix A-4 to 40 CFR Part 60. The duration of the Method 9 performance test must be 3 hours (30 6-minute averages), except that the duration of the Method 9 performance test may be reduced to 1 hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) indicated below apply:

- 1) There are no individual readings greater than 10 percent opacity; [§63.1349(b)(2)(i)]

2) There are no more than three readings of 10 percent for the first 1-hour period. [§63.1349(b)(2)(ii)]
For batch processes that are not run for 3-hour periods or longer, compile observations totaling 3 hours when the unit is operating. [§63.1349(b)(2)]

Compliance Requirement:

The permittee must demonstrate compliance with the opacity emissions standards by using the monitoring methods and procedures in §63.1350(f) based on the maximum 6-minute average opacity exhibited during the performance test period. The permittee must initiate corrective actions within one hour of detecting visible emissions above the applicable limit. [§63.1348(b)(3)(i)]

Monitoring:

- 1) *Opacity monitoring requirements.* The permittee must conduct required emissions monitoring in accordance with the provisions of §63.1350(f)(1)(i) through (f)(1)(vii) and in accordance with the monitoring plan developed under §63.1350(p). The permittee must also develop an opacity monitoring plan in accordance with §63.1350(p)(1) through (p)(4). [§63.1350(f)]
- 2) *Corrective actions.* If visible emissions are observed during any Method 22 visible emissions test conducted under §63.1350(f)(1), the permittee must initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan provisions in §63.1347.. [§63.1350(f)(3)]

Record Keeping:

- 1) The permittee shall maintain files of all information (including all reports and notifications) required by this section 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 (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) 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 record keeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the permittee source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU5-L-12 and 5-L-13 — Clinker Transfer	
Emission Unit	Description
5-L-12	Clinker Diverters Discharge to New Clinker Conveyors PM Control Device – Fabric Filter (330311)
5-L-13	Clinker Discharge to Belts 330310/330320 PM Control Device – Fabric Filter (330311)

Permit Condition EU5-L-12-001 and EU5-L-13-001

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

Emission Limitation:

- 1) The permittee shall not emit particulate matter in excess of 67.51 lb/hr from EU5-L-12 and EU5-L-12.
- 2) No person shall cause, allow or permit the emission of particulate matter from any source in a concentration in excess of 0.30 grain per standard cubic foot of exhaust gases.

Note: The emission rates in this permit condition apply to the sources individually and not the aggregated sources.

Monitoring/Record Keeping/Reporting:

Not required (See Statement of Basis).

Permit Condition EU5-L-12-002 and EU5-L-13-002

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Opacity §63.1345

Emission Limitation:

- 1) The permittee shall not cause to be discharged any gases from EU5-L-12 and 5-L-13f which exhibit opacity in excess of ten percent.. [§63.1345]
- 2) These emission units are not subject to Permit Condition PW001.

Performance Testing:

Opacity Tests: The permittee must conduct opacity tests in accordance with Method 9 of Appendix A–4 to 40 CFR Part 60. The duration of the Method 9 performance test must be 3 hours (30 6-minute averages), except that the duration of the Method 9 performance test may be reduced to 1 hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) apply.

- 1) There are no individual readings greater than 10 percent opacity; [§63.1349(b)(2)(i)]
 - 2) There are no more than three readings of 10 percent for the first 1-hour period. [§63.1349(b)(2)(ii)]
- For batch processes that are not run for 3-hour periods or longer, compile observations totaling 3 hours when the unit is operating. [§63.1349(b)(2)]

Compliance Requirement:

The permittee must demonstrate compliance with the opacity emissions standards by using the monitoring methods and procedures in §63.1350(f) based on the maximum 6-minute average opacity

exhibited during the performance test period. The permittee must initiate corrective actions within one hour of detecting visible emissions above the applicable limit. [§63.1348(b)(3)(i)]

Monitoring:

- 1) *Opacity monitoring requirements.* The permittee must conduct required emissions monitoring in accordance with the provisions of §63.1350(f)(1)(i) through (f)(1)(vii) and in accordance with the monitoring plan developed under §63.1350(p). The permittee must also develop an opacity monitoring plan in accordance with §63.1350(p)(1) through (p)(4). [§63.1350(f)]
- 2) *Corrective actions.* If visible emissions are observed during any Method 22 visible emissions test conducted under §63.1350(f)(1), the permittee must initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan provisions in §63.1347.. [§63.1350(f)(3)]

Record Keeping:

- 1) The permittee shall maintain files of all information (including all reports and notifications) required by this section 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 (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) 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 record keeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the permittee source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU5-L-14, EU5-L-15, EU5-L-16 and EU5-L-19 — Clinker Transfer

Emission Unit	Description
EU5-L-14	Clinker Transfer to Belt 330070 PM Control Device – Fabric Filter (330065)
EU5-L-15	Belt 330070 to Belt Conv. & Trip (330090/330200) PM Control Devices – Fabric Filters (330160/330290)
EU5-L-16	Tripper Discharge into Converted Clinker Silos PM Control Devices – Fabric Filters (330121/330151/330231/330261/TB-65/TB-66)
EU5-L-19	Off Spec Clinker Bin Discharge PM Control Device – Fabric Filters (330755)

Permit Condition EU5-L-14-001, EU5-L-15-001, EU5-L-16-001 and EU5-L-19-001

10 CSR 10-6.060 Construction Permits Required
 Construction Permit No. 122005-005A
 Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005

Emission Limitation:

The permittee shall not emit more than 0.0085 grains per actual cubic foot (gr/acf) of PM₁₀ from any of the baghouses associated with EU5-L-14, EU5-L-15, EU5-L-16 and EU5-L-19.
 [Construction Permit 122005-005A, Special Condition 8.A]

Operational Limitation/Equipment Specification:

- 1) The permittee shall enclose and vent all of the emission units to the baghouses as specified in the construction permit (Construction Permit 122005-05) application. The enclosure of the emissions units specified shall be constructed and maintained such that no visible emissions [zero percent (0%) opacity from the enclosure] are allowed to occur from these sources except through the gasses exiting from the baghouses. [Construction Permit 122005-005A, Special Condition 2.D]
- 2) The baghouses must be in use at all times when that associated emission unit is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. These 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.
 [Construction Permit 122005-005A, Special Condition 2.E]
- 3) Appropriate replacement filters for each baghouse shall be kept on hand at all times. These replacement filters 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 122005-005A, Special Condition 2.G]

Monitoring:

The permittee shall monitor and record the operating pressure drop across the baghouses at least once in every 24-hour period when the associated emission unit is in operation.
 [Construction Permit 122005-005A, Special Condition 2.F]

Record Keeping:

The permittee shall maintain an operating and maintenance log for each baghouse which shall include the following: [Construction Permit 122005-005A, Special Condition 2.H]

- 1) Incidents of malfunction(s) including the date(s) and duration of the event, the probable cause, any corrective actions taken and the impact on emissions due to the malfunction,
- 2) Any maintenance activities conducted on the unit, such as parts replacement, replacement of equipment, etc., and
- 3) A written record of regular inspection schedule, the date and results of all inspections including any actions or maintenance activities that result from that inspection.

Reporting:

The permittee shall comply with the reporting requirements as specified in Permit Condition PW007.

Permit Condition EU5-L-14-002, EU5-L-15-002, EU5-L-16-002 and EU5-L-19-002

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the
Portland Cement Manufacturing Industry – Opacity §63.1345

Emission Limitation:

- 1) The permittee shall not cause to be discharged any gases from EU5-L-14, EU5-L-15, EU5-L-16 and EU5-L-19 which exhibit opacity in excess of ten percent.. [§63.1345]
- 2) These emission units are not subject to Permit Condition PW001.

Performance Testing:

Opacity Tests: The permittee must conduct opacity tests in accordance with Method 9 of Appendix A–4 to 40 CFR Part 60. The duration of the Method 9 performance test must be 3 hours (30 6-minute averages), except that the duration of the Method 9 performance test may be reduced to 1 hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) apply.

- 1) There are no individual readings greater than 10 percent opacity; [§63.1349(b)(2)(i)]
 - 2) There are no more than three readings of 10 percent for the first 1-hour period. [§63.1349(b)(2)(ii)]
- For batch processes that are not run for 3-hour periods or longer, compile observations totaling 3 hours when the unit is operating. [§63.1349(b)(2)]

Compliance Requirement:

The permittee must demonstrate compliance with the opacity emissions standards by using the monitoring methods and procedures in §63.1350(f) based on the maximum 6-minute average opacity exhibited during the performance test period. The permittee must initiate corrective actions within one hour of detecting visible emissions above the applicable limit. [§63.1348(b)(3)(i)]

Monitoring:

- 1) *Opacity monitoring requirements.* The permittee must conduct required emissions monitoring in accordance with the provisions of §63.1350(f)(1)(i) through (f)(1)(vii) and in accordance with the monitoring plan developed under §63.1350(p). The permittee must also develop an opacity monitoring plan in accordance with §63.1350(p)(1) through (p)(4). [§63.1350(f)]
- 2) *Corrective actions.* If visible emissions are observed during any Method 22 visible emissions test conducted under §63.1350(f)(1), the permittee must initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan provisions in §63.1347.. [§63.1350(f)(3)]

Record Keeping:

- 1) The permittee shall maintain files of all information (including all reports and notifications) required by this section 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 (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) 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 record keeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the permittee source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU5-L-20 through EU5-L-29 — Clinker Transfer and Handling Equipment With baghouses for PM control	
Emission Unit	Description
EU5-L-20	Clinker Transfer onto Pan Conveyor 330377
EU5-L-21	Clinker Transfer onto Pivoting Pan Conveyor 0330387
EU5-L-22	Clinker Transfer from 330409 to 330429 or 330433
EU5-L-23	Clinker Transfer from 330433 to Elevator 330439
EU5-L-24	Belt Conveyor 330040 Discharge
EU5-L-25	Clinker Transfer from Elevator 330439 to 330448
EU5-L-26	Clinker Transfer onto Pan Conveyor 330448
EU5-L-27	Clinker Transfer from 330448 to 330456
EU5-L-28	Clinker Silo 2 and 3 Vents
EU5-L-29	Clinker Silo 2 and 3 Vents

Permit Condition EU5-L-20-001 through EU5-L-29-001
 10 CSR 10-6.060 Construction Permits Required — Construction Permit No. 052012-012

Emission Limitation:

The permittee shall not emit more than 0.01 grains per actual cubic foot (gr/acf) of each of PM₁₀ and PM from any of the baghouses associated with EU5-L-20, EU5-L-21, EU5-L-22, EU5-L-23, EU5-L-24, EU5-L-25, EU5-L-26, EU5-L-27, EU5-L-28 and EU5-L-29.
 [Construction Permit 052012-012, Special Condition 5.A]

Operational Limitation:

Control Device Requirement – Baghouse [Construction Permit 052012-12, Special Condition 3]

- 1) The permittee shall control emissions from the EU5-L-20, EU5-L-21, EU5-L-22, EU5-L-23, EU5-L-24, EU5-L-25, EU5-L-26, EU5-L-27, EU5-L-28 and EU5-L-29 using baghouses as specified in the construction permit 052012-012 application.
- 2) The baghouses 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 such that the Department of Natural Resources' employees may easily observe them.
- 3) 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).
- 4) 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.
- 5) The permittee shall maintain an operating and maintenance log for the baghouses which shall include the following:
 - 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.

Record Keeping and Reporting:

The permittee shall maintain all records required by Construction Permit 052012-012 in accordance with the requirements of 10 CSR 10-6.065(6)(C)1.C General Record Keeping and Reporting Requirements, as stated in Section V of this permit.

[Construction Permit 052012-012, Special Condition 7.A]

Permit Condition EU5-L-20-002 through EU5-L-29-002

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Opacity §63.1345

Emission Limitation:

- 1) The permittee shall not cause to be discharged any gases from EU5-L-20 through EU5-L-29 which exhibit opacity in excess of ten percent.. [§63.1345]
- 2) These emission units are not subject to Permit Condition PW001.

Performance Testing:

Opacity Tests: The permittee must conduct opacity tests in accordance with Method 9 of Appendix A–4 to 40 CFR Part 60. The duration of the Method 9 performance test must be 3 hours (30 6-minute averages), except that the duration of the Method 9 performance test may be reduced to 1 hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) apply.

- 1) There are no individual readings greater than 10 percent opacity; [§63.1349(b)(2)(i)]
 - 2) There are no more than three readings of 10 percent for the first 1-hour period. [§63.1349(b)(2)(ii)]
- For batch processes that are not run for 3-hour periods or longer, compile observations totaling 3 hours when the unit is operating. [§63.1349(b)(2)]

Compliance Requirement:

The permittee must demonstrate compliance with the opacity emissions standards by using the monitoring methods and procedures in §63.1350(f) based on the maximum 6-minute average opacity exhibited during the performance test period. The permittee must initiate corrective actions within one hour of detecting visible emissions above the applicable limit. [§63.1348(b)(3)(i)]

Monitoring:

- 1) *Opacity monitoring requirements.* The permittee must conduct required emissions monitoring in accordance with the provisions of §63.1350(f)(1)(i) through (f)(1)(vii) and in accordance with the monitoring plan developed under §63.1350(p). The permittee must also develop an opacity monitoring plan in accordance with §63.1350(p)(1) through (p)(4). [§63.1350(f)]
- 2) *Corrective actions.* If visible emissions are observed during any Method 22 visible emissions test conducted under §63.1350(f)(1), the permittee must initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan provisions in §63.1347.. [§63.1350(f)(3)]

Record Keeping:

- 1) The permittee shall maintain files of all information (including all reports and notifications) required by this section 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 (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) 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 record keeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the permittee source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU5-L-30 — Clinker Loading from Storage Pile	
Emission Unit	Description
EU5-L-30	Clinker Loading from Storage Pile

Permit Condition EU5-L-30-001
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations 40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Opacity §63.1345

Emission Limitation:

- 1) The permittee shall not cause to be discharged any gases from EU5-L-30 which exhibit opacity in excess of ten percent.. [§63.1345]
- 2) This emission unit is not subject to Permit Condition PW001.

Performance Testing:

Opacity Tests: The permittee must conduct opacity tests in accordance with Method 9 of Appendix A–4 to 40 CFR Part 60. The duration of the Method 9 performance test must be 3 hours (30 6-minute averages), except that the duration of the Method 9 performance test may be reduced to 1 hour if the conditions of §63.1349(b)(2)(i) through §63.1349(b)(2)(ii) apply.

- 1) There are no individual readings greater than 10 percent opacity; [§63.1349(b)(2)(i)]
 - 2) There are no more than three readings of 10 percent for the first 1-hour period. [§63.1349(b)(2)(ii)]
- For batch processes that are not run for 3-hour periods or longer, compile observations totaling 3 hours when the unit is operating. [§63.1349(b)(2)]

Compliance Requirement:

The permittee must demonstrate compliance with the opacity emissions standards by using the monitoring methods and procedures in §63.1350(f) based on the maximum 6-minute average opacity exhibited during the performance test period. The permittee must initiate corrective actions within one hour of detecting visible emissions above the applicable limit. [§63.1348(b)(3)(i)]

Monitoring:

- 1) *Opacity monitoring requirements.* The permittee must conduct required emissions monitoring in accordance with the provisions of §63.1350(f)(1)(i) through (f)(1)(vii) and in accordance with the monitoring plan developed under §63.1350(p). The permittee must also develop an opacity monitoring plan in accordance with §63.1350(p)(1) through (p)(4). [§63.1350(f)]
- 2) *Corrective actions.* If visible emissions are observed during any Method 22 visible emissions test conducted under §63.1350(f)(1), the permittee must initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan provisions in §63.1347.. [§63.1350(f)(3)]

Record Keeping:

- 1) The permittee shall maintain files of all information (including all reports and notifications) required by this section 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 (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) 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 record keeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the permittee source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU5-L-31A — Haul Road: Clinker Storage Pile to Primary Crusher (Unpaved)	
Emission Unit	Description
EU5-L-31A	Haul Road: Clinker Storage Pile to Primary Crusher (Unpaved)

Permit Condition EU5-L-31A-001
10 CSR 10-6.060 Construction Permits Required — Construction Permit No. 052012-012

Haul Road Watering: [Construction Permit 052012-012, Special Condition 2]

- 1) The permittee shall water the unpaved haul road from the clinker storage pile to the primary crusher (5-L-31A) whenever conditions exist which would cause visible fugitive emissions to enter the ambient air beyond the property boundary.
- 2) Watering may be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads.

