

Matt Blunt, Governor • Doyle Childers, Director

DEPARTMENT OF NATURAL RESOURCES

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MAY 10 2007

Mr. Bruce Hamilton
Sr. Environmental Engineer
ANH Refractories Company
Cherrington Corporate Center
400 Fairway Drive
Moon Township, PA 15108

Re: Harbison-Walker Refractories Co., 007-0003
Permit Number: **OP2007-012**

Dear Mr. Hamilton:

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

If you have any questions or need additional information regarding this permit, please contact Slawomir Szydlo at (573) 751-4817 or write the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102. Thank you for your time and attention to this matter.

Sincerely,

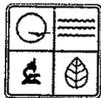
AIR POLLUTION CONTROL PROGRAM


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

MJS: ssk

Enclosure

c: Ms. Tamara Freeman, U.S. EPA Region VII
Mr. Michael Schalk, Harbison-Walker Refractories Co.
Northeast Regional Office
PAMS File: 2005-11-045



INTERMEDIATE STATE PERMIT TO OPERATE

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

Intermediate Operating Permit Number: OP2007-012
Expiration Date: MAY - 9 2012
Installation ID: 007-0003
Project Number: 2005-11-045

Installation Name and Address

Harbison-Walker Refractories Co.
Booker Street
P.O. Box 29
Vandalia, MO 63382
Audrain County

Parent Company's Name and Address

Harbison-Walker Refractories Co.
400 Fairway Drive
Moon Township, PA 15108

Installation Description:

Harbison-Walker operates a refractory manufacturing operation in Vandalia, Missouri.

MAY 10 2007

Effective Date

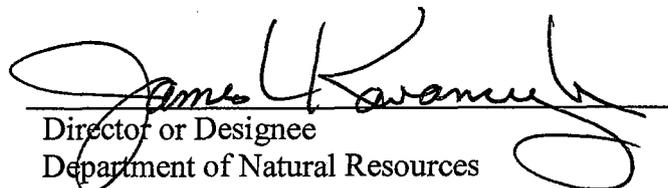

Director or Designee
Department of Natural Resources

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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

Reported Air Pollutant Emissions, tons per year							
Year	Particulate Matter ≤ Ten Microns (PM-10)	Sulfur Oxides (SO _x)	Nitrogen Oxides (NO _x)	Volatile Organic Compounds (VOC)	Carbon Monoxide (CO)	Lead (Pb)	Hazardous Air Pollutants (HAPs)
2005	12.26	14.95	8.60	0.95	21.31	-	4.56
2004	13.43	16.80	7.73	0.84	23.94	-	2.54
2003	13.53	14.39	20.01	1.23	20.98	-	1.25
2002	8.65	6.98	4.86	0.41	10.77	-	1.22
2001	7.68	4.50	3.48	0.35	7.51	-	0.09
2000	9.93	4.73	4.32	0.47	9.01	-	0.09

EMISSION UNITS WITH LIMITATIONS

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

Emission Unit #	Description of Emission Unit	
EU0001	#2 Tunnel Kiln	EP-B
EU0002	#3 Tunnel Kiln	EP-C
EU0003	#4 Tunnel Kiln	EP-D
EU0004	#5 Periodic Kiln	EP-E
EU0005	Bickley Bell Kiln	EP-K
EU0006	Lab Test Kiln	EP-Q
EU0007	Bickley Shuttle Kiln	EP-S
EU0008	East Pallet Dryer	EP-F
EU0009	#3 Tunnel Kiln Double Dryer	EP-H
EU0010	South Tunnel Dryer	EP-M
EU0011	Tunnel Dryer (Compartment 1 of 2)	EP-N-1
EU0012	Tunnel Dryer (Compartment 2 of 2)	EP-N-2
EU0013	East Chemical Bond Dryer	EP-O
EU0014	West Chemical Bond Dryer	EP-P
EU0015	Sec. 41 Shipping Dryer	EP-R
EU0016	#1 Mixer Eirich DE-22	EP-DC-46
EU0017	#2 Mixer Eirich DE-22	EP-DC-47
EU0018	#3 Mixer Eirich DEV-22	EP-DC-48
EU0019	#4 Mixer Eirich DEV-22	EP-DC-49
EU0020	#5 Mixer Eirich DEV-22	EP-DC-50
EU0021	#6 Mixer Eirich DE-22	EP-DC-51
EU0022	#7 Mixer Eirich DE-18	EP-DC-52
EU0023	Wet and Dry Mortars Batching and Mixing (#1 Mortar Mixer)	EP-DC-19
EU0024	Wet and Dry Mortars Batching And Mixing (#2 Mortar Mixer)	EP-DC-20

