PART 70 PERMIT TO OPERATE **PUBLIC VERSION**

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: OP2013-035A

Expiration Date: June 30, 2018

Installation ID: 186-0001

Amendment Project Number: 2016-03-080

Installation Name and Address

Mississippi Lime Company 16147 US Highway 61 Ste. Genevieve, MO 63670 Ste. Genevieve County S29 & 30, T38N, R9E

Parent Company's Name and Address

Mississippi Lime Company 3870 S. Lindberg Blvd. Suite 200 St. Louis, MO 63127

Installation Description:

Located near Ste. Genevieve, Missouri, Mississippi Lime Company is a lime processing plant that is a major and Part 70 (Title V) source for Clean Air Act permitting purposes. Mississippi Lime produces high calcium products that are used in construction, environmental, food and other markets. Limestone is mined, crushed, kiln heated for calcination, hydrated, packaged, and shipped on site. Mississippi Lime Company is a major source for Carbon Monoxide, Hazardous Air Pollutants, Particulate Matter, Sulfur Oxides, Nitrogen Oxides, and Volatile Organic Compounds.

NOV 0 2 2016

Effective Date

Director or Designee

Department of Natural Resources

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| EU0670, EU0907A, EU0907B, EU0907C, EU0908A, AND EU0640C – | |
| LIME HYDRATOR AND ASSOCIATED EQUIPMENT | |
| PERMIT CONDITION EU0670, EU0907A, EU0907B, EU0907C, EU0908A, AND EU0640C – 001 | |
| EU1840 – Blending Silos (2) | |
| EU1850 – PNEUMATIC RAIL CAR LOADING SSK | |
| EU1860 – FEED BIN, NO. 1 HYDRATOR, ENCLOSED BLDG., 1981 | |
| Permit Condition (EU1840, EU1850 and EU1860) - 001 | |
| EU2330 – VK 8 WASTE CONVEYOR - EXTENSION | |
| Permit Condition EU2330 - 001 | |
| EU2960 – FEED TO PCC SILOS NOS. 1, 2, & 3 | |
| EU2970 – PCC 25 Ton Surge Hopper | |
| EU2980 – PCC BAGGING SYSTEM | |
| EU2990 – Hydrate Truck Transfer Unloading. | |
| EU3000 – FEED TO 100 TON HYDRATE SILOS 1 & 2. | |
| EU3010 – FEED TO 100 TON HYDRATE SILOS 3 & 4. | |
| EU3020 – Hydrate 25 Ton Surge Hopper | |
| EU3030 – Hydrate Bagging System | |
| EU3040 – Hydrate 25 Ton Surge Hopper | |
| EU3050 – HYDRATE BAGGING SYSTEM | |
| Permit Condition (EU2960 – EU3050) - 001 | |
| EU3890 – STORAGE BINS (2) | |
| EU3900 – MILLS (4) | |
| EU3910 – Bins (2) | |
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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

Located near Ste. Genevieve, Missouri, Mississippi Lime Company is a lime processing plant that is a major and Part 70 (Title V) source for Clean Air Act permitting purposes. Mississippi Lime produces high calcium products that are used in construction, environmental, food and other markets. Limestone is mined, crushed, kiln heated for calcination, hydrated, packaged, and shipped on site.

The installation has the following types of units;

- 1) Mississippi Vertical Plant: Two lime hydrators.
- 2) Mississippi Rotary Plant: Six coal/coke fired rotary kilns controlled by wet venturi scrubbers, four hydrators, and two precipitated calcium carbonate units.
- 3) Maerz Plant: Four natural gas fired vertical lime kilns
- 4) Peerless Rotary Plant: Five coal/coke fired rotary kilns controlled by baghouses

The installation also has crushing, screening, conveying, storage units, and loading/unloading operations associated with lime production. Mississippi Lime Company is a major source for Carbon Monoxide, Hazardous Air Pollutants, Particulate Matter, Sulfur Oxides, Nitrogen Oxides, and Volatile Organic Compounds.

| Reported Air Pollutant Emissions, tons per year | | | | | |
|--|----------|----------|----------|----------|----------|
| Pollutants | 2011 | 2010 | 2009 | 2008 | 2007 |
| Particulate Matter \leq Ten Microns (PM ₁₀) | 1251.25 | 1512.55 | 823.09 | 928.10 | 940.23 |
| Particulate Matter \leq 2.5 Microns (PM _{2.5}) | 576.73 | 259.61 | 229.44 | 253.86 | 0.48 |
| Sulfur Oxides (SO _x) | 3536.36 | 4549.82 | 4436.14 | 4304.35 | 4383.10 |
| Nitrogen Oxides (NO _x) | 3630.41 | 3957.93 | 3207.60 | 3731.60 | 3905.49 |
| Volatile Organic Compounds(VOC) | 53.80 | 33.98 | 30.19 | 34.34 | 37.25 |
| Carbon Monoxide (CO) | 12394.15 | 12612.10 | 10210.61 | 11815.05 | 12203.31 |
| Lead (Pb) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hazardous Air Pollutants (HAPs) | 28.39 | 29.27 | 26.03 | 21.78 | 22.35 |
| Ammonia (NH ₃) | 0.01 | 0.00 | 0.00 | 0.01 | 0.00 |

Amendment OP2013-035A:

This amendment project modifies the existing Part 70 Operating Permit, OP2013-035, to incorporate the following changes:

- 1. Add 40 CFR part 51 Subpart BB, Data Requirements for Characterizing Air Quality for Primary SO₂ NAAQS. The modification includes Permit Condition PW002 (page 34 through 39), Attachments R and S (page 213 through 215), and a Statement of Basis explanation (pages SB-19 through 23).
- 2. Add 40 CFR part 63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. The modification includes moving engines from the Emission Units Without Limitations section to the Emission Units With Limitations section, and the addition of a permit condition (pages 166 through 170).
- 3. Add 40 CFR part 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. The modification includes moving engines from the Emission Units Without Limitations section to the Emission Units With Limitations section, and the addition of a permit condition (pages 166 through 170)
- 4. Add 10 CSR 10-6.261, Control of Sulfur Dioxide Emissions. The modification includes the addition of a permit condition (pages 166 through 170) and a Statement of Basis explanation (pages SB-19 through 23).
- 5. Remove the following equipment, as it has been removed from site:
 - a. INS-068C Emergency Generator, PRK1-3
 - b. EU0620 Spray Dryer (EP146A and 146B)
 - c. EU1920 Tunnel Dryer (EP148A and B)
 - d. S-141 Emergency Generator

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. These units are also subject to plant wide limitations.

| Emission Unit # | Description of Emission Unit | |
|----------------------------|---|--|
| Peerless Mine Under | ground Limestone Crushing | |
| EU0010 | Underground Limestone Crushing Operation (EP006-EP011) | |
| EU1510 | Drilling (EP-001) | |
| EU1520 | Truck Loading (EP-003) | |
| EU1530 | Haul Road to Primary Crushers (EP-004) | |
| EU1540 | Truck Unloading to the Stamler Primary Crushers (EP-005) | |
| EU1550 | Conveyor No. 1, Linkbelt, 48", 1956 (EP-012) | |
| EU1560 | Truck Unloading to Allis-Chalmers Primary Crushers (EP-013) | |
| EU1570 | Primary Crusher (jaw), Allis-Chalmers A-1, 1956 (EP-014) | |
| EU1580 | Vibrating Feeder, Jeffery, 1956 (EP-015) | |
| EU1590 | Vibrating Screen, Allis-Chalmers Ripl-Flo, 1956 (EP-016) | |
| EU1600 | Crusher, hydrocone, Allis-Chalmers 1650, 1956 (EP-017) | |
| EU1610 | Crusher, cone, Allis-Chalmers 1650, 1956 (EP-018) | |
| EU1620 | Conveyor No. 2, Linkbelt, 30", 1956 (EP-019) | |
| EU1630 | Conveyor No. 3, Linkbelt, 30", 1956 (EP-020) | |
| EU1640 | Vibrating Screen, Allis-Chalmers Low Head, 1956 (EP-021) | |
| | | |

| EU1650 | Vibrating Feeder, 1956 (EP-023) |
|--------|--|
| EU1660 | Conveyor No. 4, Linkbelt, 48", 1956 (EP-024) |

Pre-Kiln Limestone Handling, Storage and Conveying – Phase I and Phase II EU1670 Vibrating Screen, enclosed, Allis-Chalmers Rinl-Flo 1956 (EP-035)

| EU1670 | Vibrating Screen, enclosed, Allis-Chalmers Ripl-Flo, 1956 (EP-035) |
|--------|---|
| EU1680 | Vibrating Screen, enclosed, Allis-Chalmers Low Head, 1956 (EP-036) |
| EU1690 | Vibrating Screen, enclosed, Allis-Chalmers Low Head, 1956 (EP-037) |
| EU1700 | Conveyor, No. 5, enclosed, Linkbelt, 24", 1956 (EP-039) |
| EU1710 | Conveyor, No. 6, enclosed, Linkbelt, 24", 1956 (EP-040) |
| EU1720 | Conveyor, No. 7, enclosed, Linkbelt, 24", 1956 (EP-041) |
| EU1730 | Screenings Bin, enclosed, Mississippi Rotary Kiln Rock, 1956 (EP-044) |
| EU1740 | Limestone Vibrating Tripper, enclosed, 1956 (EP-055) |
| EU1750 | Limestone Vibrating Tripper, enclosed, 1956 (EP-056) |
| EU1760 | Limestone Vibrating Tripper, enclosed, 1956 (EP-057) |
| EU1770 | Limestone Conveyor No. 8, enclosed, 1956 (EP-058) |
| EU1780 | Limestone Conveyor No. 9, enclosed, 1956 (EP-059) |
| EU1790 | Limestone Conveyor No. 10, enclosed, 1956 (EP-060) |
| EU1800 | Vibrating Screen, enclosed, 1956 (EP-061) |
| EU1810 | Limestone Conveyor No. 11, enclosed, 1956 (EP-062) |
| EU1930 | Screenings Bin Discharge Conveyor No. 12, enclosed, 1956 (EP-155) |
| EU1940 | Conveyor No. 13, enclosed, 1956 (EP-156) |
| EU1950 | Truck Loadout Conveyor 14, enclosed, 1956 (EP-157) |
| EU3060 | Conveyor - Stone RK#1&2 (EP-601) |
| EU3070 | Conveyor - Stone RK#1&2 (EP-602) |
| EU3080 | Conveyor - Stone RK#2 (EP-603) |
| | |

Pre-Kiln Coal/Coke Handling, Storage and Conveying - Phase I and Phase II

| EU3090 | Truck Unloading (Coal) (EP-615) |
|--------|---|
| EU3100 | Pile Forming (Coal) (EP-616) |
| EU3110 | Storage Piles (Formerly EP-54) (EP-617A) |
| EU3120 | Storage Piles - (Wind Erosion) (Formerly EP-54) (EP-617B) |
| EU3130 | Loading (Coal) (EP-618) |
| EU3140 | Truck Unloading (Coke) (EP-621) |
| EU3150 | Pile Forming (Coke) (EP-622) |
| EU3160 | Storage Piles (Formerly EP-54) (EP-623A) |
| EU3170 | Storage Piles - (Wind Erosion) (Formerly EP-54) (EP-623B) |
| EU3180 | Loading (Coke) (EP-624) |
| EU3190 | Hopper (Coal/Coke) (EP-625) |
| EU3200 | Vibrating Feeder (Coal/Coke) (EP-626) |
| EU3210 | Conveyor (Coal/Coke) (EP-631) |
| EU3220 | Conveyor (Coal/Coke) (EP-632) |
| EU3230 | Bin #1a (Coal) (EP-633A) |
| EU3240 | Bin #1b (Coke) (EP-633B) |
| EU3250 | Conveyor (Coal/Coke) (EP-634) |
| EU3260 | Bin #2a (Coal) (EP-635A) |

| EU3290 | Cooler - PRK #7 (EP-641) |
|--------------------------|--|
| EU3300 | Vibrating Feeders (4) (EP-642) |
| EU3320 | Cooler - PRK #8 (EP-646) |
| EU3330 | RK#2 Feeders (EP-647) |
| EU3340 | Waste Belt Conveyor No. 1a (EP-650A) |
| EU3350 | Waste Belt Conveyor No. 1b (EP-650B) |
| EU3360 | Waste Belt Conveyor No. 2 (EP-651) |
| EU3370 | Waste Loadout Bin (EP-652) |
| EU3380 | Product Conveyor (EP-655) |
| EU3390 | Product Conveyor (Old Pan) (EP-656) |
| EU3400 | Product Conveyor (EP-657) |
| EU3410 | Product Conveyor (Old Pan) (EP-658) |
| EU3420 | Product Conveyor (New) (EP-662) |
| EU3430 | Product Conveyor (New) (EP-663) |
| EU3440 | Product Conveyor (EP-664) |
| EU3450 | Product Conveyor (R1&R2) (EP-665) |
| EU3460 | Bucket Elevator (New) (EP-666) |
| EU3470 | Product Conveyor (EP-667) |
| EU3500 | Product Conveyor (New) (EP-671) |
| EU3520 | Screen (EP-673A) |
| EU3530 | Screen (EP-673B) |
| EU3540 | Bin (EP-674) |
| EU3550 | Vibrating Feeders (2) (EP-675) |
| EU3570 | Product Conveyor (New) (EP-676B) |
| EU3580 | Bin (EP-677) |
| EU3590 | Feeders (EP-678) |
| EU3620 | Bin (RK LKD) (EP-684) |
| EU3640 | Product Conveyor (New 07) (EP-686A) |
| EU3650 | Product Conveyor (EP-686B) |
| EU3660 | Peerless Lime Loadout Bins (EP-687) |
| EU3670 | Product Conveyor (EP-688) |
| EU3680 | Peerless Lime Loadouts (3) Truck/Rail (EP-691) |
| EU3690 | Roll Crusher (EP-692) |
| EU3700 | Loadouts (3) (EP-693) |
| EU3710 | Bel Conveyor/ Rail Loadout (EP-694) |
| Additional Project I – S | Stone Classification |
| EU2310 | 2" Pebble Lime Bin, enclosed, 1981 (EP-203B) |
| EU2320 | 1" Pebble Lime Bin, enclosed, 1981 (EP-203A) |
| | |
| Peerless Rotary Kilns | |

Peerless Rotary Kilns

| EU0070 | No. 4 Peerless Rotary Kiln (EP-069) |
|--------|---------------------------------------|
| EU0071 | Emergency Generator PRK4-6 (INS-069C) |
| EU0080 | No. 5 Peerless Rotary Kiln (EP-070) |
| EU0090 | No. 6 Peerless Rotary Kiln (EP-071) |
| EU0110 | No. 4 Peerless Rotary Cooler (EP-073) |
| EU0120 | No. 5 Peerless Rotary Cooler (EP-074) |
| EU0130 | No. 6 Peerless Rotary Cooler (EP-075) |

| EU0140 | Two (2) Silos, PRK Code L, (Lime Kiln Dust) (EP-081) |
|--------|---|
| EU0150 | Truck Loadouts, PRK Code L, (Lime Kiln Dust) (EP-082A) |
| EU0160 | Peerless Lime Elevators #1, #2, and #3 (EP-083, EP-084, EP-085) |
| EU3280 | Rotary Kiln #1 (PRK7) (EP-640) |
| EU3281 | Emergency Generator RK1 (EP-640A) |
| EU3310 | Rotary Kiln #8 (or #2) (EP-645) |
| EU3311 | Emergency Generator RK2 (EP-645A) |

Peerless Rotary Pulverized Quicklime Process

| riess riotary | Turvernzeu Vureimme Trocess |
|---------------|--|
| EU0170 | Hammermill Crusher and Screw Conveyor System (EP-088C) |
| EU0180 | Roller Mill Feed Bin (EP-088D) |
| EU0185 | Truck/Rail Overfill Hopper (2007 EIQ EP088E) |
| EU0190 | PQL Roller Mill (EP-089) |
| EU0200 | FK Pump and Silo (EP-90A) |
| EU0210 | FK Pump and Truck and Rail Loadout Bins (EP-90B) |
| EU0220 | Truck and Rail Loadout Chutes (EP-91) |
| EU1820 | Peerless Railcar Unloading, 2002 (EP-092) |
| EU1830 | Peerless PRPQL Railcar Elevator, 2002 (EP-093) |
| | |

Mississippi Vertical Hydrators Process EU0460 No 1 Hydrator

| ~ | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | W1 W 0 1 0 1 0 0 0 0 0 |
|---|--|---|
| | EU0460 | No. 1 Hydrator, North and South Product Mills (EP-136) |
| | EU0470 | No. 2 Hydrator (EP-139) |
| | EU0490A | Tailings Bin (Code H) (EP-138A) |
| | EU0490B | Tailings Truck Loading (EP-138B) |
| | EU0500 | No. 1 and No. 2 Truck Bins (EP-142A) |
| | EU0510 | No. 1 and No .2 Truck Loadouts (EP-142B) |
| | EU0520 | South Bulk Loadout (EP-137A) |
| | EU0530 | 4-Spout Bagger, Bulk Bagger (EP-141D and 141A) |
| | EU0540 | No. 1 Hydrate Silo (EP-142C) |
| | EU0550 | No. 2 Hydrate Silo (EP-142E) |
| | EU0560 | No. 1 Truck Loadout (EP-142D) |
| | EU0570 | No. 2 Truck Loadout (EP-142F) |
| | EU0580 | Rail Loadout (EP-142G) |
| | EU1870 | #1 & #2 Feed Bins for No. 2 Hydrator, enclosed, 1981 (EP-139A) |
| | EU1880 | Railcar Loading, 1981 (EP-138C) |
| | EU1890 | Vacuum Receiver - MVH No. 2 (EP-140) |
| | EU1900 | North Truck Loadout, No. 2 Hydrator Product, enclosed bldg, 1981 (EP- |
| | | 141C) |
| | EU1910 | No. 1 through No. 6 Storage Bins, Hydrator Product, enclosed bldg, 1981 |
| | | (EP-141B) |
| | | |

Mississippi Rotary Kilns

| EU0680 | No. 5 Mississippi Rotary Kiln (EP-180H) |
|--------|---|
| EU0690 | No. 6 Mississippi Rotary Kiln (EP-181H) |
| EU0700 | No. 7 Mississippi Rotary Kiln (EP-182H) |
| EU0710 | No. 8 Mississippi Rotary Kiln (EP-183H) |
| EU0720 | No. 9 Mississippi Rotary Kiln (EP-186N) |

| EU0721 | MRK 9 & 10 Emergency Generator (EP-187S) |
|---------|---|
| EU0730 | No. 10 Mississippi Rotary Kiln (EP-187N) |
| EU0740A | Kiln Spall Conveyor (EP-187P) |
| EU0740B | Magaldi Pan Conveyor (EP-187Q) |
| EU0740C | 30 Ton Bin/Loadout (EP-187R) |
| EU0830 | ½" Pebble Lime Bin (EP-203C) |
| EU1960 | Screen Feed Conveyor, enclosed, 1963 (EP-180B) |
| EU1970 | Screen enclosed, 1963 (EP-180C) |
| EU1980 | No. 5 Kiln Feed Conveyor, enclosed, 1963 (EP-180E) |
| EU1990 | No. 5 Kiln Feed Conveyor, enclosed, 1963 (EP-180F) |
| EU2000 | No. 5 Kiln Feed Conveyor, enclosed, 1963 (EP-180G) |
| EU2010 | Screen Feed Conveyor, enclosed, 1963 (EP-181B) |
| EU2020 | Screen, enclosed, 1963 (EP-181C) |
| EU2030 | No. 6 Kiln Feed Conveyor, enclosed, 1963 (EP-181E) |
| EU2040 | No. 6 Kiln Feed Conveyor, enclosed, 1963 (EP-181F) |
| EU2050 | No. 6 Kiln Feed Conveyor, enclosed, 1963 (EP-181G) |
| EU2060 | Screen Feed Conveyor, enclosed, 1963 (EP-182B) |
| EU2070 | Screen, enclosed, 1963 (EP-182C) |
| EU2080 | No. 7 Kiln Feed Conveyor, enclosed, 1963 (EP-182E) |
| EU2090 | No. 7 Kiln Feed Conveyor, enclosed, 1963 (EP-182F) |
| EU2100 | No. 7 Kiln Feed Conveyor, enclosed, 1963 (EP-182G) |
| EU2110 | Screen Feed Conveyor, enclosed, 1963 (EP-183B) |
| EU2120 | Screen, enclosed, 1963 (EP-183C) |
| EU2130 | No. 8 Kiln Feed Conveyors, enclosed, 1963 (EP-183E) |
| EU2140 | No. 8 Kiln Feed Conveyors, enclosed, 1963 (EP-183F) |
| EU2150 | No. 8 Kiln Feed Conveyors, enclosed, 1963 (EP-183G) |
| EU2160 | Bin Discharge Conveyor, enclosed, 1963 (EP-186B) |
| EU2170 | Bin Discharge Conveyor, enclosed, 1963 (EP-186D) |
| EU2180 | Screen Feed Conveyor, enclosed, 1963 (EP-186E) |
| EU2190 | Screen, enclosed, 1963 (EP-186F) |
| EU2200 | No. 9 Kiln Feed Conveyor, 1963 (EP-186K) |
| EU2210 | No. 9 Kiln Feed Conveyor, 1963 (EP-186L) |
| EU2220 | No. 9 Kiln Feed Conveyor, 1963 (EP-186M) |
| EU2230 | Bin Discharge Conveyor, enclosed, 1963 (EP-187B) |
| EU2240 | Bin Discharge Conveyor, enclosed, 1963 (EP-187D) |
| EU2250 | Screen Feed Conveyor, enclosed, 1963 (EP-187E) |
| EU2260 | Screen, enclosed, 1963 (EP-187F) |
| EU2270 | No. 10 Kiln Feed Conveyor, 1963 (EP-187K) |
| EU2280 | No. 10 Kiln Feed Conveyor, 1963 (EP-187L) |
| EU2290 | No. 10 Kiln Feed Conveyor, 1963 (EP-187M) |
| | |

Mississippi Rotary Pulverized Quick Lime

| EU0870 | (3) MR-PQL Feed Bins (N, M, S) (EP-190) |
|--------|---|
| EU2300 | GCC-Classifier (EP-190A) |
| EU0900 | (3) MR-PQL Product Storage Bins (EP-191A) |
| EU0910 | MR-PQL Loadout (Truck/Rail) (EP-193) |
| EU0920 | MR-POL Loadout (Truck/Rail) (EP-194) |

Mississippi Rotary Stone Plant

EU0930 Rotary Stone Dryer (EP-197A and EP-197C)

EU0960 Truck/Rail Loadout (EP-201)

Mississippi Rotary Hydrators #1, #2 and #3

EU1140 East and West Hydrate Silos, Hydrate Truck Loadout (EP-218 and EP-220)

Mississippi Rotary Precipitated Calcium Carbonate Process (MRPCC)

| EU1220 | Pneumatic Transfer – MRPCC#1 to MRPCC#2 (EP-231A) |
|--------|--|
| EU1240 | Weigh Hopper – MRPCC#2 (EP-228) |
| EU1250 | No. 2 Process Spray Dryer (EP-229A and EP229B) |
| EU1260 | Product Elevator – MRPCC#2 (EP-230A) |
| EU1270 | Product Silo and Bucket Elevator – MRPCC#2 (EP-230B and EP-230C) |
| EU1280 | PCC Truck Loadout (EP-232) |
| EU1290 | Mill Feed Bin, Mill, Bucket Elevator, Dry Slurry Weigh Bin (EP-231B, |
| | EP231C, EP-231D, and EP-231E) |

Maerz Vertical System (VK)

| ciz verticai sy | |
|-----------------|--|
| EU1300 | VK-1 Limestone Conveyor (EP-275) |
| EU1310 | VK-2 Limestone Conveyor (EP-276) |
| EU1320 | VK-3 Limestone Conveyor (EP-277) |
| EU1330 | Vibrating Feeder #1, #2, #3, and #4, VK-4 Conveyor, enclosed (EP-279, EP- |
| | 280, EP-281, EP-281A, EP-282) |
| EU1340 | VK-5 Conveyor, Double Deck Screen, 25 ton Fines Loadout Bin (EP-283, |
| | EP-284, EP-286) |
| EU1350 | Weigh Bin, enclosed (EP-287) |
| EU1360 | Skip Hoist (EP-288) |
| EU1370 | Twin Shaft Vertical Kiln (Maerz) (EP-289) |
| EU1371 | Emergency Generator (EP-289A) |
| EU1380 | Pneumatic Conveyor (EP-290) |
| EU1390 | 30 ton Fines Silo Loadout (EP-291) |
| EU1400 | Product Unloading (EP-292) |
| EU1410 | Waste Lime Loadout VK-8 Conveyor, enclosed (EP-293) |
| EU1420 | VK-7 Product Conveyor, Quad Roll Crusher (EP-294 and EP-295) |
| EU1430 | Bucket Elevator, Triple Screen (EP-296 and EP-297) |
| EU1440 | VK-10 Conveyor (EP-298) |
| EU1450 | VK-9 Conveyor (EP-299) |
| EU1460 | (2) 500 Ton Lime Silo, (2) Pocket Belt Conveyor, (2) 5-Deck Screeners, (2) |
| | Truck Loadout (EP-300, EP-301, EP-302, EP-303, EP-304, EP-305, EP-306, |
| | EP-307) |
| EU2470 | Belt Conveyor (EP-342A) |
| EU2490 | Hopper/Feeder (EP-342C) |
| EU2500 | Hopper/Feeder (EP-342E) |
| EU2510 | Vibrating Polishing Screen (EP-371) |
| EU2520 | Bucket Elevator (EP-377) |
| EU2521 | Stone Hopper (EIQ EP-342D) |

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| EU2522 | Lime Crusher 2(EIQ EP-433) |
|--------|---|
| EU2523 | SSK1 Lime Screen (EIQ EP-387) |
| EU2530 | Belt Conveyor (EP-378) |
| EU3980 | Load Hopper (EP-379) |
| EU2550 | SS Vertical Kiln #1 (EP-380) |
| EU2560 | Conveyor - Waste Product (EP-381) |
| EU2570 | Conveyor - Waste Product (EP-382) |
| EU2580 | Storage Bin Loadout - Waste Product (EP-383) |
| EU2590 | Limestone Conveyor (EP-430B) |
| EU2600 | Hammermill Crusher (EP-389) |
| EU2601 | Vibrating Screen (2007 EIQ EP-387) |
| | • |
| EU2602 | Crushed lime Dust Silo/Preumatic Transfer (2007 EIQ EP-388) |
| EU2603 | Crushed Lime Silo/Pneumatic Transfer (2007 EIQ EP-390) |
| EU2610 | Limestone Conveyor (EP-405) |
| EU2620 | 3D Limestone Screen (EP-406) |
| EU2630 | Screenings Conveyor (EP-415B) |
| EU2640 | Screenings Bin (EP-416) |
| EU2650 | Screenings Bin Loadout (EP-417) |
| EU2660 | 2D Limestone Screen (EP-420) |
| EU2670 | Limestone Conveyor (EP-421) |
| EU2680 | Limestone Conveyor (EP-422A) |
| EU2690 | Limestone Conveyor (EP-422B) |
| EU2700 | SSK 2 Load Hopper (EP-423A) |
| EU2710 | SSK 3 Load Hopper (EP-423B) |
| EU2720 | SS Vertical Kiln #2 (EP-424) |
| EU2730 | SS Vertical Kiln #3 (EP-425) |
| EU2740 | Lime Weigh Feeder (EP-426A) |
| EU2750 | Lime Weigh Feeder (EP-426B) |
| EU2760 | Lime Screen (EP-426B1) |
| EU2770 | Lime Screen (EP-426C1) |
| EU2780 | Lime Weigh Feeder (EP-426C) |
| EU2790 | Conveyor Belt-Lime (SSK#1) (EP-427A) |
| EU2800 | Conveyor Belt-Lime (SSK#2) (EP-427B) |
| EU2810 | Conveyor Belt-Lime (SSK#3) (EP-427C) |
| EU2820 | Storage Bin-Lime (SSK#1) (EP-429A) |
| EU2830 | Vibrating Feeders (EP-429A1) |
| EU2840 | Storage Bin-Lime (SSK#2) (EP-429B) |
| EU2850 | Vibrating Feeders (EP-429B1) |
| EU2860 | Storage Bin-Lime (SSK#3) (EP-429C) |
| EU2870 | Vibrating Feeders (EP-429C1) |
| | e v |
| EU2880 | Conveyor Belt-Lime Bins (EP-430) |
| EU2890 | New Crusher (Lime) (EP-430B) |
| EU2900 | Lime Silos (2.500 Ton) (EP-431) |
| EU2910 | Crushed Lime Silo (EP-432) |
| EU2920 | SSK2 Waste Lime Loadout (EP-433B) |
| EU2930 | SSK3 Waste Lime Loadout (EP-433C) |
| EU2940 | Waste Bin (EP-434) |
| | |

Lime Storage Silos EU1480

EU1480 Lime Silo No. 2 (EP-131)

Other Emission Units

| ther Emission Units | |
|---------------------|--|
| EU0640c | Drop Point (air separator 2 to DC screw Conveyor No. 2) |
| EU0670 | Drop Point (MVCCP Pellet Bin 7 & 8 to lime weigh screw conveyor) |
| EU0904 | Trans-loading Station – conveyer to conveyor (EP-904) |
| EU0905 | Trans-loading Station – conveyor to load-out (EP-905) |
| EU0906 | Trans-loading Station – baghouse to conveyor (EP-906) |
| EU0907a | Drop point (lime weigh screw conveyor to weigh belt) |
| EU0907b | Drop point (weigh belt to hydrator feed screw) |
| EU0907c | Drop point (hydrator feed screw to hydrator) |
| EU0908a | Drop point (hydrator to hydrate mill) |
| EU1840 | Blending Silos (2) (EP-131A) |
| EU1850 | Pneumatic Rail Car Loading SSK (EP-131B) |
| EU1860 | Feed Bin, No.1 Hydrator, enclosed bldg, 1981 (EP-135A) |
| EU2330 | VK 8 Waste Conveyor – Extension (EP-293B) |
| EU2960 | Pneumatic Feed to 100 Ton PCC Silos #1 2 & 3 (EP-450) |
| EU2970 | PCC 25 Ton Surge Hopper (EP-451) |
| EU2980 | PCC Bagging System (EP-452) |
| EU2990 | Hydrate Truck Transfer Unloading (EP-455) |
| EU3000 | Feed to 100 Ton Hydrate Silos 1 & 2 (EP-460) |
| EU3010 | Feed to 100 Ton Hydrate Silos 3 & 4 (Truck) (EP-461) |
| EU3020 | Hydrate 25 Ton Surge Hopper (EP-462) |
| EU3030 | Hydrate Bagging System (EP-463) |
| EU3040 | Hydrate 25 Ton Surge Hopper (EP-464) |
| EU3050 | Hydrate Bagging System (EP-465) |
| EU3760 | Hydrator Feed Bin (EP-703) |
| EU3770 | Hydrator (EP-704) |
| EU3780 | Classification System (EP-705) |
| EU3880 | Product Bin Truck Loadout (EP-714) |
| EU3890 | Storage Bins (2) (2007 EIQ EP-730) |
| EU3900 | Mills (4) (2007 EIQ EP-734) |
| EU3910 | Bins (2) (2007 EIQ EP-736) |
| EU3920 | Hydrate Storage Bin (Finish Bin 8) (2007 EIQ EP-740) |
| EU3930 | Weigh Bin (EP-741) |
| EU3940 | Slurry Tanks (2) (EP-742) |
| EU3950 | Conveyor (EP-896) |
| EU3960 | Conveyor (EP-897) |
| EU3970 | Conveyor (EP-898) |
| EU4910 | Drop Point (Granular Silo (EP-677) to SF-1 (EP-910) |
| EU4911 | Drop Point (1/2" Silo (EP-674) to SF-2) (EP-911) |
| EU4912 | Drop Point (SF-1 to BC-1) (EP-912) |
| EU4913 | Drop Point (SF2 to BC-1) (EP-913) |
| EU4914 | Drop Point (BC-1 to CR-1) (EP-914) |
| | |

| EU4915 | Impact Crusher CR-1 (EP-915) |
|--------|---------------------------------------|
| EU4916 | Drop Point (CR-1 to M-1) (EP-916) |
| EU4917 | Mill M-1 (EP-917) |
| EU4918 | Drop Point (M-1 to SC-1), (EP-918) |
| EU4919 | Drop Point (SC-1 to BE-1), (EP-919) |
| EU4920 | Drop Point (BE-1 to SC-2), (EP-920) |
| EU4921 | Drop Point (SC-2 to AC-1), (EP-921) |
| EU4922 | Air Separator AC-1, (EP-922) |
| EU4923 | Drop Point (AC-1 to SC-3), (EP-923) |
| EU4924 | Drop Point (AC-1 to BLW-1), (EP-924) |
| EU4925 | Drop Point (SC-3 to BE-2), (EP-925) |
| EU4926 | Drop Point (BE-2 to SC-4), (EP-926) |
| EU4927 | Drop Point (SC-4 to BN-1), (EP-927) |
| EU4928 | Drop Point (BN-1 to WB-1), (EP-928) |
| EU4929 | Drop Point (WB-1 to SC-5), (EP-929) |
| EU4930 | Drop Point (SC-5 to HYD-1), (EP-930) |
| EU4931 | Hydrator HYD-1, (EP-931) |
| EU4932 | Drop Point (HYD-1 to SC-6)), (EP-932) |
| EU4933 | Drop Point (SC-6 to BE-3), (EP-933) |
| EU4934 | Drop Point (BE-3 to SC-7), (EP-934) |
| EU4935 | Drop Point (SC-7 to AC -2), (EP-935) |
| EU4936 | Air Separator AC-2, (EP-936) |
| EU4937 | Drop Point (AC-2 to SC-9), (EP-937) |
| EU4938 | Drop Point (AC-2 to M-2), (EP-938) |
| EU4939 | Mill M-2, (EP-939) |
| EU4941 | Drop Point (SC-9 to SC-8), (EP-941) |
| EU4942 | Drop Point (SC-8 to BLW-2), (EP-942) |
| EU4943 | Drop Point (BLW-2 to BN-2), (EP-943) |
| EU4944 | Product Loadout LO-1, (EP-944) |
| EU4945 | Drop Point (BLW-2 to BN-3), (EP-945) |
| EU4946 | Drop Point (BN-3 to WB-2), (EP-946) |
| EU4947 | Drop Point (WB-2 to SC-10), (EP-947) |
| EU4948 | Drop Point (SC-10 to M-3), (EP-948) |
| EU4949 | Mill M-3, (EP-949) |
| EU4950 | Drop Point (M-3 to BN-4), (EP-950) |
| EU4951 | Product Loadout LO-2, (EP-951) |
| EU9999 | Emergency Generator, IT |
| | |

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. These units are subject to plant wide limitations.

Description of Emission Source

Peerless Mine

EP-002A Blasting

EP-002B Blasting (dynamite)

EP-002C Blasting (ANFO)

| | EP-022 | Surge Bins, 1956 |
|---|--------------|---|
| | EP-025 | Storage Pile Code L secondary crushed/screened rock for PRK |
| | EP-026 | Truck Loading |
| | EP-027 | Haul Road, out of mine, Code L rock for PRK |
| | EP-028 | Haul Road, Screenings and Tailings into mine |
| | EP-029 | Truck Unloading |
| | N/A | Mine Storage Pile, Screenings |
| | EP-029B | Truck Loading |
| | EP-029C | Haul Road, Screenings and Tailings out of mine |
| | S-59 | Water Pump, Aurora 10x12x18 w/Cummins KTA 1150P 470 hp diesel, 1976 |
| | S-89 | Water Pump, Aurora 10x12x18 w/Cummins KTA 19P, 470 hp diesel, 1994 |
| | S-63 | Water Pump, Marlow 6E7S w/John Deere 100 hp diesel |
| | S-128 | Water Pump, Marlow w/John Deere 100 hp diesel |
| | S-148 | Water Pump, Godwin 3"x3" Dry Prime w/John Deere 80 hp diesel |
| | S-151 | Water Pump, Aurora 10x12x18 w/Cummins KTA 19P525, 470 hp diesel, 1995 |
| | S-177 | Water Pump, Godwin w/John Deere 80 hp diesel |
| | | |
| S | sissippi Sto | ne Storage (MSS) and Peerless Stone Handling (PSH) |
| | EP-042 | Surge Pile, Mississippi Vertical Kiln Rock |
| | EP-043 | Spall Bin, enclosed, Mississippi Vertical Kiln Rock, 1956 |
| | | |

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| EF-042 | Surge Fire, Mississippi Vertical Killi Rock |
|--------|---|
| EP-043 | Spall Bin, enclosed, Mississippi Vertical Kiln Rock, 1956 |
| EP-045 | No. 5 Belt Storage Bin, enclosed, Peerless Rotary Kiln Rock, 1956 |
| EP-046 | No. 6 Belt Storage Bin, enclosed, Peerless Rotary Kiln Rock, 1956 |

No. 7 Belt Storage Bin, enclosed, Peerless Rotary Kiln Rock, 1956 EP-047

Peerless Rotary Kiln, Coal/Coke Handling System

EP-050B Coal/Coke Storage Bins, enclosed, 1970 EP-050C Coal/Coke Feeder, enclosed, 1970 EP-050D Coal/Coke Conveyor, enclosed, 1970

EP-051C Incline Conveyor, 1970 EP-051D Tripper Conveyor, 1970

EP-052 Two (2) Storage Bins for PRK Nos. 1 & 2, enclosed, 1973

EP-052 Four (4) Storage Bins for PRK Nos. 3, 4, 5, and 6, enclosed, 1967 and 1970

EP-054 Storage Piles, Coal/Coke Truck Unloading, Coal/Coke N/A Front End Loader, 1981 N/A N/A Haul Road, Coal/Coke

Truck Unloading, Coal/Coke, 1970 N/A Two (2) Slow Feed Conveyors, 1973 N/A Two (2) Pulverizing Mills, 1973 N/A

N/A Four (4) Slow Feed Conveyors, 1967 and 1970

Four (4) Pulverizing Mills, PRKs Nos. 3, 4, 5 and 6, 1967 and 1970 N/A

Peerless Rotary Kilns

EP-063C Unit "L" Conveyor for PRK No. 5, enclosed, 1970

EP-063D Unit "L" Conveyor for PRK No. 6, enclosed, 1970

EP-070A Spall Conveyor, enclosed, 1967

EP-070B Spall Hopper/Truck Loadout, 1967

| EP-082B | PRK Dropout Chamber Loadouts, 1967-1973 Rail Loadout, PRK Dust Collector Scrap, 1967 Peerless Product Conveyors, enclosed, 1970 (Renamed by permit to EP-655 and EP- |
|----------|--|
| Ins-068A | 657) Truck/Rail Unloading, 1967 Diesel Fuel Storage Tank Diesel Fuel Storage Tank |
| | Diesel Fuel Storage Tank Diesel Fuel Storage Tank Code L Blow Tank Truck/Rail Overfill Hoppers, 1981 |

Mississippi Vertical Kiln

N/A

| Limestone Surge Pile Reclaim Feeder, enclosed, 1970 |
|---|
| Limestone Surge Pile Reclaim Feeder, enclosed, 1970 |
| Truck Loading, enclosed, 1970 |
| Haul Road, MVK Rock |
| Bucket Elevator, enclosed, 1970 |
| Haul Road |
| Forkings Screw Conveyor, 1970 |
| Screw Conveyor, 1970 |
| |

Screw Conveyor, 1981

| S | issippi Vertical Pulverized Quick Lime | | | |
|---|--|--|--|--|
| | EP-126B | Hammermill Crusher, enclosed bldg., 1970 | | |
| | EP-126D | Screen, enclosed bldg., 1970 | | |
| | EP-126E | 15 Ton Bagger Bin, enclosed bldg., 1970 | | |
| | EP-126F | Single Spout Pebble Bagger, enclosed bldg., 1970 | | |
| | EP-127 | 50 Ton PQL Finish Bin, enclosed bldg., 1970 | | |
| | EP-127A | 35 Ton Track Bin No. 6, enclosed bldg., 1970 | | |
| | EP-127B | 42" MVPQL Mill | | |
| | EP-127C | Five (5) 35 Ton Track Bins, Nos. 1-5, enclosed bldg., 1970 | | |
| | EP-127D | Truck/Railcar Loadout, 1970 | | |
| | EP-128 | MVPQL Bagging Operation | | |
| | EP-129A | MVPQL Truck Loadout | | |
| | EP-129B | PQL Railcar Loadout, 1970 | | |
| | N/A | Reversing Screw Conveyor, enclosed bldg., 1970 | | |
| | N/A | Screw Conveyor, Track Bins Nos. 1-5 to a Bucket Elevator, 1970 | | |
| | N/A | Screw Conveyor, 42" Mill Cyclone to Double Spout Bagger, 1970 | | |
| | N/A | Screw Conveyor. Finish Bin to Loadouts, 1970 | | |
| | N/A | Screw Conveyor, Finish Bin to Double Spout Bagger | | |
| | | | | |

Lime Storage Silos

| EP-130 | Lime Silo No. 1 |
|---------|--------------------|
| EP-132 | Lime Silo No. 3 |
| EP-133C | Rail loadout, 1981 |

EP-133D Truck Loadout, 1981

N/A Screw Conveyor, Bucket Elevator and Screw Conveyor, 1981

Mississippi Vertical Hydrators

| EP-135 | Hydrator Exhaust | - MVH #1 |
|--------|-------------------------|----------|
| | | |

EP-135B Hydrate Product Air Separator, enclosed bldg., 1981

EP-137C South Bulk Loadout Truck

EP-138D Railcar Loading, 1981

EP-138E Railcar Loading

EP-139B Hydrated Lime Separator – MVH #2

EP-140N&S No. 2 Hydrator, North and South Product Mills

EP-143 Railcar Unloading – MV – PCC EP-144 Storage Bins (2) – MV – PCC

N/A Hydrator Feed Bucket Elevator, 1981

N/A Hydrate Product Bucket Elevator & Screw Conveyor, 1981

N/A Screw Conveyor, 1981

N/A Bagger Spill Screw Conveyor, 1981

N/A Bucket Elevator & Screw Conveyor, 1981

N/A Hydrate Product Air Separator, enclosed bldg., 1981

N/A Screw Conveyor, 1981

N/A Two (2) Screw Conveyors and a Bucket Elevator, No.1 Hydrator Mill Tailings, 1981

N/A Two (2) Screw Conveyors and a Bucket Elevator, No.2 Hydrator Mill Tailings 1981

N/A Screw Conveyor and Bucket Elevator, 1981

N/A Screw Conveyor, 1981

N/A Reversing Screw Conveyor, No.2 Hydrator Product, 1981 N/A Five (5) Screw Conveyors, No.2 Hydrator Product, 1981

N/A Six (6) Screw Conveyors, No. 2 Hydrator Product, storage to bagging, 1981

N/A Four (4) Screw Conveyors, No. 1 Hydrator Product, 1981

N/A FK Pneumatic System, 1981

N/A Four (4) Screw Conveyors and Two (2) Bucket Elevators for the 4-spout and Bulk

Baggers Feed System, 1981

Mississippi Vertical Precipitated Calcium Carbonate

EP-144A Quicklime Storage Bin, enclosed, 1981

EP-145 Mix Tank, enclosed, 1981

EP-145A No. 1 Turbo Tank

EP-148A, No. 2 Tunnel Dryer

EP-149 Eight (8) Dried PCC Pellet Bins, enclosed, 1981

EP-150 Mill #1 – MV – PCC

EP-151 Mill #2 – MV – PCC

EP-152 Mill #3 – MV – PCC

EP-153 Mill #4 – MV – PCC

EP-153A Four (4) PCC Finish Bins Nos. 1, 2, 3 and 4, enclosed bldg., 1981

EP-153B Double Spout Bagger, enclosed, 1981

EP-153C Bulk Loadout, 1981

EP-153D MVPCC Finish Bins (No 5-8)

EP-153F Weigh Bin, enclosed bldg., 1981

| EP-153H | Cowles Slurry Tank No. 1, enclosed bldg., 1981 Cowles Slurry Tank No. 2, enclosed bldg., 1981 |
|---------|--|
| EP-153I | Old Weigh Hopper, 1981 |
| EP-153J | Bagger Bin, enclosed bldg., 1981 |
| N/A | Reversing Screw Conveyor, Hydrate and Quicklime Storage Bin Feed, 1981 |
| N/A | Three (3) Screw Conveyors, Mix Tank Hydrate Feed, 1981 |
| N/A | Two (2) Screw Conveyors and a Bucket Elevator, No.1 Turbo Tank Quicklime Feed, |
| | 1981 |
| N/A | Four (4) Turbo Tanks, No. 2 through No. 5 |
| N/A | Six (6) Finish Tanks, No. 1 through No .6 |
| N/A | Eight (8) Screw Conveyors and Two Bucket Elevators, Dried PCC Conveyor System, 1981 |
| N/A | Seven (7) Milled PCC Screw Conveyors, 1981 |
| N/A | Eight Finish Bins Discharge Screw Conveyors, 1981 |
| N/A | Three (3) Screw Conveyors and a Bucket Elevator, Double Spout Bagger Feed, 1981 |
| N/A | Four (4) Screw Conveyors and a Bucket Elevator, 1981 |
| N/A | Finish Bin Screw Conveyor and a Bucket Elevator, 1981 |
| N/A | Old Batch Bin Bucket Elevator and Screw Conveyor, 1981 |
| N/A | Dissolver Feed Screw Conveyor, 1981 |
| | |

Mississippi Rotary Kiln Limestone Handling System

Truck Bin, enclosed, 1963

N/A

| EP-154 | Spalls Bin Discharge Feeder, 1956 |
|---------|--|
| EP-158 | Conveyor No. 18, enclosed, 1956 |
| EP-159A | Overland Conveyor No. 19A, enclosed, 1961 |
| EP-159B | Overland Conveyor No. 19B, enclosed, 1961 |
| EP-160 | Distribution Conveyor, enclosed, 1961 |
| EP-161 | Covered Stone Storage, 1961 |
| EP-161A | Nineteen (19) Reclaim Gates, 1961 |
| EP-161B | Reclaim Conveyor, enclosed, 1961 |
| EP-161W | MRK Stone Handling System |
| EP-162A | Conveyor No. 20, enclosed, 1946 |
| EP-163A | Screen, enclosed, 1937 |
| EP-163B | Screen, enclosed, 1956 |
| EP-164A | Truck Unloading, 1937 |
| EP-164B | Truck Dump Hopper, enclosed, 1937 |
| EP-165 | Incline Conveyor, enclosed, 1937 |
| EP-166A | Secondary Crushing, enclosed, 1937 |
| EP-166B | Conveyor, enclosed, 1937 |
| EP-166C | Two (2) Screens, enclosed, 1940 |
| EP-167 | Three (3) Feed Conveyors, enclosed, 1980 |
| EP-168 | Three (3) Bin Feed Conveyors to Nine (9) Feed Bins, enclosed, 1940 |
| EP-169 | Fines Conveyor, enclosed, 1963 |
| EP-170 | All MRK Fines Screw Conveyor, enclosed 1963 |
| EP-171 | Dust Bin Loadout, enclosed, 1963 |
| EP-172 | Truck Bin Loadout, enclosed, 1963 |
| | |

Mississippi Rotary Kiln Coal/Coke Handling System

- EP-175A Truck Coal/Coke Unloading to Storage Piles
- EP-175B Coal/Coke Storage Piles
- EP-176A Rail Unloading (Coal & Coke) MR
- EP-176B Unloading Hopper (Coal & Coke) MR
- EP-176C Coal Truck Unloading, 1970
- EP-176D Coal Loading Hopper, enclosed, 1970
- EP-176E Coke Truck Unloading, 1970
- EP-176F Coke Loading Hopper, enclosed, 1970
- EP-176G Coal Vibrating Feeder, enclosed, 1970
- EP-176H Coke Feeder Conveyor, enclosed, 1970
- EP-177A Tunnel Belt Conveyor, enclosed, 1970
- EP-177B Incline Conveyor, enclosed, 1979
- EP-177C North Tripper Conveyor to MRK Bins 5,6,7,8, enclosed, 1970
- EP-177D South Tripper Conveyor to Bins for MRK 9,10, enclosed, 1970
- EP-178 Six (6) Storage Bins, enclosed, 1970
- N/A Front End Loader to Coal and Coke Hoppers
- N/A Six (6) Weigh Feed Conveyors and Pulverizing Mills for the MRK kilns, 1970

Mississippi Rotary Kilns

- EP-180A No. 5 Rock Bin, enclosed, 1963
- EP-180D Fines Screw Conveyor, enclosed, 1963
- EP-181A No. 6 Rock Bin, enclosed, 1963
- EP-181D Fines Screw Conveyor, enclosed, 1963
- EP-182A No. 7 Rock Bin, enclosed, 1963
- EP-182AA Nos. 5 8 Combined Fines Screw Conveyor, enclosed, 1963
- EP-182BB Fines Bucket Elevator, enclosed, 1963
- EP-182CC Fines Belt, enclosed, 1963
- EP-182D Fines Screw Conveyor, enclosed, 1963
- EP-183A No. 8 Rock Bin, enclosed, 1963
- EP-183D Fines Screw Conveyor, enclosed, 1963
- EP-183I Six (6) MRK Purging DOC Loadouts, enclosed, 1981
- EP-184A MRK Conveyor No. 1A Lime
- EP-184B MRK Conveyor No. 2A Lime
- EP-184C MRK Conveyor No. 3A Lime
- EP-184D West Bucket Elevator
- EP-184E West Screen
- EP-184F MRK Conveyor No. 4A
- EP-185A MRK Conveyor No. 1B
- EP-185B MRK Conveyor No. 2B
- EP-185C MRK Conveyor No. 3B
- EP-185D East Bucket Elevator
- EP-185E East Screen
- EP-185F MRK Conveyor No. 4B
- EP-186A No. 4 Rock Bin, enclosed, 1963
- EP-186C No. 3 Rock Bin, enclosed, 1963
- EP-186G Fines Screw Conveyor, enclosed, 1963

| EP-186H | Fines Screw Conveyor, enclosed, 1963 |
|---------|---|
| EP-186I | Fines Screw Conveyor, enclosed, 1963 |
| EP-186J | Fines Bucket Elevator to Fines Belt, enclosed, 1963 |
| EP-187A | No. 2 Rock Bin, enclosed, 1963 |
| EP-187C | No. 1 Rock Bin, enclosed, 1963 |
| EP-187G | Fines Screw Conveyor, enclosed, 1963 |
| EP-187H | Fines Screw Conveyor, enclosed, 1963 |
| EP-187I | Fines Screw Conveyor, enclosed, 1963 |
| EP-187J | Fines Bucket Elevator to Fines Belt, enclosed, 1963 |
| EP-203D | Bagging Operation (2) |
| EP-203E | Fines Lime Bin |
| EP-203G | Fines Rail Truck Loadout South |
| EP-204A | 1" Rail Truck Loadout North & South |
| EP-204B | 2" Rail Truck Loadout North & South |
| EP-204C | ½" Rail Truck Loadout North & South |
| N/A | Diesel Fuel Storage Tank |
| | |

Mississippi Rotary Kiln Lime Handling System

| EP-188A | West Conveyor, enclosed,1981 |
|---------|--------------------------------|
| EP-188B | North Conveyor, enclosed, 1981 |

EP-188C Crusher (Impact) EP-188D Crusher Feeder

EP-189 Max Vacuum Loadout, 1981

EP-203AA South 1" Pebble Lime Conveyor, enclosed, 1981

EP-203AB North 1" Conveyor, enclosed, 1981

EP-203F Vacuum Receiver, 1981

N/A Small Blower Package to Fines Bin, 1981

N/A No. 1 and No. 2 East Fines Screw Conveyors,1981

N/A North ½" Conveyor, 1981

N/A North and South 1/2" Bin Loadout Feeders, enclosed, 1981

N/A North and South 2" Bin Loadout Feeders, 1981 N/A North and South 1" Bin Loadout Feeders, 1981

N/A South ½" Conveyor, 1981

N/A Two (2) West Fines Screw Conveyors, 1981

Mississippi Rotary Pulverized Quick Lime

EP-191 MR-PQL Mill (60") System #1 EP-192 MR-PQL Mill (60") System #2

Mississippi Rotary Stone Plant

EP-195 Conveyor Transfer, enclosed, 1966 EP-196A Storage Bin, enclosed, 1966

EP-196B Truck Limestone Loadout, 1966

EP-198 Air Separator 16" – MR - SP

EP-198A Air Separator 19" -MR - SP

EP-200 Limestone Storage Bin (R1/R2) - MR - SP

EP-201A Limestone Loadout (R1/R2) – MR – SP Fugitive

| EP-202 | Limestone Bagging Operation (R1/R2) – MR – SP |
|--------|---|
|--------|---|

N/A Screw Conveyor, Elevator, a Bin, Two (2) Screens, Two (2) Mills, Two (2) Scalping Screens, Elevator, Two (2) screw Conveyors and Five (5) Screw Conveyors, 1966

Mississippi Rotary Hydrator No. 1

| EP-206 Hydrator Exhaust – MRF |
|-------------------------------|
|-------------------------------|

EP-206A New & Old Hydrator Bin (Lime Feed) – MRH#1

EP-206B Air Separator, enclosed bldg., 1981

EP-206C Two (2) Mill Feed Bins, enclosed bldg., 1981

EP-207 Bagger Bins (2) – MRH#1 EP-207A Baggers (2) – MRH#1

EP-207AA MRH#1 Tailings Mill

EP-207B Screw Conveyor, Roto Lift, Screw Conveyor, and Truck/Rail Loadout, 1981

EP-208N No. 1 North Mill – MRH#1 EP-208S No. 1 South Mill – MRH#1

EP-221A FK Feed Bin, enclosed bldg., 1981 EP-222A Hydrate Tailings Bin – MRH#1

EP-222B Hydrate Tailings Truck Loadout – MRH#1 EP-223 Hydrate Truck and Rail Loadout – MRH#1

N/A Screw Conveyor, 1981

N/A No. 1 Hydrator Discharge Drag Elevator, Mill, Two (2) Screw Conveyors, Bucket

Elevator and Screw Conveyor, 1981

N/A Screw Conveyor, 1981

N/A Two (2) Screw Conveyors, 1981 N/A Two (2) Screw Conveyors, 1981

N/A Two (2) Mill Tailings Screw Conveyors and Bucket Elevators, 1981

Mississippi Rotary Hydrator No. 2

| EP-205 | Lime Storage Bi | in (North & South) | |
|--------|-----------------|--------------------|--|
| | | | |

EP-205C Lime Tailings Railcar Unloading, 1981

EP-205D Lime Crusher, enclosed, 1981 EP-209 Hydrator Exhaust – MRH#2

EP-210 Air Separator – MRH#2 EP-211N No. 2 North Mill – MRH#2

EP-211S No. 2 South Mill – MRH#2

EP-214D Tailings Loadout, 1981

EP-214E Various Pneumatic Railcar/Truck Loading

N/A LS-1 Screw Conveyor, 1981

N/A LE-2 Bucket Elevator and LS-3 Screw Conveyor, 1981

N/A Hydrator LS-4 Screw Conveyor, LE-5 Bucket Elevator, LS-6 Screw Conveyor, HE-7

Discharge Elevator, Mill, HS-8 Reversing Screw Conveyor, HE-9 Bucket Elevator and

HS-10 Screw Conveyor, 1981

N/A AP Feed Bin and North and South Mills, 1981

N/A TS-16 and 16A Screw Conveyors, TE-17 Bucket Elevator and TS-18 Screw

Conveyor, 1981

N/A HS-11 Screw Conveyor, HS-12 Control Device Screw Conveyor, HS-13 Product

Gathering Screw Conveyor and Switzer Pump, 1981

Mississippi Rotary Hydrator No. 3

| EP-212 | Hydrator Exhaust - MRH#3 |
|---------|------------------------------|
| EP-213 | Air Separator – MRH#3 |
| EP-214C | Hydrate Tailings Bin |
| EP-214N | No. 3 North Mill |
| EP-214S | No. 3 South Mill |
| EP-215 | Hydrate Silo (South) |
| EP-216 | Hydrate Silo (North) |
| ED 217 | Hydrota Truste and Dail Load |

EP-217 Hydrate Truck and Rail Loadout EP-221 (2) Hydrate Silos (East & West)

Hydrator Feed 305 Bucket Elevator and 306 Screw Conveyor, 1984 N/A

Hydrator Discharge 307 Bucket Elevator, Mill, 308 Screw Conveyor, 309 Bucket N/A

Elevator and 310 Screw conveyor, 1984

N/A AP Feed Bin and North and South Mills, 1984

N/A 311 Screw Conveyor, Product Gathering Screw Conveyor, 1984

Mississippi Rotary Precipitated Calcium Carbonate No. 1

Weigh Hopper – MRPCC#1 EP-224 EP-225A/B Spray Dryer – MRPCC#1

Product Elevator – MRPCC#1 EP-226A

EP-226B Finish Bins Nos. 1 & 2 – MRPCC#1 EP-226C Finish Bins Nos. 3 & 4 – MRPCC#1

EP-227 PCC Truck and Rail Loadout - MRPCC#1

EP-227A No. 8 Bucket Elevator – MRPCC#1

Spray Dryer Discharge Screw Conveyor, 1981 N/A

N/A Eight (8) Screw Conveyors, No. 2 through No. 7, No. 9 and No. 10, 1981

Mississippi Rotary Precipitated Calcium Carbonate No. 2

N/A Spray Dryer Discharge Screw Conveyor, 1987

N/A Two (2) Reversing Screw Conveyors, Two (2) Screw Conveyors, 1987

N/A Mill Discharge Screw Conveyor, 1988

Dry Slurry Loadout Bin, 1989 N/A

Miscellaneous

| EP-237 | Tank MRT #1, 541,440 gallon Used Oil Storage, 10/73 |
|---------|--|
| EP-238 | Tank MV #1, 1,000 gallon Diesel Fuel Oil Storage |
| EP-240 | Tank MRT #2, 6,000 gallon Gasoline Storage, 2/93 |
| EP-241A | Tank MRT #3, 6,000 gallon Gasoline Storage, 2/93 |
| EP-242 | Tank PRT #1, 12,000 gallon #2 Fuel Oil Storage, 6/73 |
| EP-243 | Tank PRT #2, 24,000 gallon #2 Fuel Oil Storage, 9/72 |
| EP-244 | Tank PRT #3, 24,000 gallon #2 Fuel Oil Storage, 9/72 |
| EP-245 | Tank PRT #4, 15,000 gallon #2 Fuel Oil Storage Tank, 6/73 |
| EP-246 | 90 Space Heaters, pipeline natural gas, 0.05 – 0.22 MMBtu/hr |
| EP-247 | Hot Water Heaters, pipeline natural gas |
| EP-250 | Unpaved Haul Road UR-1, Mississippi Vertical Kilns |
| EP-251 | Unpaved Haul Road UR-2, Mississippi Rotary Kilns |

| EP-252 | Unpaved Haul Road UR-3, Peerless Rotary Kilns |
|----------------|---|
| EP-252A | Unloading Tailings Trucks |
| EP-252B | Tailing Piles |
| EP-252C | Tailings Piles (Wind Erosion) |
| EP-253 | Tank MVG #1, 150 gallon Gasoline Storage |
| | , 2 |
| Portable Conv | evor |
| EP-260 | Portable Conveyor Unit |
| EP-261 | Conveyor Diesel Engine and Fuel Tank, 1998 |
| EP-261A | , |
| EP-261B | · / |
| 2012 | Tuel Tulk (WE) Totable Conveyor (Blesser) |
| Maerz Vertical | l System |
| EP-278A | · · |
| | 23,500 Ton Storage Pile, (Wind Erosion) |
| | Waste Bin |
| N/A | Five (5) Screw Conveyors |
| 1 1/1 1 | Tive (3) Belew Conveyors |
| Other Emission | n Units |
| EP-310 | Peerless Lime Conveyor, 1967 |
| EP-311 | • |
| EP-312 | MgO/Lime Rail Hopper, 1967 |
| EP-313 | MgO/Lime Screw Conveyor, 1991 |
| EP-317 | MgO Bin, 1991 |
| EP-318 | Lime Bin, 1991 |
| EP-319 | MgO/Lime Loadout, 1991 |
| EP-320 | MgO Bin, 1991 |
| EP-321 | Lime Bin, 1991 |
| EP-322 | MgO/Lime Loadout, 1991 |
| EP-323 | Lime Conveyor, 1991 |
| EP-324 | Lime Bin Loadout, 1991 |
| EP-325 | Lime Bin Loadout, 1991 |
| EP-330 | Rail Car Waste Unloading |
| EP-331 | Truck Loadout |
| EP-371A | Vibrating Screen |
| EP-371B | Fines (Activity) |
| EP-371C | Fines Wind Erosion |
| EP-371D | Fines Hauled |
| EP-376 | Load Hopper |
| EP-388 | 11 |
| | Crushed Line Dust Silo/Pneumatic Transfer |
| EP-390 | Crushed Lime Dust Silo/Pneumatic Transfer |
| EP-396 | Fine Lime/Pneumatic Transfer to Silo |
| EP-399 | Crushed Lime/Pneumatic Transfer to Silo |
| EP-407 | Storage Pile – Wind Erosion |
| EP-433D | Waste Conveyor |
| EP-614 | Unpaved Coal/Coke Haul Road |
| EP-636 | Conveyor (Coal/Coke) |

| EP-705A | Classification System |
|---------|--|
| EP-800 | Truck Loading Fragmented Stone (underground) |
| EP-801 | Truck Loading Fragmented Stone (underground) |
| EP-802 | Feeder |
| | Crusher |
| EP-803 | |
| EP-804 | Conveyor |
| EP-805 | Conveyor |
| EP-806 | Conveyor |
| EP-807 | Conveyor |
| EP-808 | Conveyor |
| EP-809 | Conveyor |
| EP-810 | Conveyor |
| EP-811 | Conveyor |
| EP-812 | Conveyor |
| EP-813 | Storage Pile |
| EP-814 | Feeder |
| EP-815 | Feeder |
| EP-816 | Conveyor |
| EP-817 | Conveyor |
| EP-818 | Conveyor |
| EP-819 | Screen |
| EP-820 | Conveyor |
| EP-821 | Conveyor |
| EP-822 | Storage Bin Loadout - Waste Product |
| EP-823 | Belt Feeder |
| EP-824 | Crusher |
| EP-825 | Conveyor |
| EP-826 | Conveyor |
| EP-827 | Conveyor |
| EP-828 | Conveyor |
| EP-829 | Storage Pile |
| EP-830 | Conveyor |
| EP-831 | Conveyor |
| EP-832 | Screen |
| EP-833 | Screen |
| EP-834 | Conveyor |
| EP-835 | Conveyor |
| EP-835 | Storage Bin |
| EP-837 | Belt Feeder |
| | |
| EP-838 | Crusher |
| EP-839 | Conveyor |
| EP-840 | Conveyor |
| EP-841 | Conveyor |
| EP-842 | Conveyor |
| EP-843 | Conveyor |
| EP-844 | Storage Bin |
| EP-845 | Conveyor |
| | |

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- EP-847 Screen
- EP-848 Conveyor
- EP-849 Conveyor
- EP-850 Conveyor
- EP-851 Storage Pile
- EP-852 Conveyor
- EP-853 Conveyor
- EP-854 Storage Pile
- EP-855 Conveyor
- EP-856 Conveyor
- EP-857 Conveyor
- EP-858 Storage Pile
- EP-859 Conveyor
- EP-860 Conveyor
- EP-861 Conveyor
- EP-862 Conveyor
- EP-863 Conveyor
- EP-864 Conveyor
- EP-865 Conveyor
- EP-866 Conveyor
- EP-867 Storage Pile
- EP-868 Conveyor
- EP-869 Conveyor
- EP-870 Storage Bin
- EP-871 Truck Loading Crushed Stone
- EP-872 Truck Unloading Crushed Stone
- EP-873 Conveyor
- EP-874 Conveyor
- EP-875 Storage Pile
- EP-876 Feeder
- EP-877 Feeder
- EP-878 Feeder
- EP-879 Feeder
- EP-880 Feeder
- EP-881 Feeder
- EP-882 Belt Feeder
- EP-883 Belt Feeder
- EP-884 Feeder
- EP-885 Feeder
- EP-886 Feeder
- EP-887 Feeder
- EP-888 Conveyor
- EP-889 Conveyor
- EP-890 Conveyor
- EP-891 Conveyor
- EP-892 Conveyor

| EP-893 | Conveyor |
|--------|--------------|
| EP-894 | Conveyor |
| EP-895 | Conveyor |
| EP-899 | Storage Pile |
| EP-900 | Storage Pile |
| EP-901 | Storage Pile |

DOCUMENTS INCORPORATED BY REFERENCE

These documents have been incorporated by reference into this permit.