EU6-F-01 through EU6-F-08, EU6-F-13 through EU6-F-18 and EU6-F-20 Finish Mills and Associated Transfer Points	
Emission Unit	Description
EU6-F-01	TP: Clinker & Gypsum Feeders to Belts 501010, 501065, 502045 (5 TP) PM Control Devices – Fabric Filters (501050/501030/501040/502015/502035)
EU6-F-02	Finish Mill #1 (501075.05) PM Control Device – Fabric Filter (501080)
	Finish Mill #2 (502055.01) PM Control Device – Fabric Filter (502060)
EU6-F-03	Finish Mill #2 Elevator (502085) PM Control Device – Fabric Filter (502100)
EU6-F-04A	Finish Mill #1 Elevator (501125) PM Control Devices – Fabric Filters (501170/501185 & 501200/501205)
EU6-F-04B	#1 Finish Mill Air Separators (501150/501165) PM Control Devices – Fabric Filters (501170/501205)
EU6-F-05	#2 Finish Mill Air Separators (502115) PM Control Device – Fabric Filter (502120.01)
EU6-F-06	F-K Pumps (Finish Mills) PM Control Devices – Fabric Filters (501245/502170)
EU6-F-07	Weigh Feeders to Belt 503108 – Clinker Transfer PM Control Devices – Fabric Filters (503092/503015)
EU6-F-08	Weigh Feeders to Belt 503190.00 – Clinker Transfer PM Control Devices – Fabric Filters (503177/503191)
EU6-F-13	Clinker & Gypsum Transfer to Conveyor and Discharge to Feed Elevator PM Control Devices – Fabric Filters (503191/503177)
EU6-F-14	Clinker & Gypsum Transfer from Feed Elevator to Weigh Feeders and then Diverter PM Control Device – Fabric Filter (503196)
EU6-F-15	Reject Bin Discharge to Conveyor and Conveyor Discharge to Elevator PM Control Device – Fabric Filter (503196)
EU6-F-16	Finish Mill #3 (Large Vertical Mill) PM Control Devices – Fabric Filters (503260/503270/503280/503290)
EU6-F-17	Discharge from Cement Coolers to Cement Silo Elevator PM Control Device – Fabric Filter (503752)
EU6-F-18	Cement Silo Elevator Discharge to Cement Silos PM Control Device – Fabric Filter (530761)
EU6-F-20	Air Slides from Bag Filter to Cement Cooler PM Control Device – Fabric Filter (530711)
EU6-F-21	Dry Powder Additives Tank PM Control Device – Fabric Filter (503410)

Permit Condition EU6-F-01-001 through EU6-F-04-001

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

Emission Limitation:

- 1) The permittee shall not emit particulate matter in excess of 64.11 lb/hr from EU6-F-01, EU6-F-02, EU6-F-03 and EU6-F-04A & B.
- 2) The permittee shall not cause, allow or permit the emission of particulate matter from any source in a concentration in excess of 0.30 grain per standard cubic foot of exhaust gases.

Note: The emission rates in this permit condition apply to the sources individually and not the aggregated sources.

Monitoring/Record Keeping/Reporting:

Not required (See Statement of Basis).

**Permit Condition EU6-F-06-001 through 6-F-08,
EU6-F-13-001 through EU6-F-18-001, and
EU6-F-20-001**

10 CSR 10-6.060 Construction Permits Required

Construction Permit No. 122005-005A

Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005

Emission Limitation:

The permittee shall not emit more than 0.0085 grains per actual cubic foot (gr/acf) of PM₁₀ from any of the baghouses associated with the EU6-F-13 through EU6-F-16 and EU6-F-17, EU6-F-18 and EU6-F-20. [Construction Permit 122005-005A, Special Condition 8.A]

Operational Limitation/Equipment Specification:

- 1) The permittee shall enclose and vent all of the emission units (6-F-06 through 6-F-08, 6-F-13 through 6-F-16 and 6-F-17-001, 6-F-18 and 6-F-20) to the baghouses as specified in the construction permit (Construction Permit 122005-005) application. The enclosure of the emissions units specified shall be constructed and maintained such that no visible emissions [zero percent (0%) opacity from the enclosure] are allowed to occur from these sources except through the gasses exiting from the baghouses. [Construction Permit 122005-050A, Special Condition 2.A, 2.B & 2.C]
- 2) The baghouses must be in use at all times when that associated emission unit is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. These 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.
[Construction Permit 122005-005A, Special Condition 2.E]
- 3) Appropriate replacement filters for each baghouse shall be kept on hand at all times. These replacement filters 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 122005-005A, Special Condition 2.G]

Monitoring:

The permittee shall monitor and record the operating pressure drop across the baghouses at least once in every 24-hour period when the associated emission unit is in operation.

[Construction Permit 122005-005A, Special Condition 2.F]

Record Keeping:

The permittee shall maintain an operating and maintenance log for each baghouse which shall include the following: [Construction Permit 122005-005A, Special Condition 2.H]

- 1) Incidents of malfunction(s) including the date(s) and duration of the event, the probable cause, any corrective actions taken and the impact on emissions due to the malfunction,

- 2) Any maintenance activities conducted on the unit, such as parts replacement, replacement of equipment, etc., and
- 3) A written record of regular inspection schedule, the date and results of all inspections including any actions or maintenance activities that result from that inspection.

Reporting:

The permittee shall comply with the reporting requirements as specified in Permit Condition PW007.

**Permit Condition EU6-F-01-002 through EU6-F-08-002,
Permit Condition EU6-F-13-002 through EU6-F-16-002,
Permit Condition EU6-F-17-002, EU6-F-18-002, EU6-F-20-002,
Permit Condition 6-F-21-001**

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the
Portland Cement Manufacturing Industry – Opacity §63.1343 & §63.1345

Emission Limitation:

- 1) The permittee must not cause to be discharged any gases from each Finish Mills and Associated Transfer Points which exhibit opacity in excess of ten percent. [§63.1343(b), Table 1, Item 13 and §63.1345]
- 2) The permittee must not cause to be discharged any gases from each clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system which exhibit opacity in excess of ten percent. [§63.1345]
- 3) These emission units are not subject to Permit Condition PW001.

Performance Testing:

The permittee must conduct opacity tests in accordance with Method 9 of Appendix A-4 to 40 CFR Part 60. The duration of the Method 9 performance test must be 3 hours (30 6-minute averages), except that the duration of the Method 9 performance test may be reduced to 1 hour if the conditions of §63.1349(b)(2)(i) through (b)(2)(ii).

- 1) There are no individual readings greater than ten percent (10%) opacity; [§63.1349(b)(2)(i)]
- 2) There are no more than three (3) readings of ten percent (10%) for the first one-(1) hour period. [§63.1349(b)(2)(ii)]

For batch processes that are not run for 3-hour periods or longer, compile observations totaling 3 hours when the unit is operating. [§63.1349(b)(2)]

Monitoring:

Opacity monitoring requirements:

- 1) For clinker, or finished product storage bin units subject to §63.1345, the permittee must conduct required emissions monitoring in accordance with the provisions of §63.1350(f)(1)(i) through (f)(1)(vii) and in accordance with the monitoring plan developed under §63.1350(p). The permittee must also develop an opacity monitoring plan in accordance with §63.1350(p)(1) through (p)(4). [§63.1350(f)]
- 2) For finish mills subject to the opacity requirements of §63.1343, the permittee must conduct required emissions monitoring in accordance with the provisions of §63.1350(f)(2)(i) through (f)(2)(iii) and in accordance with the monitoring plan developed under §63.1350(p). The permittee must also

develop an opacity monitoring plan in accordance with §63.1350(p)(1) through (p)(4).
[§63.1350(f)].

- 3) Corrective actions. If visible emissions are observed during any Method 22 visible emissions test conducted under §63.1350 (f)(1) or (f)(2), the permittee must initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan provisions in §63.1347.
[§63.1350(f)(3)]

Record Keeping:

- 1) The permittee shall maintain files of all information (including all reports and notifications) required by this section 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 (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) 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 record keeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the permittee shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

Permit Condition EU6-F-04B-003

10 CSR 10-6.060 Construction Permits Required
Construction Permit No. 122005-005A
Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005

Emission Limitation:

Revised Maximum Allowable Hourly Production Rate – #1 Finish Mill Air Separators
The permittee shall not operate the existing #1 finish mill air separators (6-F-04B) at a rate greater than 97.0 tons of cement per hour upon issuance of this permit. Operation at a higher rate shall not occur without first obtaining a New Source Review permit from the Air Pollution Control Program.
[Construction Permit 122005-005A, Special Condition 11]

EU6-F-19 – Finish Mills #3 Furnace	
Emission Unit	Description
EU6-F-19	Finish Mills #3 Furnace – Natural Gas Fired External Combustion Furnaces PM Control Devices – Fabric Filters (503260/503270/503280/503290)

Permit Condition EU6-F-19-001
10 CSR 10-6.060 Construction Permits Required Construction Permit No. 122005-005A Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005

Emission Limitation:

The permittee shall not emit more than 2.88 pounds of CO per hour of operation from the finish mill #3 furnace. [Construction Permit 122005-005A, Special Condition 3.D]

Operational Limitation/Equipment Specification:

- 1) The permittee shall use good combustion practices at all times for the PH/PC kiln system (4-K-09) and the finish mill #3 furnace (6-F-19) in order to meet BACT.
[Construction Permit 122005-005A, Special Condition 3.A]
- 2) The permittee shall enclose and vent all of the emission units to the baghouses as specified in the construction permit (Construction Permit 122005-005) application. The enclosure of the emissions units specified shall be constructed and maintained such that no visible emissions [zero percent (0%) opacity from the enclosure] are allowed to occur from these sources except through the gasses exiting from the baghouses. [Construction Permit 122005-005A, Special Condition 2.D]
- 3) The baghouses must be in use at all times when that associated emission unit is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. These 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.
[Construction Permit 122005-005A, Special Condition 2.E]
- 4) Appropriate replacement filters for each baghouse shall be kept on hand at all times. These replacement filters 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 122005-005A, Special Condition 2.G]

Monitoring:

The permittee shall monitor and record the operating pressure drop across the baghouses at least once in every 24-hour period when the associated emission unit is in operation.
[Construction Permit 122005-05A, Special Condition 2.F]

Record Keeping:

The permittee shall maintain an operating and maintenance log for each baghouse which shall include the following: [Construction Permit 122005-05A, Special Condition 2.H]

- 1) Incidents of malfunction(s) including the date(s) and duration of the event, the probable cause, any corrective actions taken and the impact on emissions due to the malfunction,
- 2) Any maintenance activities conducted on the unit, such as parts replacement, replacement of equipment, etc., and

- 3) A written record of regular inspection schedule, the date and results of all inspections including any actions or maintenance activities that result from that inspection.

Reporting:

The permittee shall comply with the reporting requirements as specified in Permit Condition PW007.

EU7-C-01 through EU7-C-10 and EU7-C-12 through 7-C-16 Cement Distribution Operation	
Emission Unit	Description
EU7-C-01	Cement Storage Silos (4 Silos) PM Control Devices – Fabric Filters (530820/530842/530818/530825)
EU7-C-02	Cement Pump Feed Bins (2 Pumps) – Cement Loadout PM Control Devices – Fabric Filters (563180/563205)
EU7-C-03	Barge Loadout Spouts – Cement Loadout PM Control Device – Fabric Filter (563728/563688)
EU7-C-04	Filling of Cement Storage Dom – Cement Loadout PM Control Device – Fabric Filter (563280)
EU7-C-05	TP: Cement Storage Dome Loadout: Feeders - Belt 563315 – Cement Loadout PM Control Devices – Fabric Filters (563355/563360)
EU7-C-06	TP: Cement from Belt 563315 to Belt 563315.15 – Cement Loadout PM Control Device – Fabric Filter (563615)
EU7-C-07	Barge Loadout Surge Bin – Cement Loadout PM Control Device – Fabric Filter (563370)
EU7-C-08	Truck Loadout Spout – Cement Loadout PM Control Device – Fabric Filter (561080)
EU7-C-09	Railcar Loadout Spout – Cement Loadout PM Control Device – Fabric Filter (562130)
EU7-C-10	Combination Loading Spout – Cement Loadout PM Control Device – Fabric Filter (566220)
EU7-C-12	New Cement Silo PM Control Device – Fabric Filter (53625)
EU7-C-13	Discharge from New Cement Silo and Elevator 563595 to Belt 563315.15 – Cement Loadout PM Control Device – Fabric Filter (563615)
EU7-C-14	North Tower – Cement Loadout PM Control Device – Fabric Filter (563695)
EU7-C-15	South Tower – Cement Loadout PM Control Device – Fabric Filter (563735)
EU7-C-16	Tube Conveyor Loading – Cement Loadout PM Control Device – Fabric Filter (563570)

**Permit Condition EU7-C-01-001 through EU7-C-10-001 and
Permit Condition EU7-C-12-001 through EU7-C-16-001**

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the
Portland Cement Manufacturing Industry – Opacity §63.1345

Emission Limitation:

- 1) The permittee must not cause to be discharged any gases from each EU7-C-01 through EU7-C-10 and EU7-C-12 through 7-C-16 Cement Distribution Operation (EU7-C-01 through EU7-C-10 and EU7-C-12 through 7-C-16) which exhibit opacity in excess of ten percent. [§63.1345]
- 2) These emission units are not subject to Permit Condition PW001.

Performance Testing:

The permittee must conduct opacity tests in accordance with Method 9 of Appendix A–4 to 40 CFR Part 60. The duration of the Method 9 performance test must be 3 hours (30 6-minute averages), except that the duration of the Method 9 performance test may be reduced to 1 hour if the conditions of §63.1349(b)(2)(i) through (b)(2)(ii). For batch processes that are not run for 3-hour periods or longer, compile observations totaling 3 hours when the unit is operating. [§63.1349(b)(2)]

- 1) There are no individual readings greater than ten percent (10%) opacity; [§63.1349(b)(2)(i)]
- 2) There are no more than three (3) readings of ten percent (10%) for the first one-(1) hour period. [§63.1349(b)(2)(ii)]

Monitoring:

- 1) *Opacity monitoring requirements.* The permittee must conduct required emissions monitoring in accordance with the provisions of §63.1350(f)(1)(i) through (f)(1)(vii) and in accordance with the monitoring plan developed under §63.1350(p). The permittee must also develop an opacity monitoring plan in accordance with §63.1350(p)(1) through (p)(4). [§63.1350(f)]
- 2) *Corrective actions.* If visible emissions are observed during any Method 22 visible emissions test conducted under §63.1350(f)(1), the permittee must initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan provisions in §63.1347.. [§63.1350(f)(3)]

Record Keeping:

- 1) The permittee shall maintain files of all information (including all reports and notifications) required by this section 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 (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) 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 record keeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the permittee source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

**Permit Condition EU7-C-01-002 through EU7-C-04-002,
Permit Condition EU7-C-06-002 and
Permit Condition EU7-C-12-002 through EU7-C-16-002**

10 CSR 10-6.060 Construction Permits Required

Construction Permit No. 122005-005A

Amendment of Prevention of Significant Deterioration (PSD) Permit Number 122005-005

Emission Limitation:

- 1) The baghouses associated with EU7-C-01 (Cement Storage Silos), EU7-C-02 (Cement Pump Feed Bins) and EU7-C-04 (Filling of Cement Storage Dome) shall each have a combined capture/control efficiency of 99% for PM₁₀ emissions. [Construction Permit 122005-005A, Special Condition 8.F]
- 2) The permittee shall not emit more than 0.0085 grains per actual cubic foot (gr/acf) of PM₁₀ from any of the baghouses associated with the EU7-C-03, EU7-C-06 and EU7-C-12 through EU7-C-16. [Construction Permit 122005-005A, Special Condition 8.A]
- 3) The permittee shall modify the existing baghouses on 7-C-01, 7-C-02 and 7-C-04 to control the PM₁₀ emissions from these sources as specified in the permit application (Construction Permit 122005-005). [Construction Permit 122005-005A, Special Condition 2.B]

Operational Limitation/Equipment Specification:

- 1) The permittee shall enclose and vent all of the emission units to the baghouses as specified in the construction permit (Construction Permit 122005-005) application. The enclosure of the emissions units specified shall be constructed and maintained such that no visible emissions [zero percent (0%) opacity from the enclosure] are allowed to occur from these sources except through the gasses exiting from the baghouses. [Construction Permit 122005-005A, Special Condition 2.D]
- 2) The baghouses must be in use at all times when that associated emission unit is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. These 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. [Construction Permit 122005-005A, Special Condition 2.E]
- 3) Appropriate replacement filters for each baghouse shall be kept on hand at all times. These replacement filters 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 122005-005A, Special Condition 2.G]

Monitoring:

The permittee shall monitor and record the operating pressure drop across the baghouses at least once in every 24-hour period when the associated emission unit is in operation. [Construction Permit 122005-005A, Special Condition 2.F]

Record Keeping:

The permittee shall maintain an operating and maintenance log for each baghouse which shall include the following: [Construction Permit 122005-005A, Special Condition 2.H]

- 1) Incidents of malfunction(s) including the date(s) and duration of the event, the probable cause, any corrective actions taken and the impact on emissions due to the malfunction,
- 2) Any maintenance activities conducted on the unit, such as parts replacement, replacement of equipment, etc., and
- 3) A written record of regular inspection schedule, the date and results of all inspections including any actions or maintenance activities that result from that inspection.

Reporting:

The permittee shall comply with the reporting requirements as specified in Permit Condition PW007.