<u>Emission Unit #</u>	<u>Description of Emission Unit</u>	<u>Emission Point #</u>
EU0025	Plastics Batching and Mixing	EP-DC-21
EU0026	Tote Can Sack Breaking	EP-DC-27
EU0027	Tote Can Bulk Bag	EP-DC-28
EU0028	Weigh Scales #5 - #8	EP-DC-30
EU0029	Weigh Scales #1 - #4	EP-DC-36
EU0030	Automated Batching 10 Station	EP-DC-44
EU0031	Ball Milling and Screening	EP-DC-38
EU0032	Ground Material Bins: Conveying	EP-DC-11
EU0033	Ground Material Bins: Milling	EP-DC-11
EU0034	Barmac Crushing and Screening System: Crushing	EP-DC-45
EU0035	Barmac Crushing and Screening System: Screening	EP-DC-45
EU0036	Barmac Crushing and Screening System: Conveying	EP-DC-45
EU0037	Monoliths Process: Automatic Batch Station	EU-DC-55A
EU0038	Monoliths Process: Tote Can Fill Station	EU-DC-55B
EU0039	Monoliths: Zirconia Mixer	EU-DC-54
EU0040	Monoliths Process: Ribbon Mixer and Sacking	EU-DC-56
EU0041	Monoliths: Belt Conveyor and Feed Hopper	EU-DC-57
EU0042	Monoliths: Bagger	EU-DC-58
EU0043	Monoliths: Storage Bin	EU-DC-59
EU0044	Monoliths: Storage Bin	EU-DC-60
EU0045	Silica Refractories Materials Process: Visil Mixing/Weighing	EP-DC-53
EU0046	Barmac Crusher Feed Conveying System	EU-DC-61
EU0047	Rotary Dryer	EP-L
EU0048	Semco Material Unloading System	EP-DC-01
EU0049	Silo #3 Vent (M & D Ball Clay)	EP-DC-02
EU0050	Silo #4 Vent (Kentucky #6 Dark)	EP-DC-03
EU0051	Silo #1 Vent (Lumnite Cement)	EP-DC-04
EU0052	Silo #2 Vent (Potters Flint)	EP-DC-05
EU0053	Silo #6 Vent (Gleason Ball Clay)	EP-DC-06
EU0054	Silo #5 Vent (A2)	EP-DC-07
EU0055	Silo #7 Vent (A2)	EP-DC-08
EU0056	Nordberg Bauxite System, Dry Pan Process & Plastics Manufacturing	EP-DC-09
EU0057	Milling Process	EP-DC-10
EU0058	Dried Raw Material Wall Belt System	EP-DC-12
EU0059	T-64 Nordberg Crushing System	EP-DC-13
EU0060	Raw Material Bin System	EP-DC-14
EU0061	North and South Pan Screening	EP-DC-15

EU0062	North and South Pan Grinding	EP-DC-15
EU0063	Materials Mixing: #3 Mixer	EP-DC-16
EU0064	Materials Mixing: #4 Mixer	EP-DC-17
EU0065	Materials Mixing: #5 Mixer	EP-DC-18
EU0066	D-1 Bin Vent (Kyanite 100 mesh)	EP-DC-22
EU0067	D-1 A-2 Bin Vent	EP-DC-23
EU0068	D-3 M&D Bin Vent	EP-DC-24
EU0069	A-4 A-2 Bin Vent	EP-DC-25
EU0070	A-5 Kentucky #6 Dark Bin Vent	EP-DC-26
EU0071	S.G. Screening - Transfer	EP-DC-29
EU0072	S.G. Screening - Crushing	EP-DC-29
EU0073	S.G. Screening - Screening	EP-DC-29
EU0074	S.G. Bin Vent (T-61)	EP-DC-31
EU0075	S.G. Bin Vent 2 (T-61)	EP-DC-32
EU0076	Taphole Mixing/Weighing	EP-DC-33
EU0077	Mold Making Wood Shop	EP-DC-34
EU0078	A-4 Fillite Mix Bin	EP-DC-35
EU0079	TRP Taphole Mixing	EP-DC-37
EU0080	HB 50 Ton Bin	EP-DC-39
EU0081	A-5 Gleason Bin	EP-DC-40
EU0082	East Kiln Car Vacuum System	EP-DC-41
EU0083	Shipping Grinding Room	EP-DC-42
EU0084	West Kiln Car Vacuum System	EP-DC-43