- 1) Construction Permit (CP) 0679-002
- 2) Construction Permit 0480-006
- 3) Construction Permit 0284-008A-010A
- 4) Construction Permit 1086-005A
- 5) Construction Permit 0588-008A
- 6) Construction Permit 0889-013
- 7) Construction Permit 1090-006
- 8) Construction Permit 0292-010; superseded by CP 0292-010A
- 9) Construction Permit 0794-014
- 10) Construction Permit 0395-008
- 11) Construction Permit 0292-010A; amended by CP 0897-035
- 12) Construction Permit 0897-017
- 13) Construction Permit 0897-018
- 14) Construction Permit 0897-035; superseded by CP 0898-019
- 15) Construction Permit 0997-015
- 16) Construction Permit 0897-017A
- 17) Construction Permit 0198-006
- 18) Construction Permit Amendment Letter dated January 27, 1998, to amend CP 0198-006
- 19) Construction Permit Amendment Letter dated March 20, 1998, to amend CP 0897-018
- 20) Construction Permit 0898-019
- 21) Construction Permit 1198-020
- 22) Construction Permit 0799-015
- 23) Construction Permit 0797-002;
- 24) Construction Permit 052001-003; superseded by CP 072004-012A
- 25) Construction Permit 112001-005
- 26) Construction Permit 092001-014; amended by CP 102001-008
- 27) Construction Permit 082002-004; superseded by CP 072004-012A
- 28) Construction Permit 102002-008; Special Condition 2 superseded by CP 072004-012A
- 29) Construction Permit 102002-008A
- 30) Construction Permit 052003-045
- 31) Construction Permit 72004-012
- 32) Construction Permit 12002-007A
- 33) Construction Permit 072004-012A
- 34) Construction Permit 042009-001
- 35) Construction Permit 042010-010
- 36) Construction Permit 082011-002

- 37) Settlement Agreement between the Mississippi Lime Company and the Missouri Department of Natural Resources Air Pollution Control Program to correct opacity and construction permit violations dated July 16, 1998.
- 38) Settlement Agreement between the Mississippi Lime Company and the Missouri Department of Natural Resources Air Pollution Control Program to operate the Mississippi Rotary Kiln wet scrubbers No. 5 through No. 8 at a minimum pressure drop with exceedance reporting monthly, dated December 30, 1999.
- 39) Settlement Agreement Amendment between the Mississippi Lime Company and the Missouri Department of Natural Resources Air Pollution Control Program to report Rotary Kiln scrubber pressure drop exceedances on a quarterly basis, dated July 7, 2000.

II. Plant Wide Emission Limitations

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

PERMIT CONDITION PW001

10 CSR 10-6.060 Construction Permits Required Construction Permit 0897-017, Issued April 8, 1997, Construction Permit 0898-019, Issued August 17, 1998, Construction Permit 1198-020, Issued November 4, 1998

PM₁₀ Corrective Action Plan/Nuisance PM₁₀:

If the presence of PM_{10} in the ambient air exists in quantities and durations that directly or proximately cause or contribute to injury to human, plant, or animal life or health, or to property, or that unreasonably interferes with the enjoyment of life or the use of property, the Director may require Mississippi Lime Company to submit a corrective action plan within ten (10) days adequate to timely and significantly mitigate the emission of PM_{10} . Mississippi Lime Company shall implement any such plan immediately upon its approval by the Director. Failure to either submit or implement such a plan shall be a violation of the permit.

Ambient Air Monitoring – PM₁₀:

Mississippi Lime Company is required to collect air quality monitoring data regarding PM₁₀ emissions at its property boundary. The monitoring site should be located in the area of highest estimated concentrations. Mississippi Lime Company will file, and receive approval from the Director, a Quality Assurance Project Plan prior to commencing operation. Data collecting shall continue until notice of release from this requirement is received by Mississippi Lime Company from the Director. The Director shall evaluate the need for continued data collection annually and report the results of the evaluation to Mississippi Lime Company.

PERMIT CONDITION PW002

40 CFR Part 51, Subpart BB, Data Requirements For Characterizing Air Quality For Primary SO₂ NAAQS

Emission Limitation:

- 1. The emission units listed in Table 1 shall emit less than 2,000 tons of SO_2 per year for calendar year 2017 and thereafter. [51.1203(e)(1)]
- 2. All SO₂ producing emission units as of the date of permit issuance are detailed in Table 1.

Operational Limitation:

- 1. The sulfur content of the diesel fuel shall not exceed 0.0015% sulfur.
- 2. All natural gas fired units shall use pipeline grade natural gas.

Initial Performance Testing:

1. The permittee shall conduct performance testing as outlined in Table 1.

- 2. Initial testing shall be performed within 180 days of the effective date of the regulation, except for PRK #4, #5, and #6 (EU0070, 0080, and 0090) which are required to test within 180 days of equipment startup.
- 3. The permittee shall use EPA Method 6C to quantify the sulfur emissions from the outlet of the unit as described below. Alternative testing methods and sampling times may be approved by the Director during the pre-test review.
- 4. The permittee shall account for process variations by extending the sampling time from one hour to four hour duration for all of the rotary kilns for the initial testing. If the permittee can demonstrate consistency in the process and emissions over time, then the testing duration may be decreased to one hour runs for continuous testing. The permittee shall submit such demonstrations with the proposed testing plan, and shall not proceed with one hour runs until receiving approval by the Director.
- 5. The permittee shall use the testing results to develop an emission factor in lb SO_2 /ton limestone throughput for each of the tested kilns.
- 6. The permittee shall monitor and record the following operating parameters during testing for each unit tested. These parameters shall be reset with every testing event.
 - a. Process feed rate of limestone (tons/hr)
 - b. Sorbent injection rate (if used)
 - c. Sulfur content of limestone (% weight)
 - d. Fuel type (e.g. coal, coke)
 - e. Process feed rate of each fuel (tons/hr)
 - f. Sulfur content of all fuels (% weight)
 - g. Total sulfur fed per ton of limestone fed (lb S/ton stone)

 Total sulfur fed shall be the sum of the products of each kiln inputs' mass feed rate and sulfur content divided by the limestone feed rate. The total sulfur fed shall be calculated using the following equation:

$$F_{S}(\frac{lb \, S}{ton \, limestone}) = \frac{(M_{c} \times S_{c} + M_{k} \times S_{k} + M_{s} \times S_{s})}{M_{s}}$$

where

$$M = mass \ rate \left(\frac{ton}{hr}\right); S = sulfur \ content \ (\% \ wt.);$$

 $X_C = coal; \ X_k = coke; \ X_S = limestone;$

Note: If fuels other than those listed are fired, their mass feed rate and sulfur content shall be incorporated into the equation's numerator.

Subsequent Performance Testing:

- 1. The permittee shall re-test the small preheater rotary kilns (EU0070 through EU0090) and the straight rotary kilns (EU0680 through EU0730) every two years, beginning with the date of the most recent test, or as required in Subsequent Performance Testing condition #2, whichever comes first.
- 2. The permittee shall re-test when the monitoring results indicate any of the following parameters exceed the values recorded during the most recent test. Testing under this provision shall occur within 60 days of the date the monthly records indicate the increase.
 - a. Monthly average total sulfur fed per ton of limestone
 - b. Monthly average feed rate of limestone
 - c. Sorbent injection rate (if used)

3. All subsequent testing shall follow the requirements of Initial Performance Testing conditions #3 through 6.

Monitoring:

- 1. The permittee shall demonstrate compliance with emission limit condition 1 by calculating the monthly and 12-month rolling total SO₂ emissions for the affected emission units using the methods specified in Monitoring condition 3. A summary of the monitoring parameters appears in Table 1.
- 2. Material Specific Monitoring Requirements
 The permittee shall monitor the following parameters for the materials listed below according to the following schedules:
 - a. Coal/Coke Blend, Diesel, And Natural Gas:
 The permittee shall keep fuel supplier records to document the sulfur content. From these supplier records, monthly average fuel sulfur content shall be calculated for each of these fuel types.
 - b. Used Fuel Oil:
 - i. The permittee shall determine the sulfur content of the used fuel oil according to the following schedule. Sulfur fuel content shall be determined using the provisions of 10 CSR 10-6.040. Alternatives may be approved by the Director.
 - ii. The permittee shall conduct weekly sampling for a minimum of 8 consecutive weeks. If sampling results indicate the annual SO₂ emissions would vary by less than 1 ton per year based on the maximum and minimum sulfur contents measured in the 8 week period, then the permittee may reduce sampling frequency to monthly. If the monthly sample's sulfur content exceeds the highest sulfur content measured during the previous weekly sampling period, then the sampling frequency shall revert to weekly.
 - c. Limestone, Lime, And Lime Kiln Dust:
 - i. The permittee shall determine the sulfur content of the limestone, lime, and lime kiln dust weekly. The sampling requirements for lime and lime kiln dust only apply to material produced at the vertical kilns (EU1370, EU2550, EU2720, and EU2730).
- 3. Unit Specific Monitoring Requirements:
 - a. Large Preheater Kilns (EU3280 and EU3310)
 - i. The permittee shall operate and maintain the SO₂ CEM units according to the provisions of 40 CFR part 60 Appendix F and 40 CFR part 60 Appendix B Performance Specification 2.
 - ii. The permittee shall use the CEMs output to calculate monthly SO₂ emissions for the large preheater kilns.
 - b. Small Preheater Kilns (EU0070 through EU0090)
 - i. The permittee shall monitor the limestone feed rate in accordance with 40 CFR 63 Subpart AAAAA
 - ii. The permittee shall continuously monitor the quantity of each fuel fired in the kilns.
 - iii. The permittee shall calculate monthly SO₂ emissions for each kiln using the total monthly limestone fed and the emission factor developed according to Initial Stack Testing condition 5.
 - iv. The permittee shall calculate the average monthly total sulfur input per ton of limestone fed for each kiln using the monthly limestone fed, the fuel sulfur content data, and limestone sulfur content data collected according to Monitoring conditions 3.b.i, 2.a, and 2.c respectively.
 - c. Straight Rotary Kilns (EU0680 through EU0730)
 - The permittee shall continuously monitor the limestone feed rate in accordance with 40 CFR 63 Subpart AAAAA.
 - ii. The permittee shall continuously monitor the quantity of each fuel fired in the kilns.

- iii. The permittee shall continuously monitor the scrubber as required by 40 CFR part 63 Subpart AAAAA.
- iv. If sorbent injection is used, the permittee shall continuously monitor the sorbent injection rate using 3-hour block averages.
- v. The permittee shall calculate monthly SO₂ emissions for each kiln using the total monthly limestone fed and the emission factor developed according to Initial Stack Testing condition 5.
- vi. The permittee shall calculate the average monthly total sulfur input per ton of limestone fed for each kiln using the monthly limestone fed, the fuel sulfur content data, and limestone sulfur content data collected according to Monitoring conditions 3.c.i, 2.a, and 2.c respectively.
- d. Vertical Kilns (EU1370, EU2250, EU2720 and EU2730)
 - i. The permittee shall continuously monitor the limestone feed rate in accordance with 40 CFR 63 Subpart AAAAA.
 - ii. The permittee shall continuously monitor the quantity of each fuel fired in the kilns.
- iii. The permittee shall monitor the lime production rate.
- iv. The permittee shall monitor the lime kiln dust production rate.
- v. The permittee shall calculate the monthly SO₂ emissions for each kiln using a mass balance approach detailed in the equation below, which assumes 100% conversion of sulfur lost from the system is emitted as SO₂. The data for the monthly feed and production rates shall be collected according to Monitoring condition 3.d.i-iv. and the monthly average sulfur content information shall be collected according to Monitoring condition 3.c.

$$SO_2$$
 emissions (tons) = $[(M_F \times S_F + M_S \times S_S) - (M_L \times S_L + M_{LKD} \times S_{LKD})] \times \frac{64 \text{ lb/mole } SO_2}{32 \text{ lb/mole } S}$

Where:

M_x=monthly mass (tons)

S_x=monthly average sulfur content (% wt)

X_F=fuel

X_S=limestone

X_L=lime(i.e. calcium oxide)

X_{LKD}=lime kiln dust

- e. Stone Dryer (EU0930), Spray Dryers (EU225B and EU229B), Misc. Nat. Gas Fired Units (EP-246 and EP-247), Emergency generators (EU0071, EU00721, EU1371, EU3281, EU3311, and EU9999)
 - i. The permittee shall monitor the quantity of fuel fired in the emission units.
 - ii. The permittee shall monitor the sulfur content according to Monitoring condition 2.
- iii. The permittee shall calculate the monthly SO₂ emissions for each emission unit using the following equation, which assumes 100 percent conversion of fuel bound sulfur to SO₂:

$$SO_2$$
emissions (tons) = $(M_F \times S_F) \times \frac{64 \ lb/mole \ SO_2}{32 \ lb/mole \ S}$

Where:

M_x=monthly mass (tons)

S_x=monthly average sulfur content (% wt)

X_F=fuel

X_S=limestone

X_L=lime(i.e. calcium oxide)

X_{LKD}=lime kiln dust

Project No. 2016-03-080

Recordkeeping:

- 1. The permittee shall use Attachments R and S, or equivalents, to demonstrate compliance with this permit condition.
- 2. The permittee shall keep records to demonstrate compliance with the provisions of this permit condition. All records shall be maintained for five years from the date the data is collected, and shall be made available immediately upon request by Missouri Department of Natural Resources' personnel. Records may be maintained in electronic or hard copy form.

- 1. The permittee shall report to the Air Pollution Control Program Compliance & Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined that the emission unit(s) exceeded the emission limitation(s).
- 2. The permittee shall report any deviations from the limitations, standards, test methods and procedures, monitoring, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by 10 CSR 10-6.065.

Table 1: SO₂ Emissions Units as of date of permit modification issuance with compliance demonstrations

| demonstrations. | | | |
|--|---|--|---|
| Emission Unit type (fuel type) | Emission Units | Performance testing | Monitoring |
| Large preheater rotary kilns (coal/coke blend) | EU3280-RK #1 EU3310-RK #2 | None | 1. Operate and maintain SO ₂ CEMS per permit condition. |
| Small preheater rotary kilns (coal/coke blend) | EU0070-PRK #4 EU0080-PRK #5 EU0090-PRK #6 | Initial, then as required in the permit condition. | Limestone sulfur content Limestone feed rate Fuel sulfur content Quantity of fuel fired |
| Straight rotary kilns (coal/coke blend) | EU0680-MRK #5 EU0690-MRK #6 EU0700-MRK #7 EU0710-MRK #8 EU0720-MRK #9 EU0730-MRK #10 | Initial, then as required in the permit condition. | Limestone sulfur content Limestone feed rate Fuel sulfur content Quantity of fuel fired Scrubber flow rate and pressure drop Sorbent injection rate (if utilized) |
| Vertical kilns (Natural Gas) | EU1370-TSK EU2550-SSK #1 EU2720-SSK #2 EU2730-SSK #3 | None | Limestone sulfur content Limestone feed rate Lime sulfur content Lime production rate Lime kiln dust sulfur content Lime kiln dust production rate Natural gas sulfur content Quantity of fuel fired |

Table 1 continued

| Emission Unit type | Emission Units | Performance | Monitoring |
|------------------------|--|-------------|---------------------------|
| (fuel type) | Emission Chits | testing | Womtoring |
| Stone dryer (Natural | EU0930-Stone Dryer | None | Limestone sulfur content |
| Gas and Used Fuel Oil) | Ecosso Stone Bryer | TVOIC | 2. Natural gas sulfur |
| | | | content |
| | | | 3. Used fuel oil sulfur |
| | | | content |
| | | | 4. Quantity of each fuel |
| | | | fired |
| Emergency generators | EU0071-PRK4-6 | None | Diesel sulfur content |
| (diesel fired) | EU0721-MRK9&10 | | 2. Quantity of fuel fired |
| | EU1371-Maerz | | |
| | EU3281-RK1 | | |
| | EU3311-RK2 | | |
| Emergency generators | EU9999-IT | None | Natural gas sulfur |
| (natural gas fired) | | | content |
| | | | 2. Quantity of fuel fired |
| Spray Dryers | EP-225A/B-Spray Dryer | None | 1. Natural gas sulfur |
| (natural gas fired) | MRPCC#1 | | content |
| | EP-229B-Spray Dryer | | 2. Quantity of fuel fired |
| G 1 / / / C | MRPCC#2 | 3.7 | 1 27 1 10 |
| Space heaters/furnaces | All grouped under EP- | None | 1. Natural gas sulfur |
| (natural gas fired) | 246: | | content |
| | 1-2,317,000 Btu/hr heater | | 2. Quantity of fuel fired |
| | 6-200,000 Btu/hr heaters | | |
| | 1-200,000 Btu/hr heater | | |
| | 9-161,000 Btu/hr heaters 7-156,000 Btu/hr heaters | | |
| | 1-125,000 Btu/hr furnace | | |
| | 59-100,000 Btu/hr heaters | | |
| | 2-100,000 Btu/hr furnaces | | |
| | 1-75,000 Btu/hr furnace | | |
| | 3-60,000 Btu/hr heaters | | |
| | Total: 12.738 MMBtu/hr | | |
| Plant water heaters | All grouped under EP- | None | 1. Natural gas sulfur |
| (natural gas fired) | 247: | | content |
| | 1-2,000,000 Btu/hr | | 2. Quantity of fuel fired |
| | 1-75,000 Btu/hr | | |
| | 2-40,000 Btu/hr | | |
| | 1-36,000 Btu/hr | | |
| | 1-32,000 Btu/hr | | |
| | Total: 2.233 MMBtu/hr | | |

III. Emission Unit Specific Emission Limitations

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

| EU0010 – Underground Limestone Crushing Operation | | |
|---|---|--|
| Emission Unit | Description | |
| EU0010 | Underground Limestone Crushing Operation (2007 EIQ EP-006 – EP-011) | |

Permit Condition EU0010-001 10 CSR 10-6.060 Construction Permits Required Construction Permit 0897-017A, Issued April 8, 1997 Construction Permit 122007-007, Issued December 13, 2002

Emission Limitation:

- 1. The permittee shall locate all emission sources associated with the underground limestone crushing operation sufficiently inside the confines of the Peerless Mine as to avoid wind-generated emissions.
- 2. PM₁₀ emissions netted out by Construction Permit 0898-019.
- 3. The permittee shall apply BACT on emission sources as listed (using enclosure and wet material) in Construction Permit 122002-007 in Special Condition II. 2A.

Monitoring and Recordkeeping:

- 1. If the presence of PM₁₀ in the ambient air exists in quantities and durations that directly or proximately cause or contribute to injury to human, plant, or animal life or health, or to property, or that unreasonably interferes with the enjoyment of life or the use of property, the Director may require the permittee to submit a corrective action plan within ten (10) days adequate to timely and significantly mitigate the emissions of PM₁₀. Mississippi Lime Company shall implement any such plan immediately upon its approval by the Director. Failure to either submit or implement such a plan shall be a violation of the permit
- 2. The permittee shall conduct moisture tests of the limestone rock during July or August of each quarry-operating year to determine if the inherent moisture is greater than 1.5 % by weight. The testing shall be done in accordance with the *American Society For Testing Materials (ASTM)*, designation D-2216, *Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil or Rock.* Test samples shall be obtained prior to the primary crusher (EP-006) and at a point following the primary crusher where a sample can be safely obtained. Wet control systems shall be required on all processing points at all times should the inherent moisture content of the rock fall below 1.5 % by weight. Two copies of a written report of moisture content tests shall be submitted to the Director of the Air Pollution Control Program within thirty (30) days of completion of the required tests and shall include the moisture content of each sample, test date and name of the testing facility.

Equipment Marking:

The permittee shall provide and maintain suitable, easily read, permanent markings on each of the components of the underground crushing system. These marking's shall be the equipment's serial

number, or company assigned equipment number (company assigned equipment identification numbers shall be unique to this installation).

Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU1510 – Drilling | | |
|-------------------|----------------------------|--|
| Emission Unit | Description | |
| EU1510 | Drilling (2007 EIQ EP-001) | |

Permit Condition EU1510 - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 122002-007, Issued December 13, 2002

Operational Requirement:

Mississippi Lime Company shall apply BACT on wet drilling (EP-001) in this permit condition to control PM₁₀ emissions. Permit Condition 122002-007 II.2.A states BACT for wet drilling is enclosure.

| EU1520 – Truck Loading | |
|------------------------|---------------------------------|
| Emission Unit | Description |
| EU1520 | Truck Loading (2007 EIQ EP-003) |

| EU1540 – Truck Unloading to the Stamler Primary Crushers | | |
|--|---|--|
| Emission Unit | Description | |
| EU1540 | Truck Unloading to the Stamler Primary Crushers (2007 EIQ EP-005) | |

| EU1550 – Conveyor 1, Linkbelt, 48", 1956 | | |
|--|---|--|
| Emission Unit | Description | |
| EU1550 | Conveyor No. 1, Linkbelt, 48", 1956 (2007 EIQ EP-012) | |

| EU1560 – Truck Unloading to Allis Chalmers Primary Crushers | | |
|---|--|--|
| Emission Unit | Description | |
| EU1560 | Truck Unloading to Allis Chalmers Primary Crushers (2007 EIQ EP-013) | |

| EU1570 – Primary Crusher (jaw), Allis Chalmers A-1, 1956 | | |
|--|---|--|
| Emission Unit | Description | |
| EU1570 | Primary Crusher (jaw), Allis Chalmers A-1, 1956 (2007 EIQ EP-014) | |

| EU1580 – Vibrating Feeder, Jeffery, 1956 | | |
|--|---|--|
| Emission Unit | Description | |
| EU1580 | Vibrating Feeder, Jeffery, 1956 (2007 EIQ EP-015) | |

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| EU1590 – Vibrating Screen, Allis Chalmers Rip Flo, 1956 | | |
|---|--|--|
| Emission Unit | Description | |
| EU1590 | Vibrating Screen, Allis Chalmers Rip Flo, 1956 (2007 EIQ EP-016) | |

| EU1600 – Crusher, hydrocone, Allis Chalmers 1950, 1956 | | |
|--|---|--|
| Emission Unit | Description | |
| EU1600 | Crusher, hydrocone, Allis Chalmers 1950, 1956 (2007 EIQ EP-017) | |

| EU1610 – Crusher, cone, Allis Chalmers 1950, 1956 | |
|---|--|
| Emission Unit | Description |
| EU1610 | Crusher, cone, Allis Chalmers 1950, 1956 (2007 EIQ EP-018) |

| EU1620 – Conveyor No. 2, Linkbelt, 30", 1956 | |
|--|---|
| Emission Unit | Description |
| EU1620 | Conveyor No. 2, Linkbelt, 30", 1956 (2007 EIQ EP-019) |

| EU1630 – Conveyor No. 3, Linkbelt, 30", 1956 | |
|--|---|
| Emission Unit | Description |
| EU1630 | Conveyor No. 3, Linkbelt, 30", 1956 (2007 EIQ EP-020) |

| EU1640 – Vibrating Screen, Allis Chalmers Low Head, 1956 | |
|--|---|
| Emission Unit | Description |
| EU1640 | Vibrating Screen, Allis Chalmers Low Head, 1956 (2007 EIQ EP-021) |

| EU1650 – Vibrating Feeder, 1956 | |
|---------------------------------|--|
| Emission Unit | Description |
| EU1650 | Vibrating Feeder, 1956 (2007 EIQ EP023A) |

Permit Condition (EU1520, EU1540, EU1550, EU1560, EU1570, EU1580, EU1590, EU1600, EU1610, EU1620, EU1630, EU1640, and EU1650)-001 10 CSR 10-6.060 Construction Permits Required

Construction Permit 122002-007, Issued December 13, 2002

Emission Limitation:

Mississippi Lime Company shall apply BACT on the emission units in this permit condition. BACT for these emission units is enclosure and wet material or wet suppression in accordance with Construction Permit Condition 122002-007 II.2.A.

Operational Requirement:

Mississippi Lime Company shall install wet suppression systems on all processing points at all times should the inherent moisture content of the rock falls below 1.5% by weight.

Monitoring:

- 1. Mississippi Lime Company shall conduct periodic moisture content tests to affirm its claim that the inherent moisture content in the processed limestone is greater than 1.5% by weight.
- 2. Mississippi Lime Company shall conduct the above mentioned moisture content tests during July or August of each calendar year of quarry operation in accordance with the test methods and

procedures prescribed in the American Society for Testing Materials (ASTM), designation D-2216, Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil or Rock.

Reporting:

- 1. Mississippi Lime Company shall submit two (2) copies of a written report of the moisture content tests to the Air Pollution Control Program within thirty (30) days of completion of the required tests and shall include moisture content of each sample, test date and name of the testing company.
- 2. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 3. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU1530 – Haul Road to Primary Crushers | |
|--|---|
| Emission Unit | Description |
| EU1530 | Haul Road to Primary Crushers (2007 EIQ EP-004) |

Permit Condition EU1530 - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 122002-007, Issued December 13, 2002

Operational Requirement:

- 1. Mississippi Lime Company shall apply BACT on the emission unit in this permit condition to control PM₁₀ emissions. BACT for EU1530 is enclosure and surfactant spray in accordance with Construction Permit Condition 122002-007 II.2.A.
- 2. Mississippi Lime Company shall control dust from the mine haul roads at this site using water or surfactant spray consistently and correctly at all times to prevent visible fugitive emissions from entering the ambient air beyond the property boundary. For purposes of this condition, a mine haul road is an underground road in the mine on which there is regular one way haul traffic. The following conditions apply to haul road watering:
 - a) The water application rate shall be in accordance with good engineering practice to ensure adequate dust control while maintaining safe mine haul road conditions.
 - b) Surfactant spray/chemical suppression, if used shall be applied in accordance with the manufacturer's recommendations.
 - c) Water/surfactant application shall not be required when the ground is frozen or when there will be no traffic on the roads.

Recordkeeping:

Mississippi Lime Company shall keep the following records on file and available for inspection:

- 1. A log, initialed by the responsible facility operator, detailing roads watered and quantity of water/chemical application used, or notation that there was a quarter inch or greater rainfall within the past twenty-four (24) hours or that the facility was not in operation.
- 2. Water tank size, total area of roads to be watered, and the resultant number of fills necessary to accomplish the required application rate records of watering equipment breakdown and repairs.

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Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU1660 – Conveyor No. 4, Linkbelt, 48", 1956 | |
|--|---|
| Emission Unit | Description |
| EU1660 | Conveyor No. 4, Linkbelt, 48", 1956 (2007 EIQ EP-024) |

Permit Condition EU1660 - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 122002-007, Issued December 13, 2002

Operational Requirement:

- 1. Mississippi Lime Company shall apply BACT on these emission units in this permit condition to control PM₁₀ emissions. BACT for these emission units is in accordance with Construction Permit Condition 122002-007 II.2.A.
- 2. Mississippi Lime Company shall install fabric filters on existing and new equipment in this permit condition and shall ensure that emissions of particulate matter from the fabric filter shall not exceed 0.015 gr/dscf.
- 3. Mississippi Lime Company shall ensure that the fabric filters will be in use at all times when the associated piece of equipment is in operation, except under conditions that qualify under 10 CSR 10-6.050 Start-Up, Shutdown and Malfunction Conditions. The fabric filters shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters 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 Missouri Department of Natural Resources' employees may easily observe them. Replacement filters for the fabric filters 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.

Performance Testing:

- 1. As required by the NSPS Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants, Mississippi Lime Company shall conduct performance testing for the equipment listed in this permit condition. Alternately, Mississippi Lime Company may submit a justification for one (1) or more of these pieces of equipment explaining why it is not subject to requirements of Subpart OOO.
- 2. The date on which performance tests are conducted must be pre-arranged with the Air Pollution Control Program, a minimum of thirty (30) days prior to the proposed test 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. A completed Proposed Test Plan form may serve the purpose of notification and must be approved by the Air Pollution Control Program prior to conducting the required emission testing.
- 3. The performance test shall be performed within sixty (60) days of achieving the maximum production rate but no later than one hundred and eighty (180) days after initial startup or increased utilization of the equipment.

- 4. The emission tests require by this permit condition shall be conducted in accordance with the methods and procedures listed in 40 CFR Part 60, Subpart OOO.
- 5. Two (2) copies of a written report of the performance test results shall be submitted to the Director of the Air Pollution Control Program within thirty (30) days of completion of any require 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.
- 6. Initial testing has been completed as noted in the Statement of Basis.

Monitoring, Recordkeeping, and Inspections:

- 1. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty to demonstrate compliance with the 0.015 gr/dscf particulate matter emission limit.
- 2. Mississippi Lime Company shall maintain an operating and maintenance log for the fabric filters, which shall include:
 - 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.
 - 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.
- 3. Mississippi Lime Company shall inspect each fabric filter at least once every six (6) months and at a minimum conduct the following activities:
 - a) Check the cleaning sequence of the dust collector for proper operation,
 - b) Thoroughly inspect the filters for leaks and signs of wear,
 - c) Inspect all components of the control system that are not subject to wear or plugging, including structural components, housing, ducts, hoods, etc., and
 - d) If leaks or abnormal conditions are found during these inspections, the appropriate remedial actions shall be implemented before re-starting the equipment.

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU1670 – Vibrating Screen, enclosed, Allis-Chalmers Ripl-Flo, 1956 | |
|--|---|
| Emission Unit | Description |
| EU1670 | Vibrating Screen, enclosed, Allis-Chalmers Ripl-Flo, 1956 (2007 EIQ EP-035) |

| EU1680 – Vibrating Screen, enclosed, Allis-Chalmers Low Head, 1956 | |
|--|---|
| Emission Unit | Description |
| EU1680 | Vibrating Screen, enclosed, Allis-Chalmers Low Head, 1956 (2007 EIQ EP-036) |

| EU1690 – Vibrating Screen, enclosed, Allis-Chalmers Low Head, 1956 | |
|--|---|
| Emission Unit | Description |
| EU1690 | Vibrating Screen, enclosed, Allis-Chalmers Low Head, 1956 (2007 EIQ EP-037) |

Emission Unit

EU1810

| | EU1700 – Conveyor, No. 5, enclosed, Linkbelt, 24", 1956 |
|---------------|--|
| Emission Unit | Description |
| EU1700 | Conveyor, No. 5, enclosed, Linkbelt, 24", 1956 (2007 EIQ EP-039) |
| | |
| | EU1720 – Conveyor, No. 7, enclosed, Linkbelt, 24", 1956 |
| Emission Unit | Description |
| EU1720 | Conveyor, No. 7, enclosed, Linkbelt, 24", 1956 (2007 EIQ EP-041) |
| | |
| | EU1740 – Limestone Vibrating Tripper, enclosed 1956 |
| Emission Unit | Description |
| EU1740 | Limestone Vibrating Tripper, enclosed 1956 (2007 EIQ EP-055) |
| | |
| | EU1750 – Limestone Vibrating Tripper, enclosed 1956 |
| Emission Unit | Description |
| EU1750 | Limestone Vibrating Tripper, enclosed 1956 (2007 EIQ EP-056) |
| | |
| | EU1760 – Limestone Vibrating Tripper, enclosed 1956 |
| Emission Unit | Description |
| EU1760 | Limestone Vibrating Tripper, enclosed 1956 (2007 EIQ EP-057) |
| | |
| | EU1770 – Limestone Conveyor No. 8, enclosed, 1956 |
| Emission Unit | Description |
| EU1770 | Limestone Conveyor No. 8, enclosed, 1956 (2007 EIQ EP-058) |
| | |
| | EU1780 – Limestone Conveyor No. 9, enclosed, 1956 |
| Emission Unit | Description |
| EU1780 | Limestone Conveyor No. 9, enclosed, 1956 (2007 EIQ EP-059) |
| | |
| | EU1790 – Limestone Conveyor No. 10, enclosed, 1956 |
| Emission Unit | Description |
| EU1790 | Limestone Conveyor No. 10, enclosed, 1956 (2007 EIQ EP-060) |
| | , |
| | EU1800 – Vibrating Screen, enclosed 1956 |
| Emission Unit | Description |
| EU1800 | Vibrating Screen, enclosed 1956 (2007 EIQ EP-061) |
| | |
| - | |

Permit Condition (EU1670 – EU1700, EU1720, EU1740 – EU1810) - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 122002-007, Issued December 13, 2002

EU1810 – Limestone Conveyor No. 11, enclosed, 1956

Limestone Conveyor No. 11, enclosed, 1956 (2007 EIQ EP-062)

Description

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Operational Requirement:

- 1. Mississippi Lime Company shall apply BACT on these emission units in this permit condition to control PM₁₀ emissions. BACT for these emission units is in accordance with Construction Permit Condition 122002-007 II.2.A.
- 2. Mississippi Lime Company shall install fabric filters on existing and new equipment in this permit condition and shall ensure that emissions of particulate matter from the fabric filter shall not exceed 0.015 gr/dscf.
- 3. Mississippi Lime Company shall ensure that the fabric filters will be in use at all times when the associated piece of equipment is in operation, except under conditions that qualify under 10 CSR 10-6.050 Start-Up, Shutdown and Malfunction Conditions. The fabric filters shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters 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 Missouri Department of Natural Resources' employees may easily observe them. Replacement filters for the fabric filters 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.

Performance Testing:

- 1. As required by the NSPS Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants*, Mississippi Lime Company shall conduct performance testing for the equipment listed in this permit condition. Alternately, Mississippi Lime Company may submit a justification for one (1) or more of these pieces of equipment explaining why it is not subject to requirements of Subpart OOO.
- 2. The date on which performance tests are conducted must be pre-arranged with the Air Pollution Control Program, a minimum of thirty (30) days prior to the proposed test 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. A completed Proposed Test Plan form may serve the purpose of notification and must be approved by the Air Pollution Control Program prior to conducting the required emission testing.
- 3. The performance test shall be performed within sixty (60) days of achieving the maximum production rate but no later than one hundred and eighty (180) days after initial startup or increased utilization of the equipment.
- 4. The emission tests require by this permit condition shall be conducted in accordance with the methods and procedures listed in 40 CFR Part 60, Subpart OOO.
- 5. Two (2) copies of a written report of the performance test results shall be submitted to the Director of the Air Pollution Control Program within thirty (30) days of completion of any require 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.

Monitoring, Recordkeeping, and Inspections:

- 1. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty to demonstrate compliance with the 0.015 gr/dscf particulate matter emission limit.
- 2. Mississippi Lime Company shall maintain an operating and maintenance log for the fabric filters, which shall include:
 - 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.

- 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.
- 3. Mississippi Lime Company shall inspect each fabric filter at least once every six (6) months and at a minimum conduct the following activities:
 - a) Check the cleaning sequence of the dust collector for proper operation,
 - b) Thoroughly inspect the filters for leaks and signs of wear,
 - c) Inspect all components of the control system that are not subject to wear or plugging, including structural components, housing, ducts, hoods, etc., and
 - d) If leaks or abnormal conditions are found during these inspections, the appropriate remedial actions shall be implemented before re-starting the equipment.

Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU1710 - Conveyor, No. 6, enclosed, Linkbelt, 24", 1956 | |
|---|--|
| Emission Unit | Description |
| EU1710 | Conveyor, No. 6, enclosed, Linkbelt, 24", 1956 (2007 EIQ EP-040) |

Permit Condition EU1710 - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 122002-007, Issued December 13, 2002

Operational Requirement:

- 1. Mississippi Lime Company shall apply BACT on the emission unit in this permit condition to control PM₁₀ emissions. BACT for these emission units is in accordance with Construction Permit Condition 122002-007 II.2.A.
- 2. Mississippi Lime Company shall install fabric filters on existing and new equipment in this permit condition and shall ensure that emissions of particulate matter from the fabric filter shall not exceed 0.015 gr/dscf.
- 3. Mississippi Lime Company shall ensure that the fabric filters will be in use at all times when the associated piece of equipment is in operation, except under conditions that qualify under 10 CSR 10-6.050 Start-Up, Shutdown and Malfunction Conditions. The fabric filters shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters 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 Missouri Department of Natural Resources' employees may easily observe them. Replacement filters for the fabric filters 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.

Performance Testing:

1. As required by the NSPS Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants*, Mississippi Lime Company shall conduct performance testing for the equipment listed in this permit condition. Alternately, Mississippi Lime Company may submit a justification

- for one (1) or more of these pieces of equipment explaining why it is not subject to requirements of Subpart OOO.
- 2. The date on which performance tests are conducted must be pre-arranged with the Air Pollution Control Program, a minimum of thirty (30) days prior to the proposed test 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. A completed Proposed Test Plan form may serve the purpose of notification and must be approved by the Air Pollution Control Program prior to conducting the required emission testing.
- 3. The performance test shall be performed within sixty (60) days of achieving the maximum production rate but no later than one hundred and eighty (180) days after initial startup or increased utilization of the equipment.
- 4. The emission tests require by this permit condition shall be conducted in accordance with the methods and procedures listed in 40 CFR Part 60, Subpart OOO.
- 5. Two (2) copies of a written report of the performance test results shall be submitted to the Director of the Air Pollution Control Program within thirty (30) days of completion of any require 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.

Monitoring, Recordkeeping, and Inspections:

- 1. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty to demonstrate compliance with the 0.015 gr/dscf particulate matter emission limit.
- 2. Mississippi Lime Company shall maintain an operating and maintenance log for the fabric filters, which shall include:
 - 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.
 - 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.
- 3. Mississippi Lime Company shall inspect each fabric filter at least once every six (6) months and at a minimum conduct the following activities:
 - a) Check the cleaning sequence of the dust collector for proper operation,
 - b) Thoroughly inspect the filters for leaks and signs of wear,
 - c) Inspect all components of the control system that are not subject to wear or plugging, including structural components, housing, ducts, hoods, etc., and
 - d) If leaks or abnormal conditions are found during these inspections, the appropriate remedial actions shall be implemented before re-starting the equipment.

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

Permit Condition EU1710 - 002 10 CSR 10-6.060 Construction Permits Required Construction Permit 072004-12, Issued July 16, 2004 Construction Permit 072004-12A, Issued May 21, 2009

Emission Limitation and Testing:

New Source Performance Standard, Subpart OOO Testing Requirements for Existing Pre-Kiln Processing-Handling Equipment with Increased Utilization Added Under Construction Permit 072004-012. A completed Proposed Test Plan must be submitted to and approved by the Air Pollution Control Program at least 30 days prior to conducting the required emission testing for the existing pre-kiln processing handling equipment with increased utilization that was added under construction permit 072004-012 (as required in 40 CFR Part 60, Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants*). Alternately, Mississippi Lime Company may submit a justification for one or more of these new pieces of pre-kiln processing-handling equipment explaining why it is not subject to requirements of Subpart OOO. Initial testing has been completed as noted in the Statement of Basis.

| EU1730 – Screenings Bin, enclosed, Mississippi Rotary Kiln Rock, 1956 | |
|---|--|
| Emission Unit | Description |
| EU1730 | Screenings Bin, enclosed, Mississippi Rotary Kiln Rock, 1956 (2007 EIQ EP-044) |

| EU1930 – Screenings Bin Discharge Conveyor No. 12, enclosed, 1956 | |
|---|--|
| Emission Unit | Description |
| EU1930 | Screenings Bin Discharge Conveyor No. 12, enclosed, 1956 (2007 EIQ EP-155) |

| EU1940 – Conveyor No. 13, enclosed, 1956 | |
|--|---|
| Emission Unit | Description |
| EU1940 | Conveyor No. 13, enclosed, 1956 (2007 EIQ EP-156) |

| EU1950 – Truck Loadout Conveyor 14, enclosed, 1956 | |
|--|---|
| Emission Unit | Description |
| EU1950 | Truck Loadout Conveyor 14, enclosed, 1956 (2007 EIQ EP-157) |

Permit Condition (EU1730 and EU1930 – EU1950) - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 122002-007, Issued December 13, 2002

Operational Requirement:

Mississippi Lime Company shall apply BACT on these emission units in this permit condition to control PM₁₀ emissions. BACT for these emission units is enclosure and wet material for units EU1730, EU1930, and EU1940. BACT for EU1950 is wet material. BACT is accordance with Construction Permit 122002-007 II.2.A.

Performance Testing:

1. As required by the NSPS Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants*, Mississippi Lime Company shall conduct performance testing for the equipment listed in this permit condition. Alternately, Mississippi Lime Company may submit a justification

- for one (1) or more of these pieces of equipment explaining why it is not subject to requirements of Subpart OOO.
- 2. The date on which performance tests are conducted must be pre-arranged with the Air Pollution Control Program, a minimum of thirty (30) days prior to the proposed test 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. A completed Proposed Test Plan form may serve the purpose of notification and must be approved by the Air Pollution Control Program prior to conducting the required emission testing.
- 3. The performance test shall be performed within sixty (60) days of achieving the maximum production rate but no later than one hundred and eighty (180) days after initial startup or increased utilization of the equipment.
- 4. The emission tests require by this permit condition shall be conducted in accordance with the methods and procedures listed in 40 CFR Part 60, Subpart OOO.
- 5. Two (2) copies of a written report of the performance test results shall be submitted to the Director of the Air Pollution Control Program within thirty (30) days of completion of any require 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.
- 6. Initial testing has been completed as noted in the Statement of Basis.

Monitoring, Recordkeeping, and Inspections:

- 1. Mississippi Lime Company shall conduct periodic moisture content tests to affirm its claim that the inherent moisture content in the processed limestone is greater than 1.5 percent by weight.
- 2. Mississippi Lime Company shall conduct the above mentioned moisture content tests during July or August of each calendar year of quarry operation in accordance with the test methods and procedures prescribed in the American Society for Testing Materials (ASTM), designation D-2216, Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil or Rock.
- 3. Mississippi Lime Company shall submit two (2) copies of a written report of the moisture content tests to the Air Pollution Control Program within thirty (30) days of completion of the required tests and shall include moisture content of each sample, test date and name of the testing company.
- 4. Mississippi Lime Company shall install wet suppression systems on all processing points at all times should the inherent moisture content of the rock falls below 1.5 percent by weight.

Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU2570 – Conveyor – Waste Product | |
|-----------------------------------|--|
| Emission Unit | Description |
| EU2570 | Conveyor – Waste Product (2007 EIQ EP-382) |

Permit Condition EU2570 - 001

40 CFR Part 60, Subpart OOO; Standards of Performance for Nonmetallic Mineral Processing Plants

Emission Limitations

- 1. The permittee shall not cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility constructed or modified after August 31, 1983 any stack emissions which:
 - a) Contain particulate matter in excess of 0.05 gr/dscm; and
 - b) Exhibit greater than seven percent opacity. [§60.672(a)(1) and (2)]
- 2. The permittee shall not cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility constructed or modified after August 31, 1983, any fugitive emissions that exhibit greater than ten percent opacity. [§60.672(b)]

Test Methods and Procedures:

- 1. In conducting the performance tests required in §60.8, the permittee shall determine compliance with the particulate matter standards in §60.672(a) as follows;
 - a) Method 5 or Method 17 shall be used to determine particulate matter concentration. [§60.675(b)(1)]
 - b) Method 9 and the procedures in §60.11 shall be used to determine opacity from stacks. [§60.675(b)(2)]
 - c) In determining opacity compliance of fugitive emissions, Method 9 and the procedures in §60.11 shall be used with the following additions; [§60.675(c)(1)]
 - (1) The minimum distance between the observer and the emission source shall be 15 feet. [\$60.675(c)(1)(i)]
 - (2) 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, Section 2.1) must be followed. [§60.675(c)(1)(ii)]
 - (3) The duration of the Method 9 observations may be reduced from three hours (thirty sixminute averages) to one hour (ten six-minute averages) only if the following conditions apply: [§60.675(c)(3)]
- 2. There are no individual readings greater than ten percent opacity. [§60.675(c)(3)(i)]
- 3. There are no more than three readings of ten percent for the one hour period. [§60.675(c)(3)(ii)]
- 4. If emissions from two or more fugitive emission units continuously interfere so that the opacity of fugitive emissions from an individual affected emission unit cannot be read, either of the following procedures may be used: [§60.675(e)(1)]
- 5. Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected units contributing to the emissions stream. [§60.675(e)(1)(i)]
- 6. Separate the emissions so that the opacity of emissions from each affected unit can be read. [§60 675(e)(1)(ii)]

- 1. The permittee shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of Subpart OOO, including reports of opacity observations made using Method 9. [§60.676(f)]
- 2. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 3. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU3950 - Conveyor | |
|-------------------|----------------------------|
| Emission Unit | Description |
| EU3950 | Conveyor (2007 EIQ EP-896) |

| EU3960 - Conveyor | |
|-------------------|----------------------------|
| Emission Unit | Description |
| EU3960 | Conveyor (2007 EIQ EP-897) |

| EU3970 – Conveyor | |
|-------------------|----------------------------|
| Emission Unit | Description |
| EU3970 | Conveyor (2007 EIQ EP-898) |

Permit Condition (EU3950 – EU3970) - 001 40 CFR Part 60, Subpart OOO; Standards of Performance for Nonmetallic Mineral Processing Plants

Emission Limitations

- 1. The permittee shall not cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility constructed or modified after April 22, 2008 any stack emissions which:
 - a) Contain particulate matter in excess of 0.032 gr/dscm; and
 - b) Exhibit greater than seven percent opacity. [§60.672(a)(1) and (2)]
- 2. The permittee shall not cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility constructed or modified after August 31, 1983, any fugitive emissions that exhibit greater than seven percent opacity. [§60.672(b)]

Test Methods and Procedures:

- 1. In conducting the performance tests required in §60.8, the permittee shall determine compliance with the particulate matter standards in §60.672(a) as follows;
 - a) Method 5 or Method 17 shall be used to determine particulate matter concentration. [§60.675(b)(1)]
 - b) Method 9 and the procedures in §60.11 shall be used to determine opacity from stacks. [§60.675(b)(2)]
 - c) In determining opacity compliance of fugitive emissions, Method 9 and the procedures in §60.11 shall be used with the following additions; [§60.675(c)(1)]
 - (1) The minimum distance between the observer and the emission source shall be 15 feet. [§60.675(c)(1)(i)]
 - (2) 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, Section 2.1) must be followed. [§60.675(c)(1)(ii)]
 - (3) The duration of the Method 9 observations may be reduced from three hours (thirty sixminute averages) to one hour (ten six-minute averages) only if the following conditions apply: [§60.675(c)(3)]
- 2. There are no individual readings greater than seven percent opacity. [§60.675(c)(3)(i)]
- 3. There are no more than three readings of seven percent for the one hour period. [\$60.675(c)(3)(ii)]
- 4. If emissions from two or more fugitive emission units continuously interfere so that the opacity of fugitive emissions from an individual affected emission unit cannot be read, either of the following procedures may be used: [§60.675(e)(1)]

- 5. Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected units contributing to the emissions stream. [§60.675(e)(1)(i)]
- 6. Separate the emissions so that the opacity of emissions from each affected unit can be read. [§60 675(e)(1)(ii)]

Reporting:

- 1. The permittee shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of Subpart OOO, including reports of opacity observations made using Method 9. [§60.676(f)]
- 2. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 3. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU2300 – GCC - Classifier | |
|---------------------------|-------------------------------------|
| Emission Unit | Description |
| EU2300 | GCC - Classifier (2007 EIQ EP-190A) |

| EU2310 – 2" Pebble Lime Bin, enclosed, 1981 | |
|---|---|
| Emission Unit | Description |
| EU2310 | 2" Pebble Lime Bin, enclosed, 1981 (2007 EIQ EP-203B) |

| EU2320 – 1" Pebble Lime Bin, enclosed, 1981 | |
|---|---|
| Emission Unit | Description |
| EU2320 | 1" Pebble Lime Bin, enclosed, 1981 (2007 EIQ EP-203A) |

Permit Condition (EU2300, EU2310, and EU2320) - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 122002-007, Issued December 13, 2002

Emission Limitation:

Mississippi Lime Company shall apply BACT on the emission unit in this permit condition. BACT for these emission units are fabric filters in accordance with Construction Permit Condition 122002-007 V.1.A.

Performance Testing:

- 1. As required by the NSPS Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants*, Mississippi Lime Company shall conduct performance testing for all the applicable equipment listed in this permit condition. Alternatively, Mississippi Lime Company may submit a justification for one (1) or more of these pieces of equipment explaining why it is not subject to requirements of Subpart OOO.
- 2. The date on which performance tests are conducted must be pre-arranged with the Air Pollution Control Program, a minimum of thirty (30) days prior to the proposed test 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. A completed Proposed Test Plan form may serve the purpose of notification and must be approved by the Air Pollution Control Program prior to conducting the required emission testing.

- 3. The performance test shall be performed within sixty (60) days of achieving the maximum production rate but no later than one hundred and eighty (180) days after initial startup or increased utilization of the equipment.
- 4. The emission tests required by this permit for the above equipment shall be conducted in accordance with the methods and procedures listed in 40 CFR Part 60, Subpart OOO.
- 5. Two (2) copies of a written report of the performance test results shall be submitted to the Director of the Air Pollution Control Program within thirty (30) days of completion of any required 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.

Operational Requirement:

Mississippi Lime Company shall ensure that the fabric filters will be in use at all times when the associated piece of equipment is in operation, except under conditions that qualify under 10 CSR 10-6.050 Start-Up, Shutdown and Malfunction Conditions. The fabric filters shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters 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 Missouri Department of Natural Resources' employees may easily observe them. Replacement filters for the fabric filters 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.

Monitoring, Recordkeeping, and Inspections:

- 1. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty to demonstrate compliance with the 0.015 gr/dscf particulate matter emission limit.
- 2. Mississippi Lime Company shall maintain an operating and maintenance log for the fabric filters, which shall include:
 - 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.
 - 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.
- 3. Mississippi Lime Company shall inspect each fabric filter at least once every six (6) months and at a minimum conduct the following activities:
 - a) Check the cleaning sequence of the dust collector for proper operation,
 - b) Thoroughly inspect the filters for leaks and signs of wear,
 - c) Inspect all components of the control system that are not subject to wear or plugging, including structural components, housing, ducts, hoods, etc., and
 - d) If leaks or abnormal conditions are found during these inspections, the appropriate remedial actions shall be implemented before re-starting the equipment.

Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU0680 – Mississippi Rotary Kiln #5, MRK-5, 1945 | |
|--|--|
| Emission Unit | Description |
| EU0680 | Mississippi Rotary Kiln #5, MRK-5, 1945 (2007 EIQ EP-180H) |

| EU0690 – Mississippi Rotary Kiln #6, MRK-6, 1947 | |
|--|--|
| Emission Unit | Description |
| EU0690 | Mississippi Rotary Kiln #6, MRK-6, 1947 (2007 EIQ EP-181H) |

| EU0700 – Mississippi Rotary Kiln #7, MRK-7, 1952 | |
|--|--|
| Emission Unit | Description |
| EU0700 | Mississippi Rotary Kiln #7, MRK-7, 1952 (2007 EIQ EP-182H) |

| EU0710 – Mississippi Rotary Kiln #8, MRK-8, 1952 | |
|--|--|
| Emission Unit | Description |
| EU0710 | Mississippi Rotary Kiln #8, MRK-8, 1952 (2007 EIQ EP-183H) |

Permit Condition (EU0680 – EU0710)-001 40 CFR Part 63, Subpart AAAA; National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants

Emission Limitations:

- 1. The permittee must meet each emission limit in Table 1 of Subpart AAAAA that applies.
 - a) The PM emissions must not exceed 0.60 pounds per ton of stone feed (lb/tsf). (\(\xi \)63.7090(a))
- 2. The permittee must meet each operating limit in Table 2 to this subpart that applies.
 - a) Prepare a written operations, maintenance, and monitoring (OM&M) plan; the plan must include the items listed in §63.7100(d) and the corrective actions to be taken when required in Table 5 of Subpart AAAAA. (§63.7090(b))

Monitoring:

The permittee must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the permittee's OM&M plan required by §63.7100(d) and paragraphs (a)(1) through (5) of §63.7113, and the permittee must install, operate, and maintain each continuous opacity monitoring system (COMS) as required by paragraph (g) of §63.7113. (§63.7113(a))

Initial Compliance Requirements:

The permittee must demonstrate initial compliance with each emission limit in Table 1 to Subpart AAAAA that applies, according to Table 3 to Subpart AAAAA.

Continuous Compliance Requirements:

- 1. The permittee must demonstrate continuous compliance with each emission limitation in Tables 1 and 2 to Subpart AAAAA that applies according to the methods specified in Tables 5 and 6 to Subpart AAAAA (§63.7121(a))
- 2. The permittee must report each instance in which the permittee did not meet each operating limit in Tables 2 and 6 to Subpart AAAAA that applies. This includes periods of startup, shutdown, and malfunction. These instances are deviations from the emission limitations in this subpart. These deviations must be reported according to the requirements in §63.7131. (§63.7121(b))
- 3. The permittee must conduct a performance test within five years following the initial performance test and within five years following each subsequent performance test thereafter. §63.7111 Kilns must be operated in compliance with the limits established during the most recent MACT test. The results of the most recent performance test shall be kept on site.