<p>Permit Condition 7-C-05-002, 7-C-07-002, and EU7-C-08-002 through EU7-C-10-002</p> <p>10 CSR 10-6.400 Restriction of Emission of Particulate Matter from Industrial Processes</p>
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Emission Limitation:

- 1) The permittee shall not emit particulate matter in excess of
 - 65.56 lb/hr from EU7-C-05;
 - 73.93 lb/hr from EU7-C-07; and
 - 57.78 lb/hr from EU7-C-08 through EU7-C-10.
- 2) The permittee shall not cause, allow or permit the emission of particulate matter from any source in a concentration in excess of 0.30 grain per standard cubic foot of exhaust gases.

Note: The emission rates in this permit condition apply to the sources individually and not the aggregated sources.

Monitoring/Record Keeping/Reporting:

Not required (See Statement of Basis).

EU8-B-01, EU8-B-06A, EU8-B-10, EU8-B-11, EU8-B-12, EU8-B-12A, and EU8-B-12B Coke/Coal and Alternate Fuel Handling Operation	
Emission Unit	Description
EU8-B-01	Coal/Coke Barge Unloading PM Control Devices – None
EU8-B-06A	TP Coke/Coal Belts 355030 to 355035 and 355035 to 355040 (2TP) PM Control Device – None
EU8-B-10	TP: North Solid Fuel Silo (Coarse) PM Control Devices – Fabric Filters (351060)
EU8-B-11	TP: South Solid Fuel Silo (Coarse) PM Control Device – Fabric Filter (351060)
EU8-B-12	Coal Mill System PM Control Device – Fabric Filter (351060)
EU8-B-12A	North Solid Fuel Silo (fine) PM Control Device – Fabric Filter (351445)
EU8-B-12B	South Solid Fuel Silo (fine) PM Control Device – Fabric Filter (351450)

**Permit Condition EU8-B-01-001, EU8-B-06A-001 and
Permit Condition EU8B-10-001, EU through EU8-B-12-001**

10 CSR 10-6.070 New Source Performance Regulations
40 CFR Part 60 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 twenty percent (20%) opacity or greater. [§60.252(c)]

Monitoring:

- 1) The permittee shall conduct opacity readings on the emission unit(s) using the procedures contained in USEPA 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(s) 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) Monthly observations shall be conducted for a minimum of eight consecutive months after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two (2) months for a period of eight months. If a violation is noted, monitoring reverts to monthly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made semi-annually (i.e., once per reporting period). Observation shall be conducted during the January-June reporting period and during the July-December reporting period. If a violation is noted, monitoring reverts to monthly.
- 3) If the source reverts to monthly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Record Keeping:

- 1) The permittee shall maintain records of all observation results (see Attachment A), 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.
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment B)

Reporting:

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

Permit Condition EU8-B-12-002

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

Emission Limitation:

- 1) The permittee shall not emit particulate matter in excess of 41.32 lb/hr from EU8-B-12.
- 2) The permittee shall not cause, allow or permit the emission of particulate matter from any source in a concentration in excess of 0.30 grain per standard cubic foot of exhaust gases.

Monitoring/Record Keeping/Reporting:

Not required (See Statement of Basis).

**EU9-M-01 through EU9-M-03 and EU9-M-16 through EU9-M-21
 Gypsum Handling**

Emission Unit	Description
EU9-M-01	Gypsum Unloading into Hopper PM Control Devices – None
EU9-M-02	TP: Gypsum Hopper Discharge onto Belt (508030) PM Control Device – Fabric Filter (508031)
EU9-M-03	Gypsum Elevators (508040/508050) and Discharge to Silo PM Control Device – Process Enclosed
EU9-M-16	Synthetic Gypsum Loading into Hopper (3) PM Control Devices – None
EU9-M-17	Synthetic Gypsum Hopper FM2 screw/Weigh Belt (2) PM Control Devices – None
EU9-M-18	Synthetic Gypsum Hopper FM3 screw/Weigh Belt (2) PM Control Devices – None
EU9-M-19	Synthetic Gypsum Storage Building PM Control Devices – None
EU9-M-20	Synthetic Gypsum Belt Transfer to FM3 (2) PM Control Devices – None
EU-9-M-21	Synthetic Gypsum Hopper FM1 screw/Weigh Belt (2) PM Control Devices – None

**Permit Condition EU9-M-01-001 through EU9-M-03-001 and
 Permit Condition EU9-M-16-001 through EU9-M-21-001**

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
 40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the
 Portland Cement Manufacturing Industry – Opacity §63.1343 & §63.1345

Emission Limitation:

- 1) The permittee must not cause to be discharged any gases from each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system which exhibit opacity in excess of ten percent. [§63.1345]
- 2) These emission units are not subject to Permit Condition PW001.

Performance Testing:

The permittee must conduct opacity tests in accordance with Method 9 of Appendix A-4 to 40 CFR Part 60. The duration of the Method 9 performance test must be 3 hours (30 6-minute averages), except that the duration of the Method 9 performance test may be reduced to 1 hour if the conditions of §63.1349(b)(2)(i) through (b)(2)(ii). For batch processes that are not run for 3-hour periods or longer, compile observations totaling 3 hours when the unit is operating. [§63.1349(b)(2)]

- 1) There are no individual readings greater than ten percent (10%) opacity; [§63.1349(b)(2)(i)]
- 2) There are no more than three (3) readings of ten percent (10%) for the first one-(1) hour period. [§63.1349(b)(2)(ii)]

For batch processes that are not run for 3-hour periods or longer, compile observations totaling 3 hours when the unit is operating. [§63.1349(b)(2)]

Monitoring:

- 1) *Opacity monitoring requirements.* The permittee must conduct required emissions monitoring in accordance with the provisions of §63.1350(f)(1)(i) through (f)(1)(vii) and in accordance with the monitoring plan developed under §63.1350(p). The permittee must also develop an opacity monitoring plan in accordance with §63.1350(p)(1) through (p)(4). [§63.1350(f)]
- 2) *Corrective actions.* If visible emissions are observed during any Method 22 visible emissions test conducted under §63.1350(f)(1), the permittee must initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan provisions in §63.1347.. [§63.1350(f)(3)]

Record Keeping:

- 1) The permittee shall maintain files of all information (including all reports and notifications) required by this section 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 (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be retained on site. The remaining three (3) 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 record keeping or reporting requirements. [§63.1355(b)(3)]

Reporting:

As required by §63.10(d)(3), the permittee source shall report the opacity results from tests required by §63.1349. [§63.1354(b)(2)]

EU9-M-11 - Degreasers	
Emission Unit	Description
EU9-M-11	4 Solvent degreasers that use a petroleum naphtha solvent

Permit Condition E9-M-11-001
10 CSR 10-5.300 Control of Emissions from Solvent Cleaning

Emission Limitation:

- 1) The permittee shall not use cold cleaning solvent with a vapor pressure greater than 1.0 millimeters of Mercury (mmHg) (0.019 psi) at 20 degrees Celsius (20°C) (68 degrees Fahrenheit (68°F)).
- 2) Exception: The permittee may use an alternative method for reducing cold cleaning emissions if the level of emission control is equivalent to or greater than the requirements listed above. The director and the U.S Environmental Protection Agency (EPA) must approve the alternative method.

Operational Limitation/Equipment Specification:

The permittee shall comply with the following operational limitations and 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 limits 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 cover shall be designed to operate easily 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 counter weighing or by power systems):
 - a) The solvent vapor pressure is greater than 0.3 psi measured at 37.8 degrees Celsius (37.8°C) (100 degrees Fahrenheit (100°F));
 - b) The solvent is agitated; or
 - c) The solvent is heated.
- 3) Each cold cleaner shall have an internal drainage facility 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 vapor pressure is less than 0.6 psi measured at 37.8°C (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 or in a location readily visible during operation of the equipment.
- 7) Any cold cleaner which uses a solvent that has a solvent vapor pressure greater than 0.6 psi measured at 37.8°C (100°F) or is heated above 48.9°C (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 65%. These control systems must receive approval from the director and EPA 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 except when performing maintenance or collecting solvent samples.
 - b) Cleaned parts shall be drained in the freeboard area for at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining, the parts shall be positioned so that the solvent drains directly back to the cold cleaner.
 - c) Whenever a cold cleaner fails to perform within the rule operating requirements, the unit shall be shut down immediately and shall remain shut down until operation is restored to meet the rule operating requirements.
 - d) Solvent leaks shall be repaired immediately or the cleaner 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 or an equivalent method approved by the director and EPA:
 - i) Reduction of the waste material to less than 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 disposal facility approved by the director and EPA.
 - 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 operation and equipment requirements specified in this rule for their particular solvent metal cleaning process shall operate this equipment;
 - b) The person who supervises any person who operates solvent cleaning equipment regulated by this rule shall receive equal or greater operational training than the operators; and
 - c) A procedural review shall be given to all solvent metal cleaning equipment operators at least once each 12 months.

Monitoring/Record Keeping:

- 1) The permittee shall maintain the following records for each purchase of cold cleaner solvent (Attachment E):
 - a) Name and address of the solvent supplier.
 - b) Date of purchase.
 - c) Type of solvent purchased.
 - d) Vapor pressure of solvent in mm Hg at 20°C or 68°F.
- 2) The permittee shall keep records of all types and amounts of solvents containing waste material from cleaning or degreasing operations transferred either to a contract reclamation service or to a disposal facility and all amounts distilled on the premises. (see Attachment C). The record also shall include maintenance and repair logs that occurred on the degreaser (Attachments D). These records shall be kept current and made available for review on a monthly basis. The director may require additional recordkeeping if necessary to adequately demonstrate compliance with this rule.
- 3) The permittee shall keep training records of solvent metal cleaning for each employee on an annual basis (Attachment F).
- 4) All records shall be retained for five years and be available to the director upon request.

Reporting:

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

EU9-M-22 – Emergency Generator	
Emission Unit	Description
EU9-M-22	Emergency Generator, 815 Hp, 6 Cylinders in-line diesel engine with a total displacement of 18.1 liters (3.02 L/cylinder)

Permit Condition EU9-M-22-001

10 CSR 10-6.070 New Source Performance Regulations
40 CFR Part 60, Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Emission Limitation/Standards:

- 1) Owners and operators of 2007 model year and later emergency stationary compression ignition (CI) internal combustion engines (ICE) with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. [§60.4205(b)]
- 2) For engines with a maximum engine power greater than or equal to 37 kilowatt (KW) (50 horsepower (HP)), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 for all pollutants beginning in model year 2007. [§60.4202(a)(2)]
 - a) Exhaust emissions shall not exceed the following: [Table 1 to §89.112]
 - 6.4 grams per kilowatt-hour (g/KW-hr) of nonmethane hydrocarbon (NMHC) and oxides of nitrogen (NO_x);
 - 3.5 g/KW-hr of CO; and
 - 0.20 g/KW-hr of PM.
- 3) The General provisions of 40 CFR 60.1 through 19 apply as indicated in Table 8 of 40 CFR 60, Subpart IIII except that the permittee is not required to submit initial notification. [§60.4218 & §60.4214(b)]
- 4) The permittee must operate and maintain the emergency stationary CI ICE that achieve the emission standards as required in §60.4205(b) over the entire life of the engines. [§60.4206]

Operational Limitation:

Fuel Requirements : Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. [§60.4207(b)]

- 1) Sulfur content. [§80.510(b)(1)]
 - a) 15 parts per million (ppm) maximum. [§80.510(b)(1)(i)]

- 2) Cetane index or aromatic content, as follows: [§80.510(b)(2)]
 - a) A minimum cetane index of 40; or [§80.510(b)(2)(i)]
 - b) A maximum aromatic content of 35 volume percent. [§80.510(b)(2)(ii)]

Compliance Requirements:

- 1) The permittee must install a non-resettable hour meter on each engine prior to startup of the each engine. [§60.4209(a)]
- 2) The permittee must do all of the following, except as permitted under §60.4211(g): [§60.4211(a)]
 - a) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; [§60.4211(a)(1)]
 - b) Change only those emission-related settings that are permitted by the manufacturer; and [§60.4211(a)(2)]
 - c) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to the permittee. [§60.4211(a)(3)]
- 3) The permittee must comply by purchasing an engine certified to the emission standards in §60.4205(b), for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in §60.4211(g). [§60.4211(c)]
- 4) Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The permittee may petition the Director for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited. [§60.4211(f)]
- 5) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112, as applicable, determined from the following equation:

$$\text{NTE requirement for each pollutant} = (1.25) \times (\text{STD}) \quad (\text{Eq.1})$$

Where:

STD = The standard specified for that pollutant in 40 CFR 89.112, as applicable.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 may follow the testing procedures specified in §60.4213 of subpart III, as appropriate. [§60.4212(c)]

Record Keeping/Reporting:

Notification, Reports, and Records for Owners and Operators: [§60.4214]

According to §60.4214(b), owners or operators of emergency stationary internal combustion engines are not required to submit an initial notification.

IV. Core Permit Requirements

The installation shall comply with each of the following regulations or codes. Consult the appropriate sections in the Code of Federal Regulations (CFR), the Code of State Regulations (CSR), and local ordinances 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. The following is only an excerpt from the regulation or code, and is provided for summary purposes only.

10 CSR 10-6.045 Open Burning Requirements

- 1) General Provisions. The open burning of tires, petroleum-based products, asbestos containing materials, and trade waste is prohibited, except as allowed below. Nothing in this rule may be construed as to allow open burning which causes or constitutes a public health hazard, nuisance, a hazard to vehicular or air traffic, nor which violates any other rule or statute.
- 2) Certain types of materials may be open burned provided an open burning permit is obtained from the director. The permit will specify the conditions and provisions of all open burning. The permit may be revoked if the permittee fails to comply with the conditions or any provisions of the permit.

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 10-6.080 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 10-6.100 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.

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 may be required by the director to file additional reports.
- 3) Public Availability of Emission Data and Process Information. Any information obtained pursuant to the rule(s) of the Missouri Air Conservation Commission that would not be entitled to confidential treatment under 10 CSR 10-6.210 shall be made available to any member of the public upon request.
- 4) 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.

- 5) 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.
- 6) The permittee shall complete required reports on state supplied EIQ forms or in a form satisfactory to the director and the reports shall be submitted to the director by June 1 after the end of each reporting period.
- 7) The reporting period shall end on December 31 of each calendar year. Each report shall contain the required information for each emission unit for the twelve (12)-month period immediately preceding the end of the reporting period.
- 8) The permittee shall collect, record and maintain the information necessary to complete the required forms during each year of operation of the installation.

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

Emission Limitation:

- 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 10-5.040 Use of Fuel in Hand-Fired Equipment Prohibited

It shall be unlawful to operate any hand-fired fuel-burning equipment in the St. Louis, Missouri metropolitan area. This regulation shall apply to all fuel-burning equipment including, but not limited to, furnaces, heating and cooking stoves and hot water furnaces. It shall not apply to wood-burning fireplaces and wood-burning stoves in dwellings, nor to fires used for recreational purpose, nor to fires used solely for the preparation of food by barbecuing. Hand-fired fuel-burning equipment is any stove, furnace, or other fuel-burning device in which fuel is manually introduced directly into the combustion chamber.

10 CSR 10-5.060 Refuse Not to be Burned in Fuel Burning Installations (Contained in State Implementation Plan)

No person shall burn or cause or permit the burning of refuse in any installation which is designed for the primary purpose of burning fuel.

10 CSR 10-5.120 Information on Sales of Fuels to be Provided and Maintained

Every delivery of coal or residual fuel oil when first delivered to a consumer or wholesaler in the St. Louis metropolitan area must be accompanied by a ticket prepared in triplicate and containing at least the name and address of the seller and the buyer; the grade of fuel; ash content of coal, the source of the fuel, which must be an approved source, and such other information as the Air Conservation Commission may require. One copy of each ticket shall be kept by the person delivering the fuel and be retained for one year; one copy is to be given to the recipient of the fuel to be retained for one year; and, upon request, within 30 days after delivery of the fuel, the delivering party shall mail one copy to the Air Conservation Commission.

10 CSR 10-5.130 Certain Coals to be Washed

The permittee shall not import, sell, offer for sale, expose for sale, exchange, deliver or transport for use and consumption in the St. Louis metropolitan area or use or consume in the said area any coal which as mined containing in excess of 2.0% sulfur or 12.0% ash calculated as described in 10 CSR 10-5.110, unless it has been cleaned by a process known as "washing" so that it shall contain no more than 12.0% ash on a dry basis. The term "washing" is meant to include purifying, cleaning, or removing impurities from coal by mechanical process, regardless of cleaning medium used.

10 CSR 10-5.160 Control of Odors in the Ambient Air This requirement is not federally enforceable.

No person shall emit odorous matter as to cause an objectionable odor on or adjacent to:

- 1) Residential, recreational, institutional, retail sales, hotel or educational premises.

- 2) Industrial premises when air containing odorous matter is diluted with 20 or more volumes of odor-free air; or
- 3) Premises other than those in 1. and 2 above when air containing odorous matter is diluted with four or more volumes of odor-free air.