EMISSION UNITS WITHOUT LIMITATIONS

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

Description of Emission Source

T-08	NXP-Lignin Liquor Tank Aqueous Dispersion; Capacity 10,000 gallons
T-09	Methylnaphthalene Fraction #5 Storage Tank; Capacity 15,000 gallons
T-10	Methylnaphthalene Fraction #2 Storage Tank; Capacity 12,000 gallons
T-11	Sodium Silicate Storage Tank; Capacity 10,000 gallons
T-12	Ethylene Glycol Storage Tank; Capacity 5,000 gallons
T-13	Phosphoric Acid Storage Tank; Capacity 12,000 gallons
T-14	Monoaluminum Phosphate Solution Storage Tank; Capacity 4,000 gallons
T-15	Monoaluminum Phosphate Solution Storage Tank; Capacity 4,000 gallons
T-16	Propane Storage Tank; Capacity 1,000 gallons
T-17	B-500X Brick Release Oil Storage Tank; Capacity 4,000 gallons
T-18	B-500X Brick Release Oil Storage Tank; Capacity 4,000 gallons
T-19	Diesel Fuel Tank; Capacity 1,000 gallons
T-20	Diesel Fuel Tank; Capacity 500 gallons
T-23	Waste Oil Tank; Capacity 500 gallons
T-24	Waste Oil Tank; Capacity 500 gallons
T-25	Waste Oil Tank; Capacity 500 gallons
T-26	Waste Oil Tank; Capacity 500 gallons
T-27	Waste Oil Tank; Capacity 500 gallons
T-28	Waste Oil Tank; Capacity 500 gallons

- T-29 B-500X Brick Release Oil Tank; Capacity 500 gallons
- T-30 Tall Oil Tank; Capacity 8,000 gallons
- T-31 RL-2395 Liquid Phenolic Resin Tank; Capacity 500 gallons
- T-32 RL-779A Liquid Phenolic Resin Tank; Capacity 500 gallons
- T-37 RL-2395 Liquid Phenolic Resin Tank; Capacity 9,500 gallons

DOCUMENTS INCORPORATED BY REFERENCE

These documents have been incorporated by reference into this permit.

- 1) Construction Permit Number 0678-002, issued November 21, 1977
- 2) Construction Permit Number 0581-014A, issued March 26, 1981
- 3) Construction Permit Number 1296-009, issued November 12, 1996
- 4) Construction Permit Number 0199-015, issued December 30, 1998
- 5) Construction Permit Number 0699-029, issued May 24, 1999
- 6) Construction Permit Number 082000-008, issued July 28, 2000
- 7) Construction Permit Number 032001-007, issued January 23, 2001

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 10-6.065(2)(C) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s)

Emission Limitation:

The permittee shall discharge into the atmosphere from the entire installation less than 25 tons of hazardous air pollutants (HAPs) in aggregate during any consecutive 12-month period.

Monitoring/Recordkeeping:

- 1) The permittee shall maintain an accurate record of emissions of aggregate HAPs emitted into the atmosphere from this installation. The permittee shall record the monthly aggregate HAP emissions with a consecutive 12-month total. The permittee shall use Attachment A (Aggregate HAPs Emissions Tracking Record) or an equivalent form for this purpose.
- 2) The permittee shall maintain these records on site for the most recent 60 months.
- 3) The permittee shall immediately make such records available to any Department of Natural Resources personnel upon request.

Reporting:

The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month, if the consecutive 12-month total records show that the source exceeded the limitation of 25 tons of aggregate HAP emissions.

PERMIT CONDITION PW002

10 CSR 10-6.065(2)(C) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s)

Emission Limitation:

The permittee shall discharge into the atmosphere from the entire installation less than 10 tons of any individual hazardous air pollutant (HAP) during any consecutive 12-month period.

Monitoring/Recordkeeping:

- 1) The permittee shall maintain an accurate record of emissions of individual HAPs emitted into the atmosphere from this installation. The permittee shall record the monthly individual HAP emissions with a consecutive 12-month total. The permittee shall use Attachment B (Individual HAPs Emissions Tracking Record) or an equivalent form for this purpose.
- 2) The permittee shall maintain these records on site for the most recent 60 months.
- 3) The permittee shall immediately make such records available to any Department of Natural Resources personnel upon request.