Recordkeeping:

- 1. A copy of each notification and report that was submitted to comply with Subpart AAAAA, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted, according to the requirements in §63.10(b)(2)(xiv). (§63.7132(a)(1))
- 2. The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction. (§63.7132(a)(2))
- 3. Records of performance tests, performance evaluations, and opacity and VE observations as required in §63.10(b)(2)(viii). (§63.7132(a)(3))
- 4. Records in §63.6(h)(6) for VE observations. (§63.7132(b))
- 5. Records required by Tables 5 and 6 to Subpart AAAAA to show continuous compliance with each emission limitation that applies. (§63.7132(c))
- 6. Records which document the basis for the initial applicability determination as required under §63.7081. (§63.7132(d))
- 7. Records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1). (§63.7133(a))
- 8. As specified in §63.10(b)(1), you must keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. (§63.7133(b))
- 9. The permittee must keep each record onsite for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). The permittee may keep the records offsite for the remaining three years. (§63.7133(c))
- 10. 40 CFR Part 63 Subpart AAAA Tables 1 through 7 can be found in Attachment Q.
- 11. The permittee shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart records when used for continuous monitoring instruments required by the permit. (10 CSR 10-6.6065(6)(C)1.C(II)(b.)I.)

- 1. The permittee must submit each report listed in Table 7 to Subpart AAAAA that applies. (§637131(a))
- 2. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

3. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

Permit Condition (EU0680 – EU0710) - 002 10 CSR 10-6.260; Restriction of Emission of Sulfur Compounds

Emission Limitation:

- 1. Emissions from any existing source operation shall not contain more than two thousand parts per million by volume (2000 ppmv) of sulfur dioxide.
- 2. Stack gasses shall not contain more than seventy milligrams (70 mg) per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three hour time period.

Monitoring:

- 1. The permittee shall maintain an accurate record of the sulfur content of fuel used. The installation shall maintain records of the amount of fuel burned and verify the sulfur content. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 2. If the requirements of condition 1 cannot be met, then compliance to the emission limitations shall be determined by source testing. The heating value of the fuel shall be determined as specified in 10 CSR 10-6.040(2). Source testing to determine compliance shall be performed as specified in 10 CSR 10-6.030(6). The actual heat input shall be determined by multiplying the heating value of the fuel by the amount of fuel burned during the source test period.
- 3. Other methods approved by the permitting agency in advance may be used to verify compliance.

Recordkeeping:

- 1. If monitoring option 1 is used to verify compliance, then the permittee shall maintain records on the premises of the analysis of all fuel used which shows weight percentage of sulfur in the fuel. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 2. If monitoring option 2 is used to verify compliance, then the permittee shall maintain records on the premises of all source testing performed.
- 3. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 4. All records shall be maintained for five years.

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

Permit Condition (EU0680 – EU0710) - 003 10 CSR 10-6.060 Construction Permits Required Construction Permit 0480-006, Issued November 18, 1981

Equipment Requirement:

Stack heights of Mississippi Rotary Kilns stacks 5, 6, 7, and 8 shall be raised to 113 feet.

| EU0720 – Mississippi Rotary Kiln #9, MRK-9, 1980 | |
|--|--|
| Emission Unit | Description |
| EU0720 | Mississippi Rotary Kiln #9, MRK-9, 1980 (2007 EIQ EP-186N) |

| EU0730 – Mississippi Rotary Kiln #10, MRK-10, 1980 | |
|--|--|
| Emission Unit | Description |
| EU0730 | Mississippi Rotary Kiln #10, MRK-10, 1980 (2007 EIQ EP-187N) |

Permit Condition (EU0720 and EU0730)-001 40 CFR Part 63, Subpart AAAAA; National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants

Emission Limitations:

- 1. The permittee must meet each emission limit in Table 1 of Subpart AAAAA that applies.
 - a) Table 1 of Subpart AAAAA can be found in Attachment Q.
- 2. The permittee must meet each operating limit in Table 2 to this subpart that applies.
 - a) Prepare a written operations, maintenance, and monitoring (OM&M) plan; the plan must include the items listed in §63.7100(d) and the corrective actions to be taken when required in Table 5 of Subpart AAAA. (§63.7090(b))

Monitoring:

The permittee must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the permittee's OM&M plan required by §63.7100(d) and paragraphs (a)(1) through (5) of §63.7113, and the permittee must install, operate, and maintain each continuous opacity monitoring system (COMS) as required by paragraph (g) of §63.7113. (§63.7113(a))

Initial Compliance Requirements:

The permittee must demonstrate initial compliance with each emission limit in Table 1 to Subpart AAAAA that applies, according to Table 3 to Subpart AAAAA.

Continuous Compliance Requirements:

- 1. The permittee must demonstrate continuous compliance with each emission limitation in Tables 1 and 2 to Subpart AAAAA that applies according to the methods specified in Tables 5 and 6 to Subpart AAAAA (§63.7121(a))
- 2. The permittee must report each instance in which the permittee did not meet each operating limit, opacity limit, and VE limit in Tables 2 and 6 to Subpart AAAAA that applies. This includes periods of startup, shutdown, and malfunction. These instances are deviations from the emission limitations in this subpart. These deviations must be reported according to the requirements in §63.7131. (§63.7121(b))
- 3. The permittee must conduct a performance test within five years following the initial performance test and within five years following each subsequent performance test thereafter. §63.7111 Kilns

must be operated in compliance with the limits established during the most recent MACT test. The results of the most recent performance test shall be kept on site.

Recordkeeping:

- 1. A copy of each notification and report that was submitted to comply with Subpart AAAAA, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted, according to the requirements in §63.10(b)(2)(xiv). (§63.7132(a)(1))
- 2. The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction. (§63.7132(a)(2))
- 3. Records of performance tests, performance evaluations, and opacity and VE observations as required in §63.10(b)(2)(viii). (§63.7132(a)(3))
- 4. Records in §63.6(h)(6) for VE observations. (§63.7132(b))
- 5. Records required by Tables 5 and 6 to Subpart AAAAA to show continuous compliance with each emission limitation that applies. (§63.7132(c))
- 6. Records which document the basis for the initial applicability determination as required under §63.7081. (§63.7132(d))
- 7. Records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1). (§63.7133(a))
- 8. As specified in §63.10(b)(1), you must keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. (§63.7133(b))
- 9. The permittee must keep each record onsite for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). The permittee may keep the records offsite for the remaining three years. (§63.7133(c))
- 10. 40 CFR Part 63 Subpart AAAA Tables 1 through 7 can be found in Attachment Q.
- 11. The permittee shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart records when used for continuous monitoring instruments required by the permit. (10 CSR 10-6.6065(6)(C)1.C(II)(b.)I.)

Reporting:

- 1. The permittee must submit each report listed in Table 7 to Subpart AAAAA that applies. (§637131(a))
- 2. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 3. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

Permit Condition (EU0720 and EU0730) - 002 10 CSR 10-6.260; Restriction of Emission of Sulfur Compounds

Emission Limitation:

- 1. Emissions from any existing source operation shall not contain more than to five hundred parts per million by volume (500 ppmv) of sulfur dioxide.
- 2. Stack gasses shall not contain more than seventy milligrams (70 mg) per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three hour time period.

Monitoring:

- 1. The permittee shall maintain an accurate record of the sulfur content of fuel used. The installation shall maintain records of the amount of fuel burned and verify the sulfur content. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 2. If the requirements of condition 1 cannot be met, then compliance to the emission limitations shall be determined by source testing. The heating value of the fuel shall be determined as specified in 10 CSR 10-6.040(2). Source testing to determine compliance shall be performed as specified in 10 CSR 10-6.030(6). The actual heat input shall be determined by multiplying the heating value of the fuel by the amount of fuel burned during the source test period.
- 3. Other methods approved by the permitting agency in advance may be used to verify compliance.

Recordkeeping:

- 1. If monitoring option 1 is used to verify compliance, then the permittee shall maintain records on the premises of the analysis of all fuel used which shows weight percentage of sulfur in the fuel. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 2. If monitoring option 2 is used to verify compliance, then the permittee shall maintain records on the premises of all source testing performed.
- 3. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 4. All records shall be maintained for five years.

Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

Permit Condition (EU0720 and EU0730) - 003 10 CSR 10-6.060 Construction Permits Required Construction Permit 0480-006, Issued November 18, 1981

Equipment Requirement:

- 1. The permittee shall maintain separate stacks for each kiln.
- 2. The permittee shall meet the particulate matter limitation of Subpart HH, §60.342(a)(1).
 - a) §60.342(a)(1) states that no owner or operator shall cause to be discharged into the atmosphere from any rotary lime kiln any gases which contain particulate matter in excess of 0.30 kilogram per megagram (0.60 lb/ton) of stone feed.

Monitoring and Recordkeeping:

1. Within 60 days after achieving the maximum production rate at which the facility will be operated, but not more than 365 days after initial start-up, 6 months of ambient air monitoring data shall commence being collected according to EPA Reference Method found in 40 CFR, Part 50, Appendix B and Quality Assurance Criteria found in 40 CFR, Part 58, Appendix B. The monitoring data must

be collected during the months from January to June. At least two high volume air samplers shall be placed at locations indicated by the Air Pollution Control Program. Monitoring data shall be submitted to the Air Pollution Control Program within 90 days after collection of the data is complete. Initial testing has been completed as noted in the Statement of Basis.

2. The permittee shall meet all of the monitoring and reporting requirements in accordance with \$60.343 of Subpart HH.

Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

Permit Condition (EU0720 and EU0730) - 004 40 CFR Part 60, Subpart HH; Standards of Performance for Lime Manufacturing Plants

Emission Limitation:

On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any rotary lime kiln gases which:

- 1. Contain particulate matter in excess of 0.30 kilogram per megagram (0.60 lb/ton) of stone feed. (§60.342(a)(1))
- 2. Permit condition (EU0720 and EU0730) 001 state MRK-9 and MRK-10 must not emit more than the allowed limit in 40 CFR 63, Subpart AAAAA. The limits in 40 CFR Part 63, Subpart AAAAA are more stringent than 40 CFR Part 60, Subpart HH. Compliance with this permit condition shall be maintained when EU0720 MRK-9 and EU0730 MRK-10 are in compliance with (EU0720 and 0730) 001.

Monitoring:

- 1. The owner or operator of any rotary lime kiln using a wet scrubbing emissions control device subject to the provisions of this subpart shall not be required to monitor the opacity of the gases discharged as required in paragraph (a) of this section, but shall install, calibrate, maintain, operate, and record the resultant information from the following continuous monitoring devices:
 - a) A monitoring device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be accurate to within ± 250 pascals (one inch of water). [$\S 60.343(c)(1)$]
 - b) A monitoring device for the continuous measurement of the scrubbing liquid supply pressure to the control device. The monitoring device must be accurate within ±5 percent of the design scrubbing liquid supply pressure. (§60.343(c)(2)]
- 2. For the purpose of conducting a performance test under §60.8, the owner or operator of any lime manufacturing plant subject to provisions of this subpart shall install, calibrate, maintain, and operate a device for measuring the mass rate of stone feed to any affected rotary lime kiln. The measuring device used must be accurate to within ±5 percent of the mass rate over its operating range. [§60.343(d)]

Test Methods and Procedures:

- 1. In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures 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). [§60.344(a)]
- 2. The owner or operator shall determine compliance with the particulate matter standards in §60.342(a) as follows:
 - a) The emission rate (E) of particulate matter shall be computer for each run using the following equation:

 $E=(c_sQ_{sd})/PK$

Where: E = emission rate of particulate matter, kg/Mg (lb/ton) of stone feed.

c = concentration of particulate matter, g/dscm (gr/dscf)

Q_{sd}=volumetric flow rate of effluent gas, dscm/hr (dscf/hr).

P = stone feed rate, Mg/hr (ton/hr)

K = conversion factor, 1000 g/kg (7000gr/lb)

- b) The monitoring device of §60.343(d) shall be used to determine the stone feed rate (P) for each run.
- 3. During the particulate matter run, the owner or operator shall use the monitoring devices in §60.343(c)(1) and (2) to determine the average pressure loss of the gas stream through the scrubber and the average scrubbing liquid supply pressure. [§60.344(c)]

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU0740A – Spall Conveyor (Uncontrolled) | |
|---|--|
| Emission Unit | Description |
| EU0740A | Spall Conveyor (Uncontrolled) (2007 EIQ EP-187P) |

| EU0740B – Pan Conveyor (Magaldi) | |
|----------------------------------|---|
| Emission Unit | Description |
| EU0740B | Pan Conveyor (Magaldi) (2007 EIQ EP-187Q) |

| EU0740C – 30 Ton Storage Bin/Loadout | |
|--------------------------------------|---|
| Emission Unit | Description |
| EU0740C | 30 Ton Storage Bin/Loadout (2007 EIQ EP-187R) |

| EU1370 – Twin Shaft Vertical Kiln (Maerz) | |
|---|--|
| Emission Unit | Description |
| EU1370 | Twin Shaft Vertical Kiln (Maerz) (2007 EIQ EP-289) |

Permit Condition (EU740A, EU0740B, EU0740C, and EU1370) – 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 1198-020, Issued November 4, 1998

Emission Limitation:

Mississippi Lime Company shall not discharge into the atmosphere from the Spall Conveyor (EP-187P), the Pan Conveyor (EP-187Q) and the 30 Ton Storage Bin/Loadout (EP-187R) and from the Maerz kiln (EU1370) and ancillary equipment PM₁₀ in excess of 15 tons in any consecutive 12-month period.

Operational/Equipment Requirements:

- 1. The baghouse shall be used to control emissions from the following equipment at all times the equipment is in operation:
 - Spall Conveyor (EP-187P), Pan Conveyor (EP-187Q), 30 Ton Storage Bin/Loadout (EP-187R)
- 2. The baghouse shall be operated and maintained in accordance with the manufacturer's specifications. It shall be equipped with a gauge or meter that indicates the pressure drop across the baghouse. Replacement bags for the baghouse shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance and abrasion resistance).
- 3. Mississippi Lime Company shall maintain an operating and maintenance log for the baghouse controlling the points listed in this permit condition. The log 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.

Monitoring/Recordkeeping/Reporting:

Not required (See Statement of Basis).

Permit Condition EU0740A - 002 10 CSR 10-6.060 Construction Permits Required Construction Permit 0898-019, Issued August 17, 1998

Emission Limitation:

Mississippi Lime Company shall not discharge into the ambient air from the emission unit in this permit condition any air contaminant of opacity greater than 20 percent.

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU0830 – ½" Pebble Lime Bin | |
|-----------------------------|---------------------------------------|
| Emission Unit | Description |
| EU0830 | ½" Pebble Lime Bin (2007 EIQ EP-203C) |

Permit Condition (EU0830) - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 122002-007, Issued December 13, 2002

Emission Limitation:

Mississippi Lime Company shall apply BACT on the emission unit in this permit condition. BACT for this emission unit is Fabric Filters in accordance with Construction Permit Condition 122002-007 V.1.A.

Operational Requirement:

Mississippi Lime Company shall ensure that the fabric filters will be in use at all times when the associated piece of equipment is in operation, except under conditions that qualify under 10 CSR 10-6.050 Start-Up, Shutdown and Malfunction Conditions. The fabric filters shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters 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 Missouri Department of Natural Resources' employees may easily observe them. Replacement filters for the fabric filters 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).

Monitoring, Recordkeeping, and Inspections:

- 1. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty to demonstrate compliance with the 0.015 gr/dscf particulate matter emission limit.
- 2. Mississippi Lime Company shall maintain an operating and maintenance log for the fabric filters, which shall include:
 - 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.
 - 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.
- 3. Mississippi Lime Company shall inspect each fabric filter at least once every six (6) months and at a minimum conduct the following activities:
 - a) Check the cleaning sequence of the dust collector for proper operation,
 - b) Thoroughly inspect the filters for leaks and signs of wear,
 - c) Inspect all components of the control system that are not subject to wear or plugging, including structural components, housing, ducts, hoods, etc., and
 - d) If leaks or abnormal conditions are found during these inspections, the appropriate remedial actions shall be implemented before re-starting the equipment.

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU1960 - Screen Feed Conveyor, enclosed, 1963 | |
|---|---|
| Emission Unit | Description |
| EU1960 | Screen Feed Conveyor, enclosed, 1963 (2007 EIQ EP-180B) |

| EU1970 – Screen, enclosed, 1963 | |
|---------------------------------|---|
| Emission Unit | Description |
| EU1970 | Screen, enclosed, 1963 (2007 EIQ EP-180C) |

| EU1980 – No. 5 Kiln Feed Conveyor, enclosed, 1963 | |
|---|---|
| Emission Unit | Description |
| EU1980 | No. 5 Kiln Feed Conveyor, enclosed, 1963 (2007 EIQ EP-180E) |

| EU1990 – No. 5 Kiln Feed Conveyor, enclosed, 1963 | |
|---|---|
| Emission Unit | Description |
| EU1990 | No. 5 Kiln Feed Conveyor, enclosed, 1963 (2007 EIQ EP-180F) |

| EU2000 - No. 5 Kiln Feed Conveyor, enclosed, 1963 | |
|---|---|
| Emission Unit | Description |
| EU2000 | No. 5 Kiln Feed Conveyor, enclosed, 1963 (2007 EIQ EP-180G) |

| EU2010 - Screen Feed Conveyor, enclosed, 1963 | |
|---|---|
| Emission Unit | Description |
| EU2010 | Screen Feed Conveyor, enclosed, 1963 (2007 EIQ EP-181B) |

| EU2020 – Screen, enclosed, 1963 | |
|---------------------------------|---|
| Emission Unit | Description |
| EU2020 | Screen, enclosed, 1963 (2007 EIQ EP-181C) |

| EU2030 - No. 6 Kiln Feed Conveyor, enclosed, 1963 | |
|---|---|
| Emission Unit | Description |
| EU2030 | No. 6 Kiln Feed Conveyor, enclosed, 1963 (2007 EIQ EP-181E) |

| EU2040 - No. 6 Kiln Feed Conveyor, enclosed, 1963 | |
|---|---|
| Emission Unit | Description |
| EU2040 | No. 6 Kiln Feed Conveyor, enclosed, 1963 (2007 EIQ EP-181F) |

| EU2050 – No. 6 Kiln Feed Conveyor, enclosed, 1963 | |
|---|---|
| Emission Unit | Description |
| EU2050 | No. 6 Kiln Feed Conveyor, enclosed, 1963 (2007 EIQ EP-181G) |

| EU2060 - Screen Feed Conveyor, enclosed, 1963 | |
|---|---|
| Emission Unit | Description |
| EU2060 | Screen Feed Conveyor, enclosed, 1963 (2007 EIQ EP-182B) |

| EU2070 – Screen, enclosed, 1963 | |
|---------------------------------|---|
| Emission Unit | Description |
| EU2070 | Screen, enclosed, 1963 (2007 EIQ EP-182C) |

Emission Unit

EU2180

| | EU2080 - No. 7 Kiln Feed Conveyor, enclosed, 1963 | | |
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| Emission Unit | Description | | |
| EU2080 | No. 7 Kiln Feed Conveyor, enclosed, 1963 (2007 EIQ EP-182E) | | |
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| | EU2090 – No. 7 Kiln Feed Conveyor, enclosed, 1963 | | |
| Emission Unit | Description | | |
| EU2090 | No. 7 Kiln Feed Conveyor, enclosed, 1963 (2007 EIQ EP-182F) | | |
| | EU2100 - No. 7 Kiln Feed Conveyor, enclosed, 1963 | | |
| Emission Unit | Description | | |
| EIIISSIOII OIIII EU2100 | No. 7 Kiln Feed Conveyor, enclosed, 1963 (2007 EIQ EP-182G) | | |
| E02100 | No. / Killi Feed Collveyor, eliclosed, 1903 (2007 EIQ EF-182G) | | |
| | EU2110 - Screen Feed Conveyor, enclosed, 1963 | | |
| Emission Unit | Description | | |
| EU2110 | Screen Feed Conveyor, enclosed, 1963 (2007 EIQ EP-183B) | | |
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| | EU2120 - Screen, enclosed, 1963 | | |
| Emission Unit | Description | | |
| EU2120 | Screen, enclosed, 1963 (2007 EIQ EP-183C) | | |
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| | EU2130 - No. 8 Kiln Feed Conveyor, enclosed, 1963 | | |
| Emission Unit | Description | | |
| EU2130 | No. 8 Kiln Feed Conveyor, enclosed, 1963 (2007 EIQ EP-183E) | | |
| | | | |
| D : : II : | EU2140 – No. 8 Kiln Feed Conveyor, enclosed, 1963 | | |
| Emission Unit | Description | | |
| EU2140 | No. 8 Kiln Feed Conveyor, enclosed, 1963 (2007 EIQ EP-183F) | | |
| | EU2150 - No. 8 Kiln Feed Conveyor, enclosed, 1963 | | |
| Emission Unit | Description | | |
| EU2150 | No. 8 Kiln Feed Conveyor, enclosed, 1963 (2007 EIQ EP-183G) | | |
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| | EU2160 – Bin Discharge Conveyor, enclosed, 1963 | | |
| Emission Unit | Description | | |
| EU2160 | Bin Discharge Conveyor, enclosed, 1963 (2007 EIQ EP-186B) | | |
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| EU2170 – Bin Discharge Conveyor, enclosed, 1963 | | | |
| Emission Unit | Description | | |
| EU2170 | Bin Discharge Conveyor, enclosed, 1963 (2007 EIQ EP-186D) | | |
| EU1100 C E LC 1 1 1002 | | | |
| L II., | EU2180 – Screen Feed Conveyor, enclosed, 1963 | | |

Description

Screen Feed Conveyor, enclosed, 1963 (2007 EIQ EP-186E)

| | EU2190 – Screen, enclosed, 1963 |
|---------------------------------|---|
| Emission Unit | Description |
| EU2190 | Screen, enclosed, 1963 (2007 EIQ EP-186F) |
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| | EU2200 - No. 9 Kiln Feed Conveyor, enclosed, 1963 |
| Emission Unit | Description |
| EU2200 | No. 9 Kiln Feed Conveyor, enclosed, 1963 (2007 EIQ EP-186K) |
| | |
| | EU2210 - No. 9 Kiln Feed Conveyor, enclosed, 1963 |
| Emission Unit | Description |
| EU2210 | No. 9 Kiln Feed Conveyor, enclosed, 1963 (2007 EIQ EP-186L) |
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| | EU2220 – No. 9 Kiln Feed Conveyor, enclosed, 1963 |
| Emission Unit | Description |
| EU2220 | No. 9 Kiln Feed Conveyor, enclosed, 1963 (2007 EIQ EP-186M) |
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| | EU2230 – Bin Discharge Conveyor, enclosed, 1963 |
| Emission Unit | Description |
| EU2230 | Bin Discharge Conveyor, enclosed, 1963 (2007 EIQ EP-187B) |
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| | EU2240 – Bin Discharge Conveyor, enclosed, 1963 |
| Emission Unit | Description |
| EU2240 | Bin Discharge Conveyor, enclosed, 1963 (2007 EIQ EP-187D) |
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| | EU2250 - Screen Feed Conveyor, enclosed, 1963 |
| Emission Unit | Description |
| EU2250 | Screen Feed Conveyor, enclosed, 1963 (2007 EIQ EP-187E) |
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| EU2260 - Screen, enclosed, 1963 | |

| EU2260 – Screen, enclosed, 1963 | |
|---------------------------------|---|
| Emission Unit | Description |
| EU2260 | Screen, enclosed, 1963 (2007 EIQ EP-187F) |

| EU2270 - No. 10 Kiln Feed Conveyor, enclosed, 1963 | |
|--|--|
| Emission Unit | Description |
| EU2270 | No. 10 Kiln Feed Conveyor, enclosed, 1963 (2007 EIQ EP-187K) |

| EU2280 - No. 10 Kiln Feed Conveyor, enclosed, 1963 | |
|--|--|
| Emission Unit | Description |
| EU2280 | No. 10 Kiln Feed Conveyor, enclosed, 1963 (2007 EIQ EP-187L) |

| EU2290 – No. 10 Kiln Feed Conveyor, enclosed, 1963 | |
|--|--|
| Emission Unit | Description |
| EU2290 | No. 10 Kiln Feed Conveyor, enclosed, 1963 (2007 EIQ EP-187M) |

Permit Condition (EU1960 – EU2290) - 001

40 CFR Part 63, Subpart AAAAA; National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants

Emission Limitations:

- 1. The permittee must meet each emission limit in Table 1 of Subpart AAAAA that applies. (§63.7090(a))
- 2. The permittee must meet each operating limit in Table 2 to this subpart that applies.
 - a) Prepare a written operations, maintenance, and monitoring (OM&M) plan; the plan must include the items listed in §63.7100(d) and the corrective actions to be taken when required in Table 5 of Subpart AAAAA. (§63.7090(b))

Monitoring:

The permittee must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the permittee's OM&M plan required by §63.7100(d) and paragraphs (a)(1) through (5) of §63.7113, and the permittee must install, operate, and maintain each continuous opacity monitoring system (COMS) as required by paragraph (g) of §63.7113. (§63.7113(a))

Initial Compliance Requirements:

The permittee must demonstrate initial compliance with each emission limit in Table 1 to Subpart AAAAA that applies, according to Table 3 to Subpart AAAAA. For existing lime kilns and their associated coolers, the permittee may perform visible emissions (VE) measurements in accordance with EPA Method 9 of Appendix A to Part 60 in lieu of installing a COMS or PM detector if any of the conditions in paragraphs (a)(1) through (3) of §63.7114 exist. (§63.7114(a))

Continuous Compliance Requirements:

- 1. The permittee must demonstrate continuous compliance with each emission limitation in Tables 1 and 2 to Subpart AAAAA that applies according to the methods specified in Tables 5 and 6 to Subpart AAAAA (§63.7121(a))
- 2. The permittee must report each instance in which the permittee did not meet each operating limit, opacity limit, and VE limit in Tables 2 and 6 to Subpart AAAAA that applies. This includes periods of startup, shutdown, and malfunction. These instances are deviations from the emission limitations in this subpart. These deviations must be reported according to the requirements in §63.7131. (§63.7121(b))
- 3. The permittee must conduct a performance test within five years following the initial performance test and within five years following each subsequent performance test thereafter. §63.7111 Kilns must be operated in compliance with the limits established during the most recent MACT test. The results of the most recent performance test shall be kept on site.

Recordkeeping:

- 1. A copy of each notification and report that was submitted to comply with Subpart AAAAA, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted, according to the requirements in §63.10(b)(2)(xiv). (§63.7132(a)(1))
- 2. The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction. (§63.7132(a)(2))
- 3. Records of performance tests, performance evaluations, and opacity and VE observations as required in §63.10(b)(2)(viii). (§63.7132(a)(3))
- 4. Records in §63.6(h)(6) for VE observations. (§63.7132(b))

- 5. Records required by Tables 5 and 6 to Subpart AAAAA to show continuous compliance with each emission limitation that applies. (§63.7132(c))
- 6. Records which document the basis for the initial applicability determination as required under §63.7081. (§63.7132(d))
- 7. Records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1). (§63.7133(a))
- 8. As specified in §63.10(b)(1), you must keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. (§63.7133(b))
- 9. The permittee must keep each record onsite for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). The permittee may keep the records offsite for the remaining three years. (§63.7133(c))
- 10. 40 CFR Part 63 Subpart AAAA Tables 1 through 7 can be found in Attachment Q.
- 11. The permittee shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart records when used for continuous monitoring instruments required by the permit. (10 CSR 10-6.6065(6)(C)1.C(II)(b.)I.)

- 1. The permittee must submit each report listed in Table 7 to Subpart AAAAA that applies. (§637131(a))
- 2. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 3. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

Project No. 2016-03-080

| EU0870 – (3) MR-PQL Feed Bins (N, M, S) | |
|---|--|
| Emission Unit | Description |
| EU0870 | (3) MR-PQL Feed Bins (N, M, S) (2007 EIQ EP-190) |

| EU0900 – (3) MR-PQL Product Storage Bins | |
|--|--|
| Emission Unit | Description |
| EU0900 | (3) MR-PQL Product Storage Bins (2007 EIQ EP-191A) |

| EU0910 – MR-PQL Loadout (Truck/Rail) | |
|--------------------------------------|---|
| Emission Unit | Description |
| EU0910 | MR-PQL Loadout (Truck/Rail) (2007 EIQ EP-193) |

| EU0920 – MR-PQL Loadout (Truck/Rail) | |
|--------------------------------------|---|
| Emission Unit | Description |
| EU0920 | MR-PQL Loadout (Truck/Rail) (2007 EIQ EP-194) |

| EU2300 – GCC - Classifier | |
|---------------------------|-------------------------------------|
| Emission Unit | Description |
| EU2300 | GCC - Classifier (2007 EIQ EP-190A) |

Permit Condition (EU0870, EU0900, EU0910, EU0920, and EU2300) - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 122002-007, Issued December 13, 2002

Emission Limitation:

Mississippi Lime Company shall apply BACT on the emission unit in this permit condition. BACT for these emission units are Fabric Filters in accordance with Construction Permit Condition 122002-007 V.1.A.

Performance Testing:

- 1. As required by the NSPS Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants*, Mississippi Lime Company shall conduct performance testing for all the applicable equipment listed in this permit condition. Alternatively, Mississippi Lime Company may submit a justification for one (1) or more of these pieces of equipment explaining why it is not subject to requirements of Subpart OOO.
- 2. The date on which performance tests are conducted must be pre-arranged with the Air Pollution Control Program, a minimum of thirty (30) days prior to the proposed test 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. A completed Proposed Test Plan form may serve the purpose of notification and must be approved by the Air Pollution Control Program prior to conducting the required emission testing.
- 3. The performance test shall be performed within sixty (60) days of achieving the maximum production rate but no later than one hundred and eighty (180) days after initial startup or increased utilization of the equipment.
- 4. The emission tests required by this permit for the above equipment shall be conducted in accordance with the methods and procedures listed in 40 CFR Part 60, Subpart OOO
- 5. Two (2) copies of a written report of the performance test results shall be submitted to the Director of the Air Pollution Control Program within thirty (30) days of completion of any required 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.

Operational Requirement:

Mississippi Lime Company shall ensure that the fabric filters will be in use at all times when the associated piece of equipment is in operation, except under conditions that qualify under 10 CSR 10-6.050 Start-Up, Shutdown and Malfunction Conditions. The fabric filters shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters 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 Missouri Department of Natural Resources' employees may easily observe them. Replacement filters for the fabric filters 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.

Monitoring, Recordkeeping, and Inspections:

- 1. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty to demonstrate compliance with the 0.015 gr/dscf particulate matter emission limit.
- 2. Mississippi Lime Company shall maintain an operating and maintenance log for the fabric filters, which shall include:
 - 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.
 - 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.
- 3. Mississippi Lime Company shall inspect each fabric filter at least once every six (6) months and at a minimum conduct the following activities:
 - a) Check the cleaning sequence of the dust collector for proper operation,
 - b) Thoroughly inspect the filters for leaks and signs of wear,
 - c) Inspect all components of the control system that are not subject to wear or plugging, including structural components, housing, ducts, hoods, etc., and
 - d) If leaks or abnormal conditions are found during these inspections, the appropriate remedial actions shall be implemented before re-starting the equipment.

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU0930 – Rotary Stone Dryer | |
|-----------------------------|--|
| Emission Unit | Description |
| EU0930 | Rotary Stone Dryer (2007 EIQ EP-197A and 197C) |

Permit Condition EU0930 -001 10 CSR 10-6.260; Restriction of Emission of Sulfur Compounds

Emission Limitation:

- 1. Emissions from any existing source operation shall not contain more than two thousand parts per million by volume (2000 ppmv) of sulfur dioxide.
- 2. Stack gasses shall not contain more than seventy milligrams (70 mg) per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three hour time period.

Monitoring:

- 1. The permittee shall maintain an accurate record of the sulfur content of fuel used. The installation shall maintain records of the amount of fuel burned and verify the sulfur content. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 2. If the requirements of monitoring condition 1 cannot be met, then compliance to the emission limitations shall be determined by source testing. The heating value of the fuel shall be determined as specified in 10 CSR 10-6.040(2). Source testing to determine compliance shall be performed as specified in 10 CSR 10-6.030(6). The actual heat input shall be determined by multiplying the heating value of the fuel by the amount of fuel burned during the source test period.
- 3. Other methods approved by the permitting agency in advance may be used to verify compliance.

Recordkeeping:

- 1. If monitoring option 1 is used to verify compliance, then the permittee shall maintain records on the premises of the analysis of all fuel used which shows weight percentage of sulfur in the fuel. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 2. If monitoring option 2 is used to verify compliance, then the permittee shall maintain records on the premises of all source testing performed.
- 3. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 4. All records shall be maintained for five years.

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU0960 – Truck/Rail Loadout | |
|-----------------------------|--------------------------------------|
| Emission Unit | Description |
| EU0960 | Truck/Rail Loadout (2007 EIQ EP-201) |

Permit Condition EU0960-001

10 CSR 10-6.400; Restriction of Emission of Particulate Matter From Industrial Processes

Emission Limitation:

- 1. The permittee shall not emit particulate matter from EU0460 in excess of 90.96 pounds per hour of particulate matter.
- 2. The permittee shall not emit particulate matter from any source in a concentration in excess of 0.30 grain per standard cubic feet of exhaust gases.

Monitoring, Recordkeeping, Reporting:

At maximum hourly design rates the uncontrolled particulate matter emissions from EU0460 is less than the allowable emission limit. No monitoring, recordkeeping, or reporting is required. (See Statement of Basis)

| EU1140 – East and West Hydrate Silos, Hydrate Truck Loadout | |
|---|--|
| Emission Unit | Description |
| EU1140 | East and West Hydrate Silos, Hydrate Truck Loadout (2007 EIQ EP-218 and 220) |

Permit Condition EU1140 - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 1090-006, Issued October 11, 1990

Equipment Limitation:

Prevention of Significant Deterioration (PSD) Review requires the permittee to install a baghouse as the Best Available Control Technology (BACT) to control PM_{10} particulate emissions from the two (2) storage silos.

Monitoring and Recordkeeping:

- 1. Air Quality Impacts: Modeling data submitted with the permit application shows that the ambient air quality impact of emission increases due to the major modification combined with all other applicable emission increases or decreases in the baseline area will not cause a violation of the Ambient Air Quality Standards (NAAQS).
- 2. Ambient Air Quality Monitoring: The permittee is exempt from pre-construction and post-construction monitoring requirements of PSD review since the predicted ambient air quality impact from the two new silos is less than the *de minimis* level given in 10 CSR 10-6.060(11)(B), Table2.
- 3. Class I Impact: The nearest Class I area is the Mingo Wildlife Area which is approximately 60 miles to the south of Ste. Genevieve. The new construction would not have any effect at that distance.
- 4. Projected Impact Due to Future Growth: An analysis of the air quality impact projected for the area as a result of general commercial, residential and industrial growth, as well as growth associated with the major modification was submitted with the permit application.
- 5. Effect on Visibility, Soils and Vegetation: Since the estimated ambient air quality impact from the new construction is extremely low, the effect of the emissions on visibility is expected to be

minimal. The emission of lime dust in this low concentration will not adversely affect the soil or vegetation and is, in fact, used on fields for agricultural purposes.

Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU1220 – Pneumatic Transfer – MRPCC#1 to MRPCC#2 | |
|--|--|
| Emission Unit | Description |
| EU1220 | Pneumatic Transfer – MRPCC#1 to MRPCC#2 (2007 EIQ EP-231A) |

Permit Condition EU1220 - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 0794-014, Issued July 19, 1994

Equipment Requirement:

The permittee shall vent the Fuller pneumatic conveying system to a dust collector. The baghouse shall be equipped with a gauge or meter which indicates the pressure drop across the baghouse. Replacement bags shall be kept on hand at all times. (Special Condition 1)

Monitoring:

The dust collector shall be in use at all times that this emission source is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. (Special Condition 1)

Recordkeeping:

1. All inspections, corrective actions, and instrument calibrations shall be recorded. (Special Condition 1) All records must be kept on site for a period of five (5) years and made available to the department upon request.

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU1240 – Weigh Hopper – MRPCC#2 | |
|---------------------------------|--|
| Emission Unit | Description |
| EU1240 | Weigh Hopper – MRPCC#2 (2007 EIQ EP-228) |

| EU1250 – No. 2 Process Spray Dryer | |
|------------------------------------|---|
| Emission Unit | Description |
| EU1250 | No. 2 Process Spray Dryer (2007 EIQ EP-229A and EP229B) |

| EU1260 – Product Elevator – MRPCC#2 | |
|-------------------------------------|---|
| Emission Unit | Description |
| EU1260 | Product Elevator – MRPCC#2 (2007 EIQ EP-230A) |

| EU1270 – Product Silo and Bucket Elevator – MRPCC#2 | |
|---|---|
| Emission Unit | Description |
| EU1270 | Product Silo and Bucket Elevator – MRPCC#2 (2007 EIQ EP-230B and EP-230C) |

| EU1280 – PCC Truck Loadout | |
|----------------------------|-------------------------------------|
| Emission Unit | Description |
| EU1280 | PCC Truck Loadout (2007 EIQ EP-232) |

Permit Condition (EU1240 – EU1280) - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 1086-005A, Issued February 10, 1986

Emission Limitation:

- 1. The exhaust vent on the carbonator shall be free of particulate emissions. (Special Condition 1)
- 2. The carbonator baghouse shall be maintained to perform at a 99.97 percent efficiency. (Special Condition 2)

Monitoring, Recordkeeping, and Inspections:

- 1. The exhaust vent on the carbonator shall be maintained within the design conditions specified by the manufacturer's performance warranty to demonstrate compliance with the 99.97 percent efficiency limit.
- 2. Mississippi Lime Company shall maintain an operating and maintenance log for the exhaust vent on the carbonator, which shall include:
 - 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.
 - 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.
- 3. Mississippi Lime Company shall inspect each exhaust vent on the carbonator at least once every six
 - (6) months and at a minimum conduct the following activities:
 - a) Check the cleaning sequence of the dust collector for proper operation,
 - b) Thoroughly inspect the exhaust vent on the carbonator for leaks and signs of wear,
 - c) Inspect all components of the control system that are not subject to wear or plugging, including structural components, housing, ducts, hoods, etc., and
 - d) If leaks or abnormal conditions are found during these inspections, the appropriate remedial actions shall be implemented before re-starting the equipment.

Reporting:

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

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2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

Permit Condition EU1250 - 002 10 CSR 10-6.060 Construction Permits Required Construction Permit 0897-018 and 0897-018A, Issued July 14, 1997

Emission Limitation

- 1. The Permittee shall not discharge into the atmosphere from the 40 MMBtu per hour burner and the Maerz vertical lime kiln (EU1370) PM in excess of 15 tons in any consecutive 12-month period. (Special Condition 1)
- 2. PM₁₀ emissions netted out by Construction Permit 0898-019.
- 3. The Permittee shall not discharge into the atmosphere from the 40 MMBtu per hour burner and the Maerz vertical lime kiln (EU1370) CO in excess of 100 tons in any consecutive 12-month period. (Special Condition 2)
- 4. The Permittee shall not discharge into the atmosphere from the 40 MMBtu per hour burner and the Maerz vertical lime kiln (EU1370) SO₂ in excess of 40 tons in any consecutive 12-month period. (Special Condition 3)
- 5. The Permittee shall not discharge into the atmosphere from the 40 MMBtu per hour burner and the Maerz vertical lime kiln (EU1370) NO₂ in excess of 40 tons in any consecutive 12-month period. (Special Condition 4)
- 6. The Permittee shall not discharge into the atmosphere from the 40 MMBtu per hour burner and the Maerz vertical lime kiln (EU1370) VOC in excess of 40 tons in any consecutive 12-month period. (Special Condition 5)

Monitoring and Recordkeeping

The permittee shall keep monthly records that are adequate to determine the PM, CO, SO₂, NO_x and VOC emissions from EU1250 and from the Maerz kiln (EU1370). These records shall also indicate the total quantity of PM, CO, SO₂, NO_x and VOC emissions from the specified equipment over the previous 12-month period. Attachment J or equivalent form/s of the company's own design, are suitable for this purpose. (Special Condition 6)

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU1290 – Mill Feed Bin, Mill, Bucket Elevator, Dry Slurry Weigh Bin | |
|---|---|
| Emission Unit | Description |
| EU1290 | Mill Feed Bin, Mill, Bucket Elevator, Dry Slurry Weigh Bin (2007 EIQ EP-231B, EP231C, EP-231D, and EP-231E) |

Permit Condition EU1290 - 001

10 CSR 10-6.060 Construction Permits Required

Construction Permit 0588-008A, Issued May 31, 1988 and Construction Permit 0889-013, Issued August 30, 1989

Emission Limitation:

The milling operation shall emit less than the *de minimis* emission levels listed in 10 CSR 10-6.060, subsection (3)(A), Table 1, on a 12-consecutive month basis. (Special Condition 1)

Monitoring and Recordkeeping:

The baghouse shall be maintained and operated in serviceable condition as prescribed by the manufacturer during the operation of the listed equipment.

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU3760 – Hydrator Feed Bin | |
|----------------------------|-------------------------------------|
| Emission Unit | Description |
| EU3760 | Hydrator Feed Bin (2007 EIQ EP-703) |

| EU3770 – Hydrator | |
|-------------------|----------------------------|
| Emission Unit | Description |
| EU3770 | Hydrator (2007 EIQ EP-704) |

| EU3780 – Classification System | |
|--------------------------------|---|
| Emission Unit | Description |
| EU3780 | Classification System (2007 EIQ EP-705) |

| EU3880 – Product Bin Truck Loadout | |
|------------------------------------|---|
| Emission Unit | Description |
| EU3880 | Product Bin Truck Loadout (2007 EIQ EP-714) |

Permit Condition (EU3760 – EU3880) - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 052003-045, Issued April 22, 2003

<u>Equipment Requirements – New & Existing Equipment:</u>

Mississippi Lime Company shall install control equipment [i.e. designated as dust collector(s)] on the new equipment added under construction permit 052003-004 (listed below) to control the particulate matter with an aerodynamic diameter less than 10 microns (PM_{10}) emissions from these sources as specified in the permit application:

No. Unit ID Emission Unit Description

- 1. EP-703 Hydrator Feed Bin,
- 2. EP-704 Hydrator,
- 3. EP-705 Air Separator, and
- 4. EP-714 Product Bins Truck Loadout

Operational & Recordkeeping Requirements:

- 1. The control equipment specified above must be in use at all times when that associated piece of equipment is in operation, except under conditions that qualify under 10 CSR 10-6.060 *Start-Up, Shutdown and Malfunction Conditions*, and shall be operated and maintained in accordance with the manufacturer's specifications.
- 2. Each dust collector control(s) shall be equipped with a gauge or meter, which indicates the pressure drop across the control device (where appropriate). These gauges or meters shall be located such that the Missouri Department of Natural Resources' personnel may easily observe them. Mississippi Lime Company shall propose alternate parameter(s) and/or method(s) of determining the proper operation, on an on-going basis, for those dust collector control(s) where a pressure drop gauge or meter is not appropriate. These proposed alternate parameter(s) and/or method(s) must be reviewed and approved by the Air Pollution Control Program before being used.
- 3. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
- 4. Appropriate replacement filters for each type of dust collector control(s) indicated above shall be kept on hand at all times. The 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).
- 5. Mississippi Lime Company shall maintain an operating and maintenance log for each dust collector(s) which shall include the following:
 - 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.
- 6. Mississippi Lime Company shall inspect each dust collectors(s) at least once every six (6) months and at a minimum conduct the following activities:
 - a) Check the cleaning sequence of the dust collector for proper operation,
 - b) Thoroughly inspect the filters for leaks and signs of wear,
 - c) Inspect all components of the control system that are not subject to wear or plugging, including structural components, housing, ducts, hoods, etc., and

d) If leaks or abnormal conditions are found during these inspections, the appropriate remedial actions shall be implemented before restarting the equipment.

Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU3060 - Conveyor - Stone RK#1&2 | |
|----------------------------------|---|
| Emission Unit | Description |
| EU3060 | Conveyor – Stone RK#1&2 (2007 EIQ EP-601) |

| EU3070 - Conveyor - Stone RK#1&2 | |
|----------------------------------|---|
| Emission Unit | Description |
| EU3070 | Conveyor – Stone RK#1&2 (2007 EIQ EP-602) |

| EU3080 – Conveyor – Stone RK 2 | |
|--------------------------------|---|
| Emission Unit | Description |
| EU3080 | Conveyor – Stone RK 2 (2007 EIQ EP-603) |

Permit Condition (EU3060 - EU3080) - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 122002-007, Issued December 13, 2002

Operational Requirement:

- 1. Mississippi Lime Company shall apply BACT on these emission units in this permit condition to control PM₁₀ emissions. BACT for these emission units is in accordance with Construction Permit 122002-007 II.2.A.
- 2. Mississippi Lime Company shall install fabric filters on existing and new equipment in this permit condition and shall ensure that emissions of particulate matter from the fabric filter shall not exceed 0.015 gr/dscf.
- 3. Mississippi Lime Company shall ensure that the fabric filters will be in use at all times when the associated piece of equipment is in operation, except under conditions that qualify under 10 CSR 10-6.050 Start-Up, Shutdown and Malfunction Conditions. The fabric filters shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters 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 Missouri Department of Natural Resources' employees may easily observe them. Replacement filters for the fabric filters 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.

Monitoring, Recordkeeping, and Inspections:

- 1. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty to demonstrate compliance with the 0.015 gr/dscf particulate matter emission limit.
- 2. Mississippi Lime Company shall maintain an operating and maintenance log for the fabric filters, which shall include:
 - 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.
 - 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.
- 3. Mississippi Lime Company shall inspect each fabric filter at least once every six (6) months and at a minimum conduct the following activities:
 - a) Check the cleaning sequence of the dust collector for proper operation,
 - b) Thoroughly inspect the filters for leaks and signs of wear,
 - c) Inspect all components of the control system that are not subject to wear or plugging, including structural components, housing, ducts, hoods, etc., and
 - d) If leaks or abnormal conditions are found during these inspections, the appropriate remedial actions shall be implemented before re-starting the equipment.

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU3090 – Truck Unloading (Coal) | |
|---------------------------------|--|
| Emission Unit | Description |
| EU3090 | Truck Unloading (Coal) (2007 EIQ EP-615) |

| EU3100 – Pile Forming (Coal) | |
|------------------------------|---------------------------------------|
| Emission Unit | Description |
| EU3100 | Pile Forming (Coal) (2007 EIQ EP-616) |

| EU3110 – Storage Piles (Formerly EP-54) | |
|---|---|
| Emission Unit | Description |
| EU3110 | Storage Piles (Formerly EP-54) (2007 EIQ EP-617A) |

| EU3120 – Storage Piles – (Wind Erosion, Formerly EP-54) | |
|---|---|
| Emission Unit | Description |
| EU3120 | Storage Piles – (Wind Erosion, Formerly EP-54) (2007 EIQ EP-617B) |

| EU3130 – Loading (Coal) | |
|-------------------------|----------------------------------|
| Emission Unit | Description |
| EU3130 | Loading (Coal) (2007 EIQ EP-618) |

| EU3140 – Truck Unloading (Coke) | |
|---------------------------------|--|
| Emission Unit | Description |
| EU3140 | Truck Unloading (Coke) (2007 EIQ EP-621) |
| | |

| EU3150 – Pile Forming (Coke) | |
|------------------------------|---------------------------------------|
| Emission Unit | Description |
| EU3150 | Pile Forming (Coke) (2007 EIQ EP-622) |

| EU3160 – Storage Piles (Formerly EP-54) | |
|---|---|
| Emission Unit | Description |
| EU3160 | Storage Piles (Formerly EP-54) (2007 EIQ EP-623A) |

| EU3170 – Storage Piles (Wind Erosion, Formerly EP-54) | |
|---|---|
| Emission Unit | Description |
| EU3170 | Storage Piles (Wind Erosion, Formerly EP-54) (2007 EIQ EP-623B) |

| EU3180 – Loading (Coke) | |
|-------------------------|----------------------------------|
| Emission Unit | Description |
| EU3180 | Loading (Coke) (2007 EIQ EP-624) |

| EU3190 – Hopper (Coal/Coke) | |
|-----------------------------|--------------------------------------|
| Emission Unit | Description |
| EU3190 | Hopper (Coal/Coke) (2007 EIQ EP-625) |

| EU3200 – Vibrating Feeder (Coal/Coke) | | |
|---------------------------------------|--|--|
| Emission Unit | Description | |
| EU3200 | Vibrating Feeder (Coal/Coke) (2007 EIQ EP-626) | |
| EU3210 – Conveyor (Coal/Coke) | | |
| Emission Unit | Description | |
| EU3210 | Conveyor (Coal/Coke) (2007 EIQ EP-631) | |

| EU3220 – Conveyor (Coal/Coke) | |
|-------------------------------|--|
| Emission Unit | Description |
| EU3220 | Conveyor (Coal/Coke) (2007 EIQ EP-632) |

| EU3230 – Bin #1a (Coal) | |
|-------------------------|-----------------------------------|
| Emission Unit | Description |
| EU3230 | Bin #1a (Coal) (2007 EIQ EP-633A) |

| EU3240 – Bin #1b (Coke) | |
|-------------------------|-----------------------------------|
| Emission Unit | Description |
| EU3240 | Bin #1b (Coke) (2007 EIQ EP-633B) |

| EU3250 – Conveyor (Coal/Coke) | |
|-------------------------------|--|
| Emission Unit | Description |
| EU3250 | Conveyor (Coal/Coke) (2007 EIQ EP-634) |

| EU3260 – Bin #2a (Coal) | |
|-------------------------|-----------------------------------|
| Emission Unit | Description |
| EU3260 | Bin #2a (Coal) (2007 EIQ EP-635A) |

Permit Condition (EU3090 – EU3260) - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 122002-007, Issued December 13, 2002

Operational Requirement:

Mississippi Lime Company shall apply BACT on these emission units in this permit condition to control PM₁₀ emissions. BACT for emission units EU3080-EU3180 is wet material. For emission units EU3190-EU3270 is enclosure and wet material. BACT is in accordance with Construction Permit Condition 122002-007 III.2.A.

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU3290 – Cooler RK #1 | |
|-----------------------|--------------------------------|
| Emission Unit | Description |
| EU3290 | Cooler RK #1 (2007 EIQ EP-641) |

| EU3300 – Vibrating Feeders (4) | |
|--------------------------------|---|
| Emission Unit | Description |
| EU3300 | Vibrating Feeders (4) (2007 EIQ EP-642) |

| EU3320 – Cooler RK #2 | |
|-----------------------|--------------------------------|
| Emission Unit | Description |
| EU3320 | Cooler RK #2 (2007 EIQ EP-646) |

| EU3330 – RK#2 Feeders | |
|-----------------------|--------------------------------|
| Emission Unit | Description |
| EU3330 | RK#2 Feeders (2007 EIQ EP-647) |

| EU3340 – Waste Belt Conveyor No. 1a | |
|-------------------------------------|---|
| Emission Unit | Description |
| EU3340 | Waste Belt Conveyor No. 1a (2007 EIQ EP-650A) |

| EU3350 – Waste Belt Conveyor No. 1b | |
|-------------------------------------|---|
| Emission Unit | Description |
| EU3350 | Waste Belt Conveyor No. 1b (2007 EIQ EP-650B) |

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| EU3360 – Waste Belt Conveyor No. 2 | |
|------------------------------------|---|
| Emission Unit | Description |
| EU3360 | Waste Belt Conveyor No. 2 (2007 EIQ EP-651) |
| | |
| EU3370 – Waste Loadout Bin | |

| EU3370 – Waste Loadout Bin | |
|----------------------------|-------------------------------------|
| Emission Unit | Description |
| EU3370 | Waste Loadout Bin (2007 EIQ EP-652) |

| EU3380 – Product Conveyor | |
|---------------------------|------------------------------------|
| Emission Unit | Description |
| EU3380 | Product Conveyor (2007 EIQ EP-655) |

| EU3390 – Product Conveyor (Old Pan) | |
|-------------------------------------|--|
| Emission Unit | Description |
| EU3390 | Product Conveyor (Old Pan) (2007 EIQ EP-656) |

| EU3400 – Product Conveyor | |
|---------------------------|------------------------------------|
| Emission Unit | Description |
| EU3400 | Product Conveyor (2007 EIQ EP-657) |

| EU3410 – Product Conveyor (Old Pan) | |
|-------------------------------------|--|
| Emission Unit | Description |
| EU3410 | Product Conveyor (Old Pan) (2007 EIQ EP-658) |

| EU3420 – Product Conveyor (New) | | | |
|---------------------------------|--|--|--|
| Emission Unit | Description | | |
| EU3420 | Product Conveyor (New) (2007 EIQ EP-662) | | |
| | EU3430 – Product Conveyor (New) | | |
| Emission Unit | Description | | |
| EU3430 | Product Conveyor (New) (2007 EIQ EP-663) | | |

| EU3440 – Product Conveyor | |
|---------------------------|------------------------------------|
| Emission Unit | Description |
| EU3440 | Product Conveyor (2007 EIQ EP-664) |

| EU3450 – Product Conveyor (R1&R2) | |
|-----------------------------------|--|
| Emission Unit | Description |
| EU3450 | Product Conveyor (R1&R2) (2007 EIQ EP-665) |

| EU3460 – Bucket Elevator (New) | |
|--------------------------------|---|
| Emission Unit | Description |
| EU3460 | Bucket Elevator (New) (2007 EIQ EP-666) |

| EU3470 – Product Conveyor | |
|---------------------------|------------------------------------|
| Emission Unit | Description |
| EU3470 | Product Conveyor (2007 EIQ EP-667) |

| EU3500 – Product Conveyor (New) | |
|---------------------------------|--|
| Emission Unit | Description |
| EU3500 | Product Conveyor (New) (2007 EIQ EP-671) |
| | |
| EU3520 - Screen | |

| EU3520 – Screen | |
|-----------------|---------------------------|
| Emission Unit | Description |
| EU3520 | Screen (2007 EIQ EP-673A) |

| EU3530 – Screen | |
|-----------------|---------------------------|
| Emission Unit | Description |
| EU3530 | Screen (2007 EIQ EP-673B) |

| EU3540 – Bin | |
|---------------|-----------------------|
| Emission Unit | Description |
| EU3540 | Bin (2007 EIQ EP-674) |

| EU3550 – Vibrating Feeders (2) | |
|--------------------------------|---|
| Emission Unit | Description |
| EU3550 | Vibrating Feeders (2) (2007 EIQ EP-675) |

| EU3570 – Product Conveyor (New) | |
|---------------------------------|---|
| Emission Unit | Description |
| EU3570 | Product Conveyor (New) (2007 EIQ EP-676B) |

| EU3580 – Bin | | | |
|---------------|---------------------------|--|--|
| Emission Unit | Description | | |
| EU3580 | Bin (2007 EIQ EP-677) | | |
| | EU3590 – Feeders | | |
| Emission Unit | Description | | |
| EU3590 | Feeders (2007 EIQ EP-678) | | |

| EU3620 – Bin (RK LKD) | |
|-----------------------|--------------------------------|
| Emission Unit | Description |
| EU3620 | Bin (RK LKD) (2007 EIQ EP-684) |

| EU3640 – Product Conveyor (New 07) | |
|------------------------------------|--|
| Emission Unit | Description |
| EU3640 | Product Conveyor (New 07) (2007 EIQ EP-686A) |

| EU3650 – Product Conveyor | |
|---------------------------|-------------------------------------|
| Emission Unit | Description |
| EU3650 | Product Conveyor (2007 EIQ EP-686B) |

| EU3660 – Peerless Lime Loadout Bins | |
|-------------------------------------|--|
| Emission Unit | Description |
| EU3660 | Peerless Lime Loadout Bins (2007 EIQ EP-687) |

| EU3670 – Product Conveyor | |
|---------------------------|------------------------------------|
| Emission Unit | Description |
| EU3670 | Product Conveyor (2007 EIQ EP-688) |

| EU3680 – Peerless Lime Loadouts (3) Truck/Rail | |
|--|---|
| Emission Unit | Description |
| EU3680 | Peerless Lime Loadouts (3) Truck/Rail (2007 EIQ EP-691) |

| EU3690 – Roll Crusher | |
|-----------------------|--------------------------------|
| Emission Unit | Description |
| EU3690 | Roll Crusher (2007 EIQ EP-692) |

| EU3700 – Loadouts (3) | |
|-----------------------|--------------------------------|
| Emission Unit | Description |
| EU3700 | Loadouts (3) (2007 EIQ EP-693) |

| EU3710 – Belt Conveyor/Rail Loadout | |
|-------------------------------------|--|
| Emission Unit | Description |
| EU3710 | Belt Conveyor/Rail Loadout (2007 EIQ EP-694) |

Permit Condition (EU3290, EU3300, and EU3320 – EU3710)-001 10 CSR 10-6.060 Construction Permits Required Construction Permit 122002-007, Issued December 13, 2002

Emission Limitation:

- Mississippi Lime Company shall apply BACT on the emission units in this permit condition. BACT for these emission units is fabric filter (new) in accordance with Construction Permit condition 122002-007 IV.2.A.
- 2. Mississippi Lime Company shall install fabric filters on existing and new equipment in this permit condition and shall ensure that emissions of particulate matter from the fabric filter shall not exceed 0.015 gr/dscf. This condition only applies to those equipment with "fabric filter" and "fabric filter (new)" listed in the column marked as "BACT" in the table in Special Condition IV.2.A of construction permit 122002-007.

Operational Requirement:

Mississippi Lime Company shall ensure that the fabric filters will be in use at all times when the associated piece of equipment is in operation, except under conditions that qualify under 10 CSR 10-6.050 Start-Up, Shutdown and Malfunction Conditions. The fabric filters shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters 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 Missouri Department of Natural Resources' employees may easily observe them. Replacement filters for the fabric filters 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.

Monitoring, Recordkeeping, and Inspections:

- 1. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty to demonstrate compliance with the 0.015 gr/dscf particulate matter emission limit.
- 2. Mississippi Lime Company shall maintain an operating and maintenance log for the fabric filters, which shall include:
 - 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.
 - 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.
- 3. Mississippi Lime Company shall inspect each fabric filter at least once every six (6) months and at a minimum conduct the following activities:
 - a) Check the cleaning sequence of the dust collector for proper operation,
 - b) Thoroughly inspect the filters for leaks and signs of wear,
 - c) Inspect all components of the control system that are not subject to wear or plugging, including structural components, housing, ducts, hoods, etc., and
 - d) If leaks or abnormal conditions are found during these inspections, the appropriate remedial actions shall be implemented before re-starting the equipment.

Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU0070 – Peerless Rotary Kiln #4, 1967 | |
|--|---|
| Emission Unit | Description |
| EU0070 | Peerless Rotary Kiln #4, 1967 (2007 EIQ EP-069) |

| EU0080 – Peerless Rotary Kiln #5, 1970 | |
|--|---|
| Emission Unit | Description |
| EU0080 | Peerless Rotary Kiln #5, 1970 (2007 EIQ EP-070) |

| EU0090 – Peerless Rotary Kiln #6, 1970 | |
|--|---|
| Emission Unit | Description |
| EU0090 | Peerless Rotary Kiln #6, 1970 (2007 EIQ EP-071) |

Permit Condition (EU0070, EU0080, and EU0090)-001 10 CSR 10-6.260; Restriction of Emission of Sulfur Compounds

Emission Limitation:

1. Emissions from any existing source operation shall not contain more than two thousand parts per million by volume (2000 ppmv) of sulfur dioxide.