The previously mentioned requirement shall apply only to objectionable odors. An odor will be deemed objectionable when 30% or more of a sample of the people exposed to it believe it to be objectionable in usual places of occupancy; the sample size to be at least 20 people or 75% of those exposed if fewer than 20 people are exposed.

10 CSR 10-5.240 Additional Air Quality Control Measures May be Required When Sources Are Clustered in a Small Land Area

The Air Conservation Commission may prescribe more restrictive air quality control requirements that are more restrictive and more extensive than provided in regulations of general application for:

- 1) Areas in which there are one or more existing sources and/or proposed new sources of particulate matter in any circular area with a diameter of two miles (including sources outside metropolitan area) from which the sum of particulate emissions allowed from these sources by regulations of general application are or would be greater than 2000 tons per year or 500 pounds per hour.
- 2) Areas in which there are one or more existing sources and/or proposed new sources of sulfur dioxide in any circular area with a diameter of two miles from which the sum of sulfur dioxide emissions from these sources allowed by regulations of general application are or would be greater than 1000 tons for any consecutive three months or 1000 pounds per hour.

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 record keeping 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 Record Keeping and Reporting Requirements

1) Record Keeping

- 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, Compliance and 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, record keeping, reporting, or any other requirements of the permit, this includes deviations or Part 64 exceedances.
- d) Submit supplemental reports as required or as needed. 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 semiannual 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

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 semiannually (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, Compliance and 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 applicable 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, Compliance and 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), record keeping, 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, Compliance and 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 APCP shall place a copy with the permit in the public file. Written notice shall be provided to the EPA and the APCP 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 APCP 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 contemporaneous written notice of the change to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219. This notice shall not be required for changes that are insignificant activities under 10 CSR 10-6.065(6)(B)3 of this rule. 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)34 Responsible Official

The application utilized in the preparation of this permit was signed by James King, Plant Manager. On November 20, 2015, the Air Pollution Control Program was informed that Mr. Massimo Toso, President and CEO for River Cement Sales Company dba Buzzi Unicem USA is now the responsible official, and designated Brad Williams, Plant Manager as the duly authorized representative in the capacity of 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) MDNR 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) MDNR 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 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 B

Method 9 Opacity Emissions Observations

**10 CSR 10-6.220 Compliance Demonstration
 Method 9 Visual Determination of Opacity**

This attachment or an equivalent may be used to help meet the visible emissions record keeping requirements.

Method 9 Opacity Emissions Observation	
Company	Observer
Location	Observer Certification Date
Date	Emission Unit
Time	Control Device

Hour	Minute	Seconds				Steam Plum (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

STATEMENT OF BASIS

INSTALLATION DESCRIPTION

The River Cement Festus Plant is a Portland cement manufacturing installation located in Jefferson County. The installation is located in an ozone non-attainment area. The installation is a major source of particulate matter, sulfur oxides, nitrogen oxides, volatile organic compounds, carbon monoxide, hazardous air pollutants and Greenhouse Gases (CO₂e).

The River Cement Festus Plant's operations include quarrying and crushing of raw materials, raw material handling and storage, raw material grinding, kiln pyroprocessing, cement kiln dust handling, raw fuel grinding and handling, clinker cooling, clinker handling, and storage, finish mill system, and cement storage loadout. The Plant began construction of a new preheater/precalciner kiln system and associated equipment on August 1, 2005.

The two long-dry process kilns which the Plant previously operated were permanently shut down in 2009. This operating permit includes only those existing sources which continue to be operated and all new and modified sources associated with the operation of the new preheater/precalciner kiln system.

The installation is subject to the Portland Cement Manufacturing MACT and New Source Performance Standard for Portland Cement. The single new clinker production line that operates with an in-line raw mill, clinker cooler, finish mill, raw material dryer, conveying system transfer points, and bulk loading/unloading systems are covered by the MACT.

Updated Potential to Emit for the Installation

The potential to emit calculations are drawn from data in the Missouri Emissions Inventory System from the emission year 2014.

Pollutant	Potential to Emit (tons/yr) ¹
PM ₁₀	193,809.59
PM _{2.5}	711.85
Sulfur Oxides (SO _x)	702.78
Nitrogen Oxides (NO _x)	4,360.29
Volatile Organic Compounds	421.54
Carbon Monoxide (CO)	2,620.21
Lead (Pb)	0.11
Hazardous Air Pollutants (HAP's)	202.88
Ammonia (NH ₃)	14.48

¹Each emission unit was evaluated at 8,760 hours of uncontrolled annual operation unless otherwise noted.

Reported Air Pollutant Emissions, tons per year

The reported actual emissions for the past five years for the installation are listed below:

Reported Air Pollutant Emissions, tons per year					
Pollutants	2014	2013	2012	2011	2010
Particulate Matter ≤ Ten Microns (PM ₁₀)	535.42	526.99	414.37	279.15	352.28
Particulate Matter ≤ 2.5 Microns (PM _{2.5})	277.16	266.22	202.95	153.25	173.64
Sulfur Oxides (SO _x)	532.81	502.76	374.52	282.59	241.97
Nitrogen Oxides (NO _x)	3,330.44	3,142.85	2453.02	2,028.91	1,764.71
Volatile Organic Compounds (VOC)	258.49	242.50	187.37	151.55	130.78
Carbon Monoxide (CO)	1,989.14	1,876.96	1,395.58	702.40	821.27
Lead (Pb)	0.08	0.07	0.05	0.04	0.04
Hazardous Air Pollutants (HAPs)	155.47	146.69	109.04	70.12	0.01
Ammonia (NH ₃)	11.10	10.47	7.78	5.85	5.01

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 March 2, 2012; revised October 14 2012, April 29, 2013 and July 16, 2013;
- 2) 2012 Emissions Inventory Questionnaire, received March 03, 2013;
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition.
- 4) Construction Permits Issued to River Cement Company dba Buzzi Unicem USA - Festus Plant from the Air Pollution Control Program:

Permit Number	Description
032013-003A	Corrections and amendments of Permit 032013-003 for change to the testing requirements for PM10 and a change to the sulfur content limit of the alternate fuels.
032013-003A	A Section (5) permit for the use of alternate fuels in place of a portion of the petroleum coke and coal fuel currently being combusted in the preheater/precalciner cement kiln at this installation.
052012-012	A Section (5) permit for the modification of an existing clinker handling system and an existing raw material crushing system.

Permit Number	Description
012010-011A	Extension of temporary permit.
012010-011	Temporary permit for four 10 MMBtu/hr natural gas fired heaters.
012010-010	A Section (5) permit for the installation of a new fly ash system.
022010-005	A Section (5) permit for the use of an alternative fuel for the cement kiln.
122003-008A	Amendment of Permit 122003-008 for the applicability of NSPS Subpart Y.
122005-005A	Amendment of Permit 122005-005 and correction to as-built emission sources at the installation.
122005-005	A Section (8) permit for the replacement of two existing long-dry clinker production systems and their attending raw mill systems, with a single new clinker production line that will operate with an in-line raw mill and preheater/precalciner kiln system, in addition to adding finish grinding capacity.
122003-008	A Section (5) permit for an indirect-fired solid fuel mill/feed system to replace the direct-fired solid fuel systems currently being used on the existing cement kilns. A net emission increase analysis was conducted on all the criteria air pollutants for this project.
052002-013	A Section (5) permit for the replacement of four existing air separators at Finish Mill Number 1 and Finish Mill Number 2 with two air separators of a slightly larger capacity. A net emission increase analysis was conducted on PM10 for this project.
1299-018	A temporary permit issued on December 2, 1999, to conduct a test program of oxygen enrichment to the combustion zone of the cement kiln.
0693-008	Section (5) permit issued on June 14, 1993, for modification of fuel storage permit 0687-13A and fuel utilization permit 1288-004A in order to permit a change in the total number and volume of tanks, an increase in the annual fuel storage and utilization quantity, the addition of a vacuum operated truck, railcar, and on site container cleaning facility and the addition of another burner system to each kiln for the direct burning of high viscosity liquid (HVL) waste fuel.
0293-006	A Section (5) permit issued on January 22, 1993, to increase the cement storage capacity by one (1) silo with the addition of a reclaim conveyor and five (5) dust collectors.
0687-013B	An amendment to Permit No. 0687-013A issued on November 30, 1990, for modification of waste fuel storage permit.
1288-004A	An amendment issued on June 18, 1991, to modify the hazardous waste combustion Permit No. 1288-004.
0687-013A	An amendment issued on January 26, 1990, to modify Permit No. 0687-013A to allow the installation and operation of three (3) 22,000 gallon and six (6) 39,000 gallon storage tanks in place of the ten (10) 30,000 gallon storage tanks originally permitted.
1288-004	A Section (5) permit issued on December 9, 1988, to allow River Cement Company to burn hazardous waste fuel D001 [ignitable, nonlisted hazardous waste]. This submittal covers the physical burning of the fuel. (Ref. J.Pintor, RC, letter to M.Stansfield, MDNR, 1/29/87) "Peripherals necessary to allow a cement kiln to burn hazardous waste fuel. These include a fuel supply system and an oxygen monitor in the kiln stack."
0687-013	Section (5) permit issued on June 29, 1987, Construction of storage tanks associated with the burning of hazardous waste fuel D001 [ignitable, nonlisted hazardous waste], (Ref. J.Pintor, RC, letter to M. Stansfield, MDNR, 1/22/87). Construction of ten (10) 30,000 gallon tanks for storage of hazardous waste fuel.

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 History

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

None

New Source Performance Standards (NSPS) Applicability

1) 40 CFR Part 60, Subpart F – *Standards of Performance for Portland Cement Plants*

This standard is applicable to the following affected facilities in Portland cement plants that commences construction or modification after August 17, 1971: Kiln, clinker cooler, raw mill system, finish mill system, raw mill dryer, raw material storage, clinker storage, finished product storage, conveyor transfer points, bagging and bulk loading and unloading systems.

According to 40 CFR Part 63, Subpart LLL, §63.1356 an exemption from new source performance standards is given. Any affected source subject to the provisions of 40 CFR Part 63, Subpart LLL, is exempted from any otherwise applicable new source performance standard contained in 40 CFR Part 60, Subpart F, except for added limits in §60.62(a)(3) and (a)(4) for SO₂ and NO_x including the corresponding monitoring/testing/recordkeeping/reporting requirements for SO₂ and NO_x, (February 12, 2013).

2) 40 CFR Part 60, Subpart Y – *Standards of Performance for Coal Preparation Plants*

This standard is applicable to any of the following affected facilities in coal preparation plants which process more than 200 tons per day and commenced construction or modification after October 24, 1974: Thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), coal storage systems and coal transfer and loading systems. The coal processing and conveying equipment are subject to the requirements of this standard.

3) 40 CFR Part 60, Subparts K, *Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction Or Modification Commenced After June 11, 1973, and Prior to May 19, 1978,*

40 CFR Part 60, Subpart Ka, *Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction Or Modification Commenced After May 19, 1978, and Prior to July 23, 1984, and*

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.

The following storage tanks are below the level of reporting significance (Subpart K & Ka – 40,000 gallons and Subpart Kb – 19,812.9 gallons) and therefore are not subject to 40 CFR Part 60 Subpart K, Ka or Kb:

Description	Capacity (Gallon)	Date Placed in Service
Grinding Aid Storage Tank (9-M-05)	9,000	1964
Diesel Storage Tank #3 (9-M-10)	140	1969
Diesel Storage Tank #4 (9-M-12)	15,000	2003
Gasoline Storage Tank (9-M-13)	560	2004
Diesel Storage Tank #5 (9-M-14)	560	2004
Kerosene Storage Tank (9-M-15)	560	2004

4) 40 CFR Part 60, Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants*

This standard is applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants that commences construction or modification after August 31, 1983: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station.

According to §60.670(b), “An affected facility that is subject to the provisions of subpart F or I or that follows in the plant process any facility subject to the provisions of subparts F or I of this part is not subject to the provisions of this subpart.”

The following nonmetallic mineral processing operations were installed prior to August 31, 1983 and are not subject to this standard:

Nonmetallic Mineral Processing Operations	Installation Date
Primary Crusher Limestone (1-Q-10)	1964
TP: Primary Crusher Surge Bin Discharge – Belt 201040.05 (2-R-01)	1964
Belts 201040.05 & 202070 Discharge in Surge Bin; 202070 to 202090 (2-R-02)	1964
Surge Bin Feeder (2-R-03)	1964
Vibrating Screen (2-R-03)	1973
Secondary Crushers(2-R-03B)	1964/1973
Secondary Crusher Discharge to Belt 202040 & 202240 (2-R-03C)	1964/1973
Screen 202270 (2-R-04)	1964
Conveyor Belt 202070 (2-R-04)	1964

The other nonmetallic mineral processing operations installed after August 31, 1983 which are prior to any facility processes that are subject to the provisions of subpart F, are subject to the requirements of this standard.

Since the rest of installation is either subject to the provisions of subpart F or follows in the plant process a facility subject to the provision of subpart F, this requirement was not included in the operating permit for those processes.

5) 40 CFR Part 60, Subpart III, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.*

This rule applies to EU9-M-22, Caterpillar (815 horsepower emergency diesel generator) because the generator engine was manufactured after the applicability date of April 1, 2006.

To comply with this subpart, the installation uses diesel fuel that meets the requirements of 40 CFR 60.4207(b) as referenced in 40 CFR 80.510(b) and meet certain emission requirements put in Permit Condition EU9-M-22-001.

Maximum Available Control Technology (MACT) Applicability

10 CSR 10-6.075, Maximum Achievable Control Technology Regulations

1) 40 CFR Part 63, Subpart T, *National Emission Standards for Halogenated Solvent Cleaning*

The provisions of this subpart apply to each individual batch vapor, in-line vapor, in-line cold, and batch cold solvent cleaning machine that uses any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent. Wipe cleaning activities, such as using a rag containing halogenated solvent are not covered under the provisions of this subpart.

River Cement has 3 solvent degreasers that use a petroleum naphtha solvent, therefore the installation is not subject to this standard.

2) 40 CFR Part 63, Subpart DD, *National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations*

The provisions of this subpart used to apply to River Cement. River Cement is a major source of HAP emissions and the installation operated as a waste management operation that receives off-site material, regulated as a hazardous waste treatment, storage and disposal facility (TSDF) under 40 CFR Part 264. The installation no longer utilizes hazardous waste fuel and the storage tanks associated with the storage of the hazardous waste fuel have been removed. Therefore, River Cement is not subject to the requirements of 40 CFR Part 63, Subpart DD.

3) 40 CFR Part 63, Subpart EEE, *National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors*

The provisions of this subpart apply to all hazardous waste combustors: hazardous waste incinerators, hazardous waste burning cement kilns and hazardous waste burning lightweight kilns, except as provided in the table below:

IF	AND IF	THEN
You are a previously affected source	1) You ceased feeding hazardous waste for a period of time greater than the hazardous waste residence time (i.e., hazardous waste no longer resides in the combustion chamber), 2) You are in compliance with the closure requirements of subpart G, parts 264 or 265 of this chapter, 3) You begin complying with the requirements of all other applicable standards of this part (Part 63), and 4) You notify the Administrator in writing that you are no longer an affected source under this Subpart EEE.	You are no longer subject to Subpart EEE.
You are a research, development, and demonstration source	You operate for no longer than one year after first burning hazardous waste (Note that the Administrator can extend this one-year restriction on a case-by-case basis upon your written request documenting when you first burned hazardous waste and the justification for needing additional time to perform research, development, or demonstration operations.)	You are not subject to Subpart EEE. This exemption applies even if there is a hazardous waste combustor at the plant site that is regulated under this subpart. You still, however, remain subject to §270.65 of this chapter.
The only hazardous wastes you burn are exempt from regulation under §266.100(b) of this chapter		You are not subject to the requirements of Subpart EEE.

River Cement used to burn high viscosity liquid (HVL) waste fuel. The installation no longer utilizes hazardous waste fuel and the storage tanks associated with the storage of the hazardous waste fuel have been removed. On May 8, 1997, River Cement submitted notice under 40 CFR 264.112(d)(1) to initiate final closure of its Supplemental Fuels Facility on or about June 23, 1997. According to a December 8, 1998 Memorandum from Daniel Carey of the Hazardous Waste Program, Permits Section, Treatment Unit, the following activities have been completed:

- River Cement submitted its closure certification on September 1, 1998.
- The Enforcement Section from the Hazardous Waste Program conducted a closure inspection on October 7, 1998.
- All of the interim status areas of River Cement Company have been certified as clean closed. The Enforcement Section inspection found that all areas were closed in compliance with the approved closure plan.
- The Treatment Unit accepts the certification of Closure received September 1, 1998.

Therefore, River Cement is not subject to the requirements of 40 CFR Part 63, Subpart EEE.