Reporting:

The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month, if the consecutive 12-month total records show that the source exceeded the limitation of 10 tons of individual HAP emissions.

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.

Emission Unit	Description	2004 EIQ Reference #
EU0001	#2 Tunnel Kiln: Natural gas fired tunnel kiln; Maximum Hourly Design Rate (MHDR) = 50 MMBtu/hr; Installed 1929	EP-B
EU0002	#3 Tunnel Kiln: Natural gas fired tunnel kiln; Maximum Hourly Design Rate (MHDR) = 50 MMBtu/hr; Installed 1951	EP-C
EU0003	#4 Tunnel Kiln: Natural gas fired tunnel kiln; Maximum Hourly Design Rate (MHDR) = 40 MMBtu/hr; Installed 1957	EP-D
EU0004	#5 Periodic Kiln: Natural gas fired periodic kiln; Maximum Hourly Design Rate (MHDR) = 10 MMBtu/hr; Installed 1965	EP-E
EU0005	Bickley Bell Kiln: Natural gas fired periodic kiln; Maximum Hourly Design Rate (MHDR) = 6 MMBtu/hr; Installed 1969	EP-K
EU0006	Lab Test Kiln: Natural gas fired periodic kiln; Maximum Hourly Design Rate (MHDR) = 2 MMBtu/hr; Installed 1955	EP-Q
EU0007	Bickley Shuttle Kiln: Natural gas fired periodic kiln; Maximum Hourly Design Rate (MHDR) = 20 MMBtu/hr; Installed 1984	EP-S

PERMIT CONDITION (EU0001 through EU0007)-001
 10 CSR 10-6.065(2)(C) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s)

Operational Limitations:

- 1) The permittee shall limit the raw clay used in fired refractory shapes to 46,000 tons in any consecutive 12-month period to control hydrogen fluoride and hydrogen chloride emissions.
- 2) The permittee shall limit chromium compounds used in kiln fired refractory shapes for all kilns to 40,000 tons in any consecutive 12-month period expressed as chromic oxide (Cr₂O₃).

Monitoring/Recordkeeping:

- 1) The permittee shall maintain an accurate record of raw clay used in kiln fired refractory shapes from this installation. The permittee shall record the monthly raw clay used with a consecutive 12-month total. The permittee shall use Attachment C (Materials Tracking Record) or an equivalent form for this purpose.
- 2) The permittee shall maintain an accurate record of chromic oxide equivalent fired in all kilns from this installation. The permittee shall record the monthly chromic oxide equivalent fired with a consecutive 12-month total. The permittee shall use Attachment C (Materials Tracking Record) or an equivalent form for this purpose.
- 3) The permittee shall maintain these records on site for the most recent 60 months.
- 4) The permittee shall immediately make such records available to any Department of Natural Resources personnel upon request.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month, if the consecutive 12-month total records show that the source exceeded the limitation 46,000 tons of raw clay used in fired refractory shapes.
- 2) The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month, if the consecutive 12-month total records show that the source exceeded the limitation of 40,000 tons of chromium compounds used in kiln fired refractory shapes for all kilns.

PERMIT CONDITION (EU0001 through EU0007)-002

10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit to be discharged into the atmosphere from any source any visible emissions with an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any sixty (60) minutes air contaminants with an opacity up to 40%.

Monitoring:

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

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

Reporting:

1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.

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

PERMIT CONDITION (EU0001 through EU0007)-003

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 EU0001 through EU0007 in excess of the following emission rates in lbs/hr:

Emission Unit	Allowable Emission Rate (lb/hr)
EU0001	11.65
EU0002	9.67
EU0003	9.67
EU0004	0.47
EU0005	0.75
EU0006	0.55
EU0007	3.88

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

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:

- 1) The permittee shall retain the potential to emit calculations in Attachment G which demonstrate that the above emission limitations will not be exceeded.
- 2) The calculation shall be made available immediately for inspection by Department of Natural Resources' personnel upon request.
- 3) All records shall be kept for a period of five years.