2. Stack gasses shall not contain more than seventy milligrams (70 mg) per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three hour time period.

Monitoring:

- 1. The permittee shall maintain an accurate record of the sulfur content of fuel used. The installation shall maintain records of the amount of fuel burned (natural gas or fuel oil) and verify the sulfur content. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 2. If the requirements of condition 1 cannot be met, then compliance to the emission limitations shall be determined by source testing. The heating value of the fuel shall be determined as specified in 10 CSR 10-6.040(2). Source testing to determine compliance shall be performed as specified in 10 CSR 10-6.030(6). The actual heat input shall be determined by multiplying the heating value of the fuel by the amount of fuel burned during the source test period.
- 3. Other methods approved by the permitting agency in advance may be used to verify compliance.

Recordkeeping:

- 1. If monitoring option 1 is used to verify compliance, then the permittee shall maintain records on the premises of the analysis of all fuel used which shows weight percentage of sulfur in the fuel. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 2. If monitoring option 2 is used to verify compliance, then the permittee shall maintain records on the premises of all source testing performed.
- 3. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 4. All records shall be maintained for five years.

Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

Permit Condition (EU0070, EU0080 and EU0090)-002
40 CFR Part 63, Subpart AAAAA; National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants

Emission Limitations:

- 1. The permittee must meet each emission limit in Table 1 of Subpart AAAAA that applies.
 - a) The PM emissions must not exceed 0.12 pounds per ton of stone feed (lb/tsf). (§63.7090(a))
- 2. The permittee must meet each operating limit in Table 2 to this subpart that applies.
 - b) Prepare a written operations, maintenance, and monitoring (OM&M) plan; the plan must include the items listed in §63.7100(d) and the corrective actions to be taken when required in Table 5 of Subpart AAAAA. (§63.7090(b))

Monitoring:

The permittee must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the permittee's OM&M plan required by §63.7100(d) and paragraphs (a)(1) through (5) of §63.7113, and the permittee must install, operate, and maintain each continuous opacity monitoring system (COMS) as required by paragraph (g) of §63.7113. (§63.7113(a))

Initial Compliance Requirements:

The permittee must demonstrate initial compliance with each emission limit in Table 1 to Subpart AAAAA that applies, according to Table 3 to Subpart AAAAA. For existing lime kilns and their associated coolers, the permittee may perform visible emissions (VE) measurements in accordance with EPA Method 9 of Appendix A to Part 60 in lieu of installing a COMS or PM detector if any of the conditions in paragraphs (a)(1) through (3) of §63.7114 exist. (§63.7114(a))

Continuous Compliance Requirements:

- 1. The permittee must demonstrate continuous compliance with each emission limitation in Tables 1 and 2 to Subpart AAAAA that applies according to the methods specified in Tables 5 and 6 to Subpart AAAAA (§63.7121(a))
- 2. The permittee must report each instance in which the permittee did not meet each operating limit, opacity limit, and VE limit in Tables 2 and 6 to Subpart AAAAA that applies. This includes periods of startup, shutdown, and malfunction. These instances are deviations from the emission limitations in this subpart. These deviations must be reported according to the requirements in §63.7131. (§63.7121(b))
- 3. The permittee must conduct a performance test within five years following the initial performance test and within five years following each subsequent performance test thereafter. §63.7111 Kilns must be operated in compliance with the limits established during the most recent MACT test. The results of the most recent performance test shall be kept on site.

Recordkeeping:

- 1. A copy of each notification and report that was submitted to comply with Subpart AAAAA, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted, according to the requirements in §63.10(b)(2)(xiv). (§63.7132(a)(1))
- 2. The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction. (§63.7132(a)(2))
- 3. Records of performance tests, performance evaluations, and opacity and VE observations as required in §63.10(b)(2)(viii). (§63.7132(a)(3))
- 4. Records in §63.6(h)(6) for VE observations. (§63.7132(b))
- 5. Records required by Tables 5 and 6 to Subpart AAAAA to show continuous compliance with each emission limitation that applies. (§63.7132(c))
- 6. Records which document the basis for the initial applicability determination as required under §63.7081. (§63.7132(d))
- 7. Records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1). (§63.7133(a))
- 8. As specified in §63.10(b)(1), you must keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. (§63.7133(b))
- 9. The permittee must keep each record onsite for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). The permittee may keep the records offsite for the remaining three years. (§63.7133(c))

- 10. 40 CFR Part 63 Subpart AAAA Tables 1 through 7 can be found in Attachment Q.
- 11. The permittee shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart records when used for continuous monitoring instruments required by the permit. (10 CSR 10-6.6065(6)(C)1.C(II)(b.)I.)

Reporting:

- 1. The permittee must submit each report listed in Table 7 to Subpart AAAAA that applies. (§637131(a))
- 2. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 3. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU0110 – Peerless Rotary Cooler #4 | |
|------------------------------------|---|
| Emission Unit | Description |
| EU0110 | Peerless Rotary Cooler #4 (2007 EIQ EP-073) |

| EU0120 – Peerless Rotary Cooler #5 | |
|------------------------------------|---|
| Emission Unit | Description |
| EU0120 | Peerless Rotary Cooler #5 (2007 EIQ EP-074) |

| EU0130 – Peerless Rotary Cooler #6 | |
|------------------------------------|---|
| Emission Unit | Description |
| EU0130 | Peerless Rotary Cooler #6 (2007 EIQ EP-075) |

Permit Condition (EU0110, EU0120 and EU0130)-001 40 CFR Part 63, Subpart AAAAA; National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants

Emission Limitations:

- 1. The permittee must meet each emission limit in Table 1 of Subpart AAAAA that applies.
 - a) The PM emissions must not exceed 0.12 pounds per ton of stone feed (lb/tsf). (\(\xi \)63.7090(a))
- 2. The permittee must meet each operating limit in Table 2 to this subpart that applies.
 - a) Prepare a written operations, maintenance, and monitoring (OM&M) plan; the plan must include the items listed in §63.7100(d) and the corrective actions to be taken when required in Table 5 of Subpart AAAA. (§63.7090(b))

Monitoring:

The permittee must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the permittee's OM&M plan required by §63.7100(d) and paragraphs (a)(1) through (5) of §63.7113, and the permittee must install, operate, and maintain each continuous opacity monitoring system (COMS) as required by paragraph (g) of §63.7113. (§63.7113(a))

Initial Compliance Requirements:

The permittee must demonstrate initial compliance with each emission limit in Table 1 to Subpart AAAAA that applies, according to Table 3 to Subpart AAAAA. For existing lime kilns and their associated coolers, the permittee may perform visible emissions (VE) measurements in accordance with EPA Method 9 of Appendix A to Part 60 in lieu of installing a COMS or PM detector if any of the conditions in paragraphs (a)(1) through (3) of §63.7114 exist. (§63.7114(a))

Continuous Compliance Requirements:

- 1. The permittee must demonstrate continuous compliance with each emission limitation in Tables 1 and 2 to Subpart AAAAA that applies according to the methods specified in Tables 5 and 6 to Subpart AAAAA (§63.7121(a))
- 2. The permittee must report each instance in which the permittee did not meet each operating limit, opacity limit, and VE limit in Tables 2 and 6 to Subpart AAAAA that applies. This includes periods of startup, shutdown, and malfunction. These instances are deviations from the emission limitations in this subpart. These deviations must be reported according to the requirements in §63.7131. (§63.7121(b))
- 3. The permittee must conduct a performance test within five years following the initial performance test and within five years following each subsequent performance test thereafter. §63.7111 Kilns must be operated in compliance with the limits established during the most recent MACT test. The results of the most recent performance test shall be kept on site.

Recordkeeping:

- 1. A copy of each notification and report that was submitted to comply with Subpart AAAAA, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted, according to the requirements in §63.10(b)(2)(xiv). (§63.7132(a)(1))
- 2. The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction. (§63.7132(a)(2))
- 3. Records of performance tests, performance evaluations, and opacity and VE observations as required in §63.10(b)(2)(viii). (§63.7132(a)(3))
- 4. Records in §63.6(h)(6) for VE observations. (§63.7132(b))
- 5. Records required by Tables 5 and 6 to Subpart AAAAA to show continuous compliance with each emission limitation that applies. (§63.7132(c))
- 6. Records which document the basis for the initial applicability determination as required under §63.7081. (§63.7132(d))
- 7. Records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1). (§63.7133(a))
- 8. As specified in §63.10(b)(1), you must keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. (§63.7133(b))
- 9. The permittee must keep each record onsite for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). The permittee may keep the records offsite for the remaining three years. (§63.7133(c))
- 10. 40 CFR Part 63 Subpart AAAA Tables 1 through 7 can be found in Attachment Q.
- 11. The permittee shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart records when used for continuous monitoring instruments required by the permit. (10 CSR 10-6.6065(6)(C)1.C(II)(b.)I.)

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Reporting:

- 1. The permittee must submit each report listed in Table 7 to Subpart AAAAA that applies. (§637131(a))
- 2. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 3. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU0140 - Two (2) Silos, PRK Code L, (Lime Kiln Dust) (2) | |
|--|---|
| Emission Unit | Description |
| EU0140 | Two (2) Silos, PRK Code L, (Lime Kiln Dust) (2007 EIQ EP-081) |

| EU0150 - Truck Loadouts, PRK Code L, (Lime Kiln Dust) | |
|---|---|
| Emission Unit | Description |
| EU0150 | Truck Loadouts, PRK Code L, (Lime Kiln Dust) (2007 EIQ EP-082A) |

| EU0160 – Peerless Lime Elevators #1, #2, and #3 | |
|---|--|
| Emission Unit | Description |
| EU0160 | Peerless Lime Elevators #1, #2, and #3 (2007 EIQ EP-083, 84, and 85) |

| EU3320 – Cooler RK #2 | |
|-----------------------|--------------------------------|
| Emission Unit | Description |
| EU3320 | Cooler RK #2 (2007 EIQ EP-646) |

Permit Condition (EU0140, EU0150, EU0160, and EU3320)-001 10 CSR 10-6.060 Construction Permits Required Construction Permit 122002-007, Issued December 13, 2002

Emission Limitation:

- 1. Mississippi Lime Company shall apply BACT on the emission units in this permit condition. BACT for these emission units is fabric filter (new) in accordance with Construction Permit 122002-007 IV.2.A.
- 2. Mississippi Lime Company shall install fabric filters on existing and new equipment in this permit condition and shall ensure that emissions of particulate matter from the fabric filter shall not exceed 0.015 gr/dscf. This condition only applies to those equipment with "fabric filter" and "fabric filter (new)" listed in the column marked as "BACT" in the table in Special Condition IV.2.A of construction permit 122002-007.

Operational Requirement:

Mississippi Lime Company shall ensure that the fabric filters will be in use at all times when the associated piece of equipment is in operation, except under conditions that qualify under 10 CSR 10-6.050 Start-Up, Shutdown and Malfunction Conditions. The fabric filters shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters 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 Missouri Department of Natural Resources' employees may easily observe them. Replacement filters for the fabric filters 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.

Monitoring, Recordkeeping, and Inspections:

- 1. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty to demonstrate compliance with the 0.015 gr/dscf particulate matter emission limit.
- 2. Mississippi Lime Company shall maintain an operating and maintenance log for the fabric filters, which shall include:
 - 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.
 - 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.
- 3. Mississippi Lime Company shall inspect each fabric filter at least once every six (6) months and at a minimum conduct the following activities:
 - a) Check the cleaning sequence of the dust collector for proper operation,
 - b) Thoroughly inspect the filters for leaks and signs of wear,
 - c) Inspect all components of the control system that are not subject to wear or plugging, including structural components, housing, ducts, hoods, etc., and
 - d) If leaks or abnormal conditions are found during these inspections, the appropriate remedial actions shall be implemented before re-starting the equipment.

Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU3280 – Rotary Kiln #1 (RK1) | |
|-------------------------------|--|
| Emission Unit | Description |
| EU3280 | Rotary Kiln #1 (RK1) (2007 EIQ EP-640) |

| EU3310 – Rotary Kiln #2 (RK2) | |
|-------------------------------|--|
| Emission Unit | Description |
| EU3310 | Rotary Kiln #2 (RK2) (2007 EIQ EP-645) |

Permit Condition (EU3280 and EU3310) - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 122002-007, Issued December 13, 2002

Emission Limitation:

1. Except during periods of cure out, startup and shutdown, Mississippi Lime Company shall not discharge into the atmosphere from any of the rotary lime kiln stacks any gases which exhibit greater than fifteen percent (15%) opacity.

- 2. Except during periods of cure out, startup and shutdown, Mississippi Lime Company shall not emit from each kiln greater than 0.44 pounds (front and back half) of Particulate Matter less than ten microns in diameter (PM₁₀) per tons of lime produced. Compliance with this limit will be considered as compliance with the Best Available Control Technology (BACT) requirements. Note: For informational purposes the above BACT limitation is equivalent to 35 lbs/hr. (See Statement of Basis 10 CSR 10-6.400 calculations that display EU3280 and EU3310's potential to emit PM₁₀ is less than the equivalent BACT limit.)
- 3. Mississippi Lime Company shall emit less than 154 tons of PM₁₀ per kiln in any rolling twelve (12) month period. Mississippi Lime Company shall keep track of monthly PM₁₀ emissions from each kiln and calculate the rolling twelve (12) month emissions at the end of each month to demonstrate compliance with this limit. Mississippi Lime Company shall use Attachment P or an equivalent form to keep track of PM₁₀ emissions. All records shall be kept onsite for a least five (5) years.
- 4. Except during periods of cure out, startup and shutdown, Mississippi Lime Company shall not emit from each kiln greater than 3.5 pounds of Nitrogen Oxides (NO_x) per ton of lime produced on a thirty (30) day rolling average basis. Compliance with this limit will be considered as compliance with the BACT requirements. Note: For informational purposes the above BACT limitation is equivalent to 277 lbs/hr.
- 5. Mississippi Lime Company shall emit less than 1214 tons of NO_x per kiln in any rolling twelve (12) month period. Mississippi Lime Company shall keep track of monthly NO_x emissions from each kiln and calculate the rolling twelve (12) month emissions at the end of each month to demonstrate compliance with this limit. Mississippi Lime Company shall use Attachment P or an equivalent form to keep track of NO_x emissions. All records shall be kept onsite for at least five (5) years.
- 6. Except during periods of cure out, startup and shutdown, Mississippi Lime Company shall not emit from each kiln greater than 2.5 pounds of carbon monoxide per ton of lime produced on a thirty (30) day rolling average basis. Compliance with this limit will be considered as compliance with the BACT requirements. Note: For informational purposes the above BACT limitation is equivalent to 198 lbs/hr.
- 7. Mississippi Lime Company shall emit less than 867 tons of CO per kiln in any rolling twelve (12) month period. Mississippi Lime Company shall keep track of monthly CO emissions from each kiln and calculate the rolling twelve (12) month emissions at the end of each month to demonstrate compliance with this limit. Mississippi Lime Company shall use Attachment P or an equivalent form to keep track of CO emissions. All records shall be kept onsite for at least five (5) years.
- 8. Except during periods of cure out, startup and shutdown, Mississippi Lime Company shall not emit from each kiln greater than 51 pounds of Sulfur Oxides (SO_x) per ton of lime produced on a thirty (30) day rolling average basis. Compliance with this limit will be considered as compliance with the BACT requirements.
- 9. Mississippi Lime Company shall emit less than 223 tons of Sulfur Dioxide (SO₂) per kiln in any rolling twelve (12) month period. Mississippi Lime Company shall keep track of monthly SO₂ emissions from each kiln and calculate the rolling twelve (12) month emissions at the end of each month to demonstrate compliance with this limit. Mississippi Lime Company shall use Attachment P or an equivalent form to keep track of NO_x emissions. All records shall be kept onsite for at least five (5) years.
- 10. For the purpose of this permit condition the following definitions apply:
 - a) Startup for the pre-heater rotary lime kilns is defined as that period of time during which the lime kiln is heated from a lower or ambient temperature to the normal operating temperature or load conditions. The kilns shall be considered to operate at normal operating conditions/load when the kiln operates at loads greater than or equal to fifty (50) percent (50 percent turndown).

- b) The percentage of turndown is defined as the fraction of potential kiln throughput at which the kiln can continue to operate and still produce a sellable product.
- c) Shutdown is defined as that period of time during which the lime kiln is allowed to cool from the normal operating temperature and normal load conditions as defined above to a lower or ambient temperature.
- d) Cold startup is defined as starting the kiln from the ambient conditions to the normal operating conditions and all other startups will be considered as hot startups.
- e) Kiln refractory cure out is defined as a period prior to normal startup during which the kiln is gradually heated under controlled conditions using only natural gas as a fuel. Cure out shall not exceed 72 hours and not stone shall be fed to the kiln during this period.
- 11. The following special conditions apply only during startup and shutdown.
 - a) Mississippi Lime Company shall ensure that the hot startups shall not exceed fourteen (14) hours per hot startup per kiln and shall also ensure that the kiln baghouse is not bypassed for more than the first four (4) hours after beginning the hot startup process.
 - b) Mississippi Lime Company shall ensure that the cold startups shall not exceed twenty-six (26) hours per cold startup per kiln and shall also ensure that the kiln baghouse is not bypassed for more than the first seven (7) hours after beginning the cold startup process.
 - c) If kiln refractory cure out is required, the cure out time shall be in additions to the time limits referenced in 11.
 - d) If a startup exceeds any of the time constraints listed in 11 above, Mississippi Lime Company shall notify Missouri Department of Natural Resources within one (1) business day of the reason(s) for the longer startup time, how much additional time was required and any actions taken to minimize emissions during this period.

Initial Compliance Demonstration – Performance Testing:

- 1. Mississippi Lime Company shall conduct initial performance testing on RK No. 1 (EU3280) and RK No. 2 (EU3310) sufficient to demonstrate compliance with the conditions listed above. The initial performance testing shall be done in accordance with the test methods and procedures outlined below.
- 2. For the purposes of this performance testing and future compliance demonstration, Mississippi Lime Company shall install, calibrate, maintain, and operate devices for measuring the mass rate of limestone feed and mass rate of lime produced from each new kiln (EU3280 and EU3310). The measuring device used must be accurate within plus or minus five percent (±5%) of the mass rate over its operating range. As an alternative to the measurement of the mass of lime produced from each new kiln, Mississippi Lime Company may calculate this value based upon the mass rate of the limestone feed and the stoichiometric conversion to lime. If this alternative method is used, Mississippi Lime Company must confirm, and adjust the stoichiometric conversion factor by comparison against actual operating records. This adjustment must be done on a monthly basis.
- 3. The emission tests required by this permit for the kilns shall be conducted in accordance with the following methods and procedures listed in 40 CFR Part 60 (or other approved methods):
 - a) EPA Method 9 and NSPS §60.11 Compliance with Standards and Maintenance Requirements for Opacity.
 - b) EPA Method 5 for front-half and EPA Method 202 for condensable PM₁₀.
 - c) EPA Method 7 or 7E for NO_x
 - d) EPA Method 10 for Carbon Monoxide (CO)
 - e) EPA Method 6 for SO₂

- 4. The date on which performance tests are conducted must be pre-arranged with the Air Pollution Control Program a minimum of thirty (30) days prior to the proposed test 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. A completed Proposed Test Plan form may serve the purpose of notification and must be approved by the Air Pollution Control Program prior to conducting the required emission testing.
- 5. The stack test shall be performed within sixty (60) days of achieving the maximum production rate but no later than one hundred and eighty (180) days after initial startup of the kilns.
- 6. Two (2) copies of a written report of the performance test results shall be submitted to the Director of the Air Pollution Control Program within thirty (30) days of completion of any required 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 (1) sample run.
- 7. No later than thirty (30) days after the performance test results are submitted, Mississippi Lime Company shall provide the Air Pollution Control Program with a report that establishes the emissions of each air pollutant tested. Results of the SO₂ emission tests shall be used to develop a material balance calculation with inlet sulfur loading rates determined from fuel and limestone sulfur analyses to calculate percentage sulfur dioxide removal efficiency in the kiln, pre-heater and baghouse. Where applicable, this report shall indicate the potential emission rates in pounds per hour, tons per year and pounds per ton of lime produced from each of the new kilns in order to assist Air Pollution Control Program in verifying potential emissions from the project and compliance with all the applicable emission limitations.

Continuous Compliance Demonstration:

- 1. Mississippi Lime Company shall install, calibrate, maintain, and operate a Continuous Opacity Monitoring System (COMS), and record the output of the system, for measuring the opacity of stack gases discharged into the atmosphere. The COMS shall be placed in an appropriate location on each kiln's flue gas exhaust such that accurate readings are possible. COMS shall be used to demonstrate continuous compliance with the conditions of this permit.
- 2. Mississippi Lime Company shall install, calibrate, maintain, and operate a Continuous Emissions Monitoring System (CEMS), and record the output of the systems, for measuring NO_x emissions discharged into the atmosphere. The CEMS shall be placed in an appropriate location on each kiln's flue gas exhaust such that accurate readings are possible. NO_x CEMS shall be used to demonstrate continuous compliance with the NO_x BACT limit specified by the conditions of this permit.
- 3. Mississippi Lime Company shall install, calibrate, maintain, and operate a CEMS, and record the output of the systems, for measuring SO₂ emissions discharged into the atmosphere. These systems shall be placed in an appropriate location on each kiln's flue gas exhaust such that accurate readings are possible. SO₂ CEMS shall be used to demonstrate continuous compliance with the SO₂ BACT limit specified by the conditions of this permit.
- 4. Mississippi Lime Company shall conduct a stack test once every five (5) years to verify that the PM_{10} emission limitation set in this permit condition is not exceeded. Applicable portions of this permit condition will also apply to this stack test
- 5. Mississippi Lime Company shall conduct a stack test once every five (5) years to verify that the CO emission limitation set in this permit condition is not exceeded. Applicable portions of this permit conditions will also apply to this stack test.

Baghouse Operational and Recordkeeping Requirements:

1. Mississippi Lime Company shall control emissions from the above listed equipment using baghouses that 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 Missouri Department of Natural Resources' employees may easily observe them. Replacement filters for the baghouses shall be kept on hand at all times. The bas shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).

- 2. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
- 3. Mississippi Lime Company 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:
 - b) Maintenance activities, with regular inspection schedule, repair actions, and replacements, etc.
 - 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.
- 4. Mississippi Lime Company shall inspect each fabric filter at least once every six (6) months and at a minimum conduct the following activities:
 - a) Check the cleaning sequence of the dust collector for proper operation
 - b) Thoroughly inspect the filters for leaks and signs of wear,
 - c) Inspect all components of the control system that are not subject to wear or plugging, including structural components, housing, ducts, hoods, etc. and
 - d) If leaks or abnormal conditions are found during these inspections, the appropriate remedial actions shall be implemented before re-starting the equipment.

Permit Condition (EU3280 and 3310) - 002

40 CFR Part 63, Subpart AAAAA; National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants

Emission Limitations:

- 1. The permittee must meet each emission limit in Table 1 of Subpart AAAAA that applies.
 - a) The PM emissions of EU3280 RK1 must not exceed 0.12 pounds per ton of stone feed (lb/tsf). (§63.7090(a))
 - b) The PM emissions of EU3310 RK2 must not exceed 0.10 pounds per ton of stone feed (lb/tsf). (§63.7090(a))
- 2. The permittee must meet each operating limit in Table 2 to this subpart that applies.
 - a) Prepare a written operations, maintenance, and monitoring (OM&M) plan; the plan must include the items listed in §63.7100(d) and the corrective actions to be taken when required in Table 5 of Subpart AAAAA. (§63.7090(b))

Monitoring:

The permittee must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the permittee's OM&M plan required by §63.7100(d) and paragraphs (a)(1) through (5) of §63.7113, and the permittee must install, operate, and maintain each continuous opacity monitoring system (COMS) as required by paragraph (g) of §63.7113. (§63.7113(a))

Initial Compliance Requirements:

The permittee must demonstrate initial compliance with each emission limit in Table 1 to Subpart AAAAA that applies, according to Table 3 to Subpart AAAAA. For existing lime kilns and their associated coolers, the permittee may perform visible emissions (VE) measurements in accordance with

EPA Method 9 of Appendix A to Part 60 in lieu of installing a COMS or PM detector if any of the conditions in paragraphs (a)(1) through (3) of §63.7114 exist. (§63.7114(a))

Continuous Compliance Requirements:

- 1. The permittee must demonstrate continuous compliance with each emission limitation in Tables 1 and 2 to Subpart AAAAA that applies according to the methods specified in Tables 5 and 6 to Subpart AAAAA (§63.7121(a))
- 2. The permittee must report each instance in which the permittee did not meet each operating limit, opacity limit, and VE limit in Tables 2 and 6 to Subpart AAAAA that applies. This includes periods of startup, shutdown, and malfunction. These instances are deviations from the emission limitations in this subpart. These deviations must be reported according to the requirements in §63.7131. (§63.7121(b))
- 3. The permittee must conduct a performance test within five years following the initial performance test and within five years following each subsequent performance test thereafter. §63.7111 Kilns must be operated in compliance with the limits established during the most recent MACT test. The results of the most recent performance test shall be kept on site.

Recordkeeping:

- 1. A copy of each notification and report that was submitted to comply with Subpart AAAAA, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted, according to the requirements in §63.10(b)(2)(xiv). (§63.7132(a)(1))
- 2. The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction. (§63.7132(a)(2))
- 3. Records of performance tests, performance evaluations, and opacity and VE observations as required in §63.10(b)(2)(viii). (§63.7132(a)(3))
- 4. Records in §63.6(h)(6) for VE observations. (§63.7132(b))
- 5. Records required by Tables 5 and 6 to Subpart AAAAA to show continuous compliance with each emission limitation that applies. (§63.7132(c))
- 6. Records which document the basis for the initial applicability determination as required under §63.7081. (§63.7132(d))
- 7. Records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1). (§63.7133(a))
- 8. As specified in §63.10(b)(1), you must keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. (§63.7133(b))
- 9. The permittee must keep each record onsite for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). The permittee may keep the records offsite for the remaining three years. (§63.7133(c))
- 10. 40 CFR Part 63 Subpart AAAA Tables 1 through 7 can be found in Attachment Q.
- 11. The permittee shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart records when used for continuous monitoring instruments required by the permit. (10 CSR 10-6.6065(6)(C)1.C(II)(b.)I.)

Reporting:

1. The permittee must submit each report listed in Table 7 to Subpart AAAAA that applies. (§637131(a))

- 2. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 3. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

Permit Condition (EU3280 and EU3310) - 003 40 CFR Part 60, Subpart HH; Standards of Performance for Lime Manufacturing Plants

Emission Limitation:

On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any rotary lime kiln gases which:

- 1. The PM emissions of EU3280 RK1 and EU3310 RK2 must not exceed 0.60 pounds per ton of stone feed (lb/tsf).
- 2. Permit condition EU3280 and 3310 002 state RK1 and RK2 must not emit more than 0.12 and 0.10 pounds of PM per ton of stone feed, respectively. The limits in 40 CFR Part 63, Subpart AAAA are more stringent than 40 CFR Part 60, Subpart HH. Compliance with this permit condition shall be maintained when EU3280 RK1and EU3310 are in compliance with (EU3280 and 3310) 002.
- 3. Exhibit greater than 15 percent opacity when exiting from a dry emission control device.

Monitoring:

- 1. The owner or operator of a facility that is subject to the provisions of this subpart shall install, calibrate, maintain, and operate a continuous monitoring system, except as provided in paragraphs (b) and (c) of this section, to monitor and record the opacity of a representative portion of the gasses discharged into the atmosphere from any rotary lime kiln.
- 2. The owner or operator of any rotary lime kiln having a control device with a multiple stack exhaust or a roof monitor may, in lieu of the continuous opacity monitoring requirement of §60.343(a), monitor visible emissions at least once per day of operation by using a certified visible emissions observer who for each site where visible emissions are observed, will perform three Method 9 tests and record the results. Visible emissions are observed, will perform three Method 9 tests and record the results. Visible emission observations shall occur during normal operation of the rotary lime kiln at least once per day. For at least three six-minute periods, the opacity shall be recorded for any point(s) where visible emissions are observed, and the corresponding feed rate of the kiln shall also be recorded. Records shall be maintained of any 6-minute average that is in excess of the emissions specified in §60.343(a) of this subpart [§60.343(b)]
- 3. The owner or operator of any rotary lime kiln using a wet scrubbing emission control device subject to the provisions of this subpart shall not be required to monitor the opacity of the gases discharged as required in paragraph (a) of this section, but shall install, calibrate, maintain, operate, and record the resultant information from the following continuous monitoring devices:
 - a) A monitoring device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be accurate within ± 250 pascals (one inch of water). [\$60.343(c)(1)]
 - b) A monitoring device for the continuous measurement of the scrubbing liquid pressure to the control device. The monitoring device must be accurate within ± 5 percent of the design scrubbing liquid supply pressure. [$\S60.343(c)(2)$]

- 4. For the purpose of conducting a performance test under §60.8 the owner or operator of any lime manufacturing plant subject to the provisions of this subpart shall install, calibrate, maintain, and operate a device for measuring the mass rate of stones feed to any affected rotary lime kiln. The measuring device used must be accurate to within ±5 percent of the mass rate over its operating range. [§60.343(d)]
- 5. For the purpose of reports required under §60.7(c), periods of excess emissions that shall be reported are defined as all 6-minute periods during which the average opacity of the visible emissions from any lime kiln subject to paragraph (a) of this subpart is greater than 15 percent or, in case of the wet scrubbers, any period below that established during the performance test. If visible emission observations are made according to paragraph (b) of this section, reports of excess emissions shall be semi-annually. [§60.343(e)]

Test Methods and Procedures:

- 1. In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures 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).(§60.344(a))
- 2. The owner or operator shall determine compliance with the particulate matter standards in §60.342(a) as follows:
 - a) The emission rate (E) of particulate matter shall be computed for each run using the following equation:

 $E = (c_s Q_{sd})/PK$

Where: E = emission rate of particulate matter, kg/Mg (11b/ton) of stone feed.

c = concentration of particulate matter g/dscm (gr/dscf).

Q_{sd}=volumetric flow rate of effluent gas, dscm/hr (dscf/hr).

P=stone feed rate, Mg/hr (ton/hr).

K=conversion factor, 1000 g/kg (7000 gr/lb).

- b) Method 5 shall be used at negative-pressure fabric filters and other types of control devices and Method 5D shall be used at positive-pressure fabric filters to determine the particulate matter concentration (c_s) and the volumetric flow rate (Q_{sd}) of the effluent gas. The sampling time and sample volume for each run shall be at least 60 minutes and 0.90 dscm (31.8 dscf).
- c) The monitoring device of §60.343(d) shall be used to determine the stone feed rate (P) for each run.
- d) Method 9 and the procedures in §60.11 shall be used to determine opacity. (60.344(b))
- 3. During the particulate matter run, the owner or operator shall use the monitoring devices in §60.343(c)(1) and (2) to determine the average pressure loss of the gas stream through the scrubber and the average scrubbing liquid supply pressure.[§60.344(c)]

- 1. Reports of any deviations from the 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.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU0170 – Peerless Hammermill Crusher | |
|--------------------------------------|---|
| Emission Unit | Description |
| EU0170 | Peerless Hammermill Crusher (2007 EIQ EP088C) |

| EU0185 – Truck/Rail Overfill Hopper | |
|-------------------------------------|--|
| Emission Unit | Description |
| EU0185 | Truck/Rail Overfill Hopper (2007 EIQ EP088E) |

| EU0190 – Peerless PQL Roller Mill | |
|-----------------------------------|----------------------------------|
| Emission Unit | Description |
| EU0190 | PQL Roller Mill (2007 EIQ EP089) |

| EU0200 – FK Pump and Silo | |
|---------------------------|------------------------------------|
| Emission Unit | Description |
| EU0200 | FK Pump and Silo (2007 EIQ EP090A) |

| EU0210 – FK Pump and Truck and Rail Loadout Bins | |
|--|---|
| Emission Unit | Description |
| EU0210 | FK Pump and Truck and Rail Loadout Bins (2007 EIQ EP090B) |

| EU0220 – Truck and Rail Loadout Chutes | |
|--|--|
| Emission Unit | Description |
| EU0220 | Truck and Rail Loadout Chutes (2007 EIQ EP091) |

Permit Condition (EU170, EU0185, EU0190, EU0200, EU0210, EU0220) -001 10 CSR 10-6.060 Construction Permits Required Construction Permit 122002-007, Issued December 13, 2002

Emission Limitation:

- 1. Mississippi Lime Company shall apply BACT on the emission units in this permit condition. BACT for EU0190 is cyclone and fabric filter. BACT for EU0170 is fabric filter (new). BACT for EU0200, EU0210, and EU0220 is fabric filter. These BACT emission units are in accordance with Construction Permit 122002-007 IV.2.A.
- 2. Mississippi Lime Company shall install fabric filters on existing and new equipment in this permit condition and shall ensure that emissions of particulate matter from the fabric filter shall not exceed 0.015 gr/dscf. This condition only applies to those equipment with "fabric filter" and "fabric filter (new)" listed in the column marked as "BACT" in the table in Special Condition IV.2.A of construction permit 122002-007.
- 3. Special Condition IV.2.A of construction permit 122002-007 states that EU0185 Truck/Rail Overfill Hopper's (EP088E) BACT is None.

Operational Requirement:

Mississippi Lime Company shall ensure that the fabric filters will be in use at all times when the associated piece of equipment is in operation, except under conditions that qualify under 10 CSR 10-6.050 Start-Up, Shutdown and Malfunction Conditions. The fabric filters shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters 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 Missouri Department of Natural Resources' employees may easily

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observe them. Replacement filters for the fabric filters 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.)

Monitoring, Recordkeeping, and Inspections:

- 1. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty to demonstrate compliance with the 0.015 gr/dscf particulate matter emission limit.
- 2. Mississippi Lime Company shall maintain an operating and maintenance log for the fabric filters, which shall include:
 - 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.
 - 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.
- 3. Mississippi Lime Company shall inspect each fabric filter at least once every six (6) months and at a minimum conduct the following activities:
 - a) Check the cleaning sequence of the dust collector for proper operation,
 - b) Thoroughly inspect the filters for leaks and signs of wear,
 - c) Inspect all components of the control system that are not subject to wear or plugging, including structural components, housing, ducts, hoods, etc., and
 - d) If leaks or abnormal conditions are found during these inspections, the appropriate remedial actions shall be implemented before re-starting the equipment.

Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU0180 – Peerless Lime Mill Feed Bin | |
|--------------------------------------|--|
| Emission Unit | Description |
| EU0180 | Peerless Lime Mill Feed Bin (2007 EIQ EP-088D) |

Permit Condition EU0180-001 10 CSR 10-6.060 Construction Permits Required Construction Permit 122002-007, Issued December 13, 2002

Emission Limitation:

- 1. Mississippi Lime Company shall apply BACT on the emission units in this permit condition. BACT for these emission units is fabric filter (new) and is accordance with Construction Permit 122002-007 IV.2.A.
- 2. Mississippi Lime Company shall install fabric filters on existing and new equipment in this permit condition and shall ensure that emissions of particulate matter from the fabric filter shall not exceed 0.015 gr/dscf. This condition only applies to those equipment with "fabric filter" and "fabric filter"

(new)" listed in the column marked as "BACT" in the table in Special Condition IV.2.A of construction permit 122002-007.

Operational Requirement:

Mississippi Lime Company shall ensure that the fabric filters will be in use at all times when the associated piece of equipment is in operation, except under conditions that qualify under 10 CSR 10-6.050 Start-Up, Shutdown and Malfunction Conditions. The fabric filters shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters 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 Missouri Department of Natural Resources' employees may easily observe them. Replacement filters for the fabric filters 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.

Monitoring, Recordkeeping, and Inspections:

- 1. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty to demonstrate compliance with the 0.015 gr/dscf particulate matter emission limit.
- 2. Mississippi Lime Company shall maintain an operating and maintenance log for the fabric filters, which shall include:
 - 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.
 - 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.
- 3. Mississippi Lime Company shall inspect each fabric filter at least once every six (6) months and at a minimum conduct the following activities:
 - a) Check the cleaning sequence of the dust collector for proper operation,
 - b) Thoroughly inspect the filters for leaks and signs of wear,
 - c) Inspect all components of the control system that are not subject to wear or plugging, including structural components, housing, ducts, hoods, etc., and
 - d) If leaks or abnormal conditions are found during these inspections, the appropriate remedial actions shall be implemented before re-starting the equipment.

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU1820 – Peerless Railcar Unloading, 2002 | |
|---|--|
| Emission Unit | Description |
| EU1820 | Peerless Railcar Unloading, 2002 (2007 EIQ EP-092) |

| EU1830 – Peerless PRPQL Railcar Elevator, 2002 | |
|--|---|
| Emission Unit | Description |
| EU1830 | Peerless PRPQL Railcar Elevator, 2002 (2007 EIQ EP-093) |

Permit Condition (EU1820 and EU1830) - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 072004-012, Issued July 16, 2004 Construction Permit 072004-12A, Issued May 21, 2009

Permitting Applicability:

Mississippi Lime Company will not construct the previously permitted equipment in this permit condition without first obtaining a New Source Review (NSR) permit from the Air Pollution Control Program. (Special Condition 2)

| EU904, EU905, and EU906 – Trans-loading Station | | | |
|---|----------------------|----------------|---------------------------|
| Emission Unit | Description | Control Device | Control Device Efficiency |
| EU0904 | Conveyor to conveyor | CD903 Baghouse | 100% |
| EU0905 | Conveyor to load-out | CD903 Baghouse | 100% |
| EU0906 | Baghouse to Conveyor | CD903 Baghouse | 100% |

Permit Condition EU904, EU905, and EU906 - 001

10 CSR 10-6.060 Construction Permits Required Construction Permit 042010-010, Issued April 16 2010

Emission Limitation:

Mississippi Lime Company shall use total enclosures to capture emissions from the trans-loading conveyor drop-points (EU904-EU906) listed in Table 2 in Construction Permit 042010-010 as a Baghouse (CD903). A total enclosure is an enclosure that completely surrounds emissions from an emissions unit. [Special Condition 1]

Operational Requirement

- 1. Mississippi Lime Company shall control emissions from the trans-loading conveyor drop points (EU904-EU906) equipped with total enclosures by using a baghouse as specified in the permit application. [Special Condition 2.A]
- 2. The baghouse shall be operated and maintained in accordance with the manufacturer's specifications. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. The gauge(s) or meter(s) shall be located such that the Department of Natural Resources' employees may easily observe them. [Special Condition 2.B]
- 3. Replacement filters for the baghouse shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance). [Special Condition 2.C]
- 4. Mississippi Lime Company shall maintain an operating and maintenance log for the baghouse which shall include the following:
 - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and

- corrective actions; and [Special Condition 2.D.1]
- b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc. [Special Condition 2.D.2]

Monitoring and Recordkeeping:

Mississippi Lime Company shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. [Special Condition 2.E]

| EU0460 – No. 1 Hydrator, North and South Product Mills | |
|--|---|
| Emission Unit | Description |
| EU0460 | No. 1 Hydrator, North and South Product Mills (2007 EIQ EP-136S and 136N) |

Permit Condition EU0460-001 10 CSR 10-6.400; Restriction of Emission of Particulate Matter From Industrial Processes

Emission Limitation:

- 1. The permittee shall not emit particulate matter from EU0460 in excess of 11.23 pounds per hour of particulate matter.
- 2. The permittee shall not emit particulate matter from any source in a concentration in excess of 0.30 grain per standard cubic feet of exhaust gases.

Monitoring, Recordkeeping, Reporting:

At maximum hourly design rates the uncontrolled particulate matter emissions from EU0460 is less than the allowable emission limit. No monitoring, recordkeeping, or reporting is required. (See Statement of Basis)

| EU0470 – No. 2 Hydrator | |
|-------------------------|----------------------------------|
| Emission Unit | Description |
| EU0470 | No. 2 Hydrator (2007 EIQ EP-139) |

Permit Condition EU0470-001 10 CSR 10-6.060 Construction Permits Required Construction Permit 122002-007, Issued December 13, 2002

Emission Limitation:

- 1. Mississippi Lime Company shall not emit greater than twenty (20) tons of PM_{10} in a rolling twelve (12) month period from the lime hydrators and material transfer processes being permitted.
- 2. Mississippi Lime Company shall use Attachment G or an equivalent form to keep track of PM₁₀ emissions.
- 3. Mississippi Lime Company shall apply BACT on the emission unit in this permit condition. BACT for this emission unit is a Wet Scrubber in accordance with Construction Permit Condition 122002-007 VI.2.C.

Operational Requirement:

Mississippi Lime Company shall ensure that the scrubber operates at all times when the MVH No. 2 hydrator operates, except under conditions that qualify under 10 CSR 10-6.050 *Start-Up, Shutdown and Malfunction Conditions*. The wet scrubber shall be maintained and operated as follows:

- 1) The wet scrubbers and the associated instrumentation shall be calibrated, maintained and operated according to the manufacturer's specifications and recommendations.
- 2) The liquid flow rate at the pump discharge shall be monitored continuously.
- 3) A written or electronic record of all inspections, maintenance, calibration and any action resulting from these actions shall be maintained at the facility and made available to Missouri Department of Natural Resources personnel upon request.

Reporting:

- 1. Reports of any deviations from the 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.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

Permit Condition EU0470-002

10 CSR 10-6.400; Restriction of Emission of Particulate Matter From Industrial Processes

Emission Limitation:

1. The permittee shall not emit particulate matter from EU0470 in excess of rates calculated by the following equations:

These emission rates are calculated using one of the following equations:

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

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

Where:

E = rate of emission in lb/hr

P = process weight rate in tons/hr

b) For process weight rates greater than 60,000 lb/hr:

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

Where:

E = rate of emission in lb/hr

P = process weight rate in tons/hr

2. The permittee shall not emit particulate matter from any source in a concentration in excess of 0.30 grain per standard cubic feet of exhaust gases.

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

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| EU0490A – Tailings Bin (Code H) | |
|---------------------------------|--|
| Emission Unit | Description |
| EU0490A | Tailings Bin (Code H) (2007 EIQ EP-138A) |

| EU1870 – #1 & #2 Feed Bins for No. 2 Hydrator, enclosed, 1981 | |
|---|---|
| Emission Unit | Description |
| EU1870 | #1 & #2 Feed Bins for No. 2 Hydrator, enclosed, 1981 (2007 EIQ EP-139A) |

| EU1880 – Railcar Loading, 1981 | |
|--------------------------------|--|
| Emission Unit | Description |
| EU1880 | Railcar Loading, 1981 (2007 EIQ EP-138C) |

| EU1890 – Vacuum Receiver – MVH No. 2 | |
|--------------------------------------|---|
| Emission Unit | Description |
| EU1890 | Vacuum Receiver – MVH No. 2 (2007 EIQ EP-140) |

| EU1900 – North Truck Loadout, No. 2 Hydrator Product, enclosed bldg, 1981 | |
|---|---|
| Emission Unit | Description |
| EU1900 | North Truck Loadout, No. 2 Hydrator Product, enclosed bldg, 1981 (2007 EIQ EP-141C) |

| EU1910 – No. 1 through No. 6 Storage Bins, Hydrator Product, enclosed bldg, 1981 | |
|--|---|
| Emission Unit | Description |
| EU1910 | No. 1 through No. 6 Storage Bins, Hydrator Product, enclosed bldg, 1981 (Code H) (2007 EIQ EP-141B) |

Permit Condition (EU0490A, EU1870, EU1880, EU1890, EU1900, and EU1910) - 001

10 CSR 10-6.060 Construction Permits Required Construction Permit 122002-007, Issued December 13, 2002

Emission Limitation:

- 1. Mississippi Lime Company shall not emit greater than twenty (20) tons of PM₁₀ in a rolling twelve (12) month period from the lime hydrators and material transfer processes being permitted.
- 2. Mississippi Lime Company shall use Attachment G or an equivalent form to keep track of PM₁₀ emissions.
- 3. Mississippi Lime Company shall apply BACT on the emission unit in this permit condition. BACT for these emission units are Fabric Filters in accordance with Construction Permit 122002-007 VI.2.C.
- 4. Mississippi Lime Company shall install fabric filters on the emission units in this permit condition and shall ensure that emissions of particulate matter from the fabric filter shall not exceed 0.015 gr/dscf.

Operational Requirement:

Mississippi Lime Company shall ensure that the fabric filters will be in use at all times when the associated piece of equipment is in operation, except under conditions that qualify under 10 CSR 10-6.050 *Start-Up, Shutdown and Malfunction Conditions*. The fabric filters shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters 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 Missouri Department of Natural Resources' employees may easily observe them. Replacement filters for the fabric filters 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.

Monitoring, Recordkeeping, and Inspections:

- 1. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty to demonstrate compliance with the 0.015 gr/dscf particulate matter emission limit.
- 2. Mississippi Lime Company shall maintain an operating and maintenance log for the fabric filters, which shall include:
 - 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.
 - 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.
- 3. Mississippi Lime Company shall inspect each fabric filter at least once every six (6) months and at a minimum conduct the following activities:
 - a) Check the cleaning sequence of the dust collector for proper operation,
 - b) Thoroughly inspect the filters for leaks and signs of wear,
 - c) Inspect all components of the control system that are not subject to wear or plugging, including structural components, housing, ducts, hoods, etc., and
 - d) If leaks or abnormal conditions are found during these inspections, the appropriate remedial actions shall be implemented before re-starting the equipment.

Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU490B – Tailings Bin Loadout - MVH | |
|-------------------------------------|---|
| Emission Unit | Description |
| EU490B | Tailings Bin Loadout - MVH (2007 EIQ EP-138B) |

| EU0510 – Loadout (Truck) – MVH #1 & #2 | |
|--|--|
| Emission Unit | Description |
| EU0510 | Loadout (Truck) – MVH #1 & #2 (2007 EIQ EP-142B) |

Permit Condition (EU0490B and EU0510) - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 122002-007, Issued December 13, 2002

Emission Limitation:

1. Mississippi Lime Company shall not emit greater than twenty (20) tons of PM_{10} in a rolling twelve (12) month period from the lime hydrators and material transfer processes being permitted.

- 2. Mississippi Lime Company shall use Attachment G or an equivalent form to keep track of PM₁₀ emissions
- 3. Mississippi Lime Company shall apply BACT on the emission unit in this permit condition. BACT for these emission units are Fabric Filters in accordance with Construction Permit Condition 122002-007 VI.2.C.
- 4. Mississippi Lime Company shall install fabric filters on the emission units in this permit condition and shall ensure that emissions of particulate matter from the fabric filter shall not exceed 0.015 gr/dscf.

Operational Requirement:

Mississippi Lime Company shall ensure that the fabric filters will be in use at all times when the associated piece of equipment is in operation, except under conditions that qualify under 10 CSR 10-6.050 Start-Up, Shutdown and Malfunction Conditions. The fabric filters shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters 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 Missouri Department of Natural Resources' employees may easily observe them. Replacement filters for the fabric filters 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.

Monitoring, Recordkeeping, and Inspections:

- 1. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty to demonstrate compliance with the 0.015 gr/dscf particulate matter emission limit.
- 2. Mississippi Lime Company shall maintain an operating and maintenance log for the fabric filters, which shall include:
 - 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.
 - 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.
- 3. Mississippi Lime Company shall inspect each fabric filter at least once every six (6) months and at a minimum conduct the following activities:
 - a) Check the cleaning sequence of the dust collector for proper operation,
 - b) Thoroughly inspect the filters for leaks and signs of wear,
 - c) Inspect all components of the control system that are not subject to wear or plugging, including structural components, housing, ducts, hoods, etc., and
 - d) If leaks or abnormal conditions are found during these inspections, the appropriate remedial actions shall be implemented before re-starting the equipment.

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

Permit Condition (EU0490B and EU0510) - 002 10 CSR 10-6.060 Construction Permits Required Construction Permit 0898-019, Issued August 17, 1998

Emission Limitation:

Mississippi Lime Company shall not discharge into the ambient air from the emission units in this permit condition any air contaminant of opacity greater than 20 percent.

Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU0500 – No. 1 and No. 2 Truck Bins | |
|-------------------------------------|---|
| Emission Unit | Description |
| EU0500 | No. 1 and No. 2 Truck Bins (2007 EIQ EP-142A) |

| EU0520 – South Bulk Loadout | |
|-----------------------------|---------------------------------------|
| Emission Unit | Description |
| EU0520 | South Bulk Loadout (2007 EIQ EP-137A) |

Permit Condition (EU0500, EU0520) - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 122002-007, Issued December 13, 2002

Emission Limitation:

- 1. Mississippi Lime Company shall not emit greater than twenty (20) tons of PM_{10} in a rolling twelve (12) month period from the lime hydrators and material transfer processes being permitted.
- 2. Mississippi Lime Company shall use Attachment G or an equivalent form to keep track of PM₁₀ emissions.
- 3. Mississippi Lime Company shall apply BACT on the emission unit in this permit condition. BACT for these emission units are Fabric Filters in accordance with Construction Permit condition 122002-007 VI.2.C.
- 4. Mississippi Lime Company shall install fabric filters on the emission units in this permit condition and shall ensure that emissions of particulate matter from the fabric filter shall not exceed 0.015 gr/dscf.

Operational Requirement:

Mississippi Lime Company shall ensure that the fabric filters will be in use at all times when the associated piece of equipment is in operation, except under conditions that qualify under 10 CSR 10-6.050 Start-Up, Shutdown and Malfunction Conditions. The fabric filters shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters 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 Missouri Department of Natural Resources' employees may easily observe them. Replacement filters for the fabric filters 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.

Monitoring, Recordkeeping, and Inspections:

- 1. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty to demonstrate compliance with the 0.015 gr/dscf particulate matter emission limit.
- 2. Mississippi Lime Company shall maintain an operating and maintenance log for the fabric filters, which shall include:
 - 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.
 - 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.
- 3. Mississippi Lime Company shall inspect each fabric filter at least once every six (6) months and at a minimum conduct the following activities:
 - a) Check the cleaning sequence of the dust collector for proper operation,
 - b) Thoroughly inspect the filters for leaks and signs of wear,
 - c) Inspect all components of the control system that are not subject to wear or plugging, including structural components, housing, ducts, hoods, etc., and
 - d) If leaks or abnormal conditions are found during these inspections, the appropriate remedial actions shall be implemented before re-starting the equipment.

Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU0530 – 4-Spout Bagger, Bulk Bagger | |
|--------------------------------------|---|
| Emission Unit | Description |
| EU0530 | 4-Spout Bagger, Bulk Bagger (2007 EIQ EP-141A and 141D) |

Permit Condition (EU0530) - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 122002-007, Issued December 13, 2002

Emission Limitation:

- 1. Mississippi Lime Company shall not emit greater than twenty (20) tons of PM₁₀ in a rolling twelve (12) month period from the lime hydrators and material transfer processes being permitted.
- 2. Mississippi Lime Company shall use Attachment G or an equivalent form to keep track of PM₁₀ emissions.
- 3. Mississippi Lime Company shall apply BACT on the emission unit in this permit condition. BACT for this emission units is Fabric Filters in accordance with Construction Permit Condition 122002-007 VI.2.C.

4. Mississippi Lime Company shall install a fabric filter on the emission unit in this permit condition and shall ensure that emissions of particulate matter from the fabric filter shall not exceed 0.015 gr/dscf.

Operational Requirement:

Mississippi Lime Company shall ensure that the fabric filters will be in use at all times when the associated piece of equipment is in operation, except under conditions that qualify under 10 CSR 10-6.050 Start-Up, Shutdown and Malfunction Conditions. The fabric filters shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters 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 Missouri Department of Natural Resources' employees may easily observe them. Replacement filters for the fabric filters 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.

Monitoring, Recordkeeping, and Inspections:

- 1. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty to demonstrate compliance with the 0.015 gr/dscf particulate matter emission limit.
- 2. Mississippi Lime Company shall maintain an operating and maintenance log for the fabric filters, which shall include:
 - 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.
 - 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.
- 3. Mississippi Lime Company shall inspect each fabric filter at least once every six (6) months and at a minimum conduct the following activities:
 - a) Check the cleaning sequence of the dust collector for proper operation,
 - b) Thoroughly inspect the filters for leaks and signs of wear,
 - c) Inspect all components of the control system that are not subject to wear or plugging, including structural components, housing, ducts, hoods, etc., and
 - d) If leaks or abnormal conditions are found during these inspections, the appropriate remedial actions shall be implemented before re-starting the equipment.

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

Permit Condition (EU0530) - 002 10 CSR 10-6.060 Construction Permits Required Construction Permit 0395-008, Issued February 11, 1995

Emission Limitation:

This facility shall vent the hydrate bulk bag system to a dust collector. The dust collector shall be used at all times that this emission source is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications.

Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU0540 – No. 1 Hydrate Silo, 2001 | |
|-----------------------------------|---|
| Emission Unit | Description |
| EU0540 | No. 1 Hydrate Silo, 2001 (2007 EIQ EP-142C) |

| EU0550 – No. 2 Hydrate Silo, 2001 | |
|-----------------------------------|---|
| Emission Unit | Description |
| EU0550 | No. 2 Hydrate Silo, 2001 (2007 EIQ EP-142E) |

| EU0560 – No. 1 Hydrate Truck Loadout, 2001 | |
|--|--|
| Emission Unit | Description |
| EU0560 | No. 1 Hydrate Truck Loadout, 2001 (2007 EIQ EP-142D) |

| EU0570 – No. 2 Hydrate Truck Loadout, 2001 | |
|--|--|
| Emission Unit | Description |
| EU0570 | No. 2 Hydrate Truck Loadout, 2001 (2007 EIQ EP-142F) |

| EU0580 – Hydrate Rail Loadout, 2001 | |
|-------------------------------------|---|
| Emission Unit | Description |
| EU0580 | Hydrate Rail Loadout, 2001 (2007 EIQ EP-142G) |

Permit Condition (EU0530 – EU0580) - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 072004-012, Issued July 16, 2004 Construction Permit 072004-12A, Issued May 21, 2009

Permitting Applicability:

Mississippi Lime Company will not construct the previously permitted equipment in this permit conditions without first obtaining a New Source Review (NSR) permit from the Air Pollution Control Program. (Special Condition 2)

| EU0620 – Spray Dryer | |
|----------------------|---|
| Emission Unit | Description |
| EU0620 | Spray Dryer (2007 EIQ EP-146A and 146B) |

| EU1920 – Tunnel Dryer 32 (Natural Gas Combustion) – MV – PCC | |
|--|--|
| Emission Unit | Description |
| EU1920 | Tunnel Dryer 32 (Natural Gas Combustion) – MV – PCC (2007 EIQ EP-148B) |

Permit Condition (EU0620 and EU1920)-001 10 CSR 10-6.260; Restriction of Emission of Sulfur Compounds

Emission Limitation:

- 1. Emissions from any existing source operation shall not contain more than two thousand parts per million by volume (2000 ppmy) of sulfur dioxide.
- 2. Stack gasses shall not contain more than seventy milligrams (70 mg) per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three hour time period.

Monitoring:

- 1. The permittee shall maintain an accurate record of the sulfur content of fuel used. The installation shall maintain records of the amount of fuel burned (natural gas or fuel oil) and verify the sulfur content. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 2. If the requirements of condition 1 cannot be met, then compliance to the emission limitations shall be determined by source testing. The heating value of the fuel shall be determined as specified in 10 CSR 10-6.040(2). Source testing to determine compliance shall be performed as specified in 10 CSR 10-6.030(6). The actual heat input shall be determined by multiplying the heating value of the fuel by the amount of fuel burned during the source test period.
- 3. Other methods approved by the permitting agency in advance may be used to verify compliance.

Recordkeeping:

- 1. If monitoring option 1 is used to verify compliance, then the permittee shall maintain records on the premises of the analysis of all fuel used which shows weight percentage of sulfur in the fuel. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 2. If monitoring option 2 is used to verify compliance, then the permittee shall maintain records on the premises of all source testing performed.
- 3. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 4. All records shall be maintained for five years.