4) 40 CFR Part 63, Subpart LLL, *National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry*

The provisions of this subpart apply to each new and existing portland cement plant that is a major or an area source. The affected sources subject to this regulation are:

- Each kiln and each in-line kiln/raw mill at any major or area source, including alkali bypasses, except for kilns and in-line kiln/raw mills that burn hazardous waste and are subject to and regulated under subpart EEE of this part;
- Each clinker cooler at any portland cement plant that is a major source;
- Each raw mill at any portland cement plant that is a major source;
- Each finish mill at any portland cement plant that is a major source;
- Each raw material dryer at any portland cement plant that is a major source and each greenfield raw material dryer at any portland cement plant that is a major or area source;
- Each conveying system transfer point at any portland cement plant that is a major source;
- Each bagging system at any portland cement plant that is a major source; and
- Each bulk loading or unloading system at any portland cement plant that is a major source;

The installation is a major source of HAPs, and therefore the affected sources that are covered by Subpart LLL are as follows:

- kiln system – consisting of the In-Line Raw Mill, Preheater/Precalciner Kiln, and Clinker Cooler;
- Solid Fuel Grinding System;
- Finish Mills; and
- Material Handling Processes (which include raw material, clinker, and finished product storage bins, conveying system transfer points, bagging systems and bulk loading and unloading systems).

According to 40 CFR Part 63, Subpart LLL – The first source affected are the raw material storage just prior to the raw mill. If the emission units are not the raw material storage prior to the raw mill, the emission units are not covered by LLL:

“...the first affected source in the sequence of materials handling operations subject to this subpart is the raw material storage, which is just prior to the raw mill. Any equipment of the on-site nonmetallic mineral processing plant which precedes the raw material storage is not subject to this subpart. In addition, the primary and secondary crushers of the on-site nonmetallic mineral processing plant, regardless of whether they precede the raw material storage, are not subject to this subpart. Furthermore, the first conveyor transfer point subject to this subpart is the transfer point associated with the conveyor transferring material from the raw material storage to the raw mill.”

Based on this definition, the first emission units at the plant affected by 40 CFR Part 63, Subpart LLL are the transfer points from the mill feed bins and limestone storage pile to the mill feed belt (2-R-19, 2-R-21, 2-R-22, 2-R-23, 2-R-24, and 2-R-25).

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

10 CSR 10-6.080, Emission Standards for Hazardous Air Pollutants

- 1) 40 CFR Part 61 Subpart M, *National Emission Standard for Asbestos*, §61.145(a), Standard for demolition and renovation, applies to the installation.

This regulation has been included in the operating permit because it applies to any demolition or renovation (as outlined in 40 CFR 61.145) of buildings containing asbestos at the installation.

2) 40 CFR Part 61, Subpart V, *National Emission Standard for Equipment Leaks (Fugitive Emission Sources)*

The provisions of this subpart apply to each of the following sources that are intended to operate in volatile hazardous air pollutant (VHAP) service: pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, flanges and other connectors, product accumulator vessels, and control devices or systems required by this subpart.

The installation has ceased the utilization of hazardous waste derived fuels in the cement kiln and removed the hazardous waste derived fuel storage tanks. Therefore, the requirements for this subpart were not included in the operating permit.

3) 40 CFR Part 61, Subpart FF, *National Emission Standard for Benzene Waste Operations*

The provisions of this subpart apply to owners and operators of chemical manufacturing plants, coke by-product recovery plants and petroleum refineries. The provisions of this subpart apply to owners and operators of hazardous waste treatment, storage and disposal facilities that treat, store, or dispose of hazardous waste generated by any facility listed above in the first sentence. The waste streams at hazardous waste treatment, storage, and disposal facilities subject to the provisions of this subpart are the benzene-containing hazardous waste from any facility listed above in the first sentence. A hazardous waste treatment, storage, and disposal facility is a facility that must obtain a hazardous waste management permit under subtitle C of the Solid Waste Disposal Act.

The provisions of this subpart apply to wastewater streams, storage tanks, surface impoundments, individual drain systems, oil-water separators, treatment processes, closed-vent systems and control devices.

The installation has ceased the utilization of hazardous waste derived fuels in the cement kiln and removed the hazardous waste derived fuel storage tanks. Therefore, the requirements for this subpart were not included in the operating permit.

Compliance Assurance Monitoring (CAM) Applicability

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

The CAM rule applies to each pollutant specific emission unit that meets all of the following:

- Be subject to an emission limitation or standard, and
- Use a control device to achieve compliance, and
- Have pre-control emissions that exceed or are equivalent to the major source threshold.

40 CFR Part 64 is not applicable:

- The kiln system (4-K-09) and the raw mill system (3-G-13) are the only emission units that have pre-control emissions above the major source threshold. Since these units are subject to 40 CFR Part 63, Subpart LLL standards and units that are subject to 111 or 112 standards promulgated after 11/15/90 are excluded from CAM, the installation is not subject to CAM.

Greenhouse Gas Emissions

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.

Note that this source is subject to the Greenhouse Gas Reporting Rule. However, the preamble of the GHG Reporting Rule clarifies that Part 98 requirements do not have to be incorporated in Part 70 permits operating permits at this time. In addition, Missouri regulations do not require the installation to report CO₂ emissions in their Missouri Emissions Inventory Questionnaire; therefore, the installation's CO₂ emissions were not included within this permit. The applicant is required to report the data directly to EPA. The public may obtain CO₂ emissions data for this installation by visiting <http://epa.gov/ghgreporting/ghgdata/reportingdatasets.html>.

Other Regulatory Determinations

1) 10 CSR 10-6.400, *Restriction of Emission of Particulate Matter From Industrial Processes*

10 CSR 10-6.400 limits the amount of particulate matter that is allowed from an emission unit, and is dependent on the process weight rate material processed. The emission units to which this rule applies are listed below. The following calculations provide the allowable particulate emission rate based on 10 CSR 10-6.400 and the potential (maximum) emission rate including particulate emission control equipment. Potentials to emit presented below were calculated based on sources Maximum Design Rate (MDR). If the emissions from these emission units can not violate the limits of this rule then evidence of this is demonstrated in the following calculations.

One of the following equations from 10 CSR 10-6.400 is used to calculate the PM allowable limit:

$$E = 4.10P^{0.67} \text{ for process weight rates up to 30 tons (60,000 lbs) per hour, and}$$

$$E = 55.0P^{0.11} - 40 \text{ for process weight rates greater than 30 tons (60,000 lbs) per hour}$$

Where: E = rate of emission in lb/hr; and

P = process weight rate in tons/hr (maximum hourly design rate)

a) At maximum design rates, the uncontrolled potential PM emission rates for the units listed in the table below based on FIRE and AP-42 factors are less than the allowed exemption level of 10 CSR 10-6.400(1)(B)11. (i.e., 0.5 lbs/hr), therefore these units are not subject to the provisions of this rule. Emission factors used are from FIRE [*SCC: 3-05-006-12, 16, **3-05-010-08, ***3-003-05] and AP42 [§16.4 (SCC 3-05-006-17), AP-42, §11.12 (Table 11.12-2, Cement Unloading (SCC 3-05-011-07))].

Emission Unit No.	Max. Design Rate (ton/hr)	Control Device		PM Emission Factor (EF)			PM Emission			
		Type	Capture Efficiency (%)	Control Efficiency (%)	Controlled EF (lb/ton)	Uncontrolled EF (lb/ton)	EF Source	Uncontrolled (lb/hr)	Controlled (lb/hr)	Limit (lb/hr)
3-G-10	536.00	Fabric Filter	100	89.48	2.90E-5		Fire*	0.38	1.55E-2	69.79
3-G-11	40.00	Fabric Filter	100	99.95	2.90E-5		Fire*	0.03	1.16E-3	42.53
3-G-11A	40.00	Fabric Filter	100	99.95	2.90E-5		Fire*	0.03	1.16E-3	42.53
6-F-21	50.00	Fabric Filter	100	99.95		0.017	2014 EIQ	0.85	4.25E-04	56.38
8-B-11	35.00	Fabric Filter	100	99.00		0.00011	Fire ***	0.004	3.85E-5	41.32
8-B-12A	35.00	Fabric Filter	100	99.00		0.00011	Fire ***	0.004	3.85E-5	41.32
8-B-12B	35.00	Fabric Filter	100	99.00		0.00011	Fire ***	0.004	3.85E-5	41.32
9-M-02	300.00	Fabric Filter	100	89.48	2.90E-5		Fire*	0.21	0.01	63.00
9-M-02	300.00	Fabric Filter	100	89.48	2.90E-5		Fire*	0.21	0.01	63.00

b) At maximum design rates, the uncontrolled potential PM emission rates for the units listed in the table below based on FIRE and AP-42 factors are less than their corresponding allowable PM emission limits. No monitoring, record keeping or reporting is required. Emission factors used are from FIRE [**3-05-006-11, ****3-05-010-10] and AP-42 [§11.6, Table 11.6-4 (SCC 3-05-006-17 and SCC 3-05-006-29), §11.12, Table 11.12-2, Cement Unloading (SCC 3-05-011-07)] and EIQ.

Emission Unit No.	Max. Design Rate (ton/hr)	Control Device		PM Emission Factor (EF)			PM Emission			
		Type	Capture Efficiency (%)	Control Efficiency (%)	Controlled EF (lb/ton)	Uncontrolled EF (lb/ton)	EF Source	Uncontrolled (lb/hr)	Controlled (lb/hr)	Limit (lb/hr)
2-R-04	500	Fabric Filter	100	89.48	3.1E-4		Fire**	1.85	0.16	68.96
2-R-13	1,540	Fabric Filter	100	89.48	2.9E-5		Fire*	1.09	0.04	83.31
5-L-03	330.70	Fabric Filter	100	89.48		0.00408	2009EIQ	1.35	0.14	64.11
5-L-05	330.70	Fabric Filter	100	89.48		0.00408	2009EIQ	1.35	0.14	64.11
5-L-06	330.70	Fabric Filter	100	89.48		0.00408	2009EIQ	1.35	0.14	64.11
5-L-07	330.70	Fabric Filter	100	89.48		0.00408	2009EIQ	1.35	0.14	64.11
5-L-09	330.70	Fabric Filter	100	89.48		0.00408	2009EIQ	1.35	0.14	64.11
5-L-12	443.00	Fabric Filter	100	89.48		0.00408	2009EIQ	1.81	0.19	67.51
5-L-13	443.00	Fabric Filter	100	89.48		0.00408	2009EIQ	1.81	0.19	67.51
6-F-01	199.00	Fabric Filter	100	89.48	0.00408		Fire*	7.72	0.81	58.45

Emission Unit No.	Max. Design Rate (ton/hr)	Control Device			PM Emission Factor (EF)			PM Emission		
		Type	Capture Efficiency (%)	Control Efficiency (%)	Controlled EF (lb/ton)	Uncontrolled EF (lb/ton)	EF Source	Uncontrolled (lb/hr)	Controlled (lb/hr)	Limit (lb/hr)
6-F-02	199.00	Fabric Filter	100	89.24	0.008		AP-42	14.80	1.59	58.45
6-F-03	102.00	Fabric Filter	100	89.24	0.0024		AP-42	2.28	0.24	51.48
6-F-04A	97.00	Fabric Filter	100	89.24	0.0024		AP-42	2.16	0.23	50.97
6-F-04B	97.00	Fabric Filter	100	89.24	0.028		AP-42		2.72	50.97
6-F-05	102.00	Fabric Filter	100	99	0.028		AP-42		2.86	51.48
6-F-21	50.00	Fabric Filter	100	99.95		0.017	2014 EIQ	0.85	4.25E-04	56.38
7-C-05 (2 Units)	750.00	Fabric Filter	100	89.48		0.27	Fire		10.65	65.56
7-C-07	750.00	Fabric Filter	100	99.95		0.27	Fire		21.30	73.93
7-C-08	187	Fabric Filter	100	89.48		0.27	Fire		5.31	57.78
7-C-09	187	Fabric Filter	100	89.48		0.27	Fire		5.31	57.78
7-C-10	187	Fabric Filter	100	89.48		0.27	Fire		5.31	57.78
8-B-12	35.00	Fabric Filter	100	99.95		0.02	Fire****	0.70	3.50E-4	41.32

- The #1 and #2 mill separators (6F-04B and 6-F-05) have baghouses as part of the separators. The separators cannot be operated unless the dust collectors are running. If the dust collector fans stop, the separators automatically stop (interlocked). If the dust collector malfunctions, the blower shuts off, this shuts down the entire separator system.
- The dust collectors for EU7-C-05, 7-C-07, 7-C-9-09-and 7-C-10 are considered as material handling equipment and must be operated when transferring cement. The standard operating procedure is to start the dust collectors before transferring cement and must be in operation when transferring cement.

As described above, the dust collectors associated with the units listed in the table above are an integral part of process operation. In summary, the dust collectors are inherent to the operation of the material transfer processes and provide for product recovery. Therefore, the dust collectors do not meet the definition of add-on control device, and the dust collectors are considered when calculating the potential to emit.

- c) According to 10 CSR 10-6.400(1)(B)15, the provisions of this rule shall not apply to 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. Construction permits issued to these units require River Cement to ensure that the dust collectors are in operation at all times while the units are in operation. It is the policy of the MDNR to allow installations to claim a control efficiency of up to 99% for a dust collector without a stack test being required. Therefore, because River Cement had federally enforceable requirement to operate and maintain a control device, controlling at least 90% of particulate emissions on all equipment that emits particulate matter. The units listed below are exempt from 10 CSR 10-6.400.

Emission Unit No.	Description of Emission Unit	Emission Unit No.	Description of Emission Unit
1-Q-15	Additives Crusher and Conveyor	5-L-19	Off spec Clinker Bin Discharge
1-Q-16	Additives Conveying to Raw Mill Feed Bins	5-L-20	Transfer onto Pan Conveyor 330377
2-R-01	TP: Primary Crusher Surge Bin Discharge – Belt 201040.05	5-L-21	Transfer onto Pivoting Pan Conveyor 0330387
2-R-02	Belts 201040.05 & 202070 Discharge in Surge Bin; 202070 to 202090	5-L-22	Transfer from 330409 to 330429 or 330433
2-R-03A	Surge Bin Feeder	5-L-23	Transfer from 330433 to Elevator 330439
2-R-03A	Vibrating Screen	5-L-24	Belt Conveyor 330040 Discharge
2-R-03B	Secondary Crusher (202030.01)	5-L-25	Transfer from Elevator 330439 to 330448
2-R-03B	Secondary Crusher (202230.01)	5-L-26	Transfer onto Pan Conveyor 330448
2-R-03C	Secondary Crusher Discharge to Belt 202040	5-L-27	Transfer from 330448 to 330456
2-R-14	Belt 220070 - Raw Material Transfer to Storage Dome	5-L-28	Silo 2 and 3 Vents
2-R-15	Belts 205060/205070 – Conveying to and Discharge into Raw Mill Feed Bins	5-L-29	Silo 8 and 9 Vents
2-R-16	Raw Mill Feed Bins	6-F-06	F-K Pumps (fish Mills)
2-R-17	Raw Mill Feed Bins	6-F-07	Weigh Feeders to Belt 330200
2-R-18	Enclosed Limestone Storage Dome	6-F-08	Weigh Feeders to Belt 330200
2-R-19	Weigh Feeder #1 from Limestone Stock Pile	6-F-13	Clinker & Gypsum Transfer to Conveyor and Discharge to Feed Elevator
2-R-20	Weigh Feeder #2 – Transfer from Belt 205070 to Belt 205080	6-F-14	Clinker & Gypsum Transfer from Feed Elevator to Weigh Feeders and then Diverter
2-R-21	Mill Feed Bins Weigh Feeder #1 Discharge to Mill Feed Belt 233030	6-F-15	Reject Bin Discharge to Conveyor and Conveyor Discharge to Elevator
2-R-22	Mill Feed Bins Weigh Feeder #2 Discharge to Mill Feed Belt 233030	6-F-16	Finish Mill #3 (Large Vertical Mill)
2-R-23	Mill Feed Bins Weigh Feeder #3 Discharge to Mill Feed Belt 233030	6-F-19	Finish Mill #3 Furnace
2-R-24	Mill Feed Bins Weigh Feeder #4 Discharge to Mill Feed Belt 233030	6-F-17	Discharge from Cement Coolers to Cement Silo Elevator
2-R-25	Mill Feed Bins Weigh Feeder #5 Discharge to Mill Feed Belt 233030	6-F-18	Cement Silo Elevator Discharge to Cement Silos
3-G-12	Discharge from Mill Feed Belt 233030 to Inline Raw Mill	6-F-20	Air Slides from Bag Filter to Cement Cooler
3-G-13	Inline Raw Mill	7-C-01	Cement Storage Silos
3-G-15	Raw Mill Cyclones Conveying	7-C-02	Cement Pump Feed Bins (2 Pumps)
3-G-17	Conveying to Blending Silos	7-C-03	Barge Loadout Spouts
3-G-18	Kiln Feed Elevator Transfer to Conveyor and Discharge into Kiln Feed Bin	7-C-04	Filling of Cement Storage Dom
3-G-19	Kiln Feed Bin Discharge to Preheater Elevator	7-C-06	TP: Cement from Belt 563315 to Belt 563315.15

Emission Unit No.	Description of Emission Unit	Emission Unit No.	Description of Emission Unit
3-G-20	Preheater Elevator Discharge to Preheater	7-C-12	New Cement Silo
4-K-10	Discharge from Clinker Cooler to Conveyor – Clinker Transfer	7-C-13	Discharge from New Cement Silo to Cement Elevator and Transfer to Belt 563315.15
5-L-11	Clinker off Spec Bin Conveying	7-C-14	North Tower
5-L-14	Clinker transfer to Belt 330070	7-C-15	South Tower
5-L-15	Belt 330070 to Belt Conv. & Trip (330090/330200)	7-C-16	Tube Conveyor Loading
5-L-16	Tripper Discharge into Converted Clinker Silos		

d) According to 10 CSR 10-6.400(1)(B)7., the following fugitive sources are not subject to this rule.