Reporting:

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

Emission Unit	Description	2003 EIQ Reference #
EU0008	East Pallet Dryer: Natural gas fired shapes dryer; Maximum Hourly Design Capacity (MHDR) = 1.05 MMBtu/hr; Installed 1973	EP-F
EU0009	#3 Tunnel Kiln Double Dryer: Natural gas fired shapes dryer; Maximum Hourly Design Capacity (MHDR) = 4.20 MMBtu/hr; Installed 1951	EP-H
EU0010	South Tunnel Dryer: Natural gas fired tunnel dryer; Maximum Hourly Design Capacity (MHDR) = 1.00 MMBtu/hr; Installed 1951	EP-M
EU0011	Tunnel Dryer (Compartment 1 of 2): Natural gas fired tunnel dryer; Maximum Hourly Design Capacity (MHDR) = 1.72 MMBtu/hr; Unknown installation date	EP-N-1
EU0012	Tunnel Dryer (Compartment 2 of 2): Natural gas fired tunnel dryer; Maximum Hourly Design Capacity (MHDR) = 1.72 MMBtu/hr; Unknown installation date	EP-N-2
EU0013	East Chemical Bond Dryer: Natural gas fire dryer; Maximum Hourly Design Capacity (MHDR) = 1.05 MMBtu/hr; Installed 1967	EP-O
EU0014	West Chemical Bond Dryer: Natural gas fire dryer; Maximum Hourly Design Capacity (MHDR) = 1.05 MMBtu/hr; Installed 1973	EP-P
EU0015	Sec. 41 Shipping Dryer: Natural gas fire dryer; Maximum Hourly Design Capacity (MHDR) = 0.25 MMBtu/hr; Installed 1969	EP-R

PERMIT CONDITION (EU0008 through EU0015)-001

10 CSR 10-6.065(2)(C) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s)

Operational Limitations:

The permittee shall limit chromium compounds used in refractory shapes dryers for all shapes dryers to 61,800 tons in any consecutive 12-month period expressed as chromic oxide.

Monitoring/Recordkeeping:

The permittee shall maintain an accurate record of chromic oxide equivalent dried in all shapes dryers from this installation. The permittee shall record the monthly chromic oxide equivalent dried with a consecutive 12-month total. The permittee shall use Attachment C (Materials Tracking Record) or an equivalent form for this purpose.

- 1) The permittee shall maintain these records on site for the most recent 60 months.
- 2) The permittee shall immediately make such records available to any Department of Natural Resources personnel upon request.

Reporting:

The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month, if the consecutive 12-month total records show that the source exceeded the limitation 61,800 tons of chromium compounds used in refractory shapes dryers for all shapes dryers.

PERMIT CONDITION (EU0008 through EU0015)-002

10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit to be discharged into the atmosphere from any source any visible emissions with an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any sixty (60) minutes air contaminants with an opacity up to 40%.

Monitoring:

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

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

Reporting:

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

PERMIT CONDITION (EU0008 through EU0015)-003
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 EU0008 through EU0015 in excess of the following emission rates in lbs/hr:

Emission Unit	Allowable Emission Rate (lb/hr)
EU0008	2.47
EU0009	7.57
EU0010	9.67
EU0011	9.38
EU0012	0.064
EU0013	11.23
EU0014	11.23
EU0015	11.23

- 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

- 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:

- 1) The permittee shall retain the potential to emit calculations in Attachment G which demonstrate that the above emission limitations will not be exceeded.
- 2) The calculation shall be made available immediately for inspection by Department of Natural Resources' personnel upon request.
- 3) All records shall be kept for a period of five years.

Reporting:

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

EU0016 through EU0022 – REFRACTORY SHAPES MIXERS			
Emission Unit	Description	Manufacturer/Model #	2003 EIQ Reference #
EU0016	#1 Mixer; Batch dump system and mixer; Maximum Hourly Design Rate (MHDR) – 6.00 ton/hr; Installed 1999	Eirich DE-22	EP-DC-46
EU0017	#2 Mixer; Batch dump system and mixer; Maximum Hourly Design Rate (MHDR) – 6.00 ton/hr; Installed 1999	Eirich DE-22	EP-DC-47
EU0018	#3 Mixer; Batch dump system and mixer; Maximum Hourly Design Rate (MHDR) – 6.00 ton/hr; Installed 1999	Eirich DEV-22	EP-DC-48
EU0019	#4 Mixer; Batch dump system and mixer; Maximum Hourly Design Rate (MHDR) – 6.00 ton/hr; Installed 1999	Eirich DEV-22	EP-DC-49
EU0020	#5 Mixer; Batch dump system and mixer; Maximum Hourly Design Rate (MHDR) – 6.00 ton/hr; Installed 1999	Eirich DEV-22	EP-DC-50
EU0021	#6 Mixer; Batch dump system and mixer; Maximum Hourly Design Rate (MHDR) – 6.00 ton/hr; Installed 1999	Eirich DE-22	EP-DC-51
EU0022	#7 Mixer; Batch dump system and mixer; Maximum Hourly Design Rate (MHDR) – 6.00 ton/hr; Installed 1999	Eirich DE-18	EP-DC-52