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU1300 – VK-1 Limestone Conveyor | |
|----------------------------------|---|
| Emission Unit | Description |
| EU1300 | VK-1 Limestone Conveyor (2007 EIQ EP-275) |

| EU1310 – VK-2 Limestone Conveyor | |
|----------------------------------|---|
| Emission Unit | Description |
| EU1310 | VK-2 Limestone Conveyor (2007 EIQ EP-276) |

| EU1320 – VK-3 Limestone Conveyor | |
|----------------------------------|---|
| Emission Unit | Description |
| EU1320 | VK-3 Limestone Conveyor (2007 EIQ EP-277) |

| EU1330 – Vibrating Feeder #1, #2, #3, and #4, VK-4 Conveyor, enclosed | |
|---|--|
| Emission Unit | Description |
| EU1330 | Vibrating Feeder #1, #2, #3, and #4, VK-4 Conveyor, enclosed (2007 EIQ EP-279, EP-280, EP-281A, EP-281A, EP-282) |

| EU1340 – VK-5 Conveyor, Double Deck Screen, 25 ton Fines Loadout Bin | |
|--|---|
| Emission Unit | Description |
| EU1340 | VK-5 Conveyor, Double Deck Screen, 25 ton Fines Loadout Bin (2007 EIQ EP-283, EP-284, EP-286) |

| EU1350 – Weigh Bin, enclosed (EP-287) | |
|---------------------------------------|---------------------------------------|
| Emission Unit | Description |
| EU1350 | Weigh Bin, enclosed (2007 EIQ EP-287) |

| EU1360 – Skip Hoist (EP-288) | |
|------------------------------|------------------------------|
| Emission Unit | Description |
| EU1360 | Skip Hoist (2007 EIQ EP-288) |

| EU1370 – Twin Shaft Vertical Kiln (Maerz) | |
|---|--|
| Emission Unit | Description |
| EU1370 | Twin Shaft Vertical Kiln (Maerz) (2007 EIQ EP-289) |

| EU1380 – Pneumatic Conveyor (EP-290) | |
|--------------------------------------|--------------------------------------|
| Emission Unit | Description |
| EU1380 | Pneumatic Conveyor (2007 EIQ EP-290) |

| EU1390 – 30 ton Fines Silo Loadout | |
|------------------------------------|---|
| Emission Unit | Description |
| EU1390 | 30 ton Fines Silo Loadout (2007 EIQ EP-291) |

| EU1400 – Product Unloading | |
|----------------------------|-------------------------------------|
| Emission Unit | Description |
| EU1400 | Product Unloading (2007 EIQ EP-292) |

| EU1410 – Waste Lime Loadout VK-8 Conveyor, enclosed | |
|---|--|
| Emission Unit | Description |
| EU1410 | Waste Lime Loadout VK-8 Conveyor, enclosed (2007 EIQ EP-293) |

| EU1420 – VK-7 Product Conveyor, Quad Roll Crusher | |
|---|---|
| Emission Unit | Description |
| EU1420 | VK-7 Product Conveyor, Quad Roll Crusher (2007 EIQ EP-294 and EP-295) |

| EU1430 – Bucket Elevator, Triple Screen | | |
|---|---|--|
| Emission Unit | Description | |
| EU1430 | Bucket Elevator, Triple Screen (2007 EIQ EP-296 and EP-297) | |

| EU1440 – VK-10 Conveyor | |
|-------------------------|----------------------------------|
| Emission Unit | Description |
| EU1440 | VK-10 Conveyor (2007 EIQ EP-298) |

| EU1450 – VK-9 Conveyor | |
|------------------------|---------------------------------|
| Emission Unit | Description |
| EU1450 | VK-9 Conveyor (2007 EIQ EP-299) |

| EU1460 – (2) 500 Ton Lime Silo, (2) Pocket Belt Conveyor, (2) 5-Deck Screeners, (2) Truck | |
|---|--|
| Loadout | |
| Emission Unit | Description |
| EU1460 | (2) 500 Ton Lime Silo, (2) Pocket Belt Conveyor, (2) 5-Deck Screeners, (2) Truck Loadout (2007 EIQ EP-300, EP-301, EP-302, EP-303, EP-304, EP-305, EP-306, EP-307) |
| | EP-306, EP-307) |

Permit Condition (EU1300 – EU1460) - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 0898-019, Issued August 17, 1998

Emission Limitation

- 1. The permittee shall not discharge into the atmosphere from the Maerz kiln (EU1370) and ancillary equipment, Emission Units (EU1300 through EU1460) and from the equipment permitted in Construction Permit 1198-020 (EU0740) particulate matter less than ten microns in diameter (PM₁₀) in excess of 15 tons in any consecutive 12-month period. [Special Condition 1]
- 2. The permittee shall not discharge into the atmosphere from the Maerz kiln (EU1370) and the equipment permitted in Construction Permit 0897-018, Carbon Monoxide (CO) in excess of 100 tons in any consecutive 12-month period. [Special Condition 2]
- 3. The permittee shall not discharge into the atmosphere from the Maerz kiln (EU1370) and the equipment permitted in Construction Permit 0897-018, SO₂ in excess of 40 tons in any consecutive 12-month period. [Special Condition 3]
- 4. The permittee shall not discharge into the atmosphere from the Maerz kiln (EU1370) and the equipment permitted in Construction Permit 0897-018, NOx in excess of 40 tons in any consecutive 12-month period. [Special Condition 4]
- 5. The permittee shall not discharge into the atmosphere from the Maerz kiln (EU1370) and the equipment permitted in Construction Permit 0897-018, VOC in excess of 40 tons in any consecutive 12-month period. [Special Condition 5]

Equipment Limitation:

All baghouses listed in Special Conditions 11 and 12 of Construction Permit 0898-019, shall be equipped with a gauge or meter that indicates the pressure drop across the baghouse. Replacement bags shall be kept on hand at all times. The bags shall be made of fibers appropriate for the operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance and abrasion resistance). [Special Condition 11 and 12] Note: Special Condition 12 does not apply to EU1330, EU1350, EU1360, EU1410, EU1440 or EU1450.

Monitoring:

- 1. The baghouses shall be used to control emissions from the listed equipment in Emission Units (EU1300 through EU1460) and in the equipment limitation [Special Condition 11], at any time that the equipment is in operation.. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.

 Note: The Equipment Limitation [Special Condition 12] does not apply to EU1330, EU1350, EU1360, EU1410, EU1440 or EU1450.
- 2. The permittee shall maintain an operating and maintenance log for each of the baghouses. The log 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
- 3. If the presence of PM₁₀ in the ambient air exists in quantities and duration's that directly or proximately cause or contribute to injury to human, plant, or animal life or health, or to property, or that unreasonably interferes with the enjoyment of life or the use of property, the Director may require the permittee to submit a corrective action plan within ten (10) days adequate to timely and significantly mitigate the emissions of PM₁₀. Mississippi Lime Company shall implement any such plan immediately upon its approval by the Director. Failure to either submit or implement such a plan shall be a violation of this permit.

Recordkeeping

- 1. The permittee shall keep monthly records that are adequate to determine the PM₁₀ emissions from the Maerz kiln (EU1370) and ancillary equipment (EU1300 EU1460). These records shall also indicate the total quantity of PM₁₀ emissions from the specified equipment over the previous 12-month period. Attachment K or equivalent forms of the company's own design, are suitable for this purpose.
- 2. The permittee shall keep monthly records that are adequate to determine the CO emissions from the Maerz kiln (EU1370) and from the equipment permitted in Construction Permit 0897-018 (EU1250). These records shall also indicate the total quantity of CO emissions from the specified equipment over the previous 12-month period. Attachments K, L, L and N, or equivalent forms of the company's own design, are suitable for this purpose.
- 3. The permittee shall keep monthly records that are adequate to determine the SO₂ emissions from the Maerz kiln (1370) and from the equipment permitted in Construction Permit 0897-018 (EU1250). These records shall also indicate the total quantity of SO₂ emissions from the specified equipment over the previous 12-month period. Attachments K, L, L and N, or equivalent forms of the company's own design, are suitable for this purpose.
- 4. The permittee shall keep monthly records that are adequate to determine the NO_X emissions from the Maerz kiln (EU1370) and from the equipment permitted in Construction Permit 0897-018 (EU1250).

- These records shall also indicate the total quantity of NO_X emissions from the specified equipment over the previous 12-month period. Attachments K, L, L and N, or equivalent forms of the company's own design, are suitable for this purpose.
- 5. The permittee shall keep monthly records that are adequate to determine the VOC emissions from the Maerz kiln (EU1370) and from the equipment permitted in Construction Permit 0897-018 (EU1250). These records shall also indicate the total quantity of VOC emissions from the specified equipment over the previous 12-month period. Attachments K, L, L and N, or equivalent forms of the company's own design, are suitable for this purpose.

Recordkeeping:

The permittee shall document all pressure drop readings on Attachment F, or its equivalent. All inspections, corrective actions, and instrument calibrations shall be recorded. These records must be maintained for five years.

Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

Permit Condition (EU1300 – EU1340) - 002

40 CFR Part 60, Subpart OOO; Standards of Performance for Nonmetallic Mineral Processing Plants

Emission Limitations

- 1. The permittee shall not cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility constructed or modified after August 31, 1983, any stack emissions which:
 - a) Contain particulate matter in excess of 0.05 gr/dscm; and
 - b) Exhibit greater than seven percent opacity. [§60.672(a)(1) and (2)]
- 2. The permittee shall not cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility constructed or modified after August 31, 1983 any fugitive emissions that exhibit greater than 10 percent opacity. [§60.672(b)]

Test Methods and Procedures:

- 1. In conducting the performance tests required in §60.8, the permittee shall determine compliance with the particulate matter standards in §60.672(a) as follows;
 - a) Method 5 or Method 17 shall be used to determine particulate matter concentration. [§60.675(b)(1)]
 - b) Method 9 and the procedures in §60.11 shall be used to determine opacity from stacks. [§60.675(b)(2)]
 - c) In determining opacity compliance of fugitive emissions, Method 9 and the procedures in §60.11 shall be used with the following additions; [§60.675(c)(1)]
 - (1) The minimum distance between the observer and the emission source shall be 15 feet. [\$60.675(c)(1)(i)]

- (2) 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, Section 2.1) must be followed. [§60.675(c)(1)(ii)]
- (3) The duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply: [§60.675(c)(3)]
- 2. There are no individual readings greater than 10 percent opacity. [§60.675(c)(3)(i)]
- 3. There are no more than 3 readings of 10 percent for the 1 hour period. [§60.675(c)(3)(ii)]
- 4. If emissions from two or more fugitive emission units continuously interfere so that the opacity of fugitive emissions from an individual affected emission unit cannot be read, either of the following procedures may be used: [§60.675(e)(1)]
- 5. Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected units contributing to the emissions stream. [§60.675(e)(1)(i)]
- 6. Separate the emissions so that the opacity of emissions from each affected unit can be read. [§60 675(e)(1)(ii)]

- 1. The permittee shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of Subpart OOO, including reports of opacity observations made using Method 9. [§60.676(f)]
- 2. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 3. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

Permit Condition (EU1300 and EU1310) - 003 10 CSR 10-6.060 Construction Permits Required Construction Permit 072004-012, Issued July 16, 2004 Construction Permit 072004-12A, Issued May 21, 2009

Emission Limitation and Testing:

New Source Performance Standard, Subpart OOO Testing Requirements for Existing Pre-Kiln Processing-Handling Equipment with Increased Utilization Added Under Construction Permit 072004-012. A completed Proposed Test Plan must be submitted to and approved by the Air Pollution Control Program at least 30 days prior to conducting the required emission testing for the existing pre-kiln processing handling equipment with increased utilization that was added under Construction Permit 072004-012 (as required in 40 CFR Part 60, Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants*). Alternately, Mississippi Lime Company may submit a justification for one or more of these new pieces of pre-kiln processing-handling equipment explaining why it is not subject to requirements of Subpart OOO. Initial testing has been completed as noted in the Statement of Basis.

Permit Condition EU1320 - 004 10 CSR 10-6.060 Construction Permits Required Construction Permit 072004-12, Issued July 16, 2004 Construction Permit 072004-12A, Issued May 21, 2009

Emission Limitation and Testing:

New Source Performance Standard, Subpart OOO Testing Requirements for Existing Pre-Kiln Processing-Handling Equipment with Increased Utilization Added Under Construction Permit 072004-012. A completed Proposed Test Plan must be submitted to and approved by the Air Pollution Control Program at least 30 days prior to conducting the required emission testing for the existing pre-kiln processing handling equipment with increased utilization that was added under Construction Permit 072004-012 (as required in 40 CFR Part 60, Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants*). Alternately, Mississippi Lime Company may submit a justification for one or more of these new pieces of pre-kiln processing-handling equipment explaining why it is not subject to requirements of Subpart OOO. Initial testing has been completed as noted in the Statement of Basis.

Operational Requirement:

- 1. Mississippi Lime Company shall install fabric filters on the equipment in this permit condition to control the PM_{10} emissions from these sources as specified in the permit application.
- 2. Mississippi Lime Company shall enclose and vent EU1320 to the fabric filters as specified in the permit application (CP072004-012). The enclosure of the emissions units shall be constructed and maintained such that no visible emissions (≤5 percent opacity from the enclosure) are allowed to occur from these sources except through the gasses exiting from the fabric filters.
- 3. The fabric filters must be in use at all times when that associated piece of equipment is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters shall be equipped with a gauge or meter, which indicates the pressure drop across the control device (where appropriate). These gauges or meters shall be located such that the Department of Natural Resources' employees may easily observe them. Mississippi Lime Company shall propose to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, alternate parameters and/or methods of determining the proper operation, on an on-going basis, for those fabric filters where a pressure drop gauge or meter is not appropriate. These proposed alternate parameters and/or methods must be reviewed by the Air Pollution Control Program before being used.
- 4. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
- 5. Replacement filters for each type of fabric filter shall be kept on hand at all times. The 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).
- 6. Mississippi Lime Company shall maintain an operating and maintenance log for each fabric filter 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.

Reporting:

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

2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

Permit Condition EU1370 - 005

40 CFR Part 63, Subpart AAAAA; National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants

Emission Limitations:

- 1. The permittee must meet each emission limit in Table 1 of Subpart AAAAA that applies.
 - a) The PM emissions must not exceed 0.12 pounds per ton of stone feed (lb/tsf). (§63.7090(a))
- 2. The permittee must meet each operating limit in Table 2 to this subpart that applies.
 - a) Prepare a written operations, maintenance, and monitoring (OM&M) plan; the plan must include the items listed in §63.7100(d) and the corrective actions to be taken when required in Table 5 of Subpart AAAAA. (§63.7090(b))

Monitoring:

The permittee must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the permittee's OM&M plan required by §63.7100(d) and paragraphs (a)(1) through (5) of §63.7113, and the permittee must install, operate, and maintain each continuous opacity monitoring system (COMS) as required by paragraph (g) of §63.7113. (§63.7113(a))

Initial Compliance Requirements:

The permittee must demonstrate initial compliance with each emission limit in Table 1 to Subpart AAAAA that applies, according to Table 3 to Subpart AAAAA. For existing lime kilns and their associated coolers, the permittee may perform visible emissions (VE) measurements in accordance with EPA Method 9 of Appendix A to Part 60 in lieu of installing a COMS or PM detector if any of the conditions in paragraphs (a)(1) through (3) of §63.7114 exist. (§63.7114(a))

Continuous Compliance Requirements:

- 1. The permittee must demonstrate continuous compliance with each emission limitation in Tables 1 and 2 to Subpart AAAAA that applies according to the methods specified in Tables 5 and 6 to Subpart AAAAA (§63.7121(a))
- 2. The permittee must report each instance in which the permittee did not meet each operating limit, opacity limit, and VE limit in Tables 2 and 6 to Subpart AAAAA that applies. This includes periods of startup, shutdown, and malfunction. These instances are deviations from the emission limitations in this subpart. These deviations must be reported according to the requirements in §63.7131. (§63.7121(b))
- 3. The permittee must conduct a performance test within five years following the initial performance test and within five years following each subsequent performance test thereafter. §63.7111 Kilns must be operated in compliance with the limits established during the most recent MACT test. The results of the most recent performance test shall be kept on site.

Recordkeeping:

- 1. A copy of each notification and report that was submitted to comply with Subpart AAAAA, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted, according to the requirements in §63.10(b)(2)(xiv). (§63.7132(a)(1))
- 2. The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction. (§63.7132(a)(2))

- 3. Records of performance tests, performance evaluations, and opacity and VE observations as required in §63.10(b)(2)(viii). (§63.7132(a)(3))
- 4. Records in §63.6(h)(6) for VE observations. (§63.7132(b))
- 5. Records required by Tables 5 and 6 to Subpart AAAAA to show continuous compliance with each emission limitation that applies. (§63.7132(c))
- 6. Records which document the basis for the initial applicability determination as required under §63.7081. (§63.7132(d))
- 7. Records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1). (§63.7133(a))
- 8. As specified in §63.10(b)(1), you must keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. (§63.7133(b))
- 9. The permittee must keep each record onsite for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). The permittee may keep the records offsite for the remaining three years. (§63.7133(c))
- 10. 40 CFR Part 63 Subpart AAAA Tables 1 through 7 can be found in Attachment Q.
- 11. The permittee shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart records when used for continuous monitoring instruments required by the permit. (10 CSR 10-6.6065(6)(C)1.C(II)(b.)I.)

- 1. The permittee must submit each report listed in Table 7 to Subpart AAAAA that applies. (§637131(a))
- 2. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 3. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU2470 – Belt Conveyor | |
|------------------------|----------------------------------|
| Emission Unit | Description |
| EU2470 | Belt Conveyor (2007 EIQ EP-342A) |

Permit Condition EU2470 - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 072004-12, Issued July 16, 2004 Construction Permit 072004-12A, Issued May 21, 2009

Emission Limitation and Testing:

New Source Performance Standard, Subpart OOO Testing Requirements for Existing Pre-Kiln Processing-Handling Equipment with Increased Utilization Added Under Construction Permit 072004-012. A completed Proposed Test Plan must be submitted to and approved by the Air Pollution Control Program at least 30 days prior to conducting the required emission testing for the existing pre-kiln processing handling equipment with increased utilization that was added under Construction Permit 072004-012 (as required in 40 CFR Part 60, Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants*). Alternately, Mississippi Lime Company may submit a justification for one

or more of these new pieces of pre-kiln processing-handling equipment explaining why it is not subject to requirements of Subpart OOO. Initial testing has been completed as noted in the Statement of Basis.

Permit Condition EU2470 - 002 10 CSR 10-6.060 Construction Permits Required Construction Permit 102002-008, Issued September 19, 2002

Emission Limitation and Testing:

- 1. A completed Proposed Test Plan must be submitted to and approved by the Air Pollution Control Program at least 30 days prior to conducting the required emission testing for the new pre-kiln processing-handling equipment that was added under Construction Permit 102002-008 and Construction Permit 092001-014 (as required in 40 CFR Part 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants). Alternately, Mississippi Lime Company may submit a justification for one (1) or more of these new pieces of pre-kiln processing-handling equipment explaining why it is not subject to requirements of Subpart OOO.
- 2. Mississippi Lime Company shall conduct either particle size distribution tests or performance testing (EPA Methods 201A and/or 202) on the new pre-vertical kiln processing-handling equipment (EU2470) (as described in Construction Permit 102002-008 and Construction Permit 092001-014) sufficient to quantify the emission rates of PM₁₀ from these sources. This testing may be limited to conducting tests on a representative piece(s) of each type of new pre-kiln processing-handling equipment upon approval by the Director. In addition, an alternate method(s) of quantifying the emission rates of PM₁₀ from these sources may be used in place of the above testing requirement if requested by the Mississippi Lime Company and approved by the Director.
- 3. A completed Proposed Test Plan must be submitted to the Air Pollution Control Program at least 30 days prior to the proposed date the testing is to be conducted 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.
- 4. Within 60 days of achieving the maximum production rate of these new pre-kiln processing-handling emission sources equipment (excluding all temporary equipment), and in any case, no later than 180 days after initial start-up of the pre-kiln processing-handling equipment, the owner/operator shall have conducted the required testing (if necessary).
- 5. Two (2) copies of a written report of the testing results must be submitted to the Director within 90 days of completion of the 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 (if necessary).
- 6. The above time frames associated with this testing condition may be extended upon request of Mississippi Lime Company and approval by the Director.

- 1. Reports of any deviations from the 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.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU2480 – Hopper/Feeder | |
|------------------------|---|
| Emission Unit | Description |
| EU2480 | Truck Unloading to Hopper/Feeder (2007 EIQ EP-342B) |

Permit Condition EU2480 - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 102002-08, Issued September 19, 2002

Operational Requirement: Revised Methods of Compliance Demonstration for PM₁₀

The method(s) for demonstrating compliance with the operation limit that PM₁₀ shall not be discharged to the atmosphere in excess of 15.0 tons in any consecutive 12-month period may change based on the results of future testing and/or revisions to the sources used to develop the current compliance demonstration methods. If such revisions should become necessary, the permittee shall submit proposed revisions to the compliance demonstration method(s) to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, for review and approval before using a proposed revision(s) for compliance demonstration purposes. The permittee shall submit any such proposed revision within 60 days of receiving the results of the testing and/or being informed of a revision(s) to the sources used to develop the current compliance demonstration methods. [Special Condition 3]

Emission Limitation and Testing:

- 1. Mississippi Lime Company shall conduct either particle size distribution tests or performance testing (EPA Methods 201A and/or 202) on the new pre-vertical kiln processing-handling equipment (EU2480) (as described in Construction Permit 102002-008 and Construction Permit 092001-014) sufficient to quantify the emission rates of PM₁₀ from these sources. This testing may be limited to conducting tests on a representative piece(s) of each type of new pre-kiln processing-handling equipment upon approval by the Director. In addition, an alternate method(s) of quantifying the emission rates of PM₁₀ from these sources may be used in place of the above testing requirement if requested by the Mississippi Lime Company and approved by the Director. [Special Condition 5.A]
- 2. A completed Proposed Test Plan must be submitted to the Air Pollution Control Program at least 30 days prior to the proposed date the testing is to be conducted 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. [Special Condition 5.B]
- 3. Within 60 days of achieving the maximum production rate of these new pre-kiln processing-handling emission sources equipment (excluding all temporary equipment), and in any case, no later than 180 days after initial start-up of the pre-kiln processing-handling equipment, the owner/operator shall have conducted the required testing (if necessary). [Special Condition 5.C]
- 4. Two (2) copies of a written report of the testing results must be submitted to the Director within 90 days of completion of the 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 (if necessary). [Special Condition 5.D]
- 5. The above time frames associated with this testing condition may be extended upon request of Mississippi Lime Company and approval by the Director. [Special Condition 5.E]
- 6. Initial testing has been completed as noted in the Statement of Basis.

Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU2490 – Hopper/Feeder | |
|------------------------|----------------------------------|
| Emission Unit | Description |
| EU2490 | Hopper/Feeder (2007 EIQ EP-342C) |

Permit Condition EU2490 - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 072004-12, Issued July 16, 2004 Construction Permit 072004-12A, Issued May 21, 2009

Operational Requirement:

- 1. Mississippi Lime Company shall install fabric filters on the equipment in this permit condition to control the PM_{10} emissions from these sources as specified in the permit application.
- 2. Mississippi Lime Company shall enclose and vent EU2490 to the fabric filters as specified in the permit application (CP072004-012). The enclosure of the emissions units shall be constructed and maintained such that no visible emissions (≤5 percent opacity from the enclosure) are allowed to occur from these sources except through the gasses exiting from the fabric filters.
- 3. The fabric filters must be in use at all times when that associated piece of equipment is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters shall be equipped with a gauge or meter, which indicates the pressure drop across the control device (where appropriate). These gauges or meters shall be located such that the Department of Natural Resources' employees may easily observe them. Mississippi Lime Company shall propose to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, alternate parameters and/or methods of determining the proper operation, on an on-going basis, for those fabric filters where a pressure drop gauge or meter is not appropriate. These proposed alternate parameters and/or methods must be reviewed by the Air Pollution Control Program before being used.
- 4. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
- 5. Replacement filters for each type of fabric filter shall be kept on hand at all times. The 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).
- 6. Mississippi Lime Company shall maintain an operating and maintenance log for each fabric filter 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.

- Reports of any deviations from the 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.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

Permit Condition EU2490 - 002 10 CSR 10-6.060 Construction Permits Required Construction Permit 102002-008, Issued September 19, 2002

Emission Limitation and Testing:

- 1. A completed Proposed Test Plan must be submitted to and approved by the Air Pollution Control Program at least 30 days prior to conducting the required emission testing for the new pre-kiln processing-handling equipment that was added under Construction Permit 102002-008 and Construction Permit 092001-014 (as required in 40 CFR Part 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants). Alternately, Mississippi Lime Company may submit a justification for one (1) or more of these new pieces of pre-kiln processing-handling equipment explaining why it is not subject to requirements of Subpart OOO.
- 2. Mississippi Lime Company shall conduct either particle size distribution tests or performance testing (EPA Methods 201A and/or 202) on the new pre-vertical kiln processing-handling equipment (EU2470) (as described in Construction Permit 102002-008 and Construction Permit 092001-014) sufficient to quantify the emission rates of PM₁₀ from these sources. This testing may be limited to conducting tests on a representative piece(s) of each type of new pre-kiln processing-handling equipment upon approval by the Director. In addition, an alternate method(s) of quantifying the emission rates of PM₁₀ from these sources may be used in place of the above testing requirement if requested by the Mississippi Lime Company and approved by the Director.
- 3. A completed Proposed Test Plan must be submitted to the Air Pollution Control Program at least 30 days prior to the proposed date the testing is to be conducted 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.
- 4. Within 60 days of achieving the maximum production rate of these new pre-kiln processing-handling emission sources equipment (excluding all temporary equipment), and in any case, no later than 180 days after initial start-up of the pre-kiln processing-handling equipment, the owner/operator shall have conducted the required testing (if necessary).
- 5. Two (2) copies of a written report of the testing results must be submitted to the Director within 90 days of completion of the 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 (if necessary).
- 6. The above time frames associated with this testing condition may be extended upon request of Mississippi Lime Company and approval by the Director.
- 7. Initial testing has been completed as noted in the Statement of Basis.

- Reports of any deviations from the 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.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU2500 – Hopper/Feeder | |
|------------------------|----------------------------------|
| Emission Unit | Description |
| EU2500 | Hopper/Feeder (2007 EIQ EP-342E) |

Permit Condition EU2500 - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 102002-008, Issued September 19, 2002

Emission Limitation and Testing:

- 1. A completed Proposed Test Plan must be submitted to and approved by the Air Pollution Control Program at least 30 days prior to conducting the required emission testing for the new pre-kiln processing-handling equipment that was added under Construction Permit 102002-008 and Construction Permit 092001-014 (as required in 40 CFR Part 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants). Alternately, Mississippi Lime Company may submit a justification for one (1) or more of these new pieces of pre-kiln processing-handling equipment explaining why it is not subject to requirements of Subpart OOO.
- 2. Mississippi Lime Company shall conduct either particle size distribution tests or performance testing (EPA Methods 201A and/or 202) on the new pre-vertical kiln processing-handling equipment (EU2470) (as described in Construction Permit 102002-008 and Construction Permit 092001-014) sufficient to quantify the emission rates of PM₁₀ from these sources. This testing may be limited to conducting tests on a representative piece(s) of each type of new pre-kiln processing-handling equipment upon approval by the Director. In addition, an alternate method(s) of quantifying the emission rates of PM₁₀ from these sources may be used in place of the above testing requirement if requested by the Mississippi Lime Company and approved by the Director.
- 3. A completed Proposed Test Plan must be submitted to the Air Pollution Control Program at least 30 days prior to the proposed date the testing is to be conducted 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.
- 4. Within 60 days of achieving the maximum production rate of these new pre-kiln processing-handling emission sources equipment (excluding all temporary equipment), and in any case, no later than 180 days after initial start-up of the pre-kiln processing-handling equipment, the owner/operator shall have conducted the required testing (if necessary).
- 5. Two (2) copies of a written report of the testing results must be submitted to the Director within 90 days of completion of the 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 (if necessary).
- 6. The above time frames associated with this testing condition may be extended upon request of Mississippi Lime Company and approval by the Director.

7. Initial testing has been completed as noted in the Statement of Basis.

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU2510 – Vibrating Polishing Screen | |
|-------------------------------------|--|
| Emission Unit | Description |
| EU2510 | Vibrating Polishing Screen (2007 EIQ EP-371) |

| EU2560 – Conveyor Waste Product | |
|---------------------------------|--|
| Emission Unit | Description |
| EU2560 | Conveyor Waste Product (2007 EIQ EP-381) |

| EU2700 – SSK 2 Load Hopper | |
|----------------------------|--------------------------------------|
| Emission Unit | Description |
| EU2700 | SSK 2 Load Hopper (2007 EIQ EP-423A) |

| EU2710 – SSK 3 Load Hopper | |
|----------------------------|--------------------------------------|
| Emission Unit | Description |
| EU2710 | SSK 3 Load Hopper (2007 EIQ EP-423B) |

| EU2740 – Lime Weigh Feeder | |
|----------------------------|--------------------------------------|
| Emission Unit | Description |
| EU2740 | Lime Weigh Feeder (2007 EIQ EP-426A) |

| EU2750 – Lime Weigh Feeder | |
|----------------------------|--------------------------------------|
| Emission Unit | Description |
| EU2750 | Lime Weigh Feeder (2007 EIQ EP-426B) |

| EU2780 – Lime Weigh Feeder | |
|----------------------------|--------------------------------------|
| Emission Unit | Description |
| EU2780 | Lime Weigh Feeder (2007 EIQ EP-426C) |

| EU2790 – Conveyor Belt-Lime (SSK#1) | |
|-------------------------------------|---|
| Emission Unit | Description |
| EU2790 | Conveyor Belt-Lime (SSK#1) (2007 EIQ EP-427A) |

| EU2800 – Conveyor Belt-Lime (SSK#2) | |
|-------------------------------------|---|
| Emission Unit | Description |
| EU2800 | Conveyor Belt-Lime (SSK#2) (2007 EIQ EP-427B) |

| | EU2810 – Conveyor Belt-Lime (SSK#3) | | |
|---------------|---|--|--|
| Emission Unit | Description | | |
| EU2810 | Conveyor Belt-Lime (SSK#3) (2007 EIQ EP-427C) | | |
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| | EU2820 – Storage Bin-Lime (SSK#1) | | |
| Emission Unit | Description | | |
| EU2820 | Storage Bin-Lime (SSK#1) (2007 EIQ EP-429A) | | |
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| | EU2840 – Storage Bin-Lime (SSK#2) | | |
| Emission Unit | Description | | |
| EU2840 | Storage Bin-Lime (SSK#2) (2007 EIQ EP-429B) | | |
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| | EU2860 – Storage Bin-Lime (SSK#3) | | |
| Emission Unit | Description | | |
| EU2860 | Storage Bin-Lime (SSK#3) (2007 EIQ EP-429C) | | |
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| | EU2880 – Conveyor Belt-Lime Bins | | |
| Emission Unit | Description | | |
| EU2880 | Conveyor Belt-Lime Bins (2007 EIQ EP-430) | | |
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| | EU2900 – Lime Silos (2.5 Ton) | | |
| Emission Unit | Description | | |
| EU2900 | Lime Silos (2.5 Ton) (2007 EIQ EP-431) | | |
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| | EU2910 - Crushed Lime Silo | | |
| Emission Unit | Description | | |
| EU2910 | Crushed Lime Silo (2007 EIQ EP-432) | | |
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| | EU2920 – SSK2 Waste Lime Loadout | | |
| Emission Unit | Description | | |
| EU2920 | SSK2 Waste Lime Loadout (2007 EIQ EP-433B) | | |
| | EU2930 – SSK3 Waste Lime Loadout | | |
| Emission Unit | Description | | |
| EU2930 | SSK3 Waste Lime Loadout (2007 EIQ EP-433C) | | |
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| | EU2940 – Waste Bin | | |
| Emission Unit | Description | | |
| EU2940 | Waste Bin (2007 EIQ EP-434) | | |
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| EU2950 – Waste Bin Loadout | |
|----------------------------|-------------------------------------|
| Emission Unit | Description |
| EU2950 | Waste Bin Loadout (2007 EIQ EP-435) |

Permit Condition (EU2510, EU2560, EU2700, EU2710, EU2740, EU2750, EU2780, EU2790, EU2800, EU2810, EU2820, EU2840, EU2860, EU2880, EU2900, EU2910, EU2920, EU2930, EU2940, EU2950) - 001

10 CSR 10-6.060 Construction Permits Required Construction Permit 072004-12, Issued July 16, 2004 Construction Permit 072004-12A, Issued May 21, 2009

Operational Requirement:

- 1. Mississippi Lime Company shall install fabric filters on the equipment in this permit condition to control the PM_{10} emissions from these sources as specified in the permit application. (Special Condition 14.B)
- 2. Mississippi Lime Company shall enclose and vent the emission units in this permit condition to the fabric filters as specified in the permit application (CP072004-012). The enclosure of the emissions units shall be constructed and maintained such that no visible emissions (≤5 percent opacity from the enclosure) are allowed to occur from these sources except through the gasses exiting from the fabric filters. (Special Condition 14.C)
- 3. The fabric filters must be in use at all times when that associated piece of equipment is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters shall be equipped with a gauge or meter, which indicates the pressure drop across the control device (where appropriate). These gauges or meters shall be located such that the Department of Natural Resources' employees may easily observe them. Mississippi Lime Company shall propose to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, alternate parameters and/or methods of determining the proper operation, on an ongoing basis, for those fabric filters where a pressure drop gauge or meter is not appropriate. These proposed alternate parameters and/or methods must be reviewed by the Air Pollution Control Program before being used. (Special Condition 14.D)
- 4. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty. (Special Condition 14.E)
- 5. Replacement filters for each type of fabric filter shall be kept on hand at all times. The 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). (Special Condition 14.F)
- 6. Mississippi Lime Company shall maintain an operating and maintenance log for each fabric filter 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. (Special Condition 14.G)

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU2520 – Bucket Elevator | |
|--------------------------|-----------------------------------|
| Emission Unit | Description |
| EU2520 | Bucket Elevator (2007 EIQ EP-377) |

| EU2521 – SSK Stone Hopper | |
|---------------------------|----------------------------|
| Emission Unit | Description |
| EU2521 | Stone Hopper (EIQ EP-342D) |

| EU2522 – Lime Crusher 2 | |
|-------------------------|----------------------------|
| Emission Unit | Description |
| EU2522 | Lime Crusher 2(EIQ EP-433) |

| EU2523 – SSK1 Lime Screen | |
|---------------------------|-------------------------------|
| Emission Unit | Description |
| EU2523 | SSK1 Lime Screen (EIQ EP-387) |

Permit Condition (EU2520 – EU2523) - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 072004-12, Issued July 16, 2004 And Construction Permit 072004-12A, issued May 21, 2009

Operational Requirement:

- 1. Mississippi Lime Company shall install fabric filters on the equipment in this permit condition to control the PM₁₀ emissions from these sources as specified in the permit application.
- 2. Mississippi Lime Company shall enclose and vent EU2520 to the fabric filters as specified in the permit application (CP072004-012). The enclosure of the emissions units shall be constructed and maintained such that no visible emissions (≤5 percent opacity from the enclosure) are allowed to occur from these sources except through the gasses exiting from the fabric filters.
- 3. The fabric filters must be in use at all times when that associated piece of equipment is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters shall be equipped with a gauge or meter, which indicates the pressure drop across the control device (where appropriate). These gauges or meters shall be located such that the Department of Natural Resources' employees may easily observe them. Mississippi Lime Company shall propose to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, alternate parameters and/or methods of determining the proper operation, on an ongoing basis, for those fabric filters where a pressure drop gauge or meter is not appropriate. These proposed alternate parameters and/or methods must be reviewed by the Air Pollution Control Program before being used.
- 4. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
- 5. Replacement filters for each type of fabric filter shall be kept on hand at all times. The 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).
- 6. Mississippi Lime Company shall maintain an operating and maintenance log for each fabric filter 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.

Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

Permit Condition EU2520 - 002 10 CSR 10-6.060 Construction Permits Required Construction Permit 102002-008, Issued September 19, 2002

Emission Limitation and Testing:

- 1. A completed Proposed Test Plan must be submitted to and approved by the Air Pollution Control Program at least 30 days prior to conducting the required emission testing for the new pre-kiln processing-handling equipment that was added under Construction Permit 102002-008 and Construction Permit 092001-014 (as required in 40 CFR Part 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants). Alternately, Mississippi Lime Company may submit a justification for one (1) or more of these new pieces of pre-kiln processing-handling equipment explaining why it is not subject to requirements of Subpart OOO.
- 2. Mississippi Lime Company shall conduct either particle size distribution tests or performance testing (EPA Methods 201A and/or 202) on the new pre-vertical kiln processing-handling equipment (EU2470) (as described in Construction Permit 102002-008 and Construction Permit 092001-014) sufficient to quantify the emission rates of PM₁₀ from these sources. This testing may be limited to conducting tests on a representative piece(s) of each type of new pre-kiln processing-handling equipment upon approval by the Director. In addition, an alternate method(s) of quantifying the emission rates of PM₁₀ from these sources may be used in place of the above testing requirement if requested by the Mississippi Lime Company and approved by the Director.
- 3. A completed Proposed Test Plan must be submitted to the Air Pollution Control Program at least 30 days prior to the proposed date the testing is to be conducted 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.
- 4. Within 60 days of achieving the maximum production rate of these new pre-kiln processing-handling emission sources equipment (excluding all temporary equipment), and in any case, no later than 180 days after initial start-up of the pre-kiln processing-handling equipment, the owner/operator shall have conducted the required testing (if necessary).
- 5. Two (2) copies of a written report of the testing results must be submitted to the Director within 90 days of completion of the 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 (if necessary).
- 6. The above time frames associated with this testing condition may be extended upon request of Mississippi Lime Company and approval by the Director.
- 7. Initial testing has been completed as noted in the Statement of Basis.

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU2530 – Belt Conveyor | |
|------------------------|---------------------------------|
| Emission Unit | Description |
| EU2530 | Belt Conveyor (2007 EIQ EP-378) |

Permit Condition EU2530 - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 072004-12, Issued July 16, 2004 Construction Permit 072004-12A, Issued May 21, 2009

Emission Limitation and Testing:

New Source Performance Standard, Subpart OOO Testing Requirements for Existing Pre-Kiln Processing-Handling Equipment with Increased Utilization Added Under Construction Permit 072004-012. A completed Proposed Test Plan must be submitted to and approved by the Air Pollution Control Program at least 30 days prior to conducting the required emission testing for the existing pre-kiln processing handling equipment with increased utilization that was added under Construction Permit 072004-012 (as required in 40 CFR Part 60, Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants*). Alternately, Mississippi Lime Company may submit a justification for one or more of these new pieces of pre-kiln processing-handling equipment explaining why it is not subject to requirements of Subpart OOO. Initial testing has been completed as noted in the Statement of Basis.

Operational Requirement:

- 1. Mississippi Lime Company shall install fabric filters on the equipment in this permit condition to control the PM₁₀ emissions from these sources as specified in the permit application.
- 2. Mississippi Lime Company shall enclose and vent EU2530 to the fabric filters as specified in the permit application (CP072004-012). The enclosure of the emissions units shall be constructed and maintained such that no visible emissions (≤5 percent opacity from the enclosure) are allowed to occur from these sources except through the gasses exiting from the fabric filters.
- 3. The fabric filters must be in use at all times when that associated piece of equipment is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters shall be equipped with a gauge or meter, which indicates the pressure drop across the control device (where appropriate). These gauges or meters shall be located such that the Department of Natural Resources' employees may easily observe them. Mississippi Lime Company shall propose to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, alternate parameters and/or methods of determining the proper operation, on an ongoing basis, for those fabric filters where a pressure drop gauge or meter is not appropriate. These proposed alternate parameters and/or methods must be reviewed by the Air Pollution Control Program before being used.
- 4. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.

- 5. Replacement filters for each type of fabric filter shall be kept on hand at all times. The 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).
- 6. Mississippi Lime Company shall maintain an operating and maintenance log for each fabric filter 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.

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

Permit Condition EU2530 - 002 10 CSR 10-6.060 Construction Permits Required Construction Permit 102002-008, Issued September 19, 2002

Emission Limitation and Testing:

- 1. A completed Proposed Test Plan must be submitted to and approved by the Air Pollution Control Program at least 30 days prior to conducting the required emission testing for the new pre-kiln processing-handling equipment that was added under Construction Permit 102002-008 and Construction Permit 092001-014 (as required in 40 CFR Part 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants). Alternately, Mississippi Lime Company may submit a justification for one (1) or more of these new pieces of pre-kiln processing-handling equipment explaining why it is not subject to requirements of Subpart OOO.
- 2. Mississippi Lime Company shall conduct either particle size distribution tests or performance testing (EPA Methods 201A and/or 202) on the new pre-vertical kiln processing-handling equipment (EU2470) (as described in Construction Permit 102002-008 and Construction Permit 092001-014) sufficient to quantify the emission rates of PM₁₀ from these sources. This testing may be limited to conducting tests on a representative piece(s) of each type of new pre-kiln processing-handling equipment upon approval by the Director. In addition, an alternate method(s) of quantifying the emission rates of PM₁₀ from these sources may be used in place of the above testing requirement if requested by the Mississippi Lime Company and approved by the Director.
- 3. A completed Proposed Test Plan must be submitted to the Air Pollution Control Program at least 30 days prior to the proposed date the testing is to be conducted 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.
- 4. Within 60 days of achieving the maximum production rate of these new pre-kiln processing-handling emission sources equipment (excluding all temporary equipment), and in any case, no later than 180 days after initial start-up of the pre-kiln processing-handling equipment, the owner/operator shall have conducted the required testing (if necessary).
- 5. Two (2) copies of a written report of the testing results must be submitted to the Director within 90 days of completion of the 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 (if necessary).
- 6. The above time frames associated with this testing condition may be extended upon request of Mississippi Lime Company and approval by the Director.
- 7. Initial testing has been completed as noted in the Statement of Basis.

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU3980 – Load Hopper | |
|----------------------|-------------------------------|
| Emission Unit | Description |
| EU3980 | Load Hopper (2007 EIQ EP-379) |

Permit Condition EU3980 - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 102002-008, Issued September 19, 2002

Emission Limitation and Testing:

- 1. A completed Proposed Test Plan must be submitted to and approved by the Air Pollution Control Program at least 30 days prior to conducting the required emission testing for the new pre-kiln processing-handling equipment that was added under Construction Permit 102002-008 and Construction Permit 092001-014 (as required in 40 CFR Part 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants). Alternately, Mississippi Lime Company may submit a justification for one (1) or more of these new pieces of pre-kiln processing-handling equipment explaining why it is not subject to requirements of Subpart OOO.
- 2. Mississippi Lime Company shall conduct either particle size distribution tests or performance testing (EPA Methods 201A and/or 202) on the new pre-vertical kiln processing-handling equipment (EU2470) (as described in Construction Permit 102002-008 and Construction Permit 092001-014) sufficient to quantify the emission rates of PM₁₀ from these sources. This testing may be limited to conducting tests on a representative piece(s) of each type of new pre-kiln processing-handling equipment upon approval by the Director. In addition, an alternate method(s) of quantifying the emission rates of PM₁₀ from these sources may be used in place of the above testing requirement if requested by the Mississippi Lime Company and approved by the Director.
- 3. A completed Proposed Test Plan must be submitted to the Air Pollution Control Program at least 30 days prior to the proposed date the testing is to be conducted 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.
- 4. Within 60 days of achieving the maximum production rate of these new pre-kiln processing-handling emission sources equipment (excluding all temporary equipment), and in any case, no later than 180 days after initial start-up of the pre-kiln processing-handling equipment, the owner/operator shall have conducted the required testing (if necessary).

- 5. Two (2) copies of a written report of the testing results must be submitted to the Director within 90 days of completion of the 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 (if necessary).
- 6. The above time frames associated with this testing condition may be extended upon request of Mississippi Lime Company and approval by the Director.
- 7. Initial testing has been completed as noted in the Statement of Basis.

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU2550 – SS Vertical Kiln #1 | |
|------------------------------|---------------------------------------|
| Emission Unit | Description |
| EU2550 | SS Vertical Kiln #1 (2007 EIQ EP-380) |

Permit Condition EU2550 - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 072004-12, Issued July 16, 2004 Construction Permit 072004-12A, Issued May 21, 2009

Emission Limitation:

- 1. Mississippi Lime Company shall not discharge into the atmosphere from Mississippi Vertical Kiln SSK1 (EU2550), NO_x in excess of 44.24 tons in any consecutive 12-month period. This emission limitation shall not be applied to Mississippi Vertical Kiln SSK1 until the new vertical kilns (EU2720 and EU2730) become operational. (Special Condition 4.A)
- 2. Mississippi Lime Company shall maintain an accurate record of emissions of NO_x emitted into the atmosphere from Mississippi Vertical Kiln SSK1 specified by condition 1 above. Mississippi Lime Company shall record the monthly and running 12-month totals of NO_x emissions from Mississippi Vertical Kiln SSK1 and shall use Attachment O, *Monthly NO_x Emissions Tracking Record Mississippi Vertical Kiln SSK1* or an equivalent form for this purpose. (Special Condition 4.B)
- 3. Mississippi Lime Company 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 end of the month during which the records from this permit condition indicate that Mississippi Vertical Kiln SSK1 exceeded the limitation of this permit condition (no more than 44.24 tons per year of NO_x emissions. (Special Condition 4.C)

Reporting:

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

2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

Permit Condition EU2550 - 002

40 CFR Part 63, Subpart AAAAA; National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants

Emission Limitations:

- 1. The permittee must meet each emission limit in Table 1 of Subpart AAAAA that applies.
 - a) The PM emissions must not exceed 0.12 pounds per ton of stone feed (lb/tsf). (§63.7090(a))
- 2. The permittee must meet each operating limit in Table 2 to this subpart that applies.
 - a) Prepare a written operations, maintenance, and monitoring (OM&M) plan; the plan must include the items listed in §63.7100(d) and the corrective actions to be taken when required in Table 5 of Subpart AAAAA. (§63.7090(b))

Monitoring:

The permittee must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the permittee's OM&M plan required by §63.7100(d) and paragraphs (a)(1) through (5) of §63.7113, and the permittee must install, operate, and maintain each continuous opacity monitoring system (COMS) as required by paragraph (g) of §63.7113. (§63.7113(a))

Initial Compliance Requirements:

The permittee must demonstrate initial compliance with each emission limit in Table 1 to Subpart AAAAA that applies, according to Table 3 to Subpart AAAAA. For existing lime kilns and their associated coolers, the permittee may perform visible emissions (VE) measurements in accordance with EPA Method 9 of Appendix A to Part 60 in lieu of installing a COMS or PM detector if any of the conditions in paragraphs (a)(1) through (3) of §63.7114 exist. (§63.7114(a))

Continuous Compliance Requirements:

- 1. The permittee must demonstrate continuous compliance with each emission limitation in Tables 1 and 2 to Subpart AAAAA that applies according to the methods specified in Tables 5 and 6 to Subpart AAAAA (§63.7121(a))
- 2. The permittee must report each instance in which the permittee did not meet each operating limit, opacity limit, and VE limit in Tables 2 and 6 to Subpart AAAAA that applies. This includes periods of startup, shutdown, and malfunction. These instances are deviations from the emission limitations in this subpart. These deviations must be reported according to the requirements in §63.7131. (§63.7121(b))
- 3. The permittee must conduct a performance test within five years following the initial performance test and within five years following each subsequent performance test thereafter. §63.7111 Kilns must be operated in compliance with the limits established during the most recent MACT test. The results of the most recent performance test shall be kept on site.

Recordkeeping:

1. A copy of each notification and report that was submitted to comply with Subpart AAAAA, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted, according to the requirements in §63.10(b)(2)(xiv). (§63.7132(a)(1))

- 2. The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction. (§63.7132(a)(2))
- 3. Records of performance tests, performance evaluations, and opacity and VE observations as required in §63.10(b)(2)(viii). (§63.7132(a)(3))
- 4. Records in §63.6(h)(6) for VE observations. (§63.7132(b))
- 5. Records required by Tables 5 and 6 to Subpart AAAAA to show continuous compliance with each emission limitation that applies. (§63.7132(c))
- 6. Records which document the basis for the initial applicability determination as required under §63.7081. (§63.7132(d))
- 7. Records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1). (§63.7133(a))
- 8. As specified in §63.10(b)(1), you must keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. (§63.7133(b))
- 9. The permittee must keep each record onsite for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). The permittee may keep the records offsite for the remaining three years. (§63.7133(c))
- 10. 40 CFR Part 63 Subpart AAAA Tables 1 through 7 can be found in Attachment Q.
- 11. The permittee shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart records when used for continuous monitoring instruments required by the permit. (10 CSR 10-6.6065(6)(C)1.C(II)(b.)I.)

- 1. The permittee must submit each report listed in Table 7 to Subpart AAAAA that applies. (§637131(a))
- 2. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 3. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU2580 – Storage Bin Loadout – Waste Product | |
|--|---|
| Emission Unit | Description |
| EU2580 | Storage Bin Loadout – Waste Product (2007 EIQ EP-383) |

Permit Condition EU2580 - 001

40 CFR Part 60, Subpart OOO; Standards of Performance for Nonmetallic Mineral Processing Plants

Emission Limitations

- 1. The permittee shall not cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility constructed or modified after August 31, 1983 any stack emissions which:
 - a) Contain particulate matter in excess of 0.05 gr/dscm; and
 - b) Exhibit greater than seven percent opacity. [§60.672(a)(1) and (2)]

2. The permittee shall not cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility constructed or modified after August 31, 1983, any fugitive emissions that exhibit greater than ten percent opacity. [§60.672(b)]

Test Methods and Procedures:

- 1. In conducting the performance tests required in §60.8, the permittee shall determine compliance with the particulate matter standards in §60.672(a) as follows;
 - a) Method 5 or Method 17 shall be used to determine particulate matter concentration. [§60.675(b)(1)]
 - b) Method 9 and the procedures in §60.11 shall be used to determine opacity from stacks. [§60.675(b)(2)]
 - c) In determining opacity compliance of fugitive emissions, Method 9 and the procedures in §60.11 shall be used with the following additions; [§60.675(c)(1)]
 - (1) The minimum distance between the observer and the emission source shall be 15 feet. [\$60.675(c)(1)(i)]
 - (2) 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, Section 2.1) must be followed. [§60.675(c)(1)(ii)]
 - (3) The duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply: [§60.675(c)(3)]
- 2. There are no individual readings greater than ten percent opacity. [§60.675(c)(3)(i)]
- 3. There are no more than three readings of ten percent for the one hour period. [§60.675(c)(3)(ii)]
- 4. If emissions from two or more fugitive emission units continuously interfere so that the opacity of fugitive emissions from an individual affected emission unit cannot be read, either of the following procedures may be used: [§60.675(e)(1)]
- 5. Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected units contributing to the emissions stream. [§60.675(e)(1)(i)]
- 6. Separate the emissions so that the opacity of emissions from each affected unit can be read. [§60 675(e)(1)(ii)]

- 1. The permittee shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of Subpart OOO, including reports of opacity observations made using Method 9. [§60.676(f)]
- 2. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 3. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU2590 – Limestone Conveyor | |
|---|---------------------------------------|
| Emission Unit | Description |
| EU2590 | Limestone Conveyor (2007 EIQ EP-430B) |
| Permit Condition EU2590 - 001 | |
| 10 CSR 10-6.060 Construction Permits Required | |
| Construction Permit 072004-12, Issued July 16, 2004 | |
| Construction Permit 072004-12A, Issued May 21, 2009 | |

Operational Requirement:

- 1. Mississippi Lime Company shall install fabric filters on the equipment in this permit condition to control the PM_{10} emissions from these sources as specified in the permit application. (Special Condition 9.A)
- 2. Mississippi Lime Company shall enclose and vent EU2590 to the fabric filters as specified in the permit application (CP072004-012). The enclosure of the emissions units shall be constructed and maintained such that no visible emissions (≤5 percent opacity from the enclosure) are allowed to occur from these sources except through the gasses exiting from the fabric filters. (Special Condition 9.C)
- 3. The fabric filters must be in use at all times when that associated piece of equipment is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters shall be equipped with a gauge or meter, which indicates the pressure drop across the control device (where appropriate). These gauges or meters shall be located such that the Department of Natural Resources' employees may easily observe them. Mississippi Lime Company shall propose to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, alternate parameters and/or methods of determining the proper operation, on an ongoing basis, for those fabric filters where a pressure drop gauge or meter is not appropriate. These proposed alternate parameters and/or methods must be reviewed by the Air Pollution Control Program before being used. (Special Condition 9.D)
- 4. Replacement filters for each type of fabric filter shall be kept on hand at all times. The 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). (Special Condition 9.F)
- 5. Mississippi Lime Company shall maintain an operating and maintenance log for each fabric filter 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. (Special Condition 9.G)

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

Permit Condition EU2590 - 002 10 CSR 10-6.060 Construction Permits Required Construction Permit 102002-008, Issued September 19, 2002

Emission Limitation and Testing:

- 1. A completed Proposed Test Plan must be submitted to and approved by the Air Pollution Control Program at least 30 days prior to conducting the required emission testing for the new pre-kiln processing-handling equipment that was added under Construction Permit 102002-008 and Construction Permit 092001-014 (as required in 40 CFR Part 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants). Alternately, Mississippi Lime Company may submit a justification for one (1) or more of these new pieces of pre-kiln processing-handling equipment explaining why it is not subject to requirements of Subpart OOO.
- 2. Mississippi Lime Company shall conduct either particle size distribution tests or performance testing (EPA Methods 201A and/or 202) on the new pre-vertical kiln processing-handling equipment (EU2470) (as described in Construction Permit 102002-008 and Construction Permit 092001-014) sufficient to quantify the emission rates of PM₁₀ from these sources. This testing may be limited to conducting tests on a representative piece(s) of each type of new pre-kiln processing-handling equipment upon approval by the Director. In addition, an alternate method(s) of quantifying the emission rates of PM₁₀ from these sources may be used in place of the above testing requirement if requested by the Mississippi Lime Company and approved by the Director.
- 3. A completed Proposed Test Plan must be submitted to the Air Pollution Control Program at least 30 days prior to the proposed date the testing is to be conducted 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.
- 4. Within 60 days of achieving the maximum production rate of these new pre-kiln processing-handling emission sources equipment (excluding all temporary equipment), and in any case, no later than 180 days after initial start-up of the pre-kiln processing-handling equipment, the owner/operator shall have conducted the required testing (if necessary).
- 5. Two (2) copies of a written report of the testing results must be submitted to the Director within 90 days of completion of the 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 (if necessary).
- 6. The above time frames associated with this testing condition may be extended upon request of Mississippi Lime Company and approval by the Director.
- 7. Initial testing has been completed as noted in the Statement of Basis.

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU2600 – Hammermill Crusher | |
|-----------------------------|--------------------------------------|
| Emission Unit | Description |
| EU2600 | Hammermill Crusher (2007 EIQ EP-389) |

| EU2601 – Vibrating Screen | |
|---------------------------|------------------------------------|
| Emission Unit | Description |
| EU2601 | Vibrating Screen (2007 EIQ EP-387) |

| EU2602 – Crushed lime Dust Silo/ Pneumatic Transfer | |
|---|--|
| Emission Unit | Description |
| EU2602 | Crushed lime Dust Silo/ Pneumatic Transfer (2007 EIQ EP-388) |

| EU2603 – Crushed Lime Silo/Pneumatic Transfer | |
|---|--|
| Emission Unit | Description |
| EU2603 | Crushed Lime Silo/Pneumatic Transfer (2007 EIQ EP-390) |

Permit Condition EU2600 –EU2603 - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 102002-008, Issued September 19, 2002

Operational Requirement:

- 1. Mississippi Lime Company shall install fabric filters on the equipment in this permit condition to control the PM₁₀ emissions from these sources as specified in the permit application.
- 2. Mississippi Lime Company shall enclose and vent EU2600 to the fabric filters as specified in the permit application (CP072004-012). The enclosure of the emissions units shall be constructed and maintained such that no visible emissions (≤5 percent opacity from the enclosure) are allowed to occur from these sources except through the gasses exiting from the fabric filters.
- 3. The fabric filters must be in use at all times when that associated piece of equipment is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters shall be equipped with a gauge or meter, which indicates the pressure drop across the control device (where appropriate). These gauges or meters shall be located such that the Department of Natural Resources' employees may easily observe them. Mississippi Lime Company shall propose to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, alternate parameters and/or methods of determining the proper operation, on an ongoing basis, for those fabric filters where a pressure drop gauge or meter is not appropriate. These proposed alternate parameters and/or methods must be reviewed by the Air Pollution Control Program before being used.
- 4. Replacement filters for each type of fabric filter shall be kept on hand at all times. The 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).
- 5. Mississippi Lime Company shall maintain an operating and maintenance log for each fabric filter 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.

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU2610 – Limestone Conveyor | |
|-----------------------------|--------------------------------------|
| Emission Unit | Description |
| EU2610 | Limestone Conveyor (2007 EIQ EP-405) |

| EU2620 – 3D Limestone Screen | |
|------------------------------|---------------------------------------|
| Emission Unit | Description |
| EU2620 | 3D Limestone Screen (2007 EIQ EP-406) |

| EU2630 – Screenings Conveyor | |
|------------------------------|--|
| Emission Unit | Description |
| EU2630 | Screenings Conveyor (2007 EIQ EP-415B) |

| EU2640 – Screenings Bin | | |
|-------------------------|----------------------------------|--|
| Emission Unit | Description | |
| EU2640 | Screenings Bin (2007 EIQ EP-416) | |

| EU2650 – Screenings Bin Loadout | | |
|---------------------------------|--|--|
| Emission Unit | Description | |
| EU2650 | Screenings Bin Loadout (2007 EIQ EP-417) | |

| EU2660 – 2D Limestone Screen | | |
|------------------------------|---------------------------------------|--|
| Emission Unit | Description | |
| EU2660 | 2D Limestone Screen (2007 EIQ EP-420) | |

| EU2670 – Limestone Conveyor | | |
|-----------------------------|--------------------------------------|--|
| Emission Unit | Description | |
| EU2670 | Limestone Conveyor (2007 EIQ EP-421) | |

| EU2680 – Limestone Conveyor | | |
|-----------------------------|---------------------------------------|--|
| Emission Unit | Description | |
| EU2680 | Limestone Conveyor (2007 EIQ EP-422A) | |

| EU2690 – Limestone Conveyor | | |
|-----------------------------|---------------------------------------|--|
| Emission Unit | Description | |
| EU2690 | Limestone Conveyor (2007 EIQ EP-422B) | |

Permit Condition (EU2610 – EU2690) - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 072004-12, Issued July 16, 2004 Construction Permit 072004-12A, Issued May 21, 2009

Emission Limitation and Testing:

New Source Performance Standard, Subpart OOO Testing Requirements for New Pre-Kiln Processing-Handling Equipment Added Under Construction Permit 072004-012. A completed Proposed Test Plan must be submitted to and approved by the Air Pollution Control Program at least 30 days prior to conducting the required emission testing for the new pre-kiln processing handling equipment that was added under Construction Permit 072004-012 (as required in 40 CFR Part 60, Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants*). Alternately, Mississippi Lime Company may submit a justification for one or more of these new pieces of pre-kiln processing-handling equipment explaining why it is not subject to requirements of Subpart OOO.

- 1. Mississippi Lime Company shall install fabric filters on the equipment in this permit condition to control the PM_{10} emissions from these sources as specified in the permit application. (Special Condition 9.B)
- 2. Mississippi Lime Company shall enclose and vent EU2610 through EU2690 to the fabric filters as specified in the permit application (CP072004-012). The enclosure of the emissions units shall be constructed and maintained such that no visible emissions (≤5 percent opacity from the enclosure) are allowed to occur from these sources except through the gasses exiting from the fabric filters. (Special Condition 9.C)
- 3. The fabric filters must be in use at all times when that associated piece of equipment is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters shall be equipped with a gauge or meter, which indicates the pressure drop across the control device (where appropriate). These gauges or meters shall be located such that the Department of Natural Resources' employees may easily observe them. Mississippi Lime Company shall propose to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, alternate parameters and/or methods of determining the proper operation, on an ongoing basis, for those fabric filters where a pressure drop gauge or meter is not appropriate. These proposed alternate parameters and/or methods must be reviewed by the Air Pollution Control Program before being used. (Special Condition 9.D)
- 4. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty. (Special Condition 9.E)
- 5. Replacement filters for each type of fabric filter shall be kept on hand at all times. The 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). (Special Condition 9.F)
- 6. Mississippi Lime Company shall maintain an operating and maintenance log for each fabric filter 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. (Special Condition 9.G)

Project No. 2016-03-080

Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU2720 – SS Vertical Kiln #2 | |
|------------------------------|---------------------------------------|
| Emission Unit | Description |
| EU2720 | SS Vertical Kiln #2 (2007 EIQ EP-424) |

| EU2730 – SS Vertical Kiln #3 | |
|------------------------------|---------------------------------------|
| Emission Unit | Description |
| EU2730 | SS Vertical Kiln #3 (2007 EIQ EP-425) |

Permit Condition EU2720 and EU2730 - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 072004-12, Issued July 16, 2004 Construction Permit 072004-12A, Issued May 21, 2009

Emission Limitation and Testing:

New Source Performance Standard, Subpart OOO Testing Requirements for New Pre-Kiln Processing-Handling Equipment Added Under Construction Permit 072004-012. A completed Proposed Test Plan must be submitted to and approved by the Air Pollution Control Program at least 30 days prior to conducting the required emission testing for the new pre-kiln processing handling equipment that was added under Construction Permit 072004-012 (as required in 40 CFR Part 60, Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants*). Alternately, Mississippi Lime Company may submit a justification for one or more of these new pieces of pre-kiln processing-handling equipment explaining why it is not subject to requirements of Subpart OOO.