Emission Unit No.	Description of Emission Unit	Emission Unit No.	Description of Emission Unit
1-Q-01	Quarry Drilling	4-K-12	Calcium Hydroxide Tank and Discharge to Preheater
1-Q-02	Quarry Blasting	4-K-13	Haul Road (Unpaved) Clinker; Barge to Pile
1-Q-03	Loading Haul Trucks from Quarry	5-L-10A	Haul Road (Paved) Clinker; Barge to Pile
1-Q-04A & B	South Haul Roads to Crusher	6-F-22	Haul Road: Dry Powder Additives Hauling (Paved)
1-Q-04C & D	North Haul Roads to Crusher	5-L-31	Haul Road: Clinker Storage Pile to Primary Crusher (Paved)
1-Q-05	Limestone Storage Pile	7-C-11	Haul Road: Cement Hauling from Silos (Paved)
1-Q-06	Sandstone Storage pile	8-B-02	Haul Road: Coke Unloading Barge to Storage Pile
1-Q-07A	Haul Road (Paved) Clay; Entry-Pile	8-B-03A	Haul Road (Paved) Coke/Coal; Entry-Pile
1-Q-07B	Haul Road (Unpaved) Clay; Entry-Pile	8-B-03B	Haul Road (Unpaved) Coke/Coal; Entry-Pile
1-Q-08	Clay and Substitute Storage Pile	8-B-04	Coke/Coal Storage Stockpile
1-Q-09	Raw Material Unloading at Primary Crusher	8-B-05	Coke Bins (355045 & 355050) Coarse
1-Q-11A	Haul Road (Paved) Sand & Raw Material Sub; Entry-Pile	8-B-06	TP: Coke from Belt 355015 to 355030 and 355030 to 355035
1-Q-11B	Haul Road (Unpaved) Sand & Raw Material Sub; Entry-Pile	9-M-04	Gypsum Storage Pile
1-Q-11C	Haul Road (Unpaved) Bottom Ash/Scales; Barge to Pile	9-M-04H	Haul Road (Unpaved) Gypsum, Barge to Pile) 9-M-01 Gypsum Unloading into Hopper
1-Q-11D	Haul Road (Unpaved) Bottom Ash; Entry-Pile	9-M-02	TP: Gypsum Hopper Discharge onto Belt (508030)
1-Q-11E	Haul Road (Paved) Bottom Ash; Entry-Pile	9-M-03	Gypsum Elevators (508040/508050) & Discharge to Silo
1-Q-11F	Haul Road (Paved) to Fly Ash Silo	9-M-16	Synthetic Gypsum Loading into Hoppers
1-Q-12	Sand Storage Pile	9-M-17	Synthetic Gypsum Hopper Loadout FM2 Screw/Weigh Belt(2)
1-Q-13	Bottom Ash Storage Pile	9-M-18	Synthetic Gypsum Hopper Loadout FM3 Screw/Weigh Belt (2)
1-Q-14	Mill Scale Storage Pile	9-M-19	Synthetic Gypsum Storage Building – Conveying
2-R-05	Crushed Limestone Stockpile	9-M-20	Synthetic Gypsum Belt Transfers to FM3 (2)
4-K-11	Haul Road (Paved): Calcium Hydroxide; Entrance to Bin	9-M-21	Synthetic Gypsum Hopper FM1 screw/Weigh Belt (2)

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 APCP'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 APCP a schedule for achieving compliance for that regulation(s).

Response to Public Comments

There were fifty three (53) comments received on December 16, 2013 from EPA Region 7. The comments are addressed in the order in which they appear within the letter and are quoted verbatim.

Comment #1: The River Cement Company—Festus Plant is owned and operated by Buzzi Unicem USA with their US corporate offices located at 100 Brodhead Road; Bethlehem, PA. The draft Part 70 operating permit on public notice shows the parent company as RC Lonestar. Therefore, EPA recommends MDNR modify the permit cover sheet to accurately reflect the River Cement—Festus cement plant parent company name as Buzzi Unicem USA.

Response to Comment: According to the River Cement Company, RC Lonestar is the parent company (D&B number 80-286-1687). RC Lonestar is licensed and incorporated. Buzzi Unicem USA is only a trade name, not an entity. The River Cement Company is in the process of revising the EPA reports to show this revision. Therefore, no changes have been made as a result of this comment.

Comment #2: Section I Installation Description and Equipment Listing includes both a listing of Emission Units with Limitations and a listing of Emission Units without Limitations. The list of Emission Units with Limitations includes an emission unit 1-Q-09K, and there does not appear to be a permit condition in Section III that includes this emission unit. Also, the list of emission units without limitations includes emission units 4-K-11 and 4-K-13; both of which have specific “special conditions” detailed in construction permit #122005-005. Therefore, EPA recommends MDNR include permit conditions for all the applicable emission units.

Response to Comment: Emission unit 1-Q-09K was inadvertently included in the list of Emission Units with Limitations. Since there is no specific requirement that applies to it, we have removed this unit from the list of Emission Units with limitation and included it in Emission Units without Limitations listing.

The APCP agrees that the emission units 4-K-11 and 4-K-13 should be included with Emission Units with Limitations since both have specific “special conditions” detailed in construction permit #122005-005. The draft permit has been modified to include these units as Emission Units with limitation and have been added to Section III of the draft permit.

Note: When the permit was drafted, we incorrectly wrote the construction permit 122005-005. as 112005-005, this typographical error has been corrected in the draft permit as well as in this response to comment document.

Comment #3: Item 2) under the emission limitations in Permit Conditions PW001 indicates the responsible party for assuring compliance is “a person” and this operating permit is being issued to River Cement—Festus. Therefore, a more appropriate term for use in place of “a person” is the word “permittee,” or “River Cement—Festus” and therefore EPA recommends MDNR replace “a person” with either “permittee” or “River Cement—Festus.” Also, item 1) in the monitoring indicates that River Cement Company shall conduct opacity readings “on this emission unit.” This permit condition is shown as a “plant wide permit condition,” which would appear to apply to all emission units. Therefore EPA recommends MDNR modify this compliance step of permit condition PW001.

Response to Comment: The term “a person” in Permit Condition PW01 has been replaced with the “permittee” as recommended. Also, item 1) of the monitoring section is revised as follows:

“The permittee shall conduct opacity readings on the emission units using the procedures contained in USEPA 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(s) 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 using a certified Method 9 observer.”

Comment #4: The plant wide emission limitations specified in permit conditions **PW002, PW003, PW004, PW005, and PW006** are included in the draft operating permit to capture the applicable requirements associated with the maximum achievable control technology (MACT) regulations associated with 40 CFR Part 63, Subpart LLL; Portland Cement Manufacturing Industry. River Cement—Festus must already be in compliance with many of the applicable requirements in 40 CFR Part 63, Subpart LLL. However, these five (5) permit conditions (**PW002, PW003, PW004, PW005, and PW006**) are written / worded as if compliance is in the future. Also, these permit conditions assign compliance responsibility to “you,” and to “owners or operators.” This is a draft operating permit being written for River Cement—Festus as the permittee and as such each permit condition should indicate that either the “permittee shall” or “River Cement—Festus shall” undertake the required compliance action. Second, many of the identified specific requirements appear to be simply a listing of the requirements and if these are truly compliance steps they should follow the customary practice of “who” does “what” by “when.” Third, there are numerous references to the “Administrator” in these permit conditions and, if MDNR has adopted the requirements associated with 40 CFR Part 63, Subpart LLL; then a more appropriate individual is “Director.” Fifth, the continuous monitoring requirements listed in permit condition **PW003** requires “you” to comply with emission standards and operating limits for “each affected source;” with no listing of the affected source(s). Also, item 4) indicates an action is required “if ‘you’ are subject to limitations on mercury emissions.” The determination of whether or not River Cement—Festus is subject to mercury emissions should be established by the MDNR permit writer during the drafting of the operating permit. EPA strongly recommends MDNR consider rewriting these five (5) plant wide permit conditions.

Response to Comment: The APCP agrees with your comment and the draft permit has been modified. A note stating that “Permit Condition 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.” to clarify the affected sources.

Comment #5: Plant wide permit condition **PW007** is a listing of compliance dates; most of which have already passed and this permit condition does not appear to be a standalone applicable requirement. EPA recommends MDNR consider eliminating plant wide permit condition **PW007**. Additionally, plant wide permit condition **PW008**, as written, does not indicate any action on the part of the permittee and EPA suggests the information be included as a “Note” within all of the appropriate permit conditions. Also, the referenced attachment is Attachment C and not Attachment D.

***Response to Comment:** The plant wide permit condition PW007 is removed from this draft permit and the relevant requirements of PW008 are incorporated into PW002 through PW006 as recommended.*

Comment #6 Plant wide permit condition **PW009** incorporates special conditions 10, 15 and 16 from construction permits #122005-005 and #122005-005A. However, special condition 10 applies to emission points 4-K-11 and 4-K-13 which therefore become emission points with specific limitations and are not plant wide emission limitations. EPA recommends MDNR include an emission unit with specific emission limitations permit condition to address the requirements associated with emission points 4-K-11 and 4-K-13. Also, special condition 15 was a one-time requirement dating back to July 17, 2007. EPA contends that this condition should have been satisfied and is no longer an applicable requirement and should not be in the operating permit.

***Response to Comment:** The draft permit has been modified as requested.*

Comment #7: The number 2) operational limitation in Permit Condition **EU1-Q-10-001** incorporates the applicable requirements from special condition 6B in construction permit #052012-012. However, the applicable requirement in item 2) in the draft operating permit is not identical to the applicable requirement in construction permit #052012-012. River Cement company shall not process more than 35,000 tons each of sand and clay/correctives on a rolling 12-month **total** (emphasis added) not average is the special condition in the approved construction permit. Additionally, monitoring/ record keeping requirement 3) should be worded to indicate that the permittee shall keep records in accordance with the General Record keeping and Reporting Requirements stated in Section V. EPA recommends MDNR correct permit condition **EU1-Q-10-001** to reflect the requirements of construction permit #052012-012 and state that “River Cement—Festus” shall maintain records.

***Response to Comment:** The draft permit has been modified as requested.*

Comment #8: The emission limitations in permit condition **EU1-Q-15-002 and EU1-Q-16-002** states the “affected facilities must meet the stack emission limits and compliance requirements in Table 2 of this subpart within 60 days of achieving maximum production rate...” The monitoring; test methods and procedures; record keeping; and reporting requirements all require the “owner or operator” of affected facilities to carry out tasks. This permit condition incorporates the applicable requirements of 40 CFR Part 60, Subpart OOO, which was codified in April 2009. In the past four plus years, “River Cement—Festus” should have determined their “affected facilities” and their appropriate emission limits and compliance requirements. Therefore, EPA recommends MDNR strongly consider rewriting this permit condition listing the specific River Cement—Festus emission units subject to 40 CFR Part 60, Subpart OOO including specific emission limits and compliance requirements. Also, EPA recommends MDNR replace “owner or operator” with either “permittee” or “River Cement Company—Festus.”

***Response to Comment:** The draft permit has been modified as requested.*

Comment #9: The emission limitation in permit condition **EU1-Q-17-001 and EU1-Q-18-001** appears to be just a listing of the requirements. If MDNR is requiring the permittee to meet these limits, then EPA recommends these three (3) statements be rewritten to indicate that the “permittee (or River Cement—Festus)” shall meet the requirements. Additionally, the monitoring; test methods and procedures; record keeping; and reporting requirements all require the “owner or operator” to carry out tasks. EPA recommends MDNR use the term “permittee” or “River Cement—Festus” in place of “owner or operator.” Finally, test methods and procedures step 1) d) references a Table 3 of this subpart

and yet Table 3 is not included as a reference to the draft operating permit. EPA recommends MDNR either include Table 3 with appropriate reference, or identify Table 3 by specific citation.

Response to Comment: The term “owner or operator” in this permit condition has been replaced with the “permittee” as recommended.

The test methods and procedures step 1) d) of permit condition EU1-Q-17-001 and EU1-Q-18-001 does not reference Table 3 of Subpart OOO and no change has been made to this part of this comment.

Comment #10: The emission limitation in permit condition **EU2-R-13-001** states the “affected facilities must meet the stack emission limits and compliance requirements in Table 2 of this subpart within 60 days of achieving maximum production rate....” The monitoring; test methods and procedures; record keeping; and reporting requirements all require the “owner or operator” of affected facilities to carry out tasks. This permit condition incorporates the applicable requirements of 40 CFR Part 60, Subpart OOO, which was codified in April 2009. In the past four plus years, River Cement—Festus should have determined their “affected facilities” and their appropriate emission limits and compliance requirements. Therefore, EPA recommends MDNR strongly consider rewriting this permit condition listing the specific River Cement—Festus emission units subject to 40 CFR Part 60, Subpart OOO including specific emission limits and compliance requirements. Also, EPA recommends MDNR replace ‘Owner or operator’ with either “permittee” or “River Cement—Festus.”

Response to Comment: The draft permit has been modified as requested.

Comment #11: Emission limitation of permit condition **2-R-04-001** requires River Cement Company to comply with step 1) and “no person” to comply with step 2). EPA suggests MDNR reword the emission limitation to indicate either the “permittee” or “River Cement—Festus is responsible for both steps.

Response to Comment: The draft permit has been modified as requested.

Comment #12: The operational limitation/equipment specification in permit condition **EU2-R-14-001, EU2-R-15-001, EU2-R-16-001, EU2-R-17-001, EU2-R-18-001 and EU2-R-20-001** incorporates the applicable requirements from construction permit #122005-005. This permit condition is written as if the actions are in the future and with a construction permit issued in 2005, these activities should be on-going. Also, steps 2) and 3) should require River Cement—Festus to operate the baghouses when the emission units are in operation and require River Cement—Festus to maintain proper filter elements. EPA recommends MDNR consider rewording this permit condition.

Response to Comment: The permit conditions are taken verbatim from the construction permit No. 122005-005 and are on-going requirements, no revision to this permit condition is warranted. Therefore no change has been made to the draft permit due to this comment.

Comment #13: The emission limitation in permit condition **EU2-R-14-002, EU2-R-15-002, EU2-R-16-002, EU2-R-17-002 and EU2-R-20-002** states the “affected facilities must meet the stack emission limits and compliance requirements in Table 2 of this subpart within 60 days of achieving maximum production rate....” The monitoring; test methods and procedures; record keeping; and reporting requirements all require the “owner or operator” of affected facilities to carry out tasks. This permit condition incorporates the applicable requirements of 40 CFR Part 60, Subpart OOO, which was codified in April 2009. In the past four plus years, River Cement—Festus should have determined their “affected facilities” and their appropriate emission limits and compliance requirements. Therefore, EPA

recommends MDNR strongly consider rewriting this permit condition listing the specific River Cement—Festus emission units subject to 40 CFR Part 60, Subpart OOO including specific emission limits and compliance requirements. Also, EPA recommends MDNR replace “owner or operator” with either “permittee” or “River Cement—Festus.”

Response to Comment: The draft permit has been modified as requested.

Comment #14: The emission limitations in permit condition **EU2-R-18-002** state the “affected facilities must meet the stack emission limits and compliance requirements in Table 2 of this subpart within 60 days of achieving maximum production rate...” The monitoring; test methods and procedures; record keeping; and reporting requirements all require the “owner or operator” of affected facilities to carry out tasks. This permit condition incorporates the applicable requirements of 40 CFR Part 60, Subpart OOO, which was codified in April 2009. In the past four plus years, River Cement—Festus should have determined their “affected facilities” and their appropriate emission limits and compliance requirements. Therefore, EPA recommends MDNR strongly consider rewriting this permit condition listing the specific River Cement—Festus emission units subject to 40 CFR Part 60, Subpart OOO including specific emission limits and compliance requirements. Also, EPA recommends MDNR replace “owner or operator” with either “permittee” or “River Cement—Festus.”

Response to Comment: The draft permit has been modified as requested.