Stack Testing Requirements:

- 1. Mississippi Lime Company shall conduct performance testing on the new vertical kilns EU2720 and EU2730 sufficient to quantify the emission rates of particulate matter less than ten microns in diameter (PM_{10}), nitrogen oxides (NO_x) and carbon monoxide (CO) from these sources. These tests shall be done in accordance with the test methods and procedures outlined below.
- 2. A completed Proposed Test Plan must be submitted to the Air Pollution Control Program at least 30 days prior to the proposed test date any such performance tests are conducted 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.
- 3. Within 60 days of achieving the maximum production rate of the new vertical kiln, and in any case, no later than 180 days after initial start-up, the owner/operator shall have conducted the required performance tests.
- 4. Any required performance testing shall be conducted during periods of representative conditions at the maximum process/production rates or within ten percent of this maximum process/production rate, not to include periods of start-up, shutdown, or malfunction. However, if a new performance

- test is conducted at a production rate which is less than 90 percent of the maximum process/production rate of the equipment, then ten percent (10%) above the production rate at which the performance test was conducted shall become the new maximum allowable hourly production rate for the unit.
- 5. Any required performance tests shall be conducted, and data reduced, in accordance with the Environmental Protection Agency (EPA) approved testing methods listed below. An alternate test method, in place of one of the methods listed below, may be used if requested by the Mississippi Lime Company and approved by the Director.
 - a) EPA Methods 201A and 202 for PM₁₀,
 - b) EPA Method 7 or 7E for NO_x, and
 - c) EPA Method 10 for CO.
- 6. Two (2) copies of a written report of the performance test results must be submitted to the Director within 90 days of completion of the 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 sample run for each air pollutant tested.
- 7. No later than thirty (30) days after the performance test results are submitted, Mississippi Lime Company shall provide the Director with a report that establishes the potential emissions of each air pollutant tested. This report shall report the potential emission rates in pounds per hour, tons per year and pounds per ton of lime produced from the new vertical kilns EU2720 and EU2730 in order that the Air Pollution Control Program may verify the potential emissions from this project.
- 8. The above time frames associated with this performance testing condition may be extended upon request of Mississippi Lime Company and approval by the Director.

- 1. Mississippi Lime Company shall install fabric filters on the equipment in this permit condition to control the PM_{10} emissions from these sources as specified in the permit application.
- 2. Mississippi Lime Company shall enclose and vent EU2720 and EU2730 to the fabric filters as specified in the permit application (CP072004-012). The enclosure of the emissions units shall be constructed and maintained such that no visible emissions (≤5 percent opacity from the enclosure) are allowed to occur from these sources except through the gasses exiting from the fabric filters.
- 3. The fabric filters must be in use at all times when that associated piece of equipment is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters shall be equipped with a gauge or meter, which indicates the pressure drop across the control device (where appropriate). These gauges or meters shall be located such that the Department of Natural Resources' employees may easily observe them. Mississippi Lime Company shall propose to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, alternate parameters and/or methods of determining the proper operation, on an ongoing basis, for those fabric filters where a pressure drop gauge or meter is not appropriate. These proposed alternate parameters and/or methods must be reviewed by the Air Pollution Control Program before being used.
- 4. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
- 5. Replacement filters for each type of fabric filter shall be kept on hand at all times. The 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).
- 6. Mississippi Lime Company shall maintain an operating and maintenance log for each fabric filter 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.

Reporting:

- 1. Mississippi Lime Company shall submit to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 on or before 15 days after the date the new vertical kilns EU2720 and EU2730 become operational, the following information for each piece of new equipment being added under this permit.
 - a) The manufacturer's name, model number and serial/company number and type of control device(s) associated with that piece of equipment,
 - b) The maximum hourly design rating and date of manufacture of that piece of equipment, and
 - c) Any other reporting requirements such as the capacities or equipment dimensions as specified in 40 CFR Part 60 for those pieces of equipment subject to NSPS Subpart OOO.
- 2. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 3. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

Permit Condition EU2720 and EU2730 - 002

40 CFR Part 63, Subpart AAAAA; National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants

Emission Limitations:

- 1. The permittee must meet each emission limit in Table 1 of Subpart AAAAA that applies.
 - a) The PM emissions must not exceed 0.10 pounds per ton of stone feed (lb/tsf). (§63.7090(a))
- 2. The permittee must meet each operating limit in Table 2 to this subpart that applies.
 - a) Prepare a written operations, maintenance, and monitoring (OM&M) plan; the plan must include the items listed in §63.7100(d) and the corrective actions to be taken when required in Table 5 of Subpart AAAAA. (§63.7090(b))

Monitoring:

The permittee must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the permittee's OM&M plan required by §63.7100(d) and paragraphs (a)(1) through (5) of §63.7113, and the permittee must install, operate, and maintain each continuous opacity monitoring system (COMS) as required by paragraph (g) of §63.7113. (§63.7113(a))

Initial Compliance Requirements:

The permittee must demonstrate initial compliance with each emission limit in Table 1 to Subpart AAAAA that applies, according to Table 3 to Subpart AAAAA. For existing lime kilns and their associated coolers, the permittee may perform visible emissions (VE) measurements in accordance with EPA Method 9 of Appendix A to Part 60 in lieu of installing a COMS or PM detector if any of the conditions in paragraphs (a)(1) through (3) of §63.7114 exist. (§63.7114(a))

Continuous Compliance Requirements:

- 1. The permittee must demonstrate continuous compliance with each emission limitation in Tables 1 and 2 to Subpart AAAAA that applies according to the methods specified in Tables 5 and 6 to Subpart AAAAA (§63.7121(a))
- 2. The permittee must report each instance in which the permittee did not meet each operating limit, opacity limit, and VE limit in Tables 2 and 6 to Subpart AAAAA that applies. This includes periods of startup, shutdown, and malfunction. These instances are deviations from the emission limitations in this subpart. These deviations must be reported according to the requirements in §63.7131. (§63.7121(b))
- 3. The permittee must conduct a performance test within five years following the initial performance test and within five years following each subsequent performance test thereafter. §63.7111 Kilns must be operated in compliance with the limits established during the most recent MACT test. The results of the most recent performance test shall be kept on site.

Recordkeeping:

- 1. A copy of each notification and report that was submitted to comply with Subpart AAAAA, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted, according to the requirements in §63.10(b)(2)(xiv). (§63.7132(a)(1))
- 2. The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction. (§63.7132(a)(2))
- 3. Records of performance tests, performance evaluations, and opacity and VE observations as required in §63.10(b)(2)(viii). (§63.7132(a)(3))
- 4. Records in §63.6(h)(6) for VE observations. (§63.7132(b))
- 5. Records required by Tables 5 and 6 to Subpart AAAAA to show continuous compliance with each emission limitation that applies. (§63.7132(c))
- 6. Records which document the basis for the initial applicability determination as required under §63.7081. (§63.7132(d))
- 7. Records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1). (§63.7133(a))
- 8. As specified in §63.10(b)(1), you must keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. (§63.7133(b))
- 9. The permittee must keep each record onsite for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). The permittee may keep the records offsite for the remaining three years. (§63.7133(c))
- 10. 40 CFR Part 63 Subpart AAAA Tables 1 through 7 can be found in Attachment Q.
- 11. The permittee shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart records when used for continuous monitoring instruments required by the permit. (10 CSR 10-6.6065(6)(C)1.C(II)(b.)I.)

Reporting:

- 1. The permittee must submit each report listed in Table 7 to Subpart AAAAA that applies. (§637131(a))
- 2. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

3. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU2760 – Lime Screen | | | |
|----------------------|---------------------------------|--|--|
| Emission Unit | Description | | |
| EU2760 | Lime Screen (2007 EIQ EP-426B1) | | |
| | EU2770 – Lime Screen | | |
| Emission Unit | Description | | |
| EU2770 | Lime Screen (2007 EIQ EP-426C1) | | |

| EU2830 – Vibrating Feeders | |
|----------------------------|---------------------------------------|
| Emission Unit | Description |
| EU2830 | Vibrating Feeders (2007 EIQ EP-429A1) |

| EU2850 – Vibrating Feeders | |
|----------------------------|---------------------------------------|
| Emission Unit | Description |
| EU2850 | Vibrating Feeders (2007 EIQ EP-429B1) |

| EU2870 – Vibrating Feeders | |
|----------------------------|---------------------------------------|
| Emission Unit | Description |
| EU2870 | Vibrating Feeders (2007 EIQ EP-429C1) |

| EU2890 – New Crusher (Lime) | |
|-----------------------------|---------------------------------------|
| Emission Unit | Description |
| EU2890 | New Crusher (Lime) (2007 EIQ EP-430B) |

Permit Condition (EU2760, EU2770, EU2830, EU2850, EU2870, and EU2890) - 001
10 CSR 10-6.060 Construction Permits Required
Construction Permit 072004-12, Issued July 16, 2004
Construction Permit 072004-12A, Issued May 21, 2009

- 1. Mississippi Lime Company shall install fabric filters on the equipment in this permit condition to control the PM₁₀ emissions from these sources as specified in the permit application. (Special Condition 9.B)
- 2. Mississippi Lime Company shall enclose and vent the emission units in this permit condition to the fabric filters as specified in the permit application (CP072004-012). The enclosure of the emissions units shall be constructed and maintained such that no visible emissions (≤5 percent opacity from the enclosure) are allowed to occur from these sources except through the gasses exiting from the fabric filters. (Special Condition 9.C)
- 3. The fabric filters must be in use at all times when that associated piece of equipment is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters shall be equipped with a gauge or meter, which indicates the pressure drop across the control device (where appropriate). These gauges or meters shall be located such that the Department of Natural Resources' employees may easily observe them. Mississippi Lime Company shall propose to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, alternate parameters and/or methods of determining the proper operation, on an on-

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- going basis, for those fabric filters where a pressure drop gauge or meter is not appropriate. These proposed alternate parameters and/or methods must be reviewed by the Air Pollution Control Program before being used. (Special Condition 9.D)
- 4. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty. (Special Condition 9.E)
- 5. Replacement filters for each type of fabric filter shall be kept on hand at all times. The 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). (Special Condition 9.F)
- 6. Mississippi Lime Company shall maintain an operating and maintenance log for each fabric filter 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. (Special Condition 9.G)

Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU1480 – Lime Silo No. 2 | |
|--------------------------|-----------------------------------|
| Emission Unit | Description |
| EU1480 | Lime Silo No. 2 (2007 EIQ EP-131) |

Permit Condition EU1480 - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 102002-008, Issue September 19, 2002

Emission Limit:

Mississippi Lime Company shall not discharge into the atmosphere from the new equipment, added under this permit and Construction Permit 092001-014, and any additional emissions from the existing operations directly resulting from the operation of the new equipment added under this permit, PM10 in excess of 15.0 tons in any consecutive 12-month period. (Special Condition 2.A)

- 1. Mississippi Lime Company shall install control equipment [i.e. designated as dust collector(s)] on the equipment in this permit condition to control the PM₁₀ emissions from these sources as specified in the permit application (Construction Permit 102002-008A). (Special Condition 7.A)
- 2. The control equipment specified in this permit condition must be in use at all times when that associated piece of equipment is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. (Special Condition 8)
- 3. Each dust collector control(s) shall be equipped with a gauge or meter, which indicates the pressure drop across the control device (where appropriate). These gauges or meters shall be located such that the Missouri Department of Natural Resources' personnel may easily observe them. Mississippi Lime Company shall propose alternate parameter(s) and/or method(s) of determining the proper

operation, on an on-going basis, for those dust collector control(s) where a pressure drop gauge or meter is not appropriate. These proposed alternate parameter(s) and/or method(s) must be reviewed and approved by the Air Pollution Control Program before being used. (Special Condition 8.A)

Monitoring and Recordkeeping:

- 1. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty. (Special Condition 8.B)
- 2. Appropriate replacement filters for each type of dust collector control(s) shall be kept on hand at all times. The 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). (Special Condition 8.C)
- 3. Mississippi Lime Company shall maintain an operating and maintenance log for each dust collector(s) which shall include the following:
 - 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.
- 4. Mississippi Lime Company shall inspect each dust collector(s) at least once every six (6) months and at a minimum conduct the following activities:
 - a) Check the cleaning sequence of the dust collector for proper operation,
 - b) Thoroughly inspect the filters for leaks and signs of wear,
 - c) Inspect all components of the control system that are not subject to wear or plugging, including structural components, housing, ducts, hoods, etc., and
 - d) If leaks or abnormal conditions are found during these inspections, the appropriate remedial actions shall be implemented before re-starting the equipment.

Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU0670, EU0907a, EU0907b, EU0907c, EU0908a, and EU0640c – Lime Hydrator and Associated Equipment | | | |
|---|--|--|--|
| Emission Unit | Emission Unit Description | | |
| EU0670 | Drop Point (MVPCC Pellet Bin 7 & 8 to lime weigh screw conveyor) | | |
| EU0907a | Drop point (lime weigh screw conveyor to weigh belt) | | |
| EU0907b | Drop point (weigh belt to hydrator feed screw) | | |
| EU0907c | Drop point (hydrator feed screw to hydrator) | | |
| EU0908a | Drop point (hydrator to hydrate mill) | | |
| EU0640c | Drop Point (air separator 2 to DC screw Conveyor No. 2) | | |

Permit Condition EU0670, EU0907a, EU0907b, EU0907c, EU0908a, and EU0640c – 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 082011-002 Issued August 5, 2011

Emission Limitation:

Mississippi Lime Company shall control emissions from the lime hydrator and hydrate mill using baghouses as specified in the permit application.

- 1. Baghouse EP-908
- 2. Baghouse EP-907 [Special Condition 1.A]

Operational Requirement

- 1. 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. [Special Condition 1.B]
- 2. 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). [Special Condition 1.C]
- 3. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty. [Special Condition 1.D]
- 4. Process equipment (lime weigh screw conveyor, weigh belt, hydrator feed, screw hydrator, hydrate mill feed entry and feed exit) shall be totally enclosed, sealed with bolt down or mechanically fastened panels, and maintained under negative pressure and exhausted to a baghouse (CD-907 or CD-908). [Special Condition 2.A]
- 5. If any openings or holes should appear on the transfer equipment (lime weigh screw conveyor, weigh belt, hydrator feed, screw hydrator, hydrate mill feed entry and feed exit) due to wear or maintenance activities these openings or holes shall maintain negative pressure. [Special Condition 2.B]

Monitoring and Recordkeeping:.

- 1. Mississippi Lime Company 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. [Special Condition 1.E]
- 2. Mississippi Lime Company shall maintain an operating and maintenance log for the storage equipment and process equipment which shall include the following:

- a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions.
- b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
- c) A record of regular inspection schedule, the date and results of all inspections, including any actions or maintenance activities that result from the inspections. Either paper copy or electronic formats are acceptable. [Special Condition 2.D]

| EU1840 – Blending Silos (2) | | |
|-----------------------------|---------------------------------------|--|
| Emission Unit | Description | |
| EU1840 | Blending Silos (2) (2007 EIQ EP-131A) | |

| EU1850 – Pneumatic Rail Car Loading SSK | |
|---|---|
| Emission Unit | Description |
| EU1850 | Pneumatic Rail Car Loading SSK (2007 EIQ EP-131B) |

| EU1860 – Feed Bin, No. 1 Hydrator, enclosed bldg., 1981 | |
|---|---|
| Emission Unit | Description |
| EU1860 | Feed Bin, No. 1 Hydrator, enclosed bldg., 1981 (2007 EIQ EP-135A) |

Permit Condition (EU1840, EU1850 and EU1860) - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 102002-008, Issued September 19, 2002

Emission Limit:

Mississippi Lime Company shall not discharge into the atmosphere from the new equipment, added under this permit and Construction Permit 092001-014, and any additional emissions from the existing operations directly resulting from the operation of the new equipment added under this permit, PM10 in excess of 15.0 tons in any consecutive 12-month period. (Special Condition 2.A)

Operational Requirement:

- 1. Mississippi Lime Company shall install control equipment [i.e. designated as dust collector(s)] on the equipment in this permit condition to control the PM_{10} emissions from these sources as specified in the permit application.
- 2. The control equipment specified in this permit condition must be in use at all times when that associated piece of equipment is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications.
- 3. Each dust collector control(s) shall be equipped with a gauge or meter, which indicates the pressure drop across the control device (where appropriate). These gauges or meters shall be located such that the Missouri Department of Natural Resources' personnel may easily observe them. Mississippi Lime Company shall propose alternate parameter(s) and/or method(s) of determining the proper operation, on an on-going basis, for those dust collector control(s) where a pressure drop gauge or meter is not appropriate. These proposed alternate parameter(s) and/or method(s) must be reviewed and approved by the Air Pollution Control Program before being used.

Monitoring and Recordkeeping:

1. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.

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- 2. Appropriate replacement filters for each type of dust collector control(s) shall be kept on hand at all times. The 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)..
- 3. Mississippi Lime Company shall maintain an operating and maintenance log for each dust collector(s) which shall include the following:
 - 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.
- 4. Mississippi Lime Company shall inspect each dust collector(s) at least once every six (6) months and at a minimum conduct the following activities:
 - a) Check the cleaning sequence of the dust collector for proper operation,
 - b) Thoroughly inspect the filters for leaks and signs of wear,
 - c) Inspect all components of the control system that are not subject to wear or plugging, including structural components, housing ducts, hoods, etc., and
 - d) If leaks or abnormal conditions are found during these inspections, the appropriate remedial actions shall be implemented before re-starting the equipment.

Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU2330 – VK 8 Waste Conveyor - Extension | |
|--|--|
| Emission Unit | Description |
| EU2330 | VK 8 Waste Conveyor - Extension (2007 EIQ EP-293B) |

Permit Condition EU2330 - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 072004-12, Issued July 16, 2004 Construction Permit 072004-12A, Issued May 21, 2009

- 1. Mississippi Lime Company shall install fabric filters on the equipment in this permit condition to control the PM₁₀ emissions from these sources as specified in the permit application.
- 2. Mississippi Lime Company shall enclose and vent the emission units in this permit condition to the fabric filters as specified in the permit application (CP072004-012). The enclosure of the emissions units shall be constructed and maintained such that no visible emissions (≤5 percent opacity from the enclosure) are allowed to occur from these sources except through the gasses exiting from the fabric filters.
- 3. The fabric filters must be in use at all times when that associated piece of equipment is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters shall be equipped with a gauge or meter, which indicates the pressure drop across the

control device (where appropriate). These gauges or meters shall be located such that the Department of Natural Resources' employees may easily observe them. Mississippi Lime Company shall propose to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, alternate parameters and/or methods of determining the proper operation, on an ongoing basis, for those fabric filters where a pressure drop gauge or meter is not appropriate. These proposed alternate parameters and/or methods must be reviewed by the Air Pollution Control Program before being used.

- 4. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
- 5. Replacement filters for each type of fabric filter shall be kept on hand at all times. The 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).
- 6. Mississippi Lime Company shall maintain an operating and maintenance log for each fabric filter 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.

Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU2960 – Feed to PCC Silos Nos. 1, 2, & 3 | |
|---|--|
| Emission Unit | Description |
| EU2960 | Feed to PCC Silos Nos. 1, 2, & 3 (2007 EIQ EP-450) |

| EU2970 – PCC 25 Ton Surge Hopper | |
|----------------------------------|---|
| Emission Unit | Description |
| EU2970 | PCC 25 Ton Surge Hopper (2007 EIQ EP-451) |

| EU2980 – PCC Bagging System | |
|-----------------------------|--------------------------------------|
| Emission Unit | Description |
| EU2980 | PCC Bagging System (2007 EIQ EP-452) |

| EU2990 – Hydrate Truck Transfer Unloading | |
|---|--|
| Emission Unit | Description |
| EU2990 | Hydrate Truck Transfer Unloading (2007 EIQ EP-455) |

| EU3000 – Feed to 100 Ton Hydrate Silos 1 & 2 | |
|--|---|
| Emission Unit | Description |
| EU3000 | Feed to 100 Ton Hydrate Silos 1 & 2 (2007 EIQ EP-460) |

| EU3010 – Feed to 100 Ton Hydrate Silos 3 & 4 | |
|--|---|
| Emission Unit | Description |
| EU3010 | Feed to 100 Ton Hydrate Silos 3 & 4 (2007 EIQ EP-461) |

| EU3020 – Hydrate 25 Ton Surge Hopper | |
|--------------------------------------|---|
| Emission Unit | Description |
| EU3020 | Hydrate 25 Ton Surge Hopper (2007 EIQ EP-462) |

| EU3030 – Hydrate Bagging System | |
|---------------------------------|--|
| Emission Unit | Description |
| EU3030 | Hydrate Bagging System (2007 EIQ EP-463) |

| EU3040 – Hydrate 25 Ton Surge Hopper | |
|--------------------------------------|---|
| Emission Unit | Description |
| EU3040 | Hydrate 25 Ton Surge Hopper (2007 EIQ EP-464) |

| EU3050 – Hydrate Bagging System | |
|---------------------------------|--|
| Emission Unit | Description |
| EU3050 | Hydrate Bagging System (2007 EIQ EP-465) |

Permit Condition (EU2960 – EU3050) - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 112001 – 005, Issued October 26, 2001

Operational and Recordkeeping Requirements:

1. The proposed control equipment [i.e. designated as dust collector(s)] associated with this project must be in use at all times when the new equipment, listed below, is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications.

Unit ID Emission Unit Description

EP-450 Feed to PCC Silos Nos. 1, 2 & 3,

EP-451 PCC Surge Hopper,

EP-452 PCC Bagging System,

EP-455 Hydrate Truck Unloading,

EP-460 Feed to Hydrate Silos Nos. 1 & 2,

EP-461 Feed to Hydrate Silos Nos. 3 & 4,

EP-462 Hydrate Surge Hopper,

EP-463 Hydrate Bagging System,

EP-464 Hydrate Surge Hopper, and

EP-465 Hydrate Bulk Bagging System.

The filter(s) associated with the above dust collector(s) shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).

2. Mississippi Lime Company shall enclose and vent all of the emission unit(s) associated with each of the new dust collector(s) specified in this permit condition as indicated in the permit application. The enclosure of the emissions unit(s) specified by this permit condition 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 dust collector(s).

- 3. Each dust collector control(s) shall be equipped with a gauge or meter, which indicates the pressure drop across the control device (where appropriate). These gauges or meters shall be located as such that Missouri Department of Natural Resources' personnel may easily observe them. Mississippi Lime Company shall propose alternate parameter(s) and/or method(s) of determining the proper operation, on an on-going basis, for those dust collector control(s) where a pressure drop gauge or meter is not appropriate. These proposed alternate parameter(s) and/or method(s) must be reviewed and approved by the Air Pollution Control Program before being used. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
- 4. Mississippi Lime Company shall maintain an operating and maintenance log for each dust collector(s) which shall include the following:
 - 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.
- 5. Mississippi Lime Company shall inspect the dust collector(s) at least once every six (6) months and at a minimum conduct the following activities:
 - a) Check the cleaning sequence of the dust collector for proper operation;
 - b) Thoroughly inspect the filters for leaks and signs of wear;
 - c) Inspect all components of the control system that are not subject to wear or plugging, including structural components, housing, ducts, hoods, etc.; and
 - d) If leaks or abnormal conditions are found during these inspections, the appropriate remedial actions shall be implemented before re-starting the equipment.

Record Retention Requirements:

Mississippi Lime Company shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources. personnel upon request.

Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU3890 – Storage Bins (2) | |
|---------------------------|------------------------------------|
| Emission Unit | Description |
| EU3890 | Storage Bins (2) (2007 EIQ EP-730) |

| EU3900 – Mills (4) | | |
|--------------------|-----------------------------|--|
| Emission Unit | Description | |
| EU3900 | Mills (4) (2007 EIQ EP-734) | |

| EU3910 – Bins (2) | | |
|-------------------|----------------------------|--|
| Emission Unit | Description | |
| EU3910 | Bins (2) (2007 EIQ EP-736) | |

| EU3920 – Hydrate Storage Bin (Finish Bin 8) | | | |
|---|--|--|--|
| Emission Unit | Description | | |
| EU3920 | Hydrate Storage Bin (Finish Bin 8) (2007 EIQ EP-740) | | |
| | EU3930 – Weigh Bin | | |
| Emission Unit | Description | | |
| EU3930 | Weigh Bin (2007 EIQ EP-741) | | |

| EU3940 – Slurry Tanks (2) | | | | |
|---------------------------|------------------------------------|--|--|--|
| Emission Unit | Emission Unit Description | | | |
| EU3940 | Slurry Tanks (2) (2007 EIQ EP-742) | | | |

Permit Condition (EU3890 – EU3940) - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 072004-12, Issued July 16, 2004 Construction Permit 072004-12A, Issued May 21, 2009

- 1. Mississippi Lime Company shall install fabric filters on the equipment in this permit condition to control the PM_{10} emissions from these sources as specified in the permit application.
- 2. Mississippi Lime Company shall enclose and vent the emission units in this permit condition to the fabric filters as specified in the permit application (CP072004-012). The enclosure of the emissions units shall be constructed and maintained such that no visible emissions (≤5 percent opacity from the enclosure) are allowed to occur from these sources except through the gasses exiting from the fabric filters.
- 3. The fabric filters must be in use at all times when that associated piece of equipment is in operation, and shall be operated and maintained in accordance with the manufacturer's specifications. The fabric filters shall be equipped with a gauge or meter, which indicates the pressure drop across the control device (where appropriate). These gauges or meters shall be located such that the Department of Natural Resources' employees may easily observe them. Mississippi Lime Company shall propose to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, alternate parameters and/or methods of determining the proper operation, on an ongoing basis, for those fabric filters where a pressure drop gauge or meter is not appropriate. These proposed alternate parameters and/or methods must be reviewed by the Air Pollution Control Program before being used.
- 4. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
- 5. Replacement filters for each type of fabric filter shall be kept on hand at all times. The 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).
- 6. Mississippi Lime Company shall maintain an operating and maintenance log for each fabric filter 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.

Reporting:

- 1. Reports of any deviations from the requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
- 2. Mississippi Lime Company 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 end of each month, if the emission limits of this permit condition are exceeded.

| EU4910 – Drop Point (Granular Silo (EP-677) to SF-1 | | |
|---|--|--------------------------|
| Emission Unit | Control Device | |
| EU4910 | Drop Point (Granular Silo (EP-677) to SF-1, (EP-910) | Baghouse indirect DC-693 |

| EU4911 – Drop Point (1/2" Silo (EP-674) to SF-2) | | |
|--|---|--------------------------|
| Emission Unit | Description | Control Device |
| EU4911 | Drop Point (1/2" Silo (EP-674) to SF-2), (EP-911) | Baghouse indirect DC-693 |

| EU4912 – Drop Point (SF-1 to BC-1) | | | |
|--|-------------------------------------|-----------------|--|
| Emission Unit Description Control Device | | | |
| EU4912 | Drop Point (SF-1 to BC-1), (EP-912) | Baghouse DC-693 | |

| EU4913 – Drop Point (SF2 to BC-1) | | | |
|--|------------------------------------|-----------------|--|
| Emission Unit Description Control Device | | | |
| EU4913 | Drop Point (SF2 to BC-1), (EP-913) | Baghouse DC-693 | |

| EU4914 – Drop Point (BC-1 to CR-1) | | | |
|--|-------------------------------------|-----------------|--|
| Emission Unit Description Control Device | | | |
| EU4914 | Drop Point (BC-1 to CR-1), (EP-914) | Baghouse DC-915 | |

| EU4915 – Impact Crusher CR-1 | | |
|------------------------------|-------------------------------|-----------------|
| Emission Unit | Description | Control Device |
| EU4915 | Impact Crusher CR-1, (EP-915) | Baghouse DC-915 |

| EU4916 – Drop Point (CR-1 to M-1) | | |
|--|------------------------------------|--------------------------|
| Emission Unit | Description | Control Device |
| EU4916 | Drop Point (CR-1 to M-1), (EP-916) | Baghouse indirect DC-915 |

| EU4917 – Mill M-1 | | |
|-------------------|-------------------|--------------------------|
| Emission Unit | Description | Control Device |
| EU4917 | Mill M-1 (EP-917) | Baghouse indirect DC-915 |

EU4928

Baghouse DC-928

| Installation ID: 186- | -0001 | Project No. 2016-03-080 |
|-----------------------|--|--------------------------|
| | | |
| | EU4918 - Drop Point (M-1 to SC-1) | |
| Emission Unit | Description (FD 010) | Control Device |
| EU4918 | Drop Point (M-1 to SC-1), (EP-918) | Baghouse indirect DC-915 |
| | EU4919 - Drop Point (SC-1 to BE-1) | |
| Emission Unit | Description | Control Device |
| EU4919 | Drop Point (SC-1 to BE-1), (EP-919) | Baghouse DC-915 |
| 20 1,717 | 210) 10111 (80 110 22 1); (21 313) | Dugaous De 710 |
| | EU4920 - Drop Point (BE-1 to SC-2) | |
| Emission Unit | Description | Control Device |
| EU4920 | Drop Point (BE-1 to SC-2), (EP-920) | Baghouse DC-915 |
| | | |
| | EU4921 - Drop Point (SC-2 to AC-1) | |
| Emission Unit | Description | Control Device |
| EU4921 | Drop Point (SC-2 to AC-1), (EP-921) | Baghouse DC-922 |
| | EU14022 A: . C | |
| Emission Unit | EU4922 – Air Separator AC-1 Description | Control Device |
| EU4922 | Air Separator AC-1, (EP-922) | Baghouse DC-922 |
| EU4922 | All Separator AC-1, (E1-922) | Bagnouse DC-922 |
| | EU4923 - Drop Point (AC-1 to SC-3) | |
| Emission Unit | Description | Control Device |
| | • | Baghouse indirect DC- |
| EU4923 | Drop Point (AC-1 to SC-3), (EP-923) | 928 |
| | | |
| | EU4924 - Drop Point (AC-1 to BLW-1 | |
| Emission Unit | Description | Control Device |
| EU4924 | Drop Point (AC-1 to BLW-1), (EP-924) | Baghouse indirect DC- |
| | . , , , , , | 928 |
| | EU4925 - Drop Point (SC-3 to BE-2) | |
| Emission Unit | Description | Control Device |
| EU4925 | Drop Point (SC-3 to BE-2), (EP-925) | Baghouse DC-928 |
| | | |
| | EU4926 - Drop Point (BE-2 to SC-4) | |
| Emission Unit | Description | Control Device |
| EU4926 | Drop Point (BE-2 to SC-4), (EP-926) | Baghouse DC-928 |
| | | |
| D | EU4927 - Drop Point (SC-4 to BN-1) | |
| Emission Unit | Description (FD 027) | Control Device |
| EU4927 | Drop Point (SC-4 to BN-1), (EP-927) | Baghouse DC-928 |
| | EU4928 - Drop Point (BN-1 to WB-1) | |
| Emission Unit | Description | Control Device |
| Emission Unit | Description | Collinoi Device |

Drop Point (BN-1 to WB-1), (EP-928)

| EU4929 - Drop Point (WB-1 to SC-5) | | |
|-------------------------------------|--------------------------------------|-----------------|
| Emission Unit | Description | Control Device |
| EU4929 | Drop Point (WB-1 to SC-5), (EP-929) | Baghouse DC-928 |
| EU4930 - Drop Point (SC-5 to HYD-1) | | |
| Emission Unit | Description | Control Device |
| EU4930 | Drop Point (SC-5 to HYD-1), (EP-930) | Baghouse DC-931 |

| EU4931 - Hydrator HYD-1 | | |
|-------------------------|--------------------------|-----------------|
| Emission Unit | Description | Control Device |
| EU4931 | Hydrator HYD-1, (EP-931) | Baghouse DC-931 |

| EU4932 - Drop Point (HYD-1 to SC-6)) | | |
|--------------------------------------|---------------------------------------|-----------------|
| Emission Unit | Description | Control Device |
| EU4932 | Drop Point (HYD-1 to SC-6)), (EP-932) | Baghouse DC-931 |

| EU4933 - Drop Point (SC-6 to BE-3) | | |
|------------------------------------|-------------------------------------|-----------------|
| Emission Unit | Description | Control Device |
| EU4933 | Drop Point (SC-6 to BE-3), (EP-933) | Baghouse DC-934 |

| EU4934 - Drop Point (BE-3 to SC-7) | | |
|------------------------------------|-------------------------------------|--------------------------|
| Emission Unit | Description | Control Device |
| EU4934 | Drop Point (BE-3 to SC-7), (EP-934) | Baghouse indirect DC-934 |

| EU4935 - Drop Point (SC-7 to AC -2) | | |
|-------------------------------------|--------------------------------------|-----------------|
| Emission Unit | Description | Control Device |
| EU4935 | Drop Point (SC-7 to AC -2), (EP-935) | Baghouse DC-934 |

| EU4936 - Air Separator AC-2 | | |
|-----------------------------|------------------------------|-----------------|
| Emission Unit | Description | Control Device |
| EU4936 | Air Separator AC-2, (EP-936) | Baghouse DC-936 |

| EU4937 - Drop Point (AC-2 to SC-9) | | |
|------------------------------------|-------------------------------------|-----------------|
| Emission Unit | Description | Control Device |
| EU4937 | Drop Point (AC-2 to SC-9), (EP-937) | Baghouse DC-936 |

| EU4938 - Drop Point (AC-2 to M-2) | | |
|-----------------------------------|------------------------------------|--------------------------|
| Emission Unit | Description | Control Device |
| EU4938 | Drop Point (AC-2 to M-2), (EP-938) | Baghouse indirect DC-936 |

| EU4939 - Mill M-2 | | |
|-------------------|--------------------|--------------------------|
| Emission Unit | Description | Control Device |
| EU4939 | Mill M-2, (EP-939) | Baghouse indirect DC-936 |

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| EU4940 - Drop Point (M-2 to SC-8) | | |
|-----------------------------------|------------------------------------|--------------------------|
| Emission Unit | Description | Control Device |
| EU4940 | Drop Point (M-2 to SC-8), (EP-940) | Baghouse indirect DC-936 |

| EU4941 - Drop Point (SC-9 to SC-8) | | |
|------------------------------------|-------------------------------------|--------------------------|
| Emission Unit | Description | Control Device |
| EU4941 | Drop Point (SC-9 to SC-8), (EP-941) | Baghouse indirect DC-936 |

| EU4942 - Drop Point (SC-8 to BLW-2) | | |
|-------------------------------------|--------------------------------------|--------------------------|
| Emission Unit | Description | Control Device |
| EU4942 | Drop Point (SC-8 to BLW-2), (EP-942) | Baghouse indirect DC-936 |

| EU4943 - Drop Point (BLW-2 to BN-2) | | |
|-------------------------------------|--------------------------------------|-----------------|
| Emission Unit | Description | Control Device |
| EU4943 | Drop Point (BLW-2 to BN-2), (EP-943) | Baghouse DC-943 |

| EU4944 - Product Loadout LO-1 | | |
|-------------------------------|--------------------------------|-------------------------------|
| Emission Unit | Description | Control Device |
| EU4944 | Product Loadout LO-1, (EP-944) | Pneumatic Loading with Filter |

| EU4945 - Drop Point (BLW-2 to BN-3) | | |
|-------------------------------------|--------------------------------------|-----------------|
| Emission Unit | Description | Control Device |
| EU4945 | Drop Point (BLW-2 to BN-3), (EP-945) | Baghouse DC-945 |

| EU4946 - Drop Point (BN-3 to WB-2) | | |
|------------------------------------|-------------------------------------|--------------------------|
| Emission Unit | Description | Control Device |
| EU4946 | Drop Point (BN-3 to WB-2), (EP-946) | Baghouse indirect DC-951 |

| EU4947 - Drop Point (WB-2 to SC-10) | | |
|-------------------------------------|--------------------------------------|--------------------------|
| Emission Unit | Description | Control Device |
| EU4947 | Drop Point (WB-2 to SC-10), (EP-947) | Baghouse indirect DC-951 |

| EU4948 - Drop Point (SC-10 to M-3) | | |
|------------------------------------|-------------------------------------|--------------------------|
| Emission Unit | Description | Control Device |
| EU4948 | Drop Point (SC-10 to M-3), (EP-948) | Baghouse indirect DC-951 |

| EU4949 - Mill M-3 | | |
|-------------------|--------------------|------------------------------|
| Emission Unit | Description | Control Device |
| EU4949 | Mill M-3, (EP-949) | Baghouse indirect DC- 951 |

| EU4950 - Drop Point (M-3 to BN-4) | | |
|-----------------------------------|------------------------------------|--------------------------|
| Emission Unit | Description | Control Device |
| EU4950 | Drop Point (M-3 to BN-4), (EP-950) | Baghouse indirect DC-951 |

| EU4951 - Product Loadout LO-2 | | |
|-------------------------------|--------------------------------|-------------------------------|
| Emission Unit | Description | Control Device |
| EU4951 | Product Loadout LO-2, (EP-951) | Pneumatic Loading with Filter |

Permit Condition (EU4910 through EU4951) - 001 10 CSR 10-6.060 Construction Permits Required Construction Permit 112012-009, Issued November 19, 2012

Emission Limit:

- 1. Mississippi Lime Company shall control particulate emissions from the emission units in this permit condition which are stated as having baghouses by enclosing and venting each particulate emission source to a baghouse. The enclosures of the emissions units shall be constructed and maintained such that no visible emissions are allowed to occur from these sources except through the gases exiting from the baghouse. (Special Condition 1.A)
- 2. Mississippi Lime Company shall control emissions from the product loading emission point (EP-944 and 951) using a Dust Control and Loading System Inc.'s (DCLS) pneumatic loadout spout equipped with filters. (Special Condition 2.A.)

- Mississippi Lime Company shall conduct performance testing on the baghouses listed below in order to verify that the emission rates in Table 1 for PM are not exceeded. The following conditions shall be measured and recorded,
 - a) The filters' filterable PM emission factor in grains per standard cubic feet per minute (gr/SCFM) using methods preapproved by the Air Pollution Control Program
 - b) The filters' respective flowrate in dry SCFM using methods preapproved by the Air Pollution Control Program
 - c) The filters' respective pressure drop in inches of water column
 - d) The filters' respective emission rate, pounds per hour (lbs/hr)
 - e) Process material throughput, tons per hour (tph) (Special Condition 5.A)

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| Baghouse | Controlled Emission Points | MHDR (tph) | Controlled PM Emission Rates (lb/hr) |
|----------|--|---------------|--|
| DC-922 | EP-921 and 922 | 50 | 1.545 |
| DC-931 | EP-930, 931, and 932 | 35 | 1.537 |
| DC-936 | EP-936, 937, 938, 939, 940, 941, and 942 | 35 | 1.164 |

Table 1: Emission Rates from the Baghouses

- 2. These tests shall be performed within 60 days after achieving the maximum production rate of the installation, but not later than 180 days after initial start-up of the Hydrator (HDY-1) (EU4931) for commercial operation. These tests shall be conducted at the MHDR listed in Table 1 or within ten percent of the MHDR. If the tests are conducted below 90 percent of the MHDR, then the tested production rate is the new MHDR. If the tested production rate is below 90 percent, Mississippi Lime Company shall be allowed to operate at ten percent above the tested production rate and not have to retest. These tests shall be conducted in accordance with the Performance Test Procedures outlined in Operational Requirement 1 (Special Condition 5.B)
- 3. If at any time the tested production rates during the most recent performance test are exceeded by ten percent, Mississippi Lime Company must retest the exceeding emission point to confirm the emission rates listed in Table 1 are not exceeded. (Special Condition 5.C)
- 4. A completed Proposed Test Plan Form must be submitted to the Air Pollution Control Program 30 days prior to the proposed test date so that the Air Pollution Control Program may arrange a pretest meeting, if necessary, and assure that the test date is acceptable for an observer to be present. The Proposed Test Plan may serve the purpose of notification and must be approved by the Director prior to conducting the required emission testing. (Special Condition 5.D)
- 5. Two copies of a written report of the performance test results shall be submitted to the Director within 30 days of completion of any required testing. The report must include legible copies of the raw data sheets, analytical instrument laboratory data, and complete sample calculations from the required U.S. EPA Method for at least one sample run. (Special Condition 5.E)
- 6. 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 or regulations. (Special Condition 5.F)
- 7. If the results of the performance testing show that the tested emission rates are greater than the stack emission rates (Table 1), then Mississippi Lime shall evaluate what effects these higher emission rates would have had on the permit applicability, modeling applicability, and emission factors for compliance and emission inventory. Mississippi Lime Company shall submit to the Air Pollution Control Program the results of any such evaluation in a completed Application for Authority to Construct within 30 days of submitting the Performance Test Results report required in Operational Requirement 5 of this permit. (Special Condition 5.G)
- 8. 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. (Special Condition 1.B)
- 9. 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). (Special Condition 1.C)
- 10. On the days when the equipment is running, Mississippi Lime Company shall conduct a daily examination on the baghouses listed in this permit condition. This shall be completed during the daily workplace examinations. During the examination, the person completing the workplace exam shall visually inspect and record that all emission control devices are working as per manufacturer's guidelines. (Special Condition 1.D)
- 11. Mississippi Lime Company shall monitor and record the operating pressure drop across the baghouses listed in this permit condition at least once per week. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty. (Special Condition 1.E)
- 12. The DCLS pneumatic loadout spout and filters shall be operated and maintained in accordance with the manufacturer's specifications. The filters 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. (Special Condition 2.B)
- 13. Replacement filters for the DCLS pneumatic loadout spout shall be kept on hand at all times. The filters shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance). (Special Condition 2.C)
- 14. On the days when the equipment is running, Mississippi Lime Company shall conduct a daily examination on the Dust Control and Loading System Inc.'s (DCLS) pneumatic loadout spout. This shall be completed during the daily workplace examinations. During the examination, the person completing the workplace exam shall visually inspect and record that all emission control devices are working as per manufacturer's guidelines. (Special Condition 2.D)
- 15. Mississippi Lime Company shall monitor and record the operating pressure drop across the DCLS pneumatic loadout spout at least once per week. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty. (Special Condition 2.E)
- 16. Emission units listed in this permit condition as having indirect baghouse control shall be totally enclosed and maintained under negative pressure and vented to its respective baghouse. (Special Condition 3.A)
- 17. If any openings or holes should appear on emission units listed in this permit condition as having indirect baghouse control due to wear or maintenance activities these openings or holes shall maintain negative pressure. (Special Condition 3.B)
- 18. Mississippi Lime Company shall demonstrate negative pressure at all emission units listed in this permit condition as having indirect baghouse control by using visual indicators such as streamers, talc puff test, negative pressure gauges, flags, etc. at openings that are not closed during normal operations. All openings, when operating, must indicate the presence of negative pressure for compliance. (Special Condition 3.C)

Monitoring and Recordkeeping:

- 1. Mississippi Lime Company 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

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- b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc. (Special Condition 1.H)
- 2. Mississippi Lime Company shall maintain an operating and maintenance log for the DCLS pneumatic loadout spout 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.
 - c) A record of regular inspection schedule, the date and results of all inspections, including any actions or maintenance activities that result from the inspections. Either paper copy or electronic formats are acceptable. (Special Condition 3.D)
- 3. Mississippi Lime Company 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. These records shall include MSDS for all materials used. (Special Condition 4.A)

Reporting:

- 1. If at any time the baghouses listed in this permit condition do not operate within the manufactures performance specifications Mississippi Lime Company shall perform an EPA Method 22 visible emission test. If any visible emissions are present during the EPA Method 22 test Mississippi Lime Company shall implement an immediate corrective action to eliminate any excess emissions from the affected stack and report the incident on the next Mississippi Lime Company Title V Semi-Annual Report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. (Special Condition 1.G)
- 2. Mississippi Lime Company shall submit manufactures performance specifications for the baghouses listed in this permit condition within 30 days of equipment start-up. (Special Condition 1.F)
- 3. Mississippi Lime Company shall report to the Air Pollution Control Program's Compliance/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 show an exceedance of the emission rates listed in Table 1.

| Equipment subject to Modification Permit Condition (EU0721 through EU9999)-001 | | | | |
|--|---------|--|--|--|
| EU# | EP# | Description | | |
| EU0721 | EP-187S | Emergency Generator-MRK9&10, Cummins Model #QSL9-G7 NR3, MHDR 19.59 gal/hr, 382 hp, diesel fuel fired, installed 2015 | | |
| EU9999 | EP-1070 | Emergency Generator-IT, Caterpillar Model G200LG, MHDR 2578 ft ³ /hr, 304 hp, natural gas fired, installed 2015 | | |

Modification Permit Condition (EU0721 through EU9999)-001
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart ZZZZ National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
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

Operational Limitation:

- 1. The permittee 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, over the life of the engine. [§60.4205(b) and §60.4206]
- 2. For EU0721 only, beginning October 1, 2010, permittees must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. [§60.4207(b)]
- 3. The permittee shall meet the requirements of 40 CFR part 63 Subpart ZZZZ by meeting the requirements of 40 CFR part 60 Subpart IIII. No further requirements apply under 40 CFR part 63 Subpart ZZZZ. [Subpart ZZZZ, §63.6590(c)(1)]

Monitoring and Compliance Requirements:

- 1. The permittee must install a non-resettable hour meter prior to startup of the 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 engine according to the manufacturer's emission-related written instructions;
 - b. Change only those emission-related settings that are permitted by the manufacturer; and
 - c. Meet the requirements of 40 CFR parts 89, 94, and/or 1068, as applicable.
- 3. The permittee must comply by purchasing an engine certified to the emission standards in §60.4204(b), §60.4205(b), or §60.4205(c), as applicable, 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 §60.4205(g). [§60.4211(c)]
- 4. The permittee must operate the engines according to the requirements in §60.4211(f)(1) through (3). In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in §60.4211(f)(1) thorugh (3) is prohibited. If the permittee does not operate the engine according to the requirements of §60.4211(f)(1) through (3), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. [§60.4211(f)]
 - a. There is no time limit on the use of emergency stationary ICE in emergency situations. [\$60.4211(f)(1)]
 - b. The permittee may operate the emergency stationary ICE for any combination of the purposes specified in §60.4211(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by §60.4211(f)(3) counts as part of the 100 hours per calendar year allowed by this paragraph. [§60.4211(f)(2)]
 - i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmissions organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. 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 calendar year. [§60.4211(f)(2)(i)]
 - ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability

- Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [§60.4211(f)(2)(ii)]
- iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [§60.4211(f)(2)(iii)]
- c. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in §60.4211(f)(2). Except as provided in §60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [§60.4211(f)(3)]
 - i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: [§60.4211(f)(3)]
 - (1) The engine is dispatched by the local balancing authority or local transmissions and distribution system operator; [§60.4211(f)(3)(i)(A)]
 - (2) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. [§60.4211(f)(3)(i)(B)]
 - (3) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. [§60.4211(f)(3)(i)(C)]
 - (4) The power is provided only to the facility itself or to support the local transmission and distribution system. [§60.4211(f)(3)(i)(D)]
 - (5) The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the permittee. [§60.4211(f)(3)(i)(E)]

Notification/Reports/Recordkeeping:

- 1. The permittee is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the permittee must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee must record the time of operation of the engine and the reason the engine was in operation during that time. [§60.4214(b)]
- 2. The permittee shall report any deviations from the limitations, standards, test methods and procedures, monitoring, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by 10 CSR 10-6.065.

| Equipment subject to Modification Permit Condition (EU0071 through EU3311)-001 | | | | |
|--|--------------|---|--|--|
| EU# | EP# | Description | | |
| EU0071 | INS- 069C | Emergency Generator-PRK4-6, installed 1966, 150 hp, diesel fuel fired | | |
| EU1371 | EP-289A | Emergency Generator-Maerz, installed 1998, 330 hp, diesel fuel fired | | |
| EU3281 | EP-640A | Emergency Generator-RK1, installed 2003, 300 hp, diesel fuel fired | | |
| EU3311 | EP-645A | Emergency Generator, RK2, installed 2005, 300 hp, diesel fuel fired | | |

Modification Permit Condition (EU0071 through EU3311)-001
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart ZZZZ National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Operational Limitations:

- 1. The permittee must use diesel fuel that meets the requiremetns in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted. [§60.6604(b)]
- 2. The permittee must be in compliance with the operating limitations and other requirements in 40 CFR Part 63 Subpart ZZZZ that apply at all times. [§63.6605(a)]
- 3. At all times the permittee must operate and maintain any affected source in a manner consistent with safety and good air pollution control practices for minimizing emissions. [§63.6605(b)]
- 4. The permittee must operate and maintain start up engines according to the manufacturer's emission-related written instructions. [§63.6625(e)]
- 5. The permittee must install a non-resettable hour meter if one is not already installed. [§63.6625(f)]
- 6. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply. [§63.6625(h)]
- 7. The permittee shall comply with the following requirements of Table 2c of 40 CFR Part 63 Subpart ZZZZ [§60.6602 and Table 2c]:

| For each | The permittee must meet the following requirement, except during periods of startup | During periods of startup you must | |
|-------------------------------------|---|---|--|
| stationary CI RICE. ¹ | whichever comes first. ² | Minimize the engine's time spent at idle and minimize the engine's startup time | |
| | b. Inspect air cleaner every 1,000 hours of operation or annually, | at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. ³ | |
| | c. Inspect all hoses and helts every 500 hours of operation or | | |

¹ If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk has abated. Sources must report any failure to perform the work practice on the schedule required and the law under which the risk was deemed unacceptable.

² Sources have the option to utilize an oil analysis program as described in §63.6625(i) or (j) in order to extend the specified oil change requirement.

³ Sources can petition the Director pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

Continuous Compliance:

1. The permittee must demonstrate compliance according to the methods specified in Table 6 to 40 CFR Part 63 Subpart ZZZZ: [§63.6640(a)]

Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, and Other Requirements

| For each | Complying with the requirement to | The permittee must demonstrate continuous compliance by |
|--|-----------------------------------|--|
| 9. Existing emergency stationary RICE located at a major source of HAP | | i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions |

- 2. In order for the engine to be considered an emergency stationary RICE under Subpart ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations is limited to less than 50 hours per year. There is no time limit on the use of emergency stationary RICE in emergency situations. [§63.6640(f)(1)]
- 3. Emergency stationary RICE may be operated for any combination of the purposes specified below for maximum of 100 hours per calendar year: [§63.6640(f)(2)(i)-(iii)]
 - a. Maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine
 - b. Emergency demand response for periods in which the Reliability Coordination under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3; and/or
 - c. Periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- 4. The permittee may operate the engine up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in §63.6640(f)(2). The 50 hour per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to power and electric grid or otherwise supply power as part of a financial arrangement with another entity. [§63.6640(f)(3)]

Recordkeeping/Reporting:

- 1. The permittee must report each instance in which the engine did not meet the requirements of Table 2c. These instances are deviations from the requirements of this subpart. These deviations must be reported according to the requirements in §63.6650.[§63.6640(b)]
- 2. The permittee must submit an annual report according to the requirements of §63.6650(h)(1) through (3). [§63.6650(h)]
 - a. The report must include the following information: [§63.6650(h)(1) through (ix)]
 - i. Company name and address where the engine is located.
 - ii. Date of the report and beginning and ending dates of the reporting period.
 - iii. Engine site rating and model year.
 - iv. Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

- v. Hours operated for the purposes specified in §63.6640(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §63.6640(f)(2)(ii) and (iii).
- vi. Number of hours the engine is contractually obligated to be available for the purposes specified in §63.6640(f)(2)(ii) and (iii).
- vii. Hours spent for operation for the purpose specified in §63.6640(f)(4)(ii), including the date, start time, and end time for the engine operation for the purposes specified in §63.6640(f)(4)(ii). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.
- viii. If there were no deviations from the fuel requirements in §63.6604, a statement that there were no deviations from the fuel requirements during the reporting period.
 - ix. If there were deviations from the fuel requirements in §3.6604, information on the number, duration, and cause of deviations, and the corrective action taken.
- b. The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year. [§63.6650(h)(2)]
- c. The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administration at the appropriate address listed in §63.13. [§63.6650(h)(3)]
- 3. The permittee must keep the records described in §63.6655(a)(1) through (3) and (5). [§63.6655(a)]
 - a. A copy of each notification and report submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted, according to the requirements in §63.10(b)(2)(xiv). [§63.6655(a)(1)]
 - b. Records of the occurrence and duration of each malfunction of operation. [§63.6655(a)(2)]
 - c. Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii). [§63.6655(a)(3)]
 - d. Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b). [§63.6655(a)(5)]
- 4. The permittee must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the permittee operated and maintained the station RICE according to the permittee's maintenance plan. [§63.6655(e)]
- 5. The permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee must document how many hours are spent for emergency operation; including what classified the operation as emergency and how many ours are spent for non-emergency operation. If the engine is used for the purposes specified in §63.6640(f)(2)(ii) or (iii) or §3.6640(f)(4)(ii), the permittee must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [§63.6655(f)]
- 6. The permittee shall keep all records for at least 5 years in a form suitable and readily available for expeditious review, according to §63.10(b)(1).[§63.6660(a)]

- 7. As specified in §63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [§63.6660(b)]
- 8. The permittee must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). [§63.6660(c)]
- 9. The permittee shall report any deviations from the limitations, standards, test methods and procedures, monitoring, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by 10 CSR 10-6.065.

| Equipment subject to Modification Permit Condition EU0930-001 | | | | |
|---|---------------|--|--|--|
| Description | Emission Unit | | | |
| Stone dryer (Natural Gas and Used Fuel Oil) | EU0930 | | | |

Modification Permit Condition EU0930-001 10 CSR 10-6.261 Control of Sulfur Dioxide Emissions

Emission Limitation:

The permittee shall not use liquid fuel that has a sulfur content greater than 8,812 ppm. [6.261(3)(C)]

Monitoring:

The permittee shall conduct fuel sampling and analysis as detailed in Permit Condition PW002. [6.261(3)(E)3.]

Reporting and Recordkeeping:

- 1. The permittee must: [6.261(4)(A)(1)-(4)]
 - a. Report any excess emissions other than startup, shutdown, and malfunction excess emissions already required to be reported under 10 CSR 6.050 to the staff director for each calendar quarter within thirty days following the end of the quarter. In all cases, the notification must be a written report and must include, at a minimum, the following:
 - i. Name and location of source;
 - ii. Name and telephone number of person responsible for the source;
 - iii. Identity and description of the equipment involved;
 - iv. Time and duration of the period of SO₂ excess emissions;
 - v. Type of activity;
 - vi. Estimate of the magnitude of the SO₂ excess emissions expressed in the units of the applicable emission control regulation and the operating data and calculations used in estimating the magnitude;
 - vii. Measures taken to mitigate the extent and duration of the SO₂ excess emissions; and
 - viii. Measures taken to remedy the situation which caused the SO₂ excess emissions and the measures taken or planned to prevent the recurrence of these situations.
 - b. Maintain a list of modifications to the source's operating procedures or other routine procedures instituted to prevent or minimize the occurrence of any excess SO₂ emissions;
 - c. Maintain a records of data, calculations, results, records, and reports from fuel sampling tests;
- 2. All required reports and records must be retained on-site for a minimum of five years and made available within five business days upon written or electronic request by the director. [6.261(4)(F)]

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- 3. The permittee shall report any deviations from the limitations, monitoring, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by 10 CSR 10-6.065.
- 4. The permittee shall report to the Air Pollution Control Program Compliance & Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined that the emission unit exceeded the emission limitation.

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) Refer to the regulation for a complete list of allowances. The following is a listing of exceptions to the allowances:
 - a) Burning of household or domestic refuse. Burning of household or domestic refuse is limited to open burning on a residential premises having not more than four dwelling units, provided that the refuse originates on the same premises, with the following exceptions:
 - i) Kansas City metropolitan area. The open burning of household refuse must take place in an area zoned for agricultural purposes and outside that portion of the metropolitan area surrounded by the corporate limits of Kansas City and every contiguous municipality;
 - ii) Springfield-Greene County area. The open burning of household refuse must take place outside the corporate limits of Springfield and only within areas zoned A-1, Agricultural District;
 - iii) St. Joseph area. The open burning of household refuse must take place within an area zoned for agricultural purposes and outside that portion of the metropolitan area surrounded by the corporate limits of St. Joseph; and
 - iv) St. Louis metropolitan area. The open burning of household refuse is prohibited;
 - b) Yard waste, with the following exceptions:
 - i) Kansas City metropolitan area. The open burning of trees, tree leaves, brush or any other type of vegetation shall require an open burning permit;
 - ii) Springfield-Greene County area. The City of Springfield requires an open burning permit for the open burning of trees, brush or any other type of vegetation. The City of Springfield prohibits the open burning of tree leaves;
 - iii) St. Joseph area. Within the corporate limits of St. Joseph, the open burning of trees, tree leaves, brush or any other type of vegetation grown on a residential property is allowed during the following calendar periods and time-of-day restrictions:
 - (1) A three (3)-week period within the period commencing the first day of March through April 30 and continuing for twenty-one (21) consecutive calendar days;
 - (2) A three (3)-week period within the period commencing the first day of October through November 30 and continuing for twenty-one (21) consecutive calendar days;
 - (3) The burning shall take place only between the daytime hours of 10:00 a.m. and 3:30 p.m.; and
 - (4) In each instance, the twenty-one (21)-day burning period shall be determined by the director of Public Health and Welfare of the City of St. Joseph for the region in which the City of St. Joseph is located provided, however, the burning period first shall receive the approval of the department director; and

- iv) St. Louis metropolitan area. The open burning of trees, tree leaves, brush or any other type of vegetation is limited to the period beginning September 16 and ending April 14 of each calendar year and limited to a total base area not to exceed sixteen (16) square feet. Any open burning shall be conducted only between the hours of 10:00 a.m. and 4:00 p.m. and is limited to areas outside of incorporated municipalities;
- 3) 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 owner or operator fails to comply with the conditions or any provisions of the permit.
- 4) Mississippi Lime Company may be issued an annually renewable open burning permit for open burning provided that an air curtain destructor or incinerator is utilized and only tree trunks, tree limbs, vegetation or untreated wood waste are burned. Open burning shall occur at least two hundred (200) yards from the nearest occupied structure unless the owner or operator of the occupied structure provides a written waiver of this requirement. Any waiver shall accompany the open burning permit application. The permit may be revoked if Mississippi Lime Company fails to comply with the provisions or any condition of the open burning permit.
 - a) In a nonattainment area, as defined in 10 CSR 10-6.020, paragraph (2)(N)5., the director shall not issue a permit under this section unless the owner or operator can demonstrate to the satisfaction of the director that the emissions from the open burning of the specified material would be less than the emissions from any other waste management or disposal method.
- 5) Reporting and Recordkeeping. New Source Performance Standard (NSPS) 40 CFR Part 60 Subpart CCCC establishes certain requirements for air curtain destructors or incinerators that burn wood trade waste. These requirements are established in 40 CFR 60.2245-60.2260. The provisions of 40 CFR Part 60 Subpart CCCC promulgated as of September 22, 2005, shall apply and are hereby incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N Capitol Street NW, Washington, DC 20401. To comply with NSPS 40 CFR 60.2245-60.2260, sources must conduct an annual Method 9 test. A copy of the annual Method 9 test results shall be submitted to the director.
- 6) Test Methods. The visible emissions from air pollution sources shall be evaluated as specified by 40 CFR Part 60, Appendix A–Test Methods, Method 9–Visual Determination of the Opacity of Emissions from Stationary Sources. The provisions of 40 CFR Part 60, Appendix A, Method 9 promulgated as of December 23, 1971, is incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N Capitol Street NW, Washington, DC 20401.