Comment #15: The operational limitation/equipment specification in permit condition **EU2-R-19-001, EU2-R-21-001, EU2-R-22-001, EU2-R-23-001, EU2-R-24-001 and EU2-R-25-001** incorporate the applicable requirements from construction permit #122005-005. This permit condition is written as if the actions are in the future and with a construction permit issued in 2005, these activities should be on-going. Also, steps 2) and 3) should require River Cement—Festus to operate the baghouses when the emission units are in operation and require River Cement—Festus to maintain proper filter elements. EPA recommends MDNR consider rewording this permit condition.

Response to Comment: Please refer to Response to Comment #9.

Comment #16: The emission limitation in permit condition **EU2-R-19-002, EU2-R-21-002, EU2-R-22-002, EU2-R-23-002, EU2-R-24-002 and EU2-R-25-002** requires the “owner or operator” to complete the task and EPA recommends MDNR use either “permittee” or “River Cement—Festus” in place of “owner or operator.” Second, the performance testing requirement includes items 1) and 2) which are not referenced within the permit condition. Third, the monitoring requirement appears to be an attempt to incorporate by reference the applicable opacity monitoring requirements from 40 CFR Part 63, Subpart LLL. EPA encourages MDNR to incorporate these types of requirements by reference; however, if MDNR does in fact incorporate by reference, there is no need to include the complete referenced language. Therefore, EPA strongly recommends MDNR remove monitoring steps 1) a), b), c), d), e), f) and g). Also, monitoring step 2); *Corrective actions* should indicate that the “permittee” or “River Cement—Festus” shall initiate the required actions. Finally, the record keeping and reporting requirements should also show that the “permittee (River Cement—Festus)” is responsible for task execution, in place of the “owner or operator.”

Response to Comment: The draft permit has been modified as requested.

Comment #17: Items 1)a) and 1)b) in the operational limitation/equipment specification of permit condition **EU3-G-11-001 and EU3-G-11A-001** include a reference to a permit application for an issued construction permit. EPA recommends MDNR reference the issued *construction* permit in lieu of the “permit application.” Also, items 1)b) and 1)c) do not specify “River Cement—Festus” as the

responsible party and step 2) uses Buzzi Unicem as the responsible entity. EPA recommends MDNR use a consistent reference to either the “permittee” or “River Cement—Festus” as the entity responsible for task execution.

Response to Comment: *The APCP disagrees with EPA’s concern with the inclusion of “permit application.” According to 10 CSR 10-6.060, Construction Permits Required, the Construction Permit consists of both the issued permit and Construction Permit application.*

“10 CSR 10-6.060 (6)(E)3. – “Any owner or operator who constructs, modifies or operates an installation not in accordance with the application submitted and the permit issued, including any terms and conditions made a part of the permit, or any owner or operator of an installation who commences construction or modification after May 13, 1982, without meeting the requirements of this rule, is in violation of this rule;”

Since the permit application is part of the special condition of the construction permit, and the operating permit has to include all applicable requirements according to 10 CSR 10-6.065(6)(C)1, this draft operating permit is not changing what the construction permit condition requires.

With regards to the items 1)b) and 1)c) and the use of Buzzi Unicem as the responsible entity, the draft permit has been modified as recommended.

Comment #18: The emission limitation in permit condition **EU3-G-10-001, EU3-G-11-002, and EU3-G-11A-002** requires the “owner or operator” to complete the task and EPA recommends MDNR use either “permittee” or River Cement—Festus” in place of owner or operator. Second, the performance testing requirement includes items 1) and 2) which are not referenced within the permit condition. Third, the monitoring requirement appears to be an attempt to incorporate by reference the applicable opacity monitoring requirements from 40 CFR Part 63, Subpart LLL. EPA encourages MDNR to incorporate these types of requirements by reference; however, if MDNR does in fact incorporate by reference, there is no need to include the complete referenced language. Therefore, EPA strongly recommends MDNR remove monitoring steps 1) a), b), c), d), e), f) and g). Also, monitoring step 2); *Corrective actions* should indicate that the “permittee” or “River Cement—Festus” shall initiate the required actions. Finally, the record keeping and reporting requirements should also show that the “permittee (River Cement—Festus)” is responsible for task execution, in place of the “owner or operator.”

Response to Comment: *The draft permit has been modified as requested.*

Comment #19: The operational limitation/equipment specification in permit condition **EU3-G-12-001, EU3-G-15-001, EU3-G-17-001, EU3-G-18-001, EU3-G-19-001 and EU3-G-20-001** incorporates the applicable requirements from construction permit #122005-005A. This permit condition is written as if the actions are in the future and with a construction permit issued in 2005, these activities should be on-going. Additionally, the numbering sequence should be 1), 2), 3) in lieu of 3), 4), and 5). Also, steps 4) and 5) (more accurately 2) and 3)) should require River Cement --Festus to operate the baghouses when the emission units are in operation and require River Cement –Festus to maintain proper filter elements. Finally, the record keeping requirement sequence needs repair and EPA recommends MDNR consider rewording this permit condition and include suggested numbering modifications.

Response to Comment: *The permit conditions are taken verbatim from the construction permit No. 122005-005A and are on-going requirements, no revision to this permit condition is warranted. Therefore no change has been made to the draft permit due to this comment.*

Comment #20: The emission limitation in permit condition **EU3-G-12-002, EU3-G-15-002, EU3-G-17-002, EU3-G-18-002, EU3-G-19-002 and EU3-G-20-002** requires the “owner or operator” to complete the task and EPA recommends MDNR use either “permittee” or “River Cement—Festus” in place of owner or operator. Second, the performance testing requirement includes items 1) and 2) which are not referenced. Third, the monitoring requirement appears to be an attempt to incorporate by reference the applicable opacity monitoring requirements from 40 CFR Part 63, Subpart LLL. EPA encourages MDNR to incorporate these types of requirements by reference; however, if MDNR does in fact incorporate by reference, there is no need to include the complete referenced language. Therefore, EPA strongly recommends MDNR remove monitoring steps 1) a), b), c), d), e), f) and g). Also, monitoring step 2); *Corrective actions* should indicate that the permittee or River Cement—Festus shall initiate the required actions. Finally, the record keeping and reporting requirements should also show that the “permittee (River Cement—Festus)” is responsible for task execution, in place of the “owner or operator.”

Response to Comment: The draft permit has been modified as requested.

Comment #21: The operational limitation/equipment specification in permit condition **EU4-K-09-002** incorporates the applicable requirements from construction permit #122005-005. This permit condition is written as if the actions are in the future and with a construction permit issued in 2005, these activities should be on-going. Also, steps 2) and 3) should require River Cement –Festus to operate the baghouses when the emission units are in operation and require River Cement --Festus to maintain proper filter elements. EPA recommends MDNR consider rewording this permit condition.

Response to Comment: The permit conditions are taken verbatim from the construction permit No. 122005-005A and are on-going requirements, no revision to this permit condition is warranted. Therefore no change has been made to the draft permit due to this comment.

Comment #22: Permit condition **EU4-K-09-004** incorporates the applicable requirements from construction permit #122010-005. This construction permit #122010-005 is written to allow River Cement Company to burn approximately 22,030 tons of diatomaceous filter cake as a alternate fuel in the cement kiln at a rate not to exceed 12.8% weight of coal/petroleum coke and the filter cake material shall have a heating value of 8,068 Btu/lb. 10 CSR 10-6.065(6)(C)1 requires that “every operating permit shall contain all requirements applicable to the installation at the time of issuance.” Additionally, 10 CSR 10-6.065 (6)(C)1.C.(I)(b) states that “Where the applicable requirement does not require periodic testing or instrumental or non-instrumental monitoring (which may consist of record keeping designed to serve as monitoring), then periodic monitoring sufficient to yield reliable data for the relevant time period that are representative of the installation’s compliance with the permit, as reported pursuant to part (6)(C)1.C.(III) of this rule. These monitoring requirements shall assure the use of terms, test methods, units, averaging periods, and other statistical conventions consistent with the applicable requirement.”

Permit condition **EU4-K-09-004** in the draft Part 70 operating permit on public notice does not include all applicable requirements, associated with the diatomaceous filter cake and does not include monitoring necessary to assure the filter cake meets the requirements specified in the approved and issued construction permit. EPA strongly recommends MDNR review construction permit #122010-005 and incorporate all applicable requirements in the permit condition. Also, EPA recommends MDNR include the necessary periodic monitoring to insure compliance with the applicable requirements.

Response to Comment: Permit condition EU4-K-09-004 fully incorporated all applicable conditions of Construction Permit # 022010-005. The monitoring, recordkeeping and reporting

requirements associated with this permit condition satisfies the monitoring requirements of 10 CSR 10-6.065 (6)(C)1.C.(III). Therefore no change has been made to the draft permit due to this comment.

Note: This comment refers to Construction Permit #122010-005 and the APCP believes the correct Construction Permit is 022010-005.

Comment #23: In the section titled **Compliance with Previously Established Emission Limitations**: in permit condition **EU4-K-09-005**, step 1) requires River Cement Company to remain in compliance with all limitations and/or requirements established in special conditions of permit number #122005-005 and #122005-005A. EPA recommends that MDNR include the specific limitations and/or requirements River Cement—Festus is comply with in the operating permit. Additionally, steps 3), 4), 6), 7), and 8) fail to include a reference to the “permittee” or “River Cement—Festus” as the entity responsible for task execution and step 5) refers to the owner or operator. EPA recommends MDNR modify steps 3), 4), 5), 6), 7), and 8) to reflect the “permittee (or River Cement --Festus)” as the responsible party.

Response to Comment: *The limitations and/or requirements which the Construction Permit 032013-003 and 032013-003A, Special Condition 3.A requires to be complied are already in Permit Conditions EU4-k-09-001 through EU4-K-004 of this operating permit. To avoid redundancy, these conditions (EU4-k-09-001 through EU4-K-004) have been included as part of Compliance with Previously Established Emission Limitations section of Permit Conditions EU4-k-09-005*

With regards to the steps 3), 4), 6), 7), and 8), the APCP has made changes as recommended.

Comment #24: The general provisions requirements of permit condition **EU4-K-09-006** begin by saying “Beginning May 1, 2007, an owner or operator of any Portland cement kiln...” River Cement is the owner and operator of a Portland cement kiln and May 1, 2007 is well in the past. EPA strongly recommends MDNR revisit permit condition **EU4-K-09-006** and rewrite the conditions that fit the current River Cement’s kiln at this time of operating permit issuance. Additionally, EPA recommends MDNR replace all of the “owner or operator” references with either “permittee” or “River Cement—Festus.” Finally, the test methods section does not indicate any action on the part of the permittee and EPA suggests that this test method information be removed from the permit condition.

Response to Comment: *The permit has been modified as requested.*

Comment #25: The emission limitation in permit condition **EU4-K-09-007** appears to be just a listing of the requirements. If MDNR is requiring the permittee to meet these limits, then EPA recommends these five (5) statements be rewritten to indicate that the “permittee (or River Cement—Festus)” shall meet the requirements.

Response to Comment: *The draft permit has been modified as requested.*

Comment #26: The emission limitation/standards in permit condition **EU4-K-09-008** begins by saying “On or after the date on which the performance test required to be conducted by §60.8 is completed, **you** (emphasis added) may not discharge into the atmosphere...” The you apparently refers to River Cement –Festus and therefore, River Cement –Festus should replace the “you.” Also, §60.8 establishes a firm date, based on attaining maximum production rate and therefore, the specific date should be included in the permit condition. EPA recommends MDNR make these changes.

Response to Comment: *The draft permit has been modified as requested.*

Comment #27: The operational limitation/equipment specification in permit condition **EU4-K-10-001** incorporates the applicable requirements from construction permit #122005-005. This permit condition is written as if the actions are in the future and with a construction permit issued in 2005, these activities should be on-going. Also, steps 2) and 3) should require River Cement –Festus to operate the baghouses when the emission units are in operation and require River Cement –Festus to maintain proper filter elements. EPA recommends MDNR consider rewording this permit condition.

***Response to Comment:** The permit conditions are taken verbatim from the construction permit No. 122005-005 and are on-going requirements, no revision to this permit condition is warranted. Therefore no change has been made to the draft permit due to this comment.*

Comment #28: The emission limitation in permit condition **EU4-K-10-002** requires the “owner or operator” to complete the task and EPA recommends MDNR use either “permittee” or “River Cement –Festus” in place of “owner or operator.” Second, the performance testing requirement includes items 1) and 2) which are not referenced within the permit condition. Third, the monitoring requirement appears to be an attempt to incorporate by reference the applicable opacity monitoring requirements from 40 CFR Part 63, Subpart LLL. EPA encourages MDNR to incorporate these types of requirements by reference; however, if MDNR does in fact incorporate by reference, there is no need to include the complete referenced language. Therefore, EPA strongly recommends MDNR remove monitoring steps 1) a), b), c), d), e), f) and g). Next, monitoring step 2); *Corrective actions* should indicate that the “permittee” or “River Cement—Festus” shall initiate the required actions. Finally, the record keeping and reporting requirements should also show that the “permittee (River Cement—Festus)” is responsible for task execution, in place of the “owner or operator.”

***Response to Comment:** The draft permit has been modified as requested.*

Comment #29: The emission limitation in permit condition **EU5-L-08-001** specifies the “owner or operator” as the responsible entity and this is an operating permit being issued to “River Cement—Festus.” Therefore, EPA recommends MDNR replace “owner or operator” with either “permittee” or “River Cement –Festus ” Additionally, emission limitation 2) is required only if the open clinker storage pile was subject to PM, mercury, THC, D/F or opacity limits, prior to September 9, 2010. If River Cement--Festus is a subject facility, then this limitation should be restated to specifically indicate the limitations applicable to River Cement—Festus

***Response to Comment:** The draft permit has been modified as requested.*

Comment #30: The emission limitation in permit condition **EU5-L-03-002, EU5-L-05-002, EU5-L-06-002, EU5-L-07-002, and EU5-L-09-002** requires the “owner or operator” to complete the task and EPA recommends MDNR use either “permittee” or “River Cement—Festus” in place of “owner or operator.” Second, the performance testing requirement includes items 1) and 2) which are not referenced within the permit condition. Third, the monitoring requirement appears to be an attempt to incorporate by reference the applicable opacity monitoring requirements from 40 CFR Part 63, Subpart LLL. EPA encourages MDNR to incorporate by reference these types of requirements by reference; however, if MDNR does in fact incorporate by reference, there is no need to include the complete referenced language. Therefore, EPA strongly recommends MDNR remove monitoring steps 1) a), b), c), d), e), f) and g). Next, monitoring step 2); *Corrective actions* should indicate that the “permittee” or “River Cement—Festus” shall initiate the required actions. Finally, the record keeping and reporting requirements should also show that the “permittee (River Cement—Festus)” is responsible for task execution, in place of the “owner or operator.”

Response to Comment: The draft permit has been modified as requested.

Comment #31: The operational limitation/equipment specification in permit condition **EU5-L-11-001** incorporates the applicable requirements from construction permit #122005-005. This permit condition is written as if the actions are in the future and with a construction permit issued in 2005, these activities should be on-going. Also, steps 2) and 3) should require “River Cement –Festus” to operate the baghouses when the emission units are in operation and require “River Cement –Festus” to maintain proper filter elements. EPA recommends MDNR consider rewording this permit condition.

Response to Comment: The permit conditions are taken verbatim from the construction permit No. 022010-00 and are on-going requirements, no revision to this permit condition is warranted. Therefore no change has been made to the draft permit due to this comment.

Note: This comment refers to Construction Permit #122010-005 and the APCP believes the correct Construction Permit is 022010-005.

Comment #32: The emission limitation in permit condition **EU5-L-11-002** requires the “owner or operator” to complete the task and EPA recommends MDNR use either “permittee” or “River Cement—Festus” in place of “owner or operator.” Second, the performance testing requirement includes items 1) and 2) which are not referenced within the permit condition. Third, the monitoring requirement appears to be an attempt to incorporate by reference the applicable opacity monitoring requirements from 40 CFR Part 63, Subpart LLL. EPA encourages MDNR to incorporate these types of requirements by reference; however, if MDNR does in fact incorporate by reference, there is no need to include the complete referenced language. Therefore, EPA strongly recommends MDNR remove monitoring steps 1) a), b), c), d), e), f) and g). Next, monitoring step 2); *Corrective actions* should indicate that the “permittee” or “River Cement—Festus” shall initiate the required actions. Finally, the record keeping and reporting requirements should also show that the “permittee (River Cement—Festus)” is responsible for task execution, in place of the “owner or operator.”

Response to Comment: The draft permit has been modified as requested.

Comment #33: The emission limitation in permit condition **EU5-L-12-002 and EU5-L-13-002** requires the “owner or operator” to complete the task and EPA recommends MDNR use either “permittee” or “River Cement—Festus” in place of owner or operator. Second, the performance testing requirement includes items 1) and 2) which are not referenced within the permit condition. Third, the monitoring requirement appears to be an attempt to incorporate by reference the applicable opacity monitoring requirements from 40 CFR Part 63, Subpart LLL. EPA encourages MDNR to incorporate these types of requirements by reference; however, if MDNR does in fact incorporate by reference, there is no need to include the complete referenced language. Therefore, EPA strongly recommends MDNR remove monitoring steps 1) a), b), c), d), e), f) and g). Also, monitoring step 2); *Corrective actions* should indicate that the “permittee” or “River Cement—Festus” shall initiate the required actions. Finally, the record keeping and reporting requirements should also show that the “permittee (River Cement—Festus)” is responsible for task execution, in place of the “owner or operator.”