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

- 1) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the director within two business days, in writing, the following information:
 - a) Name and location of installation:
 - b) Name and telephone number of person responsible for the installation;
 - c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
 - d) Identity of the equipment causing the excess emissions;
 - e) Time and duration of the period of excess emissions;
 - f) Cause of the excess emissions:
 - g) Air pollutants involved;
 - h) Best estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;

- i) Measures taken to mitigate the extent and duration of the excess emissions; and
- j) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
- 2) The permittee shall submit the paragraph 1 information list to the director in writing at least ten days prior to any maintenance, start-up or shutdown, which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event cannot be given ten days prior to the planned occurrence, it shall be given as soon as practicable prior to the release. If an unplanned excess release of emissions exceeding one hour occurs during maintenance, start-up or shutdown, the director shall be notified verbally as soon as practical during normal working hours and no later than the close of business of the following working day. A written notice shall follow within ten working days.
- 3) Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under Section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the paragraph 1 list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under Section 643.080 or 643.151, RSMo.
- 4) Nothing in this rule shall be construed to limit the authority of the director or commission to take appropriate action, under Sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.
- 5) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

10 CSR 10-6.060 Construction Permits Required

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

10 CSR 10-6.065 Operating Permits

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

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

- 1) The permittee shall submit full emissions report either electronically via MoEIS, which requires Form 1.0 signed by an authorized company representative, or on Emission Inventory Questionnaire (EIQ) paper forms on the frequency specified in this rule and in accordance with the requirements outlined in this rule. Alternate methods of reporting the emissions, such as spreadsheet file, can be submitted for approval by the director.
- 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 report.
- 6) The permittee shall complete required reports on state supplied EIQ forms or electronically via MoEIS. Alternate methods of reporting the emissions can be submitted for approval by the director. The reports shall be submitted to the director by April 1 after the end of each reporting year. If the full emissions report is filed electronically via MoEIS, this due date is extended to May 1.
- 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;

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- d) Application of water; and
- e) Planting and maintenance of vegetative ground cover.

Monitoring:

The permittee shall conduct inspections of its facilities sufficient to determine compliance with this regulation. If the permittee discovers a violation, the permittee shall undertake corrective action to eliminate the violation.

The permittee shall maintain the following monitoring schedule:

- 1) The permittee shall conduct weekly observations for a minimum of eight (8) consecutive weeks after permit issuance.
- 2) Should no violation of this regulation be observed during this period then
 - a) The permittee may observe once every two (2) weeks for a period of eight (8) weeks.
 - b) If a violation is noted, monitoring reverts to weekly.
 - c) Should no violation of this regulation be observed during this period then
 - i) The permittee may observe once per month.
 - ii) If a violation is noted, monitoring reverts to weekly.
- 3) If the permittee reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner to the initial monitoring frequency.

Recordkeeping:

The permittee shall document all readings on Attachment A, or its equivalent, noting the following:

- 1) Whether air emissions (except water vapor) remain visible in the ambient air beyond the property line of origin.
- 2) Whether the visible emissions were normal for the installation.
- 3) Whether equipment malfunctions contributed to an exceedance.
- 4) Any violations and any corrective actions undertaken to correct the violation.

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 10-6.165 Restriction of Emission of Odors

This requirement is not federally enforceable.

No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one volume of odorous air is diluted with seven volumes of odor-free air for two separate trials not less than 15 minutes apart within the period of one hour. This odor evaluation shall be taken at a location outside of the installation's property boundary.

10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

No owner or other person shall cause or permit to be discharged into the atmosphere from any source any visible emissions in excess of the limits specified by this rule. This permit will contain the opacity limits identified (10, 20 or 40 percent) for the specific emission units.

Monitoring:

- 1) The permittee shall conduct opacity readings on each emission unit using the procedures contained in U.S. EPA 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.

Recordkeeping:

The permittee shall maintain records of all observation results using Attachment B (or its equivalent), noting:

- 1) Whether any air emissions (except for water vapor) were visible from the emission units;
- 2) All emission units from which visible emissions occurred;
- 3) Whether the visible emissions were normal for the process;
- 4) The permittee shall maintain records of any equipment malfunctions, which may contribute to visible emissions; and,
- 5) The permittee shall maintain records of all U.S. EPA Method 9 opacity tests performed.

Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone

- 1) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
 - b) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
 - c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.

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

10 CSR 10-6.280 Compliance Monitoring Usage

- 1) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - c) Any other monitoring methods approved by the director.
- 2) Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred by a permittee:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and

- c) Compliance test methods specified in the rule cited as the authority for the emission limitations.
- 3) The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
 - a) Applicable monitoring or testing methods, cited in:
 - i) 10 CSR 10-6.030, "Sampling Methods for Air Pollution Sources";
 - ii) 10 CSR 10-6.040, "Reference Methods";
 - iii) 10 CSR 10-6.070, "New Source Performance Standards";
 - iv) 10 CSR 10-6.080, "Emission Standards for Hazardous Air Pollutants"; or
 - b) Other testing, monitoring, or information gathering methods, if approved by the director, that produce information comparable to that produced by any method listed above.

V. General Permit Requirements

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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's 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's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, at least seven days in advance of these changes, except as allowed for emergency or upset conditions. Emissions allowable under the permit means a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that establishes an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

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

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

- 1) Except as noted below, the permittee may make any change in its permitted operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. Insignificant activities listed in the application, but not otherwise addressed in or prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the off-permit provisions of this section. Off-permit changes shall be subject to the following requirements and restrictions:
 - a) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; the permittee may not change a permitted installation without a permit revision if this change is subject to any requirements under Title IV of the Act or is a Title I modification;
 - b) The permittee must provide written notice of the change to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, no later than the next annual emissions report. This notice shall not be required for changes that are insignificant activities under 10 CSR 10-6.065(6)(B)3. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change.
 - c) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes; and
 - d) The permit shield shall not apply to these changes.

Project No. 2016-03-080

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

The application utilized in the preparation of this permit was signed by Keith E. Espelien, Vice-President of Operations. On January 8, 2009, William H Ayers, President, replaced Mr. Espelien as responsible official. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Director of the Air Pollution Control Program of the change. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

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

This permit may be reopened for cause if:

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

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

This permit is accompanied by a statement setting forth the legal and factual basis for the 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 A Fugitive Emission Observations

| | | Visible Emissions | | | | | Abnorma | l Emissions | |
|------|------|--------------------|---------------------|--------|--------------|-----------------|---------|----------------------|-----------|
| Date | Time | Beyo Bour No | ond ndary Yes | Normal | Less Than | Greater Than | Cause | Corrective Action | Signature |
| | | INO | 1 65 | | | | | | |
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Attachment B Opacity Emission Observations

| | Method 22 Opacity Emission Observations | | | | | | | |
|------|---|----------------------------|---|--|--|--|--|--|
| Date | Method 22 Test Observer | Visible Emissions (yes/no) | If Visible emissions, was a method 9 done? (yes/no) | | | | | |
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Attachment C

| Method | l 9 Opacit | ty Em | nissions | Obser | vation | ns | | | | | |
|-----------------------------------|------------|-------|----------|-------|----------|---------------|---------------|------------------|---------|-----------------|--|
| Company | | | | | Observer | | | | | | |
| Location | n | | | | | | Observe | er Certification | Date | | |
| Date | | | | | | | Emissic | on Unit | | | |
| Time | | | | | | | Control | Device | | | |
| Hour | Minute | Seco | onds | | | Steam applica | Plume (cable) | heck if | Comm | nents | |
| | | 0 | 15 | 30 | 45 | Attach | | Detached | | | |
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| SUMM | ARY OF | AVE | RAGE (| OPACI | TY | | | | | | |
| | | | ime | | | | | Opacity | | | |
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| Readings ranged from to% opacity. | | | | | | | | | | | |
| | e emission | | | | | ne time of | | ion? | Signatu | ure of Observer | |

Attachment D Inspection/Maintenance/Repair/Malfunction Log

| Emission Unit # or CVM # | |
|--------------------------|--|
|--------------------------|--|

| Date/Time | Inspection/ | Malfunction Activities | | | | | | |
|-----------|---------------------------|------------------------|--------|----------|-------|--------|----------|--|
| | Maintenance Activities | Malfunction | Impact | Duration | Cause | Action | Initials | |
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Attachment E

This sheet or something similar may be used to help show compliance with inspection, maintenance, repair and malfunction recordkeeping requirements in the permit.

Inspection/Maintenance/Repair/Malfunction Log

| Date | Equipment/Emission Unit | Activities Performed |
|------|----------------------------|----------------------|
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Attachment F

This sheet or an equivalent may be used to satisfy pressure drop recordkeeping requirements.

Pressure Drop Log for Dust Collectors

| Control Device ID | Week Beginning (Month/Day/Year) | Week Ending (Month/Day/Year) | Pressure Drop (inches water) | Within specifications? (Yes/No) |
|----------------------|------------------------------------|---------------------------------|------------------------------|---------------------------------|
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$Attachment \ G \\ PM_{10} \ Compliance \ Worksheet - Mill \ Replacement \ Project$

Mississippi Lime Company

Ste. Genevieve County, S29 & 30, T38N, R9E

Project Number: 186-001-021 Installation ID Number: 186-0001 Construction Permit: 2002-018

| This sheet covers the period from | | to | | |
|-----------------------------------|---------------|----|---------------|--|
| - | (month, year) | | (month, year) | |

| | Emission | Throughput | Emission | Emissions | | | | |
|------|-----------|---------------------------------|-----------------|-----------|------------|----------------------------|--|--|
| Date | Point No. | Throughput (tons/month of lime) | Factor (lb/ton) | Lb/month | Tons/month | Rolling 12- month total | | |
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Attachment H PM₁₀ Compliance Worksheet

Mississippi Lime Company Installation ID No: 186-0001 Project No: 1998-04-186

Permit: 1198-020

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| 11110 | | and information of | i iii tiit | , cai |

Copy this form as needed.

| Column A | Column B | Column C | Column D |
|-----------------------|--------------------|------------------------|------------------------------------|
| Emission Point | Amount of Material | Emission Factor | Monthly PM ₁₀ Emissions |
| Emission 1 omt | Processed (tons) | (lb/ton) (Note 1) | (tons) (Note 2) |
| Pan Conveyor EU740B | | | |
| (EP-187Q) | | 0.0049 | |
| | | | |

Note 1: Emission Factor is from stack test of 9/23/99.

Note 2: Column D = (Column B) • (Column C) \div (2,000 lb/ton)

Attachment I PM₁₀ Compliance Worksheet

Mississippi Lime Company Installation ID No: 186-0001 Project No: 1998-04-186

Permit: 1198-020

| This form covers the period | from | to |
|-----------------------------|--------------|--------------|
| • | (month/year) | (month/year) |

Copy this form as needed.

| Column A | Column B | Column C | Column D | Column E |
|---------------------------------|-----------------------|---|---|---|
| Date (month/year) | Emission Point | Monthly Emissions (tons) (Note 1) | Total Monthly Emissions (tons) (Note 2) | Aggregate Emissions (tons) (Note 3) |
| | EP-187Q | | | |
| | Maerz Kiln (EU1370) | | | |
| | EP-187Q | | | |
| | Maerz Kiln (EU1370) | | | |
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| | EP-187Q | | | |
| | Maerz Kiln (EU1370) | | | |
| | EP-187Q | | | |
| | Maerz Kiln (EU1370) | | | |
| Total PM ₁₀ Emission | s (tons) (Note 4) | | | |

Note 1:For EP-187Q, enter the amount of emissions as reported in Attachment H of this permit for this month.

For Maerz Kiln (EU1370), enter the amount of emissions as reported in Attachment K

Note 2: Enter the sum of the emissions from EP-187Q and the Maerz Kiln (EU1370) for this month.

Note 3: Running total of PM_{10} emissions reported in Column D.

Note 4: Sum of most recent consecutive 12-month period of PM_{10} emissions. Not to exceed 15 tons in any consecutive 12-month period.

Attachment J VOC, SO₂, NO_x, and CO Emissions Compliance Worksheet

| Column A | Column B | Column C | Column D | Column E | Column F | Column G | Column H | Column I | Column J |
|--|-------------------|--|--------------------------------------|--|--|--|--|------------------------------------|-------------------------------------|
| Date | Fuel Usage (MMcf) | VOC Emission Factor (lb/MMcf) | VOC Emissions (tons) Note 2 | SO _X Emission Factor (lb/MMcf) | SO _X Emissions (tons) Note 3 | NO _X Emission Factor (lb/MMcf) | NO _X Emissions (tons) Note 4 | CO Emission Factor (lb/MMcf) | CO Emissions (tons) Note 5 |
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| VOC, SOx, CO Emissio Note 6 | | | | | | | | | |
| Emissions fi sources instal last Section Note 7 | alled after | | | | | | | | |

Note 2: Column D = Column B x Column C \div 2000

Note 3: Column F = Column B x Column E \div 2000

Note 4: Column H = Column B x Column $G \div 2000$

Note 5: Column J = Column B x Column $I \div 2000$

Note 6: VOC Emissions = Summation of Column D SO_x Emissions = Summation of Column F

NO_x Emissions = Summation of Column H

Attachment J (Continued)

Attachment K PM₁₀, SO_X, NO_X, VOC and CO Compliance Worksheet

Mississippi Lime Company Installation ID No: 186-0001 Project No: 1998-04-061

Permit: 0898-019

| \mathbf{T} | his 1 | form co | vers t | he montl | n of | • | in the year | • | |
|--------------|-------|---------|--------|----------|------|---|-------------|---|--|
| | | | | | | | | | |

Copy this form as needed.

| Column A | Column B | | Column C | Column D |
|---|---|---|---|--|
| Pollutant | Amount of Limestone Processed (tons) (Note 1) | Amount of Lime Produced (tons) (Note 2) | Emission Factor (lbs/ton) (Note 3) | Monthly Emissions (tons) (Note 4) |
| PM ₁₀ – Limestone Side | | | 0.0262 | |
| PM ₁₀ – Lime Side | | | 0.0306 | |
| Total PM ₁₀ Emissions (to (Note 5) | ons) | | | |
| SO _X | | | 0.0012 | |
| NO_X | | | 0.24 | |
| VOC | | | 0.0101 | |
| СО | | | 0.45 | |

Note 1: Amount of Limestone fed to the Maerz Vertical Kiln in this particular month.

Note 2: Amount of lime produced by the Maerz Vertical Kiln in this particular month.

Note 3:Emission Factors based on information submitted with application and from stack tests.

Note 4:Column D = (Column C) • (Column B) \div (2000 lb/ton).

Note 5:For total PM₁₀ emissions, add the PM₁₀ Emissions from the Lime side and from the Limestone side as calculated above.

$\label{eq:continuous_continuous_continuous} Attachment \ L \\ SO_X, NO_X, VOC \ and \ CO \ Compliance \ Worksheet$

Mississippi Lime Company Installation ID No: 186-0001 Project No: 1998-04-061 Permit: 0898-019

| This form | covers the month of | in the year |
|--------------|---------------------|-------------|
| 11113 101111 | COVERS the month of | in the vear |

Copy this form as needed.

| Column A | Column B |
|-----------|-------------------------------------|
| Pollutant | EU1250 Amount (tons) (Note 1) |
| SO_X | |
| NO_X | |
| VOC | |
| СО | |

Note 1: Enter the amount of emissions reported for EU1250.

Attachment M SO_X, NO_X, VOC and CO Compliance Worksheet

Mississippi Lime Company Installation ID No: 186-0001 Project No: 1998-04-061 Permit: 0898-019

Copy this form as needed.

| Column A | Column B | Column C | Column D |
|-----------|---|---|---|
| Pollutant | Attachment K Amount (tons) (Note 1) | Attachment L Amount (tons) (Note 2) | Total Monthly Emissions (tons) (Note 3) |
| SO_X | | | |
| NO_X | | | |
| VOC | | | |
| СО | | | |

Note 1:Enter the amount of gaseous emissions reported in Column D of Attachment K for this month.

Note 2:Enter the amount of emissions reported in Column B of Attachment L for this month.

Note 3: For each pollutant: Column D = (Column B) + (Column C).

Attachment N SO_X, NO_X, VOC and CO Compliance Worksheet

| Mississippi Lime Company |
|--|
| Installation ID No: 186-0001 |
| Project No: 1998-04-061 |
| Permit: 0898-019 |
| This form covers the period from to (month/year) (month/year) |
| This form is to determine SO_X , NO_X , VOC or CO compliance. (circle one) |
| A separate Attachment N must be used for each of the pollutants listed above. |

Copy this form as needed.

| Column A | Column B | Column C |
|-------------------------------|-------------------------------------|--|
| Date (month/year) (Note 1) | Attachment M Amount (tons) (Note 2) | Consecutive 12-Month Emissions (tons) (Note 3) |
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Note 1: Enter the month and year as recorded on Attachment M for this pollutant.

Note 2: Enter the amount of emissions reported in Column D of Attachment M for this month/year.

Note 3: Running total of Column C. Not to exceed 40 tons in any consecutive 12-month period for NO_X , SO_X or VOC. Not to exceed 100 tons in any consecutive 12-month period for CO.

$\label{eq:Attachment O} Monthly \ NO_x \ Emissions \ Tracking \ Record - Mississippi \ Vertical \ Kiln \ SSK1$

Mississippi Lime Company

Ste. Genevieve County, S29-30, T38N, R9E

Project Number: 2004-02-035 Installation ID Number: 186-0001 Construction Permit: 1668765

| This sheet covers the period from | t | to | | |
|-----------------------------------|---------------|----|---------------|--|
| - | (month, year) | _ | (month, year) | |

Copy this sheet as needed

| | Column 1 | Column 2 | Column 3 | Column 4 |
|-------|---|--|--|---|
| Month | Amount of Lime Produced by Kiln SSK1 (tons) | NO _x Emission Factor (lbs/ton) | Monthly NO _x Emissions (tons) ² | 12-Month NO _x Emissions (tons/year) ³ |
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²Column 1 x Column 2 x 0.0005

 $^{^3}$ Sum of last 12-months of Column 3. NOTE: A 12-Month total NO_x emissions less than 44.24 tons for Column 4 indicates compliance.

Attachment P Criteria Pollutant Compliance Worksheet

Mississippi Lime Company

Ste. Genevieve County, S29-30, T38N, R9E

Project Number: 2002-02-026 Installation ID Number: 186-0001 Construction Permit: 122002-007

| This sheet covers the period from | to | |
|-----------------------------------|---------------|---------------|
| | (month, year) | (month, year) |

| | T: | | Emission Fact | or ¹ | Emissions (| (tons) | |
|-------------------------------------|-----------|------------------|-------------------------|-----------------|-------------------|---|--|
| Date Lime Throughput tons per month | Pollutant | Value | Unit | Lb/month | Tons Per Month | Rolling 12 Month Total ² | |
| | | PM ₁₀ | | Lb/ton of lime | | | |
| | | NO_x | From NO _x CE | MS | | | |
| | | SO_x | From SO _x CE | MS | | | |
| | | СО | | Lb/ton of lime | | | |
| | | PM_{10} | | Lb/ton of lime | | | |
| | | NO_x | From NO _x CE | MS | | | |
| | | SO_x | From SO _x CE | MS | | | |
| | | СО | | Lb/ton of lime | | | |
| | | PM_{10} | | Lb/ton of lime | | | |
| | | NO_x | From NO _x CE | MS | | | |
| | | SO_x | From SO _x CE | MS | | | |
| | | СО | | Lb/ton of lime | | | |

¹PM₁₀ and CO emission factors obtained from stack testing.

 $^{^2}$ For demonstrating compliance, the rolling 12 month total shall be less than 154 tons of PM₁₀ 1214 tons of NO_x, 867 tons of CO and 223 tons of SO₂.

Attachment Q 40 CFR Part 63 Subpart AAAAA Emission Limit Tables

Table 1 to Subpart AAAAA of Part 63—Emission Limits

As required in § 63.7090(a), you must meet each emission limit in the following table that applies to you.

| For | You must meet the following emission limit |
|---|---|
| 1. Existing lime kilns and their associated lime coolers that did not have a wet scrubber installed and operating prior to January 5, 2004 | PM emissions must not exceed 0.12 pounds per ton of stone feed (lb/tsf). |
| 2. Existing lime kilns and their associated lime coolers that have a wet scrubber, where the scrubber itself was installed and operating prior to January 5, 2004 | PM emissions must not exceed 0.60 lb/tsf. If at any time after January 5, 2004 the kiln changes to a dry control system, then the PM emission limit in item 1 of this Table 1 applies, and the kiln is hereafter ineligible for the PM emission limit in item 2 of this Table 1 regardless of the method of PM control. |
| 3. New lime kilns and their associated lime coolers | PM emissions must not exceed 0.10 lb/tsf. |
| 4. All existing and new lime kilns and their associated coolers at your LMP, and you choose to average PM emissions, except that any kiln that is allowed to meet the 0.60 lb/tsf PM emission limit is ineligible for averaging | Weighted average PM emissions calculated according to Eq. 2 in § 63.7112 must not exceed 0.12 lb/tsf (if you are averaging only existing kilns) or 0.10 lb/tsf (if you are averaging only new kilns). If you are averaging existing and new kilns, your weighted average PM emissions must not exceed the weighted average emission limit calculated according to Eq. 3 in § 63.7112, except that no new kiln and its associated cooler considered alone may exceed an average PM emissions limit of 0.10 lb/tsf. |
| 5. Stack emissions from all PSH operations at a new or existing affected source | PM emissions must not exceed 0.05 grams per dry standard cubic meter (g/dscm). |
| 6. Stack emissions from all PSH operations at a new or existing affected source, unless the stack emissions are discharged through a wet scrubber control device | Emissions must not exceed 7 percent opacity. |
| 7. Fugitive emissions from all PSH operations at a new or existing affected source, except as provided by item 8 of this Table 1 | Emissions must not exceed 10 percent opacity. |
| 8. All PSH operations at a new or existing affected source enclosed in a building | All of the individually affected PSH operations must comply with the applicable PM and opacity emission limitations in items 5 through 7 of this Table 1, or the building must comply with the following: There must be no VE from the building, except from a vent; and vent emissions must not exceed the stack emissions limitations in items 5 and 6 of this Table 1. |
| 9. Each FF that controls emissions from only an individual, enclosed storage bin | Emissions must not exceed 7 percent opacity. |
| 10. Each set of multiple storage bins at a new | You must comply with the emission limits in items 5 and 6 of |

| or existing affected source, with combined | this Table 1. |
|--|---------------|
| stack emissions | |

Table 2 to Subpart AAAAA of Part 63—Operating Limits

As required in § 63.7090(b), you must meet each operating limit in the following table that applies to you.

| For | You must |
|---|---|
| 1. Each lime kiln and each lime cooler (if there is a separate exhaust to the atmosphere from the associated lime cooler) equipped with an FF | Maintain and operate the FF such that the BLDS or PM detector alarm condition does not exist for more than 5 percent of the total operating time in a 6-month period; and comply with the requirements in § 63.7113(d) through (f) and Table 5 to this subpart. In lieu of a BLDS or PM detector maintain the FF such that the 6-minute average opacity for any 6-minute block period does not exceed 15 percent; and comply with the requirements in § 63.7113(f) and (g) and Table 5 to this subpart. |
| 2. Each lime kiln equipped with a wet scrubber | Maintain the 3-hour block exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the most recent PM performance test; and maintain the 3-hour block scrubbing liquid flow rate greater than the flow rate operating limit established during the most recent performance test. |
| 3. Each lime kiln equipped with an electrostatic precipitator | Install a PM detector and maintain and operate the ESP such that the PM detector alarm is not activated and alarm condition does not exist for more than 5 percent of the total operating time in a 6-month period, and comply with § 63.7113(e); or, maintain the ESP such that the 6-minute average opacity for any 6-minute block period does not exceed 15 percent, and comply with the requirements in § 63.7113(g); and comply with the requirements in § 63.7113(f) and Table 5 to this subpart. |
| 4. Each PSH operation subject to a PM limit which uses a wet scrubber | Maintain the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintain the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test. |
| 5. All affected sources | Prepare a written OM&M plan; the plan must include the items listed in § 63.7100(d) and the corrective actions to be taken when required in Table 5 to this subpart. |
| 6. Each emission unit equipped with an add-on air pollution control device | a. Vent captured emissions through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to an FF; and b. Operate each capture/collection system according to the procedures and requirements in the OM&M plan. |

Table 3 to Subpart AAAAA of Part 63—Initial Compliance With Emission Limits

As required in § 63.7114, you must demonstrate initial compliance with each emission limitation that applies to you, according to the following table.

| | | You have demonstrated initial |
|-----|----------------------------------|------------------------------------|
| For | For the following emission limit | compliance, if after following the |
| | | requirements in § 63.7112 |

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| 1. All new or existing lime kilns and their associated lime coolers (kilns/coolers) | PM emissions must not exceed 0.12 lb/tsf for all existing kilns/coolers with dry controls, 0.60 lb/tsf for existing kilns/coolers with wet scrubbers, 0.10 lb/tsf for all new kilns/coolers, or a weighted average calculated according to Eq. 3 in § 63.7112 | The kiln outlet PM emissions (and if applicable, summed with the separate cooler PM emissions), based on the PM emissions measured using Method 5 in Appendix A to Part 60 of this chapter and the stone feed rate measurement over the period of initial performance test, do not exceed the emission limit; if the lime kiln is controlled by an FF or ESP and you are opting to monitor PM emissions with a BLDS or PM detector, you have installed and are operating the monitoring device according to the requirements in § 63.7113(d) or (e), respectively; and if the lime kiln is controlled by an FF or ESP and you are opting to monitor PM emissions using a COMS, you have installed and are operating the COMS according to the requirements in § 63.7113(g). |
|--|---|---|
| 2. Stack emissions from all PHS operations at a new or existing affected source | PM emissions must not exceed 0.05 g/dscm | The outlet PM emissions, based on Method 5 or Method 17 in Appendix A to Part 60 of this chapter, over the period of the initial performance test do not exceed 0.05 g/dscm; and if the emission unit is controlled with a wet scrubber, you have a record of the scrubber's pressure drop and liquid flow rate operating parameters over the 3-hour performance test during which emissions did not exceed the emissions limitation. |
| 3. Stack emissions from all PSH operations at a new or existing affected source, unless the stack emissions are discharged through a wet scrubber control device | | Each of the thirty 6-minute opacity averages during the initial compliance period, using Method 9 in Appendix A to Part 60 of this chapter, does not exceed the 7 percent opacity limit. At least thirty 6-minute averages must be obtained. |
| 4. Fugitive emissions from all PSH operations at a new or existing affected source | Emissions must not exceed 10 percent opacity | Each of the 6-minute opacity averages during the initial compliance period, using Method 9 in Appendix A to Part 60 of this chapter, does not exceed the 10 percent opacity limit. |
| 5. All PSH operations at a new or existing affected source, enclosed in building | All of the individually affected PSH operations must comply with the applicable PM and opacity emission limitations for items 2 through 4 of this | All the PSH operations enclosed in the building have demonstrated initial compliance according to the applicable requirements for items 2 through 4 of this |

| | Table 3, or the building must comply with the following: There must be no VE from the building, except from a vent, and vent emissions must not exceed the emission limitations in items 2 and 3 of this Table 3 | Table 3; or if you are complying with the building emission limitations, there are no VE from the building according to item 18 of Table 4 to this subpart and § 63.7112(k), and you demonstrate initial compliance with applicable building vent emissions limitations according to the requirements in items 2 and 3 of this Table 3. |
|--|--|---|
| 6. Each FF that controls emissions from only an individual storage bin | Emissions must not exceed 7 percent opacity | Each of the ten 6-minute averages during the 1-hour initial compliance period, using Method 9 in Appendix A to Part 60 of this chapter, does not exceed the 7 percent opacity limit. |
| 7. Each set of multiple storage bins with combined stack emissions | You must comply with emission limitations in items 2 and 3 of this Table 3 | You demonstrate initial compliance according to the requirements in items 2 and 3 of this Table 3. |

Table 4 to Subpart AAAAA of Part 63—Requirements for Performance Tests

As required in § 63.7112, you must conduct each performance test in the following table that applies to you.

| For | You must | Using | According to the following requirements |
|---|---|--|--|
| 1. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler | Select the location of the sampling port and the number of traverse ports | Method 1 or 1A of Appendix A to Part 60 of this chapter; and § 63.6(d)(1)(i) | Sampling sites must be located at the outlet of the control device(s) and prior to any releases to the atmosphere. |
| 2. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler | Determine velocity and volumetric flow rate | Method 2, 2A, 2C, 2D, 2F, or 2G in Appendix A to Part 60 of this chapter | Not applicable. |
| 3. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler | Conduct gas molecular weight analysis | Method 3, 3A, or 3B in Appendix A to Part 60 of this chapter | Not applicable. |
| 4. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler | Measure moisture content of the stack gas | Method 4 in Appendix A to Part 60 of this chapter | Not applicable. |

| 5. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler, and which uses a negative pressure PM control device | Measure PM emissions | Method 5 in Appendix A to Part 60 of this chapter | Conduct the test(s) when the source is operating at representative operating conditions in accordance with § 63.7(e); the minimum sampling volume must be 0.85 dry standard cubic meter (dscm) (30 dry standard cubic foot (dscf)); if there is a separate lime cooler exhaust to the atmosphere, you must conduct the Method 5 test of the cooler exhaust concurrently with the kiln exhaust test. |
|---|--|---|---|
| 6. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler, and which uses a positive pressure FF or ESP | Measure PM emissions | Method 5D in Appendix A to Part 60 of this chapter | Conduct the test(s) when the source is operating at representative operating conditions in accordance with § 63.7(e); if there is a separate lime cooler exhaust to the atmosphere, you must conduct the Method 5 test of the separate cooler exhaust concurrently with the kiln exhaust test. |
| 7. Each lime kiln | Determine the mass rate of stone feed to the kiln during the kiln PM emissions test | Any suitable device | Calibrate and maintain the device according to manufacturer's instructions; the measuring device used must be accurate to within ±5 percent of the mass rate of stone feed over its operating range. |
| 8. Each lime kiln equipped with a wet scrubber | Establish the operating limit for the average gas stream pressure drop across the wet scrubber | Data for the gas stream pressure drop measurement device during the kiln PM performance test | The continuous pressure drop measurement device must be accurate within plus or minus 1 percent; you must collect the pressure drop data during the period of the performance test and determine the operating limit according to § 63.7112(j). |
| 9. Each lime kiln equipped with a wet scrubber | Establish the operating limit for the average liquid flow rate to the scrubber | Data from the liquid flow rate measurement device during the kiln PM performance test | The continuous scrubbing liquid flow rate measuring device must be accurate within plus or minus 1 percent; you must collect the flow rate data during the period of the performance test and determine the operating limit according to § 63.7112(j). |
| 10. Each lime kiln equipped with a FF or ESP that is monitored with a PM detector | Have installed and have operating the BLDS or PM | Standard operating procedures incorporated into the OM&M plan | According to the requirements in § 63.7113(d) or (e), respectively. |

| | detector prior to the performance test | | |
|--|---|---|---|
| 11. Each lime kiln equipped with a FF or ESP that is monitored with a COMS | Have installed and have operating the COMS prior to the performance test | Standard operating procedures incorporated into the OM&M plan and as required by 40 CFR Part 63, Subpart A, General Provisions and according to PS-1 of Appendix B to Part 60 of this chapter, except as specified in § 63.7113(g)(2) | According to the requirements in § 63.7113(g). |
| 12. Each stack emission from a PSH operation, vent from a building enclosing a PSH operation, or set of multiple storage bins with combined stack emissions, which is subject to a PM emission limit | Measure PM emissions | Method 5 or Method 17 in Appendix A to Part 60 of this chapter | The sample volume must be at least 1.70 dscm (60 dscf); for Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters; and 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 (Method 17 may be used only with exhaust gas temperatures of not more than 250 °F). |
| 13. Each stack emission from a PSH operation, vent from a building enclosing a PSH operation, or set of multiple storage bins with combined stack emissions, which is subject to an opacity limit | Conduct opacity observations | Method 9 in Appendix A to Part 60 of this chapter | The test duration must be for at least 3 hours and you must obtain at least thirty, 6-minute averages. |
| 14. Each stack emissions source from a PSH operation subject to a PM or opacity limit, which uses a wet scrubber | Establish the average gas stream pressure drop across the wet scrubber | Data for the gas stream pressure drop measurement device during the PSH operation stack PM performance test | The pressure drop measurement device must be accurate within plus or minus 1 percent; you must collect the pressure drop data during the period of the performance test and determine the operating limit according to § 63.7112(j). |
| 15. Each stack emissions source from a PSH operation subject | Establish the operating limit for the average | Data from the liquid flow rate measurement device during the PSH operation stack PM | The continuous scrubbing liquid flow rate measuring device must be accurate within plus or minus 1 |

| to a PM or opacity limit, which uses a wet scrubber | liquid flow rate to the scrubber | performance test | percent; you must collect the flow rate data during the period of the performance test and determine the operating limit according to § 63.7112(j). |
|--|-------------------------------------|---|---|
| 16. Each FF that controls emissions from only an individual, enclosed, new or existing storage bin | Conduct opacity observations | Method 9 in Appendix A to Part 60 of this chapter | The test duration must be for at least 1 hour and you must obtain ten 6-minute averages. |
| 17. Fugitive emissions from any PSH operation subject to an opacity limit | Conduct opacity observations | Method 9 in Appendix A to Part 60 of this chapter | The test duration must be for at least 3 hours, but the 3-hour test may be reduced to 1 hour if, during the first 1-hour period, there are no individual readings greater than 10 percent opacity and there are no more than three readings of 10 percent during the first 1-hour period. |
| 18. Each building enclosing any PSH operation, that is subject to a VE limit | Conduct VE check | The specifications in § 63.7112(k) | The performance test must be conducted while all affected PSH operations within the building are operating; the performance test for each affected building must be at least 75 minutes, with each side of the building and roof being observed for at least 15 minutes. |

Table 5 to Subpart AAAAA of Part 63—Continuous Compliance With Operating Limits As required in § 63.7121, you must demonstrate continuous compliance with each operating limit that applies to you, according to the following table:

| For | For the following operating limit | You must demonstrate continuous compliance by |
|--|---|--|
| 1. Each lime kiln controlled by a wet scrubber | Maintain the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintain the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test | Collecting the wet scrubber operating data according to all applicable requirements in § 63.7113 and reducing the data according to § 63.7113(a); maintaining the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintaining the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test (the |

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| | | continuous scrubbing liquid flow rate measuring device must be accurate within $\pm 1\%$ and the continuous pressure drop measurement device must be accurate within $\pm 1\%$). |
|---|---|---|
| 2. Each lime kiln or lime cooler equipped with a FF and using a BLDS, and each lime kiln equipped with an ESP or FF using a PM detector | a. Maintain and operate the FF or ESP such that the bag leak or PM detector alarm, is not activated and alarm condition does not exist for more than 5 percent of the total operating time in each 6-month period | (i) Operating the FF or ESP so that the alarm on the bag leak or PM detection system is not activated and an alarm condition does not exist for more than 5 percent of the total operating time in each 6-month reporting period; and continuously recording the output from the BLD or PM detection system; and |
| | | (ii) Each time the alarm sounds and the owner or operator initiates corrective actions within 1 hour of the alarm, 1 hour of alarm time will be counted (if the owner or operator takes longer than 1 hour to initiate corrective actions, alarm time will be counted as the actual amount of time taken by the owner or operator to initiate corrective actions); if inspection of the FF or ESP system demonstrates that no corrective actions are necessary, no alarm time will be counted. |
| 3. Each stack emissions source from a PSH operation subject to an opacity limit, which is controlled by a wet scrubber | Maintain the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintain the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test | Collecting the wet scrubber operating data according to all applicable requirements in § 63.7113 and reducing the data according to § 63.7113(a); maintaining the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintaining the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test (the continuous scrubbing liquid flow rate measuring device must be accurate within ±1% and the continuous pressure drop measurement device must be accurate within ±1%). |
| 4. For each lime kiln or lime cooler equipped with a FF or an ESP that uses a COMS as the monitoring device | a. Maintain and operate the FF or ESP such that the average opacity for any 6-minute block period does not exceed 15 percent | i. Installing, maintaining, calibrating and operating a COMS as required by 40 CFR Part 63, Subpart A, General Provisions and according to PS-1 of Appendix B to Part 60 of this chapter, except as specified in § 63.7113(g)(2); and |

| ii. Collecting the COMS data at a frequency of at least once every 15 seconds, determining block averages for each 6-minute period and demonstrating for each 6-minute block period the average opacity does |
|--|
| not exceed 15 percent. |

Table 6 to Subpart AAAAA of Part 63—Periodic Monitoring for Compliance With Opacity and Visible Emissions Limits

As required in § 63.7121 you must periodically demonstrate compliance with each opacity and VE limit that applies to you, according to the following table:

| For | For the following emission limitation | You must demonstrate ongoing compliance |
|---|---|---|
| 1. Each PSH operation subject to an opacity limitation as required in Table 1 to this subpart, or any vents from buildings subject to an opacity limitation | a. 7-10 percent opacity, depending on the PSH operation, as required in Table 1 to this subpart | (i) Conducting a monthly 1-minute VE check of each emission unit in accordance with § 63.7121(e); the check must be conducted while the affected source is in operation; (ii) If no VE are observed in 6 consecutive monthly checks for any emission unit, you may decrease the frequency of VE checking from monthly to semi-annually for that emission unit; if VE are observed during any semi-annual check, you must resume VE checking of that emission unit on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks; |
| | | (iii) If no VE are observed during the semi-annual check for any emission unit, you may decrease the frequency of VE checking from semi-annually to annually for that emission unit; if VE are observed during any annual check, you must resume VE checking of that emission unit on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks; and |
| | | (iv) If VE are observed during any VE check, you must conduct a 6-minute test of opacity in accordance with Method 9 of Appendix A to Part 60 of this chapter; you must begin the Method 9 test within 1 hour of any observation of VE and the 6-minute opacity reading must not exceed the applicable opacity limit. |
| 2. Any building subject to a VE limit, according to item 8 of Table 1 to this subpart | a. No VE | (i) Conducting a monthly VE check of the building, in accordance with the specifications in § 63.7112(k); the check must be conducted while all the enclosed PSH operations are operating; (ii) The check for each affected building must be at least 5 minutes, with each side of the building and roof being observed for at least 1 minute; |

| (iii) If no VE are observed in 6 consecutive monthly checks of the building, you may decrease the frequency of checking from monthly to semi-annually for that affected source; if VE are observed during any semi-annual check, you must resume checking on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks; and |
|--|
| (iv) If no VE are observed during the semi-annual check, you may decrease the frequency of checking from semi-annually to annually for that affected source; and if VE are observed during any annual check, you must resume checking of that emission unit on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks (the source is in compliance if no VE are observed during any of these checks). |

Table 7 to Subpart AAAAA of Part 63—Requirements for Reports As required in § 63.7131, you must submit each report in this table that applies to you.

| You must submit a | The report must contain | You must submit the report |
|----------------------|---|--|
| 1. Compliance report | a. If there are no deviations from any emission limitations (emission limit, operating limit, opacity limit, and VE limit) that applies to you, a statement that there were no deviations from the emission limitations during the reporting period; | Semi-annually according to the requirements in § 63.7131(b). |
| | b. If there were no periods during which the CMS, including any operating parameter monitoring system, was out-of-control as specified in § 63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period; | Semi-annually according to the requirements in § 63.7131(b). |
| | c. If you have a deviation from any emission limitation (emission limit, operating limit, opacity limit, and VE limit) during the reporting period, the report must contain the information in § 63.7131(d); | Semi-annually according to the requirements in § 63.7131(b). |
| | d. If there were periods during which the CMS, including any operating parameter monitoring system, was out-of-control, as specified in § 63.8(c)(7), the report must contain the information in § 63.7131(e); and | Semi-annually according to the requirements in § 63.7131(b). |
| | e. If you had a startup, shutdown or malfunction during the reporting period and you took actions consistent with your SSMP, | Semi-annually according to the requirements in § 63.7131(b). |

| | the compliance report must include the information in § 63.10(d)(5)(i) | |
|--|--|--|
| 2. An immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your SSMP | Actions taken for the event | By fax or telephone within 2 working days after starting actions inconsistent with the SSMP. |
| 3. An immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your SSMP | The information in § 63.10(d)(5)(ii) | By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority. See § 63.10(d)(5)(ii). |

Attachment R

Compliance demonstration for 40 CFR Part 51, Subpart BB, Data Requirements for Characterizing Air Quality for Primary SO2 NAAQS-Sulfur Dioxide Emission Limitation (Permit Condition PW002)

This attachment is for the month:

Table 1 of Attachment R: Kilns with CEMS

| Emission Unit | Throughput (tons) | Emission Factor (lb SO ₂ /ton) ^a | SO ₂ Emissions (tons) ^b |
|---|-------------------|--|---|
| EU3280-RK #1 | | | |
| EU3310-RK #2 | | | |
| Total monthly SO ₂ emissions for Table 1 (tons): | | | |

Table 2 of Attachment R: Kilns with emission factors established by performance testing

| Emission Unit | Throughput (tons) | Emission Factor (lb SO ₂ /ton) ^a | SO ₂ Emissions (tons) ^b | |
|---|-------------------|--|---|--|
| EU0070-PRK #4 | | | | |
| EU0080-PRK #5 | | | | |
| EU0090-PRK #6 | | | | |
| EU0680-MRK #5 | | | | |
| EU0690-MRK #6 | | | | |
| EU0700-MRK #7 | | | | |
| EU0710-MRK #8 | | | | |
| EU0720-MRK #9 | | | | |
| EU0730-MRK #10 | | | | |
| Total monthly SO ₂ emissions for Table 2 (tons): | | | | |

^aAll emission factors for Table 2 shall be established via performance testing as required in Permit Condition PW002.

$$^{b}SO_{2}$$
 emissions calculated using the following equation:
 $SO_{2}\left(\frac{tons}{month}\right) = throughput\left(\frac{tons\ limestone}{month}\right) \times Ef\left(\frac{lbs\ SO_{2}}{ton\ limestone}\right) \times \frac{1\ ton}{2000\ lbs}$

Table 3 of Attachment R: Vertical Kilns SO₂ emissions^a

| 1 11010 0 | 1 1000000000000000000000000000000000000 | 0.00 210 | , 0 | 1100.00 | <u> </u> | - | | | |
|------------------|---|------------------|-------------|-------------|------------|---------|-----------|-----------|---|
| Emission Unit | $M_{\rm F}$ | S_{F} | $M_{\rm S}$ | S_{S} | $M_{ m L}$ | S_{L} | M_{LKD} | S_{LKD} | SO ₂ Emissions (tons) ^b |
| EU1370- | | | | | | | | | |
| TSK | | | | | | | | | |
| EU2550- | | | | | | | | | |
| SSK #1 | | | | | | | | | |
| EU2720- | | | | | | | | | |
| SSK #2 | | | | | | | | | |
| EU2730- | | | | | | | | | |
| SSK #3 | | | | | | | | | |
| Total mon | thly SO ₂ | emissi | ons for T | Table 3 (to | ns):: | • | • | • | |

^aDefinitions of terms and mass balance equation used in Table 3 can be found in Permit Condition PW002, Monitoring: 3d.

Table 4 of Attachment R: Other units with emissions determined by mass balance

| Emission Unit | M _F | · | SO ₂ Emissions (tons) |
|-----------------------------------|---------------------|------------------|----------------------------------|
| | 1 V1 F | S_{F} | SO ₂ Emissions (tons) |
| EU0930-Stone Dryer | | | |
| Emergency | | | |
| generators (diesel) | | | |
| Emergency | | | |
| generators | | | |
| (natural gas) | | | |
| EP-225A/B Spray | | | |
| Dryer-MRPCC#1 | | | |
| EP-229B Spray | | | |
| Dryer-MRPCC#2 | | | |
| EP-246 Plant space | | | |
| heaters/furnaces | | | |
| EP-247 Plant water | | | |
| heaters | | | |
| Total monthly SO ₂ emi | ssions for Table 4: | | |
| 8D C ::: C. 1 | 1 1 1 1 1 1 1 1 1 | 1 C 1' D '(C 1') | DITTO 00 14 ' ' 0 |

^aDefinitions of terms and mass balance equation used in Table 4 can be found in Permit Condition PW002, Monitoring:3e.

Table 5 of Attachment R: Monthly summation and 12-month rolling total

| Those of Themeion In 1/10/10/10/1/ Summanon and 12 months forming total | |
|--|--|
| Summation and calculation of consecutive 12-month total | |
| (b) Sum of Total SO ₂ emissions from Tables 1 through 4 for this month | |
| (tons): | |
| (c) 12-month SO ₂ emissions total from previous month's worksheet (tons): | |
| (d) Monthly SO ₂ emissions total from previous year's worksheet (tons): | |
| (e) New 12-month SO ₂ emissions total (tons): | |

Total emissions (e) of less than 2,000 tons indicates compliance. Start up, shutdown, and malfunction emissions shall be included in the emissions total.

Attachment S

Compliance demonstration for 40 CFR Part 51, Subpart BB, Data Requirements for Characterizing Air Quality for Primary SO2 NAAQS-Performance Testing indicated by monitoring results (Permit Condition PW002)

This attachment is for the month:

| Parameter Measured | Current month's value | Most recently tested |
|---|-----------------------|----------------------|
| | | value |
| ^a Monthly average sulfur fed | | |
| per ton of limestone, F _S | | |
| Monthly average feed rate | | |
| of limestone | | |
| Sorbent injection rate (if | | |
| used) | | |

^aDefinitions of terms and equation used to calculate F_S can be found in Permit Condition PW002, Initial Performance Testing: 6g.

If the current month's values exceed the most recently tested values, retesting is required. See Permit Condition PW002, Subsequent Performance Testing #2.

STATEMENT OF BASIS

Permit Reference Documents

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

- 1) Part 70 Operating Permit Application, received April 18, 2007
- 2) 2007 Emissions Inventory Questionnaire;
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition.
- 4) Part 70 Operating Permit, Issued April 17, 2002

Applicable Requirements Included in the Operating Permit but Not in the Application

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.

10 CSR 10-6.180, Measurement of Emissions of Air Contaminants,

This rule has been included in the operating permit in order to provide citing for the allowance of requests for emissions data results. On past forms issued by the Air Pollution Control Program, including the application for this permit, it was automatically marked as an administrative rule not required to be listed as an applicable requirement. It is no longer judged to be solely administrative and is, therefore, included in the operating permit.

Other Air Regulations Determined Not to Apply to the Operating Permit

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

10 CSR 10-6.260, Restriction of Emission of Sulfur Compounds

This rule is applicable to numerous emission units at the installation. However, the following units that combust pipeline natural gas would not be expected to exceed the limits of the rule.

- 1) EU0620, precipitated calcium carbonate Spray Dryer
- 2) EU1190, precipitated calcium carbonate Spray Dryer
- 3) EU1250, precipitated calcium carbonate Spray Dryer
- 4) 90 Space Heaters, pipeline natural gas, 0.05 0.22 MMBtu/hr
- 5) Hot Water Heaters

The diesel powered emergency generators for the kilns and mine and the mine water pumps would also not be expected to exceed the SO₂ concentration limits of the rule, as the sulfur content of the diesel fuel is less than 0.5 per cent by weight. Therefore, the rule was not applied in the permit to this equipment

10 CSR 10-6.220, Restriction of Emission of Visible Air Contaminants

This rule is not applicable to internal combustion engines, therefore, it was not applied to any of the diesel engines in the permit.

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

a) 10 CSR 10-6.400 limits the amount of particulate matter (PM) that is allowed from an emission unit. The limit 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 of the unit. Potentials to emit presented below were calculated based on the unit's Maximum Hourly Design Rate (MHDR). 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:

 $E = 4.10P^{0.67}$ for process weight rates up to 30 tons (60,000 lbs) per hour, and $E = 55.0P^{0.11} - 40$ 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)

At maximum design rates, the uncontrolled potential PM emission rates for the units listed in the table below based on the emission factor are less than their corresponding allowable PM emission limits. No monitoring, recordkeeping or reporting is required for 10 CSR 10-6.400 purposes.

Note: Table removed from the non-confidential or public version of the Operating Permit due to confidential information.

10-6.400 provides many exemptions including being subject to an NSPS standard to restrict emissions of PM₁₀ (10 CSR 10-6.400 PURPOSE), Fugitive Emissions (10 CSR 10-6.400(1)(B)7), and using a particulate matter control device system that controls at least 90 percent of particulate matter (10 CSR 10-6.400(1)(B)15). After thorough engineering review using the information contained in the 2007 EIQ, many emission units that were previously subject to the requirements of 10 CSR 10-6.400 were found to be exempt. The calculations for compliance with this rule were left in this permit (see below) as a reference point for previously applicable emission units. If emission units deemed exempt are reevaluated and found to be applicable, the information in the calculations may be used as a starting point in determining compliance.

40 CFR Part 60, Subpart 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 9,1978.

Tank MRT #1 is exempt, as the rule is not applicable to the storage of No. 2 fuel oil. Tanks PRT #1, #2, #3 and #4 are exempt by construction date, capacity and type of petroleum liquid stored.

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.

Tanks MRT #2 and #3 are exempt from the rule, as their capacity is less than 40 M³.

State Air Regulation Updates

The Operating Permit Application listed 10 CSR 10-3.090 *Restriction of Emission of Odors* was listed as applicable. 10 CSR 10.3090 was applicable to the outstate Missouri area. On April 14, 2010 10 CSR 10-6.165 *Restriction of Emission of Odors* was filed and on November 30, 2010 the rule went into effect. 10 CSR 10-6.165 is applicable to the entire state of Missouri and replaced 10 CSR 10-3.090 in this permit.

Construction Permit Revisions

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

Construction Permit 0480-006. The original permit stated that the EPA required a PSD review. The EPA classified the permit as nonapplicable for PSD review.

Construction Permit 0198-006, Applicable Requirements

- I. PK Pneumatic System (EU1130) for conveying Hydrated Lime
 - A. New Source Performance Standards
 - 1. 40 CFR Part 60, Subpart OOO was listed as an applicable requirement. However, hydrated lime is not a nonmetallic mineral and the rule is not applicable to this emission unit. This unit has been removed from service.
- II. Baghouse, Control Device CD-71B
 - A. Particulate Matter less than Ten Microns (PM₁₀)
 - 1. Restriction of Emission of Particulate Matter From Industrial Processes
 This rule is for PM not PM₁₀ Also, the correct formula was not used to calculate the allowable PM emission rate.

Construction Permit 0898-019, Applicable Requirements

- I. VK-1 and VK-2 Conveyors (EU1300, EU1310)
 - A. Particulate Matter
 - 1. 10 CSR 10-6.400 does not apply, as it is less restrictive than 40 CFR Part 60, Subpart OOO that does apply.
 - B. New Source Performance Standards
 - 1. 40 CFR Part 60, Subpart OOO emission limitation for fugitive emissions was shown rather than those for stack emissions. The particulate matter limit of 5 gr/M³ was not listed and the fugitive opacity limit of 10 percent was listed instead of the stack opacity of 7 percent.
- II. Vibrating Feeders No1, 2, 3 and 4 and the VK-4 Conveyor (EU1330)
 - A. Particulate Matter
 - 1. 10 CSR 10-6.400 does not apply, as the particulate emissions are fugitive.
- III. VK-5 Conveyor (EU1340)
 - A. Particulate Matter
 - 1. 10 CSR 10-6.400 does not apply, as it is less restrictive than 40 CFR Part 60, Subpart OOO that does apply.

B. New Source Performance Standards

1. 40 CFR Part 60, Subpart OOO emission limitation for fugitive emissions was shown rather than those for stack emissions. The particulate matter limit of 5 gr/M³ was not listed and the fugitive opacity limit of 10 percent was listed instead of the stack opacity of 7 percent.

IV. Double Deck Screen (EU1340)

A. Particulate Matter

1. 10 CSR 10-3.050 does not apply, as it is less restrictive than 40 CFR Part 60, Subpart OOO that does apply.

B. New Source Performance Standards

1. 40 CFR Part 60, Subpart OOO emission limitation for fugitive emissions was shown rather than those for stack emissions. The particulate matter limit of 5 gr/M³ was not listed and the fugitive opacity limit of 10 percent was listed instead of the stack opacity of 7 percent.

V. Fines Loadout Bin (EU1340)

A. Particulate Matter

1. 10 CSR 10-6.400 does not apply, as it is less restrictive than 40 CFR Part 60, Subpart OOO that does apply.

B. New Source Performance Standards

1. 40 CFR Part 60, Subpart OOO was not listed as an applicable requirement. The particulate matter limit of 5 gr/M³ and the stack opacity of 7 percent should be listed.

VI. Weigh Bin and Skip Hoist (EU1350 and 1360)

A. Particulate Matter

1. 10 CSR 10-6.400 does not apply as the particulate emissions are fugitive.

VII. Waste Lime Loadout, VK-8 Conveyor (EU1410)

A. Particulate Matter

1. 10 CSR 10-6.400 does not apply as the particulate emissions are fugitive.

VIII. Bucket Elevator and Screen (EU1430)

A. Particulate Matter

1. 10 CSR 10-6.400 does not apply, as it is less restrictive than 10 CSR 10-6.060, Construction Permit 0898-010, Special Condition 14. A.

IX. Lime Silos, Conveyors, Screens and Truck Loadouts (EU1460)

A. Particulate Matter

1. 10 CSR 10-6.400 does not apply, as it is less restrictive than 10 CSR 10-6.060, Construction Permit 0898-010, Special Condition 14. B.

Construction Permit 0897-017A, Condition 8, EU0010

Construction Permit 0898-019, Condition 16, (EU1300 through EU1460)

Construction Permit 1198-020, Condition 6, EU0740

These permit conditions required the permittee to collect air quality monitoring data regarding PM₁₀ emissions at its property boundary until released from this requirement by the Director. A notice of release from this condition was issued January 3, 2001.

Construction Permit 122002-007

Permit condition section VIII Ambient Monitoring Requirement for PM_{10} required the permittee to install a comprehensive monitoring network to determine the concentration of PM_{10} in the ambient air to demonstrate compliance with National Ambient Air Quality Standards. This monitoring network has been installed according to the permit conditions. These conditions have not been included in this permit.

Construction Permit 052003-045 was issued for a lime hydrator operation at the site. A letter dated August 26, 2008 stated that some of the permitted emission points were not constructed. These emission points were; EP699 vibrating feeders, EP700 belt conveyor, EP701 belt conveyor, EP702 crusher, EP706 air separator, EP707 brush screen, EP708 mill, EP709 air separator, EP710 tailings bins, EP712 product bins, and EP713 tailings bins truck loadout. These units are not included in this permit.

In a letter dated September 24, 2008 Mississippi Lime Company stated EU0230 Lime Blending System and EU1130 Pneumatic Transfer (MRH2&3 to MRH1) have been removed from service as well as the emission inventory. These units have been removed from the permit.

Permit Conditions EU1710-002, (EU1730 and EU1930-EU1950)-001 (page 43), EU1320-004, (EU1300 and EU1310)-003, EU2470-001, EU2470-002, EU2490-002, EU2500-001, EU2520-002, EU2530-001, EU2530-002, EU3980-001, EU2590-003, and (EU0720 and EU0730)-003 each contain requirements for initial new source performance testing that has been completed and fulfilled as required.

Permit Condition (EU0680-EU0710)-003 states that stack height of Mississippi Rotary Kilns stacks 5, 6, 7, and 8 shall be raised to 113 feet. Mississippi Lime Company has raised the stacks to a minimum of 113 feet as required in Construction Permit #0480-006.

NSPS Applicability

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

40 CFR Part 60, Subpart HH, Standards of Performance for Lime Manufacturing Plants

MACT Applicability

40 CFR Part 63, Subpart AAAAA, National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants

NESHAP Applicability

None.

Compliance Assurance Monitoring (CAM) Applicability

40 CFR Part 64, Compliance Assurance Monitoring (CAM)

The CAM rule applies to each pollutant specific emission unit that:

- Is subject to an emission limitation or standard, and
- Uses a control device to achieve compliance, and
- Has pre-control emissions that exceed or are equivalent to the major source threshold.
- 1) Mississippi Lime Company's emission units were evaluated against the criteria listed above. Many of the emission units satisfy the first two criteria mentioned, while the remaining units have potential pre-control device emissions that are below the 100 ton per year major source thresholds. Therefore, CAM is not applicable to any of Mississippi Lime Company's emission units upon permit renewal.
- 2) Units that are subject to 40 CFR Part 63, Subpart AAAAA standards and units that are subject to 111 or 112 standards promulgated after November 15, 1990 are excluded from CAM, therefore the kilns are not subject to CAM.
- 3) There are no control devices as defined by CAM for NOx or CO emissions from the kilns, therefore CAM is not applicable.