Response to Comment: The draft permit has been modified as requested.

Comment #34: The operational limitation/equipment specification in permit condition **EU5-L-14-001, EU-L-15-001, EU5-L-16-001 and EU5-L-19-001** incorporates the applicable requirements from construction permit #122005-005. This permit condition is written as if the actions are in the future and with a construction permit issued in 2005, these activities should be on-going. Also, steps 2) and 3)

should require “River Cement –Festus” to operate the baghouses when the emission units are in operation and require “River Cement –Festus” to maintain proper filter elements. EPA recommends MDNR consider rewording this permit condition.

***Response to Comment:** The permit conditions are taken verbatim from the construction permit No. 022010-00 and are on-going requirements, no revision to this permit condition is warranted. Therefore no change has been made to the draft permit due to this comment.*

Note: This comment refers to Construction Permit #122010-005 and the APCP believes the correct Construction Permit is 022010-005.

Comment #35: The emission limitation in permit condition **EU5-L-14-002, EU-L-15-002, EU5-L-16-002 and EU5-L-19-002** requires the “owner or operator” to complete the task and EPA recommends MDNR use either “permittee” or “River Cement—Festus” in place of owner or operator. Second, the performance testing requirement includes items 1) and 2) which are not referenced within the permit condition. Third, the monitoring requirement appears to be an attempt to incorporate by reference the applicable opacity monitoring requirements from 40 CFR Part 63, Subpart LLL. EPA encourages MDNR to incorporate these types of requirements by reference; however, if MDNR does in fact incorporate by reference, there is no need to include the complete referenced language. Therefore, EPA strongly recommends MDNR remove monitoring steps 1) a), b), c), d), e), f) and g). Also, monitoring step 2); *Corrective actions* should indicate that the “permittee” or “River Cement—Festus” shall initiate the required actions. Finally, the record keeping and reporting requirements should also show that the “permittee (River Cement—Festus)” is responsible for task execution, in place of the “owner or operator.”

***Response to Comment:** The draft permit has been modified as requested.*

Comment #36: The operational limitation/equipment specification in permit condition **EU5-L-20-001, through EU5-L-29-001** incorporates the applicable requirements from construction permit #122005-005. This permit condition is written as if the actions are in the future and with a construction permit issued in 2005, these activities should be on-going. Also, steps 2) and 3) should require “River Cement –Festus” to operate the baghouses when the emission units are in operation and require “River Cement –Festus” to maintain proper filter elements. EPA recommends MDNR consider rewording this permit condition.

***Response to Comment:** The permit conditions are taken verbatim from the construction permit No. 022010-00 and are on-going requirements, no revision to this permit condition is warranted. Therefore no change has been made to the draft permit due to this comment.*

Note: This comment refers to Construction Permit #122010-005 and the APCP believes the correct Construction Permit is 022010-005.

Comment #37: The emission limitation in permit condition **EU5-L-20-002, through EU5-L-29-002** requires the “owner or operator” to complete the task and EPA recommends MDNR use either “permittee” or “River Cement—Festus” in place of owner or operator. Second, the performance testing requirement includes items 1) and 2) which are not referenced within the permit condition. Third, the monitoring requirement appears to be an attempt to incorporate by reference the applicable opacity monitoring requirements from 40 CFR Part 63, Subpart LLL. EPA encourages MDNR to incorporate these types of requirements by reference; however, if MDNR does in fact incorporate by reference, there is no need to include the complete referenced language. Therefore, EPA strongly recommends MDNR

remove monitoring steps 1) a), b), c), d), e), f) and g). Also, monitoring step 2); *Corrective actions* should indicate that the permittee or “River Cement—Festus” shall initiate the required actions. Finally, the record keeping and reporting requirements should also show that the “permittee (River Cement—Festus)” is responsible for task execution, in place of the “owner or operator.”

Response to Comment: The draft permit has been modified as requested.

Comment #38: The emission limitation in permit condition **EU5-L-30-001** requires the “owner or operator” to complete the task and EPA recommends MDNR use either “permittee” or “River Cement—Festus” in place of owner or operator. Second, the performance testing requirement includes items 1) and 2) which are not referenced within the permit condition. Third, the monitoring requirement appears to be an attempt to incorporate by reference the applicable opacity monitoring requirements from 40 CFR Part 63, Subpart LLL. EPA encourages MDNR to incorporate these types of requirements; however by reference, if MDNR does in fact incorporate by reference, there is no need to include the complete referenced language. Therefore, EPA strongly recommends MDNR remove monitoring steps 1) a), b), c), d), e), f) and g). Also, monitoring step 2); *Corrective actions* should indicate that the “permittee” or “River Cement—Festus” shall initiate the required actions. Finally, the record keeping and reporting requirements should also show that the “permittee (River Cement—Festus)” is responsible for task execution, in place of the “owner or operator.”

Response to Comment: The draft permit has been modified as requested

Comment #39: The operational limitation/equipment specification in permit condition **EU6-F-06-001 through EU6-F-08-001, EU6-F-13-001 through EU6-F-18-001, and EU6-F-20-001** incorporates the applicable requirements from construction permit #122005-005. This permit condition is written as if the actions are in the future and with a construction permit issued in 2005, these activities should be on-going. Also, steps 2) and 3) should require “River Cement –Festus” to operate the baghouses when the emission units are in operation and require “River Cement –Festus” to maintain proper filter elements. EPA recommends MDNR consider rewording this permit condition. Additionally, emission unit **EU6-F-05** which, according to construction permit #122005-005 also requires a baghouse appears to have been omitted from this permit condition. EPA recommends MDNR resolve this missing emission unit.

Response to Comment: The permit conditions are taken verbatim from the construction permit No. 122005-005 and are on-going requirements, no revision to this permit condition is warranted. With respect to emission unit EU6-F-05, the construction permit 122005-005 does not require River Cement to install a baghouse on this unit. Therefore no change has been made to the draft permit due to this comment

Comment #40: The emission limitation in permit condition **EU6-F-01-002 through EU6-F-08-002, EU6-F-13-0021 through EU6-F-18-002, EU6-F-20-002 and EU6-F-21-001** requires the “owner or operator” to complete the task and EPA recommends MDNR use either “permittee” or “River Cement—Festus” in place of owner or operator. Second, the performance testing requirement includes items 1) and 2) which are not referenced within the permit condition. Third, the monitoring requirement appears to be an attempt to incorporate by reference the applicable opacity monitoring requirements from 40 CFR Part 63, Subpart LLL. EPA encourages MDNR to incorporate these types of requirements by reference; however, if MDNR does in fact incorporate by reference, there is no need to include the complete referenced language. Therefore, EPA strongly recommends MDNR remove monitoring steps 1) a), b), c), d), e), f) and g). Also, monitoring step 2); *Corrective actions* should indicate that the “permittee” or “River Cement—Festus” shall initiate the required actions. Finally, the record keeping

and reporting requirements should also show that the “permittee (River Cement—Festus)” is responsible for task execution, in place of the “owner or operator.”

Response to Comment: The draft permit has been revised as requested.

Comment #41: The operational limitation/equipment specification in permit condition **EU6-F-19-001** incorporates the applicable requirements from construction permit #122005-005. This permit condition is written as if the actions are in the future and with a construction permit issued in 2005, these activities should be on-going. Also, steps 3) and 4) should require “River Cement –Festus” to operate the baghouses when the emission units are in operation and require “River Cement –Festus” to maintain proper filter elements. Additionally, the Operating and Maintenance Manual required in step 5) should have already been completed and sub-steps a), b) and c) do not tie into the remaining portions of the operational limitation/equipment specification. EPA recommends MDNR consider rewording this permit condition.

Response to Comment: The APCP disagrees with EPA’s assessment of the operational limitation and equipment specification requirements 1) through 4). These are on-going requirements. Also, steps 3) and 4) as written in the permit do require River Cement to operate the baghouse when the emission unit is in operation.

With regards to the operational manual requirement, as EPA commented has already been completed and step 5) of this condition is deleted from this permit condition.

Comment #42: The emission limitation in permit condition **EU7-C-01-001 through EU7-C-10-001 and EU7-C-12-001 through EU7-C-16-001** requires the “owner or operator” to complete the task and EPA recommends MDNR use either “permittee” or “River Cement—Festus” in place of owner or operator. Second, the performance testing requirement includes items 1) and 2) which are not referenced within the permit condition. Third, the monitoring requirement appears to be an attempt to incorporate by reference the applicable opacity monitoring requirements from 40 CFR Part 63, Subpart LLL. EPA encourages MDNR to incorporate these types of requirements by reference; however, if MDNR does in fact incorporate by reference, there is no need to include the complete referenced language. Therefore, EPA strongly recommends MDNR remove monitoring steps 1) a), b), c), d), e), f) and g). Also, monitoring step 2); *Corrective actions* should indicate that the “permittee” or “River Cement—Festus” shall initiate the required actions. Finally, the record keeping and reporting requirements should also show that the “permittee (River Cement—Festus)” is responsible for task execution, in place of the “owner or operator.”

Response to Comment: The draft permit has been revised as requested.

Comment #43: The operational limitation/equipment specification in permit condition **EU7-C-01-002 through EU7-C-04-002, EU7-C-06-002 and EU7-C-12-002 through EU7-C-16-002** incorporates the applicable requirements from construction permit #122005-005. This permit condition is written as if the actions are in the future and with a construction permit issued in 2005, these activities should be on-going. Also, steps 2) and 3) should require “River Cement –Festus” to operate the baghouses when the emission units are in operation and require “River Cement –Festus” to maintain proper filter elements.

Response to Comment: The permit conditions are taken verbatim from the construction permit No. 122005-005 and are on-going requirements and steps 2) and 3) as written in the permit do require River Cement to operate the baghouse when the emission units are in operation. Therefore no change has been made to the draft permit due to this comment.

Comment #44: EPA recommends MDNR replace “owner or operator” with either “permittee” or “River Cement—Festus” as the lead in to the emission limitation in permit condition **EU8-B-01-001, EU8-B-06A-001 and EU8-B-10-001 through EU8-B-12-001.**

Response to Comment: The draft permit has been revised as requested

Comment #45: The emission limitation in permit condition **EU9-M-01-001 through EU9-M-03-001 and EU9-M-16-001 through EU9-M-21-001** requires the “owner or operator” to complete the task and EPA recommends MDNR use either “permittee” or “River Cement—Festus” in place of owner or operator. Second, the performance testing requirement includes items 1) and 2) which are not referenced within the permit condition. Third, the monitoring requirement appears to be an attempt to incorporate by reference the applicable opacity monitoring requirements from 40 CFR Part 63, Subpart LLL. EPA encourages MDNR to incorporate these types of requirements by reference; however, if MDNR does in fact incorporate by reference, there is no need to include the complete referenced language. Therefore, EPA strongly recommends MDNR remove monitoring steps 1) a), b), c), d), e), f) and g). Also, monitoring step 2); *Corrective actions* should indicate that the “permittee” or “River Cement—Festus” shall initiate the required actions. Finally, the record keeping and reporting requirements should also show that the “permittee (River Cement—Festus)” is responsible for task execution, in place of the “owner or operator.”

Response to Comment: The draft permit has been revised as requested.

Comment #46: The operational limitation/equipment specifications shown in permit condition **EU9-M-11-001** appears to be a listing of requirements which, as drafted, require no action on the part of anyone. EPA recommends MDNR rewrite the operational limitation/equipment specification section of permit condition **EU9-M-11-001** to require the “permittee” or “River Cement—Festus” to comply with the listed requirements.

Response to Comment: The draft permit has been revised as requested.

Comment #47: EPA recommends MDNR replace “owner or operator” with either “permittee” or “River Cement—Festus” as the lead to the emission limitation in permit condition **EU9-M-22-001.**

Response to Comment: The draft permit has been revised as requested.

Comment #48: 10 CSR 10-6.045 Open Burning Requirements listing in Section IV, Core Permit Requirements includes those restrictions specific to Kansas City metropolitan area; Springfield-Greene County area; St. Joseph area; and St. Louis metropolitan area. However, “River Cement—Festus” is not within all of these four (4) specific areas, so inclusion of the open burning restrictions in Kansas City metropolitan area; Springfield-Greene County area; and St. Joseph area is superfluous. EPA recommends MDNR-APCP annotate this template to include only the relevant portions.

Response to Comment: Since the drafting of this permit, a revision has been made to the template including 10 CSR 10-6.045 Open Burning Requirements listed in Section IV, Core Permit Requirements. The Open Burning Requirement is revised as follows:

10 CSR 10-6.045 Open Burning Requirements

- 1) *General Provisions. The open burning of tires, petroleum-based products, asbestos containing materials, and trade waste is prohibited, except as allowed below. Nothing in this rule may be construed as to allow open burning which causes or constitutes a public health hazard, nuisance, a hazard to vehicular or air traffic, nor which violates any other rule or statute.*

- 2) *Certain types of materials may be open burned provided an open burning permit is obtained from the director. The permit will specify the conditions and provisions of all open burning. The permit may be revoked if the permittee fails to comply with the conditions or any provisions of the permit.*

Comment #49: 10 CSR 10-6.065(6)(C)3 Compliance Requirements, 10 CSR 10-6.065(6)(C)8 Operational Flexibility and 10 CSR 10-6.065(6)(C)9 Off-Permit Changes; all in section V General Permit Requirements, require the permittee to make submittals to the EPA Region VII. The draft Part 70 operating permit includes an incorrect EPA Region VII address. Therefore, EPA recommends that MDNR correct the EPA Region VII address to reflect the current location of 11201 Renner Boulevard, Lenexa, Kansas 66219.

Response to Comment: *The draft permit has been revised as requested.*

Comment #50: The draft Part 70 operating permit includes an Attachment E and an Attachment H, neither of which is referenced within any of the plant wide permit condition or emission unit specific emission limitation permit conditions. EPA recommends MDNR either remove these attachments or reference their use within the appropriate permit conditions.

Response to Comment: *Attachment E is referenced in Permit Condition E9-M-11-001 of the draft permit whereas Attachment F is a plant wide operation and maintenance log for:*

- *Incidents of malfunction(s) including the date(s) and duration of the event, the probable cause, any corrective actions taken and the impact on emissions due to the malfunction;*
- *Any maintenance activities conducted on the emission units, such as parts replacement, replacement of equipment, etc.; and*
- *Regular inspection schedule, the date and results of all inspections including any actions or maintenance activities that result from that inspection.*

Comment #51: The statement of basis includes a section on construction permit revisions and the draft states that the “The installation is only required to monitor those parameters defined in specific State or Federal requirements or identified as Special Conditions in the Construction Permit.” This same section also states “the various parameters detailed in the Construction Permit application are still applicable to the installation, even though the criteria are not specifically listed in the Operating Permit.” 10 CSR 10-6.065(6)(C)1 and 40 CFR 71.6(a)(1) both require “every operating permit shall contain all requirements applicable to the installation at the time of issuance.” Nowhere in either Missouri regulations or federal regulations is there language that excludes applicable requirements not specifically identified as “special conditions.” Additionally, if construction permits detail various parameters which are applicable to the installation, for which the operating permit is being drafted, both Missouri regulation and federal regulation require inclusion in the operating permit. EPA strongly recommends MDNR reconsider revising this construction permit revisions wording in the statement of basis.

Response to Comment: *Since the draft permit included all the applicable special conditions of the construction permits issued to River Cement – Festus Plant and this statement has been deleted from the draft permit.*

Comment #52: The statement of basis includes sections describing new source performance standards (NSPS) applicability; maximum achievable control technology (MACT) applicability; and national emission standards for hazardous air pollutants (NESHAP) applicability. However, there is no indication as to the specific River Cement—Festus emission units subject to the applicable standards. EPA

suggests MDNR consider including a list of emission units subject to each standard as an aide in facilitating the review of the draft operating permit.

***Response to Comment:** Each NSPS, MACT and NESHAP that applies to emission units is identified in the Plant Wide Emission Limitation as well as in the Emission Unit Specific Emission Limitation. So the APCP does not believe it will have an added value to the draft permit other than unnecessary redundancy having a list of emission units subject to each standard in the statement of basis. Therefore no change has been made to the draft permit due to this comment.*

Comment #53: MDNR has customarily included in the Statement of Basis a tabular listing of the sources regulated air pollutants and the potential to emit for each individual pollutant. However, the statement of basis reviewed in the River Cement—Festus draft permit does not include the installation-wide potential-to-emit (PTE) table. Therefore, EPA recommends MDNR consider adding the potential-to-emit table to the permit statement of basis.

***Response to Comment:** The potential to emit (PTE) has been added to the draft permit in the Statement of Basis.*