Other Regulatory Determinations

List of Emission Units and Emission Points Removed, Shutdown, or Not Constructed since Operating Permit 2002-018 was Issued (Note, these Emission Units and/or Points have been removed from the Emission Units With and Without Limitations List and are included here for reference):

| E | <u> Emission Uni</u> | it/Point ID / Emission Unit/Point Description |
|---|----------------------|--|
| | EP-050A, | Railcar Unloading, Coal/Coke, Shutdown per CP122002-007 |
| | EP-051A, | Truck Unloading, Coal/Coke, Shutdown per CP122002-007 |
| | EP-051B, | Hopper, enclosed, 1970, Shutdown per CP122002-007 |
| | EP-063A, | Unit "L" Conveyor for PRK No. 3, enclosed, 1967, Shutdown per CP122002-007 |
| | EP-063B, | Unit "L" Conveyor for PRK No. 4, enclosed, 1967, Shutdown per CP122002-007 |
| | EP-086, | Peerless Lime Screen #1, Shutdown per CP122002-007 |
| | EP-087, | Peerless Lime Screen #2, Shutdown per CP122002-007 |
| | EP-088, | Peerless Lime Screen #3, Shutdown per CP122002-007 |
| | EP-088A, | Fifteen (15) Truck/Rail Loadout Bins, 1967, Shutdown per CP122002-007 |
| | EP-088F, | Vibrating Feeders (15), Shutdown per CP122002-007 |
| | EP-088G, | Belt Conveyor/Rail Loadout, Shutdown per CP122002-007 |
| | EP-088H, | Belt Conveyor/Truck Loadout, Shutdown per CP122002-007 |
| | EP-091D, | 100 Ton Storage Bin, Removed per CP072004-012 Amendment Letter App. A |
| | EP-091E, | 100 Ton Storage Bin, Remove per CP072004-012 Amendment Letter App. A |
| | EP-092D, | Truck Loadout, Removed per CP072004-012 Amendment Letter App. A |
| | EP-092E, | Truck Loadout, Removed per CP072004-012 Amendment Letter App. A |
| | EP-101D, | Truck Unloading, Shutdown per CP072004-012 |
| | EP-101E, | Rock Hopper, 1970, Shutdown per CP072004-012 |
| | EP-101F, | Screen, 1970, Shutdown per CP072004-012 |
| | EP-102, | Tailings Conveyor, 1970, Shutdown per CP072004-012 |
| | EP-103A, | Tailings Storage Pile, Shutdown per CP072004-012 |
| | EP-103B, | Truck Loading, 1970, Shutdown per CP072004-012 |
| | EP-104A, | Conveyor Transfer Station, 1970, Shutdown per CP072004-012 |
| | EP-104B, | Kiln Feeder Unloading, 1970, Shutdown per CP072004-012 |
| | | |

| installation ii | J. 180-0001 Project No. 2010-05- |
|-----------------|--|
| | |
| EP-125A, | Twenty (20) Lime Hoppers, enclosed, 1970, Shutdown per CP072004-012 |
| EP-125B, | Dump Hopper w/Grizzly, 1970, Shutdown per CP072004-012 |
| EP-124A, | Forkings Bucket Elevator, enclosed, 1970, Shutdown per CP072004-012 |
| EP-124B, | Forkings Hopper, enclosed, 1970, Shutdown per CP072004-012 |
| EP-125C, | Pan Conveyor, 1970, Shutdown per CP072004-012 |
| EP-125D, | Roll Crusher, 1970, Shutdown per CP072004-012 |
| EP-342, | Conveyor, Removed per CP102002-008 |
| EP-342F, | Belt Conveyor, temporary, Removed per CP102002-008 |
| EP-342G, | Screen, temporary, Removed per CP102002-008 |
| EP-342H, | Vacuum Receiver, temporary, Removed per CP102002-008 |
| EP-342I, | Belt Conveyor, temporary, Removed per CP102002-008 |
| EP-343, | Conveyor, Removed per CP102002-008A |
| EP-344, | Conveyor, Removed per CP102002-008A |
| EP-345, | Vibrating Screen, Removed per CP102002-008A |
| EP-346, | Conveyor, Removed per CP102002-008A |
| EP-347, | Conveyor, Removed per CP102002-008A |
| EP-348, | Storage Pile, Removed per CP102002-008A |
| EP-349, | Conveyor, Removed per CP102002-008A |
| EP-350, | Vibrating Screen, Removed per CP102002-008A |
| EP-355, | Fines Conveyor, Removed per CP102002-008A |
| EP-356, | Fines Truck Load Out, Removed per CP102002-008A |
| EP-357, | Surge Hopper (Oversized), Removed per CP102002-008A |
| EP-358, | Cone Crusher, Removed per CP102002-008A |
| EP-359, | Conveyor, Removed per CP102002-008A |
| EP-360. | Conveyor, Removed per CP102002-008A |
| EP-361, | Bucket Elevator, Removed per CP102002-008A |
| EP-362, | Conveyor, Removed per CP102002-008A |
| EP-363, | Storage Pile, Removed per CP102002-008A |
| EP-366, | Limestone Feeder, Removed per CP102002-008A |
| EP-367, | Conveyor, Removed per CP102002-008A |
| EP-368, | Bucket Elevator, Removed per CP102002-008A |
| EP-369A, | Silo Unloading, Removed per CP102002-008A |
| EP-369B, | Vibrating Screen, Removed per CP102002-008A |
| EP-372, | Fines Silo, Removed per CP102002-008A |
| EP-373, | Fines Truck Load Out, Removed per CP102002-008A |
| EP-408, | Vibrating Feeder, Removed per CP072004-012 Amendment Letter App. A |
| EP-409, | Limestone Conveyor, Removed per CP072004-012 Amendment Letter App. A |
| EP-410, | Limestone Screen, Removed per CP072004-012 Amendment Letter App. A |
| EP-411, | Limestone Crusher, Removed per CP072004-012 Amendment Letter App. A |
| EP-412, | 3D Limestone Screen, Removed per CP072004-012 Amendment Letter App. A |
| EP-413, | Recirculation Conveyor, Removed per CP072004-012 Amendment Letter App. A |
| EP-414, | Recirculation Conveyor, Removed per CP072004-012 Amendment Letter App. A |
| EP-415A, | Screenings Conveyor, Removed per CP072004-012 Amendment Letter App. A |
| EP-418, | Storage Pile, Removed per CP072004-012 Amendment Letter App. A |

- EP-418, Storage Pile, Removed per CP072004-012 Amendment Letter App. A
- EP-419, Limestone Vibrating Feeder, Removed per CP072004-012 Amendment Letter App. A
- EP-428A, Lime Bucket Elevator (SSK#1), Removed per CP072004-012 Amendment Letter App. A

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EP-428B,
           Lime Bucket Elevator (SSK#2), Removed per CP072004-012 Amendment Letter App. A
           Lime Bucket Elevator (SSK#3), Removed per CP072004-012 Amendment Letter App. A
EP-428C,
EP-725,
           Railcar Unloading, Removed per CP072004-012 Amendment Letter App. A
EP-726,
           Bucket Elevator, Removed per CP072004-012 Amendment Letter App. A
EP-727,
            50 Ton Truck Bin, Removed per CP072004-012 Amendment Letter App. A
EP-728,
           Truck Loadout, Removed per CP072004-012 Amendment Letter App. A
EP-731,
            Screen, Removed per CP072004-012 Amendment Letter App. A
            Screen, Removed per CP072004-012 Amendment Letter App. A
EP-732,
EP-733,
           Seven Product Storage Bins, Removed per CP072004-012 Amendment Letter App. A
EP-735,
           Truck Loadout, Removed per CP072004-012 Amendment Letter App. A
           Truck Loadout, Removed per CP072004-012 Amendment Letter App. A
EP-737,
EU0020,
           No. 1 Peerless Rotary Kiln, Shutdown per CP092001-014
EU0030,
           No. 2 Peerless Rotary Kiln, Shutdown per CP122002-007
EU0040,
           No. 1 Peerless Rotary Kiln Cooler, Shutdown per CP122002-007
           No. 2 Peerless Rotary Kiln Cooler, Shutdown per CP122002-007
EU0050,
           No. 3 Peerless Rotary Kiln, Shutdown per CP122002-007
EU0060.
           No. 3 Peerless Rotary Cooler, Shutdown per CP122002-007
EU0100,
EU0240,
           No. 1 Mississippi Vertical Kiln, Shutdown per CP092001-014
EU0250,
           No. 2 Mississippi Vertical Kiln, Shutdown per CP072004-012
           No. 3 Mississippi Vertical Kiln, Shutdown per CP072004-012
EU0260,
EU0270,
           No. 4 Mississippi Vertical Kiln, Shutdown per CP072004-012
EU0280,
           No .5 Mississippi Vertical Kiln, Shutdown per CP072004-012
           No. 6 Mississippi Vertical Kiln, Shutdown per CP092001-014
EU0290,
           No. 7 Mississippi Vertical Kiln, Shutdown per CP072004-012
EU0300,
EU0310,
           No. 8 Mississippi Vertical Kiln, Shutdown per CP072004-012
EP-113,
           No. 9 Mississippi Vertical Kiln, Shutdown per CP092001-014
EU0320,
           No. 10 Mississippi Vertical Kiln, Shutdown per CP092001-014
EU0330.
           No. 11 Mississippi Vertical Kiln, Shutdown per CP072004-012
EU0340,
           No. 12 Mississippi Vertical Kiln, Shutdown per CP072004-012
           No. 13 Mississippi Vertical Kiln, Shutdown per CP072004-012
EU0350,
EU0360,
           No. 14 Mississippi Vertical Kiln, Shutdown per CP072004-012
EU0370,
           No.1 5 Mississippi Vertical Kiln, Shutdown per CP072004-012
           No. 16 Mississippi Vertical Kiln, Shutdown per CP072004-012
EU0380,
EU0390,
           No. 17 Mississippi Vertical Kiln, Shutdown per CP092001-014
EU0400,
           No. 18 Mississippi Vertical Kiln, Shutdown per CP092001-014
           No. 19 Mississippi Vertical Kiln, Shutdown per CP092001-014
EU0410,
EU0420,
           No. 20 Mississippi Vertical Kiln, Shutdown per CP 092001-014
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- 40 CFR Part 60, Subpart OOO, Standards of performance for Nonmetallic Mineral Processing Plants. EU1300 and EU1310 Conveyors VK-1 and VK-2 are limited to 110 percent of their performance test throughput rate until tested at a higher rate.
- EU1320 Conveyor VK-3 is not defined as a transfer point in Subpart OOO as it always discharges onto a storage pile.
- EU1340 VK-5 Conveyor and Double Deck Screen are limited to 110 percent of the performance test throughput rate until tested at a higher rate.
- EU1360 Skip Hoist dumping into a feed hopper is exempt from Subpart OOO.

EU1500 - Portable Conveyor is not subject to Subpart OOO as it is not used to transfer limestone.

10 CSR 10-6.060, Construction Permits Required

EU1370 – Maerz Kiln is limited to 110 percent of the performance test throughput rate until tested at a higher rate.

EU1430 - Bucket Elevator and Triple Screen are limited to 110 percent of the performance test throughput rate until tested at a higher rate.

EU1460 - 500 Ton Silos, Pocket Belt Conveyors, 5-Deck Screens and Truck Loadouts are limited to 110 percent of their performance test throughput rate until tested at a higher rate.

40 CFR Part 60, Subpart LL, *Standards of Performance for Metallic Mineral Processing Plants* is not applicable as the limestone rock does not contain any of the listed metals in commercial concentration.

40 CFR Part 60, Subpart UUU, *Standards of Performance for Calciners and Dryers in Mineral Industries* is not applicable, as the installation does not process any of the listed minerals.

40 CFR Part 60, Subpart Y, *Standards of Performance for Coal Preparation Plants* is not applicable. The equipment was constructed prior to the applicability date of October 25, 1974; or in the case of the coal crushers for the Mississippi Rotary Kilns No.9 and 10, the crushers exhaust directly into the kilns and there are no emissions to the atmosphere.

40 CFR Part 60, Subpart F, *Standards of Performance for Portland Cement Plants* is not applicable as the installation does not manufacture portland cement.

Attorney General Settlement Agreement dated July 16, 1998.

Attorney General Settlement Agreement dated December 30, 1999, Amended July 7, 2000.

Calculations 10 CSR 10-6.260(3)

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As SO_3 = 0.07\% of sulfur emissions and SO_2 = 95\%, SO_3 = (6.4 \text{ x})/(60 \text{ x}0.95) \text{ x} 80/64 \text{ x} 0.007 \text{ x} 453600 \text{ mg/s} \text{ x} 35.31 \text{cf/M}^3 = 2.72 \text{ mg } SO_3/\text{M}^3
```

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EU0250 through EU0330, Emission Limit = 2000 ppm SO<sub>2</sub>, 70 mg SO<sub>3</sub>/M<sup>3</sup> SCC (3-05-016-03) Emissions from the No. 5 Peerless Vertical Kiln Stack test of 5/19/95 = 0.031 lb SO<sub>2</sub>/hr Exhaust gas = \frac{1}{2} acfm at 148 6°E
```

```
SO_2/hr. Exhaust gas = acfm at 148.6°F.

SO_2 ppm = 460 x 10<sup>6</sup>/4 x 384/64 x 608.6°R/530°R = 0.38 ppm SO_2
```

The SO₃ emissions would also be in compliance with the rule limit.

```
EU0620, Emission Limit = 2000 ppm SO<sub>2</sub>, 70 mg SO<sub>3</sub>/M<sup>3</sup>
Stack Flow = acfm at 190 °F.
SCC (3-05-900-03) Spray Dryer natural gas rate = MMCF/hr,
```

 $SO_2 =$ 1b $SO_2/MMCF$ x 10⁶/10 x 384/64 x 650°R/530° = 0.19 ppm SO_2 The SO_3 emissions would also be in compliance with the rule limit.

EU0680 through EU0710, Emission Limit = 2000 ppm SO₂, 70 mg H₂SO₄/M³ EU0710 Stack Test of 12/7/99 SO₂ ppm = 1,190.5 ppm SO₂. SO₃ emissions are assumed to be in compliance as well.

EU0720 and EU0730, Emission Limit = 500 ppm SO_2 , 35 mg H_2SO_4/M^3 EU 0730 Stack Test of 3/30/98. SO_2 emissions = 11 lb/hr, Stack Flow = 12 acfm, 164°F. SO_2 ppm = 16/60 x $10^6/M^3$ x 384/64 x 624°R/530° = 31.9 ppm SO_2 . H_2SO_4 emissions = 3 lb/hr/60 x 453600 mg/65345 x 35.31cf/ M^3 = 12.3 mg H_2SO_4/M^3 .

EU0930, Emission Limit = 2000 ppm SO_2 , 70 mg SO_3/M^3 Stack Test of 5/20/95. Pipeline Natural Gas combustion, SO_2 emissions = 0.5 ppm. SO_3 emissions are assumed to be in compliance as well.

Combustion of Waste 0il, $SO_2 = 100/60 \text{ mgm x } 7.05 \text{ lb/gal x } 0.6\% \text{ S x 2 x } 10^6/1000 \text{ x } 384/64 \text{ x } 662/530 = 35.6 \text{ ppm } SO_2$ SO₃ emissions are assumed to be in compliance as well.

EU1370, Emission Limit = 500 ppm SO_2 . 35 mg SO_3/M^3 .

Stack Test of 2/10/99, SO_2 emissions = 0.8 ppm.

SO₃ emissions are assumed to be in compliance as well.

EU1500, Emission Limit = 500 ppm SO_2 , 35 mg SO_3/M^3 . SCC (2-02-001-02) Emissions = 1b $SO_2/MMBtu \times 10^6/ms$ wscf/MMBtu x 384/64 x = 169 ppm SO_2

SO₃ emissions are assumed to be in compliance as well.

10 CSR 10-6.260(4)

SO₂ monitoring indicates compliance with the ambient air standards.

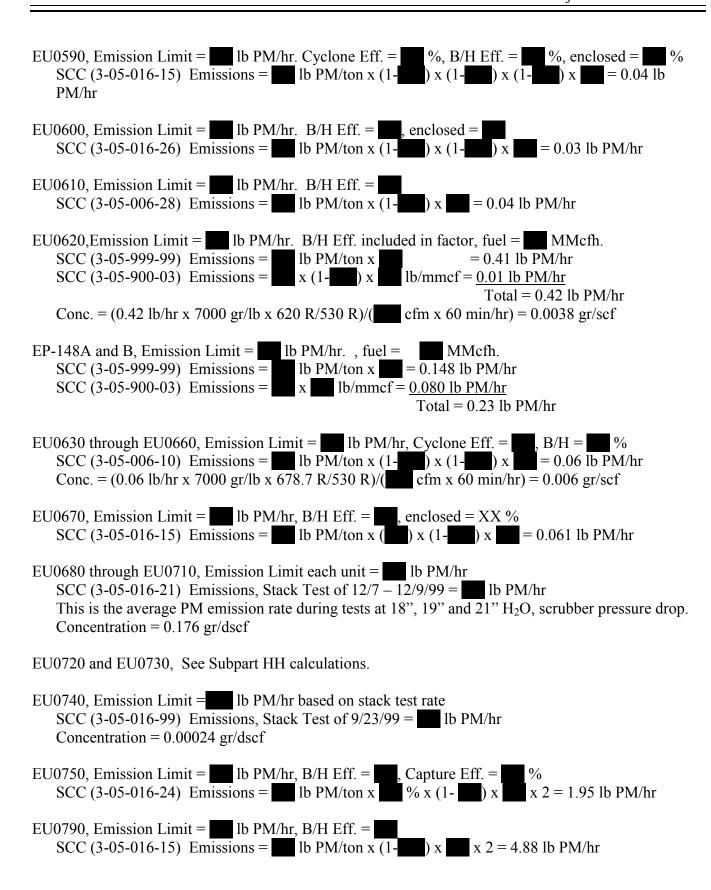
SO₂ Monitoring

| | | | SO ₂ Monitori | ing | | |
|----------|-------------------|---------------------|--------------------------|-------------------------|-------------------------|-------------------------|
| Location | Parameter | Limits | 4 th Quarter | 1 st Quarter | 2 nd Quarter | 3 rd Quarter |
| | | SO ₂ ppm | 1995 | 1996 | 1996 | 1996 |
| North | 24-hour max. ave. | 0.140 | 0.134 | 0.079 | 0.061 | 0.032 |
| Site | 3-hour max. ave. | 0.50 | 0.283 | 0.122 | 0.233 | 0.099 |
| South | 24-hour max. ave. | 0.140 | 0.049 | 0.012 | 0.014 | 0.021 |
| Site | 3-hour max. ave. | 0.50 | 0.13 | 0.032 | 0.029 | 0.071 |

10 CSR 10-6.400

```
EU0070 through EU0090, Emission Limit = lbs PM/hr, Cyclones and B/H in factor
   SCC (3-05-016-21) Emissions = x = 27.7 \text{ lb PM/hr}
   Conc = (27.7 \times 7000 \text{ gr/lb} \times 844 \text{ R}/530 \text{ R})/(120605 \text{ cfm} \times 60) = 0.0427 \text{ gr/scf}
EU0110 through EU0130, Emission Limit = lbs PM/hr. B/H Eff. = 95%.
   SCC (3-05-016-11) Emissions = x = 7.11 \text{ lb PM/hr}.
   Conc. = (7.11 \times 7000 \text{ gr/lb} \times 785 \text{ R/5}30 \text{ R})/( cfm x 60) = 0.0146 gr/scf
EU0140, Emission Limit = lbs PM/hr. B/H Eff. =
   SCC (3-05-016-26) Emissions = x ( ) x = 0.85 lb PM/hr.
EU0150, Emission Limit = lbs PM/hr. Collection Eff. = 50%, B/H Eff. = 98%
   EU0160, Emission Limit = lbs PM/hr., B/H Eff. =98%.
   SCC (3-05-016-14) Emissions = x = x = x x = x
   Conc. = (1.178 \times 7000 \text{ gr/lb} \times 640 \text{ R/}530 \text{ R})/(2000 \text{ cfm} \times 60) = 0.083 \text{ gr/scf}
EU0180, Emission Limit = lb PM/hr., Bin Vent Eff. in factor, Bin Flow = scf/hr
   SCC (3-05-016-24) Emissions = x = 0.00264 lb PM/hr
   Concentration = (0.00264 \text{ lb/hr x } \overline{7000 \text{ gr/lb}})/ cf/hr = 0.0185 gr/cf
EU0190, Emission Limit = lb PM/hr. Cyclone and B/H Eff. included in factor.
   SCC (3-05-016-32) Emissions = = 0.64 lb PM/hr
   Concentration = (0.64 \text{ lb/hr} \times 7000 \text{ gr/lb})/( scf/min x 60 min/hr) = 0.03 gr/scf
EU0200, Emission Limit = lb PM/hr. B/H Eff. included in factor, Flow = cfm
   SCC (3-05-006-29) Emissions =
                                                   0.84 lb PM/hr
   SCC (3-05-016-24) Emissions =
                                              = 0.00264 lb PM/hr
                                                            Total = 0.843 lb PM/hr
   Concentration = (0.843 \text{ lb/hr} \times 7000 \text{ gr/lb})/(8 \text{scf/min} \times 60 \text{ min/hr}) = 0.076 \text{ gr/scf}
EU0210, Emission Limit = lb PM/hr. B/H Eff. included in factor, Flow = cfm
   SCC (3-05-006-29) Emissions =
                                                    0.84 lb PM/hr
                                             = 0.00264 lb PM/hr
   SCC (3-05-016-24) Emissions =
                                                            Total = 0.843 lb PM/hr
   Concentration = (0.843 \text{ lb/hr x } 7000 \text{ gr/lb})/(\text{cfm x } 60 \text{ min/hr}) = 0.082 \text{ gr/scf}
EU0220, Emission Limit = lb PM/ton. B/H Eff. included in factor, Flow = cfm
   SCC (3-05-016-26) Emissions = x = 0.172 lb PM/hr
   Concentration = (0.172 \text{ lb/hr x } 7000 \text{ gr/lb})/( x 60 min/hr) = 0.02 gr/scf
EU0250 through EU0330, Emission Limit = 1b PM/hr. EF from Stack Test 5/19/95
```

```
SCC (3-05-016-03) Emissions = \frac{16 \text{ PM/ton x}}{16 \text{ PM/ton x}} = 2.19 \text{ lb PM/hr}.
    Concentration = 0.0419 \text{ gr/scf}
EU0430, Emission Limit = lb PM/hr. Cyclone Eff. = led, B/H Eff. = led, enclosed = l
    SCC (3-05-006-10) Emissions = 1 lb PM/ton x (1-11) x (1-11) x (1-11) x (1-11) x
    Concentration = (1.81 \text{ lb/hr} \times 7000 \text{ gr/lb})/(\text{cfm} \times 60 \text{ min/hr}) = 0.117 \text{ gr/scf}
EU0440, Emission Limit = Lib PM /hr for bagging only, B/H Eff. in factor, enclosed =
           Emission Limit = LB PM/hr when truck loading, B/H Eff =
                                                                                    , enclosed =
    SCC (3-05-016-14) Bagger Emissions = x (1-x) x = 0.15 \text{ lb PM/hr}
    SCC (3-05-016-26) Emissions Loading = 11 lb PM/ton x (1-1111) x (1-1111) x Concentration = (0.46 \text{ lb/hr} \times 7000 \text{ gr/lb})/(3000 \text{ cfm} \times 60 \text{ min/hr}) = 0.018 \text{ gr/scf}
                                                                                                = 0.31 \text{ lb PM/hr}
EU0450, Emission Limit = 1b PM/hr. Emission factor – Stack Test 3/28 & 3/29/79.
    SCC (3-05-016-09) Emissions = \frac{1}{100} lb PM/ton x = 1.16 lb PM/hr
    Concentration = 0.137 gr/scf.
EU0460, Emission Limit = 11 lb PM/hr. Cyclone Eff. = 11, B/H Eff. = 11, enclosed = SCC (3-05-006-10) Emissions = 11 lb PM/ton x (1-11) x (1-111) x (1-111) x (1-111)
                                                                                              = 0.11 \text{ lb PM/hr}
    Concentration = (0.11 \text{ lb/hr} \times 7000 \text{ gr/lb})/( scfm \times 60 \text{ min/hr}) = 0.011 \text{ gr/scf}
EU0470, Emission Limit = lb PM/hr. Emission Factor – Stack Test 3/28 & 3/29/79.
    SCC (3-05-016-09) Emissions = \frac{1}{2} lb PM/ton x = 1.16 lb PM/hr.
    Concentration = 0.137 gr/scf.
EU0490, Emission Limit = lb PM/hr. B/H Eff. =
    SCC (3-05-016-26) Emissions =
                                              lb PM/ton x (1-
                                                                           = 0.0415 lb PM/hr
    SCC (3-05-016-26) Emissions =
                                              lb PM/ton x (1-
                                                                           = 0.0415 \text{ lb PM/hr}
                                                                             Total = 0.083 lb PM/hr
    Concentration = (0.083 \text{ lb/hr x } 7000 \text{ gr/lb})/(800 \text{ scfm x } 60 \text{ min/hr}) = 0.0097 \text{ gr/scf}
EU0500, Emission Limit = lb PM/hr. Bin Vent Eff. included in factor.
    SCC (3-05-016-26) Emissions = x = 0.0044 lb PM/hr
    EU0510, Emission Limit = lb PM/hr. B/H Eff. = left, capture Eff. =
    SCC (3-05-016-26) Emissions = 11 lb PM/ton x (1-11) x = 0.305 lb PM/hr
    Concentration = (0.305 \text{ lb/hr} \times 7000 \text{ gr/lb})/(\text{scfm} \times 60 \text{ min/hr}) = 0.018 \text{ gr/scf}
EU0520, Emission Limit = 11b PM/hr. B/H Eff. =
    SCC (3-05-016-26) Emissions = 11 lb PM/ton x (1-1) x = 0.11 lb PM/hr
EU0530, Emission Limit = III lb PM/hr. B/H Eff. included in the factor, enclosed = 50%
    SCC (3-05-016-14) Emissions, one bagger = \frac{1}{2} lb PM/ton x (\frac{1}{2}) x = 0.22 lb PM/hr Emissions, two bagger = \frac{1}{2} lb PM/ton x (\frac{1}{2}) x = 0.44 lb pm/hr
```

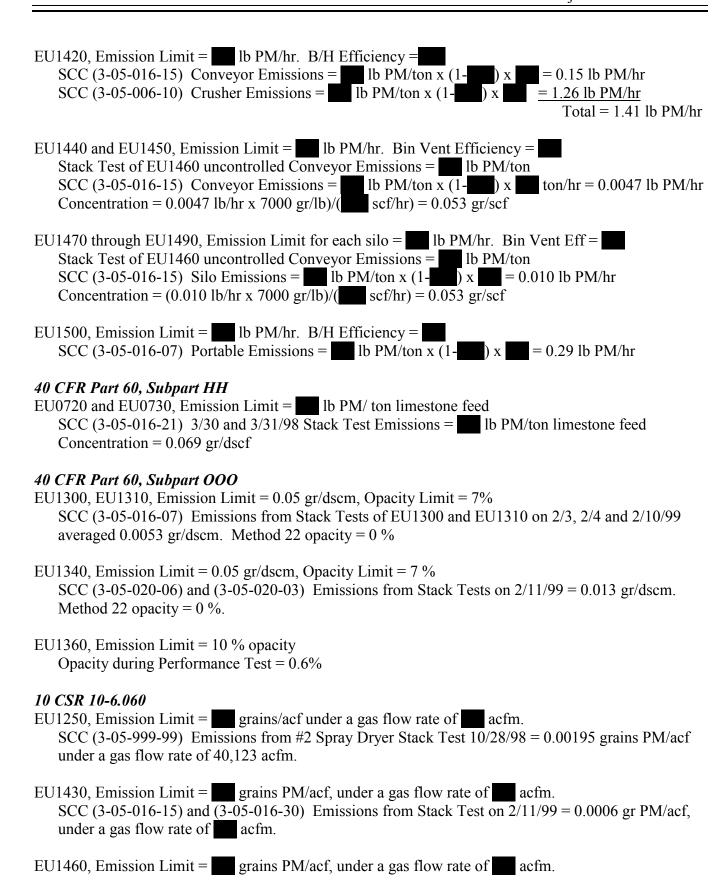


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EU0800, Emission Limit = 11 lb PM/hr when elevator and screen operating.
                                lb PM/hr when only baggers are operating
           Emission Limit =
                                lb PM/hr when all units are operating
           Emission Limit =
           B/H Efficiency included in factors
    SCC (3-05-016-15) Elevator Emissions =
                                                 lb PM/ton x
                                                                          0.009 lb PM/hr
    SCC (3-05-016-16) Screen Emissions =
                                                        lb PM/ton x
                                                                         = 0.61 lb PM/hr
    SCC (3-05-016-14) Bagger Emissions =
                                                          lb PM/ton x
                                                                           = 1.54 lb PM/hr
                                                                                Total = 2.16 lb PM/hr
EU0810, Emission Limit = lb PM/hr, B/H Eff. =
                                                      %, but is included in screen factor.
    SCC (3-05-016-15) Feeder Emissions =
                                                  lb PM/ton x (1-
                                                                            = 0.40lb PM/hr
                                                  lb PM/ton x
    SCC (3-05-006-17) Crusher Emissions =
                                                                           = 0.40 \text{ lb PM/hr}
    SCC (3-05-016-15) Elevator Emissions =
                                                  lb PM/ton x (1-
                                                                           = 0.80 \text{ lb PM/hr}
    SCC (3-05-016-16) Screen Emissions =
                                                 lb PM/ton x
                                                                         = 0.61 lb PM/hr
                                                                                Total = 2.21 lb PM/hr
EU0820, Emission Limit = lb PM/hr, B/H Eff. =
    SCC (3-05-016-26) Bin Emissions =
                                                  lb PM/ton x (1-
                                                                              = 1.22 lb PM/hr
    SCC (3-05-016-26) Loadout Emissions =
                                                 1b PM/ton x (1-
                                                                              = 1.22 lb PM/hr
                                                                               Total = 2.44 \text{ lb PM/hr}
EU0830 through EU0860, Emission Limit for each unit = 11 lb PM/hr, B/H Eff. =
    SCC (3-05-016-26) Emissions = 1b PM/ton x (1-
                                                            ) x
                                                                 = 0.8 \text{ lb PM/hr}
EU0870, Emission Limit = 1b PM/hr, B/H Eff. =
    SCC (3-05-016-15) Bin Emissions = \frac{1}{2} lb PM/ton x (1-
                                                                      = 0.03 \text{ lb PM/hr}
EU0880 and EU0890, Emission Limit = 11 lb PM/hr, Cyclone Eff. = 12 %, B/H Eff. = SCC (3-05-006-10) Mill Emissions = 11 lb PM/ton x (1-11) x (1-11) x (1-11)
    Conc. = (0.084 \text{ lb PM/hr x } 7000 \text{ gr/lb x } 678.7 \text{ R/} 530 \text{ R})/( cfm x 60 min/hr) = 0.009 \text{ gr/scf}
EU0900, Emission Limit = lb PM/hr, B/H Eff. =
    SCC (3-05-016-26) Bin Emissions = \frac{16 \text{ PM}}{\text{ton x}} (1-\frac{1}{100}) x
EU0910 and EU0920, Emission Limit = 11b PM/hr, B/H Eff. =
    SCC (3-05-016-15) Loadout Emissions = \frac{1}{2} lb PM/ton x (1-
                                                                             = 0.40 \text{ lb PM/hr}
EU0930, Emission Limit = 11b PM/hr based on stack test
    SCC (3-05-020-12) Stone Dryer Emissions from Stack Test of 5/20/95 = 2.23 lb PM/hr
    Concentration = 0.0113 \text{ gr/dscf}
EU0940, Emission Limit = lb PM/hr, B/H Eff. included in factor.
    SCC (3-05-006-26) Emissions = 0.032 lb PM/ton x 94.9 = 3.04 lb PM/hr
EU0950, Emission Limit = lb PM/hr, B/H Eff. =
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SCC (3-05-016-26) Bin Emissions = \frac{1}{2} lb PM/ton x (1-
                                                                           = 0.76 \text{ lb PM/hr}
                                                                    ) x
   SCC (3-05-016-14) Bagger Emissions = \frac{1}{2} lb PM/ton x
                                                                          = 0.77 \text{ lb PM/hr}
                                                                              Total = 1.53 \text{ 1b PM/hr}
EU0960, Emission Limit = lb PM/hr
   SCC (3-05-006-19) Emissions from Stack Test of 9/22/99 = 0.027 lb PM/hr
   Concentration = 0.0014 \text{ gr/dscf}
EU0970, Emission Limit = lb PM/hr, B/H Eff. =
                                                        , enclosed =
   SCC (3-05-016-15) Emissions = lb PM/ton x (1-
                                                                               = 0.06 lb PM/hr
EU0980, Emission Limit = 11 lb PM/hr, Emission Factor includes wet scrubber
                                                         = 3.75 \text{ lb PM/hr}
   SCC (3-05-016-09) Emissions = \frac{16 \text{ PM}}{\text{ton x}}
   Conc. = 3.75 lb/hr x 7000 gr/lb x \overline{630} R/530 R)/( \overline{\text{cfm x 60 min/hr}}) = 0.087 gr/scf
EU0990, Emission Limit = 1b PM/hr, B/H Eff. =
   SCC (3-05-016-26) Emissions = \frac{16 \text{ PM}}{\text{ton x (1-1)}}
EU1000, Emission Limit = 11 lb PM/hr, Capture Eff = 12 B/H Eff. =
   SCC (3-05-016-26) Emissions = \frac{16 \text{ PM}}{\text{ton x}}
                                                                = 0.30 \text{ lb/hr}
EU1010, Emission Limit = lb PM/hr, Bin B/H Eff. =
                                                               %, Bagger E.F. includes B/H
   SCC (3-05-016-26) Bin Emissions = x (1-
                                                                = 0.12 \text{ lb PM/hr}
   SCC (3-05-016-14) Bagger Emissions =
                                                              = 0.77 lb PM/hr
                                                                Total = 0.89 1b PM/hr
EU1020, Emission Limit = lb PM/hr, Cyclone Eff. =
                                                               %, DC Eff. = %, enclosed =
   SCC (3-05-006-10) Emissions = \frac{1}{2} lb PM/ton x (1-
                                                               (1-) \times (1-) \times (1-) \times = 0.18 \text{ lb}
   PM/hr
EU1030, Emission Limit = lb PM/hr, Bin Vent Eff. =
   SCC (3-05-016-26) Emissions = 1b PM/ton x (1-
                                                               ) x
                                                                   = 0.10 \text{ lb PM/hr}
EU1040, Emission Limit = 1b PM/hr, B/H Eff. =
   SCC (3-05-016-26) Emissions = \frac{1}{2} lb PM/ton x (1-
                                                                   = 0.04 \text{ lb/hr}
EU1050, Emission Limit = lb PM/hr, B/H Eff. =
    SCC (3-05-016-15) Emissions = \frac{1}{100} lb PM/ton x (1-
EU1060, Emission Limit = 11 lb PM/hr, Emission Factor includes wet scrubber
   SCC (3-05-016-09) Emissions = 1b PM/ton x = 3.75 \text{ lb PM/hr}
Conc. = 3.75 \text{ lb/hr} \times 7000 \text{ gr/lb} \times 640 \text{ R/530 R}/( cfm x 60 min/hr) = 0.095 \text{ gr/scf}
EU1070, Emission Limit = 11b PM/hr, B/H Eff. included in factor, enclosed =
   SCC (3-05-006-26) Emissions = \frac{1}{2} lb PM/ton x (1-\frac{1}{2}) x = 0.24 lb PM/hr
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%, DC Eff. = %, enclosed =
EU1080, Emission Limit = lb PM/hr, Cyclone Eff. =
            SCC (3-05-006-10) Emissions = \frac{16 \text{ PM}}{\text{ton x (1-1)}}
                                                                                                                                                                                                             ) x (1-) x (1-) x
            PM/hr
EU1090, Emission Limit = lb PM/hr, Bin Vent Eff. =
            SCC (3-05-016-26) Emissions = \frac{16 \text{ PM}}{\text{ton x}} (1-
                                                                                                                                                                                                             ) x
                                                                                                                                                                                                                            = 0.10 lb PM/hr
EU1100, Emission Limit = 11 lb PM/hr, Emission Factor includes wet scrubber
            SCC (3-05-016-09) Emissions = \frac{1}{100} lb PM/ton x = 3.75 lb PM/hr
            Conc. = 3.75 \text{ lb/hr} \times 7000 \text{ gr/lb} \times 640 \text{ R}/530 \text{ R} /( cfm x 60 min/hr) = 0.095 \text{ gr/scf}
EU1110, Emission Limit = lb PM/hr, B/H Eff. included in factor, enclosed =
            SCC (3-05-006-26) Emissions = \frac{16 \text{ PM}}{\text{ton x (1-1)}}
                                                                                                                                                                                                                           = 0.24 \text{ lb PM/hr}
EU1120, Emission Limit = 11 lb PM/hr, Cyclone Eff. = 11, DC Eff. = 11, DC Eff. = 12, or one in the second end of the sec
            SCC (3-05-006-10) Emissions = \frac{1}{100} lb PM/ton x (1-
                                                                                                                                                                                                            ) \times (1-) \times (1-
            PM/hr
EU1140, Emission Limit = 1b PM/hr, B/H Eff. =
            SCC (3-05-016-15) Bin Emissions = \frac{16 \text{ PM/ton x (1-1)}}{16 \text{ PM/ton x (1-1)}}
                                                                                                                                                                                                                                                                    = 0.48 lb PM/hr
            SCC (3-05-016-26) Loadout Emissions = \frac{1}{x} lb PM/ton \frac{1}{x} (1-
                                                                                                                                                                                                                                                                     = 0.48 lb PM/hr
                                                                                                                                                                                                                                                                        Total = 0.96 lb PM/hr.
EU1150 and EU1160, Emission Limit = lb PM/hr each, B/H Eff. =
            SCC (3-05-016-15) Silo Emissions = lb PM/ton x (1-
                                                                                                                                                                                                                                                    = 0.48 lb PM/hr
EU1170, Emission Limit = lb PM/hr, B/H Eff. =
            SCC (3-05-016-26) Loadout Emissions = 1b PM/ton x (1-
                                                                                                                                                                                                                                                            = 0.48 \text{ lb PM/hr}
EU1180, Emission Limit = 11b PM/hr, B/H Eff. in factor, enclosed =
            SCC (3-05-006-25) Emissions = lb PM/ton x (1-lb) x = 0.13 lb PM/hr
EU1190, Emission Limit = lb PM/hr, B/H Eff. =
            SCC (3-05-999-99) Emissions from #2 Spray Dryer Stack Test 10/28/98 = 0.671 lb PM/hr
            Concentration = (0.671 \text{ lb/hr x } 7000 \text{ gr/lb})/( scfm x 60 min/hr) = 0.003 gr/scf
EU1200, Emission Limit = lb PM/hr, B/H Eff =
                                                                                                                                                                                    \frac{1}{2} enclosed = 50%
            SCC (3-05-016-15) Emissions =
                                                                                                                                           lb PM/ton x (1-
                                                                                                                                                                                                               ) x (1-
                                                                                                                                                                                                                                                                          = 0.04 lb PM/hr
            SCC (3-05-016-26) Emissions =
                                                                                                                                           lb PM/ton x (1-
                                                                                                                                                                                                                                                                          = 0.04 lb PM/hr
                                                                                                                                                                                                               ) x (1-
                                                                                                                                                                                                                                                                            Total = 0.08 lb PM/hr
EU1210, Emission Limit = 19.2 lb PM/hr, B/H Eff = 98%, enclosed = 50%
            SCC (3-05-016-15) Emissions =
                                                                                                                                           lb PM/ton x (1-
                                                                                                                                                                                                               ) x (1-
                                                                                                                                                                                                                                                                           = 0.04 lb PM/hr
            SCC (3-05-016-26) Emissions =
                                                                                                                                          lb PM/ton x (1-
                                                                                                                                                                                                              ) x (1-
                                                                                                                                                                                                                                                                          = 0.04 lb PM/hr
                                                                                                                                                                                                                                                                            Total = 0.08 lb PM/hr
```

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EU1220, Emission Limit = lb PM/hr, B/H Eff. included in emission factor
           SCC (3-05-006-26) Emissions = x = 0.32 lb PM/hr
EU1230, Emission Limit = lb PM/hr, B/H Eff =
                                                                                                                                  lb PM/ton x (1-
           SCC (3-05-016-15) Emissions =
                                                                                                                                                                                                                        = 0.48 \text{ lb PM/hr}
           SCC (3-05-016-26) Emissions =
                                                                                                                                lb PM/ton x (1-
                                                                                                                                                                                                                        = 0.48 lb PM/hr
                                                                                                                                                                                                                    Total = 0.96 \text{ lb PM/hr}
EU1240, Emission Limit = 11b PM/hr, B/H Eff. = 12, enclosed = 12, 
           SCC (3-05-016-15) Emissions = \frac{16 \text{ PM}}{\text{ton x}} (1-
                                                                                                                                                                                                                                                       =0.33 lb PM/hr
EU1260, Emission Limit = 11b PM/hr, B/H Eff. = 126, enclosed = 126
           SCC (3-05-016-15) Emissions = \frac{16 \text{ PM}}{\text{ton x (1-1)}} \times (1-\frac{1}{2}) \times (1-\frac{1}{2
                                                                                                                                                                                                                                                       = 0.04 lb PM/hr
EU1270, Emission Limit = lb PM/hr, B/H Eff. = length enclosed =
           SCC (3-05-016-26) Emissions =
                                                                                                                                  lb PM/ton x (1-
                                                                                                                                                                                                                                  x 10 = 0.04 \text{ lb PM/hr}
                                                                                                                                                                                                  ) x (1-
           SCC (3-05-016-15) Emissions =
                                                                                                                                  lb PM/ton x (1-
                                                                                                                                                                                                 ) x (1-
                                                                                                                                                                                                                                   x 10 = 0.04 \text{ lb PM/hr}
                                                                                                                                                                                                                                                                             = 0.08 lb PM/hr
                                                                                                                                                                                                                                           Total
EU1280, Emission Limit = lb PM/hr, B/H Eff. =
            SCC (3-05-016-26) Emissions = \frac{1}{2} lb PM/ton x (1-
                                                                                                                                                                                                                = 0.08 \text{ lb PM/hr}
EU1290, Emission Limit = lb PM/hr, B/H Eff. =
           SCC (3-05-016-26) Emissions =
                                                                                                                                  lb PM/ton x (1-
                                                                                                                                                                                                                        = 0.08 lb PM/hr
           SCC (3-05-006-10) Emissions =
                                                                                                                                   lb PM/ton x (1-0.98) x
                                                                                                                                                                                                                         = 0.68 lb PM/hr
           SCC (3-05-016-15) Emissions =
                                                                                                                                  lb PM/ton x (1-
                                                                                                                                                                                                                        = 0.08 lb PM/hr
           SCC (3-05-006-25) Emissions =
                                                                                                                                  lb PM/ton x
                                                                                                                                                                                                                   = 0.19 lb PM/hr
                                                                                                                                                                                                                    Total = 1.03 \text{ lb PM/hr}
           Conc. = (1.03 \text{ lb/hr} \times 7000 \text{ gr/lb} \times 560 \text{ R}/530 \text{ R})/(3900 \text{cfm} \times 60 \text{ min/hr}) = 0.033 \text{ gr/scf}
                        EU1320, Emission Limit = 11 lb PM/hr, EU1320 is the third conveyor in series with EU1300
                        and EU1310. Stack Tests of EU1300 and EU1310 averaged 0.0015 lb PM/hr and a
                        concentration of 0.00017 gr PM/scf. Emissions from EU1320 are expected to be similar.
EU1370, Emission Limit = lb PM/hr
           SCC (3-05-016-23) Emissions from the Maerz kiln Stack Test on February 11, 1999 =0.42 lb PM/hr
           Concentration = 0.00148 \text{ gr/scf}
EU1380, Emission Limit = 11 lb PM/hr. B/H Efficiency included in emission factor
           SCC (3-05-006-26) Pneumatic Conveyor Emissions = lb PM/ton x = 0.60 lb PM/hr
EU1390, Emission Limit = lb PM/hr, B/H Efficiency =
           SCC (3-05-016-15) Silo Emissions = lb PM/ton x (1-
                                                                                                                                                                                                                              = 0.15 lb PM/hr
                                                                                                                                                                                                              ) x
EU1400, Emission Limit = lb PM/hr. B/H Efficiency =
           SCC (3-05-016-15) Unloading Emissions = \frac{1}{2} lb PM/ton x (1-
                                                                                                                                                                                                                            ) x
                                                                                                                                                                                                                                                   = 0.29 lb PM/hr
```



SCC (3-05-016-13), (3-05-016-15), (3-05-016-30) and (3-05-016-26) Emissions from Stack Test on 2/12/99 = 0.0005 gr PM/acf, under a gas flow rate of acfm.

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.

Other Regulatory Determinations

None.

Potential to Emit Calculations

The potential to emit calculations are drawn from data in the Missouri Emissions Inventory System from the emission year 2011.

| Pollutant | Potential to Emit (tons/yr) |
|-------------------|-----------------------------|
| PM_{10} | 23,000.00 |
| $PM_{2.5}$ | 1,400.00 |
| SO_x | 14,862.00 |
| NO_x | 31,686.40 |
| VOC | 471.70 |
| CO | 789,352.00 |
| Lead | 0.00 |
| HAP - combined | 43.50 |
| NH ₃ | 0.14 |
| CO ₂ e | 795,877.29 |

Modification OP2013-035A Changes

40 CFR part 51, Subpart BB, Data Requirements For Characterizing Air Quality For Primary SO₂ NAAQS

This regulation allows the installation three options: monitoring, modeling, or accepting a federally enforceable requirement limiting SO₂ emissions to less than 2,000 tons per year. This installation has chosen to take the limitation. The permit condition imposes various methods to demonstrate compliance, based on different groups of emission units. The statement of basis for this regulation is organized by emission unit group as follows:

- 1. Kilns
- 2. Stone dryer
- 3. Emergency Generators
- 4 Small Gas-fired Sources

1. Kilns

In lime kilns, SO₂ emissions are primarily created from the release of fuel bound sulfur during combustion of coal, coke, and natural gas. Combustion is used to heat limestone to a temperature exceeding 1500°F. At this temperature the limestone is calcined and becomes lime. The limestone itself contains small amounts of sulfur. During 2015, the installation collected 751 samples to analyze the sulfur content, with results indicating the sulfur content of the limestone is very consistent over time. Some sulfur may be released from the limestone; however, much remains in the product or is reabsorbed in the lime kiln dust.

The permit condition groups the kilns by type, with varying testing requirements for each type. The statement of basis for these units is organized as follows:

- A. Large preheater rotary kilns
- B. Small preheater rotary kilns
- C. Straight kilns
- D. Vertical kilns
- E. Compliance for the timeline between effective date of regulation and testing date
- F. Operational flexibility

B. Large preheater rotary kilns

The large preheater rotary kilns RK #1 and RK #2 (EU3280 and EU3281), use a coal/coke mixture as the fuel source. These units will monitor the SO₂ emissions using SO₂ CEMS as required under Construction Permit CP122002-007. Because of the presence of the SO₂ CEMS, performance testing or other parametric monitoring is not required to demonstrate compliance with this regulation. The provisions of 40 CFR part 60 Appendix F and 40 CFR part 60 Appendix B Performance Specification 2 are used to ensure proper operation and maintenance of the CEMS units for continuous compliance.

C. Small preheater rotary kilns

The small preheater rotary kilns PRK #4 through 6 (EU0070 through EU0090) use a coal/coke mixture as the fuel source. These units use baghouses to control particulate emissions, however they are not equipped with SO₂ CEMS or SO₂ specific control devices. To quantify emissions from these kilns, initial performance testing is required. These kilns are currently shut down and undergoing permitted modifications. The initial testing requirement for these kilns is 180 days after startup, because startup may not occur within 180 days of the regulation effective date.

Continuous compliance is demonstrated by monitoring the sulfur content of the limestone and fuel source, as well as repeat testing. The re-testing schedule is either every two years or based on variances in monitoring parameters, whichever occurs first.

D. Straight kilns

The straight rotary kilns MRK #5 through #10 (EU0680 through EU0730) use coal/coke mixture as the fuel source. These units use scrubbers to control particulate emissions; however some SO₂ control may be realized by these units as well. Scrubber operation is regulated under 40 CFR Part 63, Subpart AAAA; National Emission Standards for Hazardous Air Pollutants for Lime

Manufacturing Plants. This regulation requires monitoring of the pressure drop and scrubber liquid flow rate to ensure proper scrubber operation.

The installation is currently investigating options to reduce SO_2 emissions from these units including sorbent injection and alternative fuels. To that effect, they have obtained a temporary permit for an alternative fuel trial to investigate the feasibility of low sulfur fuels. This permit condition is written to allow future usage of the sorbent injection if the installation chooses to incorporate it as a permanent function.

To quantify emissions from these kilns, initial performance testing is required. In order to determine if process variability affects SO_2 emissions, the performance test duration has been extended from the typical three one-hour runs to three four-hour runs. If this extended testing shows that SO_2 emissions are stable, the permittee may request the test duration be reduced to three one-hour runs. Currently, the sorbent injection system is not required. However, if the sorbent injection system is used during the performance testing, then operation at that level of performance is mandatory until another source test is conducted.

Continuous compliance is demonstrated by parametric monitoring and subsequent stack testing. The permittee will monitor the sulfur content of the limestone and fuel source, as well as scrubber operating and sorbent injection (if used) operating parameters. The re-testing schedule is either every two years or based on variances in monitoring parameters, whichever occurs first.

E. Vertical kilns

The vertical kilns TSK, and SSK #1 through #3 (EU1370, 2250, 2720, and 2730) use natural gas as the fuel source. These units are not equipped with SO₂ monitors or SO₂ specific control devices. Due to the low and consistent sulfur content of both the fuel source and limestone, emissions testing is not required for these unit. SO₂ emissions will be quantified using a mass balance approach.

<u>F. Compliance for the timeline between effective date of regulation and testing date</u>
The installation may use the testing results to quantify emissions as of the effective date of the regulation as long as documentation is kept to demonstrate that operating parameters were not changed between the effective date and the test date.

G. Operational flexibility

For the kilns required to undergo performance testing, the permit condition creates a variable, F_S, to represent the total sulfur fed per ton of limestone. The purpose is to allow for operational flexibility while maintaining consistency with tested parameters. This value will be initially calculated from tested data, and will be recalculated on a monthly basis. If the monthly value is greater than the value established by testing, retesting is required.

2. Stone dryer

The stone dryer is a dual fueled unit that combusts both natural gas and used fuel oil. The used fuel oil is obtained from on-site activities (i.e. vehicle oil changes, gear box changes, etc.) and is not accepted from off-site or third parties. The stone dryer heats the limestone to drive off moisture. The dryer operates at a temperature well below the boiling point of sulfur (444.7°F), therefore there

are no sulfur emissions expected from the limestone. The sulfur content of the used fuel oil has been analyzed yearly since 2009. The analysis results indicate the sulfur content is less than 0.6 percent sulfur. Due to the consistent and low fuel sulfur content of both natural gas and the used fuel oil, a mass balance approach is used to quantify the SO₂ emissions, and stack testing is not required.

3. Emergency Generators

There are 5 diesel fired units (EU0071, 0721, 1371, 3281, and 3311) and 1 natural gas fired unit (EU9999). Four of the diesel units (EU0071, 1371, 3281, and 3311) are subject to 40 CFR part 63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, which contains a requirement to use fuel with a maximum sulfur content of 0.0015%. A permit condition has been added to this permit for 40 CFR part 63 Subpart ZZZZ. SO₂ emissions from these units will be calculated by mass balance.

One diesel unit (EU0721) and the natural gas fired unit (EU9999) are subject to 40 CFR part 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. This subpart contains a requirement to use diesel with a maximum sulfur content of 0.0015%. A permit condition has been added to this permit for 40 CFR part 60 Subpart IIII. SO₂ emissions from these units will be calculated by mass balance.

4. Small Gas-fired Sources

- A. Other Natural Gas fired emission units. The three groups below are possible due to metering placement. SO₂ emissions for these units will be calculated by mass balance:
 - a. EP-225B and EP-229B account for the natural gas combustion for the MRPCC#1 and #2 processes
 - b. EP-246 contains the plant space heaters and furnaces
 - c. EP-247 contains the plant water heaters.
- B. Emission units listed in the issued permit but not contained under this limitation and/or changes to the originally permitted equipment
 - a. The following units have been removed:
 - i. INS-068C Emergency generator, PRK1-3
 - ii. EU0620 Spray dryer (EP146A and 146B)
 - iii. EU1920 Tunnel Dryer 32 (EP148A and B)
 - b. The permit lists EP-187S, Emergency generator MRK9&10, as a Detroit/Marathon engine with an installation date of 1984. In 2015, this engine was replaced by a Cummins engine. This engine is subject to 40 CFR part 60 Subpart IIII and is listed in the permit condition.
 - c. S-141 Emergency generator was removed from site.
 - d. The following units are considered non-road as defined in 40 CFR part 89 and are therefore not regulated as stationary sources according to CAA Section 302.
 - i. S-59 water pump
 - ii. S-89 water pump
 - iii. S-63 water pump
 - iv. S-128 water pump
 - v. S-148 water pump
 - vi. S-151 water pump
 - vii. S-177 water pump

viii. EP-261 conveyor diesel engine

Applicability of 10 CSR 10-6.261, Control of Sulfur Dioxide Emissions Natural gas fired units are exempt from this regulation per 6.261(1)(A). Individual units subject to a more stringent sulfur content limit established by a federally enforceable permit condition are exempt per 6.261(1)(C). All the diesel fuel fired units meet this exemption by complying with the fuel sulfur requirements in 40 CFR part 63 Subpart ZZZZ and 40 CFR part 60 Subparts IIII. The coal/coke fired kilns do not have an applicable emission limitation or work practice standard.

Therefore, these units are not subject to this rule. The dual fuel stone dryer is subject to the provisions for liquid fuels found in (3)(C).

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

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

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

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

| Prepared by: |
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| Nicole Weidenbenner, PE |
| Environmental Engineer |

Response to Public Comments

A draft of a significant modification to the Part 70 Operating Permit for Mississippi Lime Company was placed on public notice August 12, 2016. The United States Environmental Protection Agency Region 7 (EPA) submitted comments on August 18, 2016. The comments are addressed in the order in which they appear within the letter(s).

Comment #1 (summarized): Permit Condition PW002 (40 CFR Part 51, Subpart BB; Data Requirements for Characterizing Air Quality for Primary SO₂ NAAQS) establishes a facility wide limit of 2,000 tons per calendar year starting in 2017 and thereafter, for sulfur dioxide (SO₂). EPA is concerned that a monthly calculation and rolling frequency, as proposed, is not sufficient to assure the facility remains in compliance with the emission limit. EPA recommends that the permittee and MDNR strongly consider a frequency of weekly emission and 12-month rolling total determination to verify compliance. In addition, since the purpose of this limit is to avoid either the modeling or monitoring requirements of the regulation, if at any time in the future this limit is modified or relaxed, EPA's expectation is that facility emissions will be evaluated by an air quality impacts analysis and/or ambient air monitoring pursuant to the requirements of Missouri's SIP.

Response to Comment #1: The permit condition requires monthly calculation and rolling frequency, which is a time period used as standard practice. Increasing the frequency to weekly would place a significant compliance burden on the permittee, requiring contract re-negotiations with fuel providers, installation of private gas meters in lieu of using the monthly gas usage from the provider, as well as reworking of accounting and quality assurance procedures. If sampling is done on a weekly basis, there is a several week lag due to laboratory analysis and the time required to conduct various quality assurance processes at the installation.

The permittee plans to comply with the limitation by adding controls to curtail emissions, with only modest reductions on a limited number of units needed for compliance. There is no plan to curtail actual operations. For the largest emitting units, the Straight Rotary Kilns (EU0680 through 0730), the permittee plans to use sorbent injection by adding a calcium based sorbent to the scrubber water. Part of the permittee's business is providing this same technology and expertise to electric utility and industrial operations, through their Flue Gas Treatment product line. The permittee plans on applying their in-house expertise and product to reduce their own emissions. Additionally, the permit contains robust monitoring for all affected units as well as both initial and continual testing requirements for the largest emitting units to ensure compliance with the limitation.

Based on these factors, MDNR has determined that a monthly calculation and rolling total is appropriate to demonstrate compliance with the limitation. Therefore, no changes were made to the permit in response to this comment.

Regarding EPA's concern about future actions, the permittee and MDNR will act in accordance with the SIP.

Comment #2 (summarized): Permit Condition PW002, Initial Performance Testing requirement 3, requires the permittee to quantify the sulfur emissions from the outlet of the unit. It is unclear to EPA as to which unit(s) require(s) initial performance testing and it seems to be more appropriate to quantify the sulfur dioxide (SO₂). EPA recommends MDNR provide additional specificity as to which unit(s) require initial performance testing. Also, Initial Performance Testing requirement 3 allows the permittee to seek an alternative test method and sampling times as approved by the Program. EPA suggests the term Director may be applicable and encourages MDNR consider Director in lieu of Program. Additionally, there are two formulas included in Monitoring requirement 3 (Unit Specific Requirements) and the explanation of terms used in these formulas is confusing. Therefore EPA suggest MDNR add clarification to the explanation of the terms.

Response to Comment #2: Permit Condition PW002, Table 1 details which units are required to undergo performance testing. The permit specifies that emissions will be quantified using EPA Method 6, *Determination of Sulfur Dioxide Emissions From Stationary Sources (Instrumental Analyzer Procedure)*. Since this method quantifies the pollutant subject to the emission limit (SO₂), no changes were made to the permit.

The suggested change of Director in lieu of Program was incorporated into the permit.

The two formulas in Monitoring requirement 3 are used to establish the mass balance approach for determining the SO₂ emissions from the Vertical Kilns (see 3.d.) and various other natural gas fired units (see 3.e.). In each of these equations, the mass and sulfur content are defined as M and S, respectively. The different components for which M and S are required (fuel, limestone, lime kiln dust, etc.) are provided in subscripts. The X variable used in the definitions is simply a placeholder to show the different subscripts. No changes were made to the permit.

Comment #3 (summarized): Permit Condition (EU0721 through EU9999)-001 and Permit Condition (EU0071 through EU3311)-001 incorporates the following regulations, as applicable: 40 CFR part 63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants: Stationary Reciprocating Internal Combustion Engines and/or 40 CFR part 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. It appears that MDNR is attempting to streamline permitting through incorporating by reference many of the applicable requirements of these regulations. EPA strongly encourages MDNR to include the applicable emission standards, operational standards, compliance, monitoring, record keeping, and reporting tasks, as specific detailed requirements in these permit conditions.

Response to Comment #3: The referenced permit conditions have been modified to include the specific detailed requirements for emission standards, operational standards, compliance, monitoring, record keeping, and reporting.



Jeremiah W. (Jay) Nixon, Governor • Harry D. Bozoian, Director

T OF NATURAL RESOURCES

dnr.mo.gov

NOV 0 2 2016

Mr. Terry Zerr Mississippi Lime Company 16147 US Highway 61 Ste. Genevieve, MO 63670

Re:

Mississippi Lime Company, 186-0001

Permit Number: OP2013-035A

Dear Mr. Zerr:

Enclosed with this letter is your modified Part 70 operating permit. This modification primarily acts to limit emissions of sulfur dioxide to a rate not to exceed 2,000 tons in any calendar year. Please review this document carefully. Operation of your installation in accordance with the rules and regulations cited in this document is necessary for continued compliance. It is very important that you read and understand the requirements contained in your permit.

This permit may include requirements with which you may not be familiar. If you would like the department to meet with you to discuss how to understand and satisfy the requirements contained in this permit, an appointment referred to as a Compliance Assistance Visit (CAV) can be set up with you. To request a CAV, please contact your local regional office or fill out an online request. The regional office contact information can be found at http://dnr.mo.gov/regions/. The online CAV request can be found at http://dnr.mo.gov/cav/compliance.htm.

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

If you have any questions or need additional information regarding this permit, please contact the Air Pollution Control Program (APCP) at (573) 751-4817, or you may write to the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

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

MJS:nwj

Enclosures

c: PAMS File: 2016-03-080 and 2016-03-081