PERMIT CONDITION (EU0016 through EU0022)-001
 10 CSR 10-6.065(2)(C) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s)

Operational Limitations:

The permittee shall limit chromium compounds used in mixers that process refractory shapes mixes to 128,800 tons in any consecutive 12-month period expressed as chromic oxide (Cr₂O₃).

Monitoring/Recordkeeping:

- 1) The permittee shall maintain an accurate record of chromic oxide equivalent mixed in all refractory shapes mixers from this installation. The permittee shall record the monthly chromic oxide equivalent mixed with a consecutive 12-month total. The permittee shall use Attachment C (Materials Tracking Record) or an equivalent form for this purpose.
- 2) The permittee shall maintain these records on site for the most recent 60 months.
- 3) The permittee shall immediately make such records available to any Department of Natural Resources personnel upon request.

Reporting:

When the consecutive 12-month total records show that the source exceeded the limitation of 128,800 tons of chromium compounds, expressed as chromic oxide (Cr₂O₃), used in mixers that process refractory shapes mixes, the permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month,

PERMIT CONDITION (EU0016 through EU0022)-002

10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit to be discharged into the atmosphere from any source any visible emissions with an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any sixty (60) minutes air contaminants with an opacity up to 40%.

Monitoring:

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

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

Reporting:

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

PERMIT CONDITION (EU0016 through EU0022)-003
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 EU0016 through EU0022 in excess of the following emission rates in lbs/hr:

Emission Unit	Allowable Emission Rate (lb/hr)
EU0016	13.62
EU0017	13.62
EU0018	13.62
EU0019	13.62
EU0020	13.62
EU0021	13.62
EU0022	13.62

- 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

- 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:

- 1) The permittee shall retain the potential to emit calculations in Attachment G which demonstrate that the above emission limitations will not be exceeded.
- 2) The calculation shall be made available immediately for inspection by Department of Natural Resources' personnel upon request.
- 3) All records shall be kept for a period of five years.

Reporting:

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

PERMIT CONDITION (EU0016 through EU0022)-004
10 CSR 10-6.060 Construction Permits Required
Construction Permit Number 0199-015, Issued December 30, 1998

Operational Standard:

- 1) The permittee shall operate baghouses DC-46 and DC-52 at all times when the associated processes are in operation. The baghouses shall be operated and maintained in accordance with the manufacturer's specifications.
- 2) The baghouses shall be equipped with a gauge or meter which indicates the pressure drop across the baghouses. This gauge or meter shall be located such that it may be easily observed by the Department of Natural Resources' employees.
- 3) The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.

- 4) Replacement bags 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).

Monitoring/Recordkeeping:

- 1) The permittee shall monitor and record the operating pressure drop across the baghouses at least once every twenty-four hours.
- 2) The permittee shall maintain an operating and maintenance log for the baghouses which shall include the following:
 - a) incidents of malfunction, with impact on emissions, duration of event, probable cause and corrective actions; and
 - b) maintenance activities, with inspection schedule, repair actions and replacements

Reporting:

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

EU0023 through EU0024 – MORTAR MIXERS			
Emission Unit	Description	Manufacturer/ Model #	2003 EIQ Reference #
EU0023	Wet and Dry Mortars Batching and Mixing (#1 Mortar Mixer): 3- "A" vibrating and 2- "A" screw conveyors, auger feeder, 3- "B" vibrating and 2- "B" screw conveyors, 2- weigh hoppers (A & B), C-1 and C-2 vibrating conveyors, bag dump station, skip hoist with tilt hopper, surge hopper and mixer; Maximum Hourly Design Rate (MHDR) = 6.0 tons/hr; Installed 1968	Lancaster	EP-DC-19
EU0024	Wet and Dry Mortars Batching And Mixing (#2 Mortar Mixer): Smith #2 dry mixer, skip hoist, blended bin and sacker; Maximum Hourly Design Rate (MHDR) = 6.0 tons/hr; Installed 1970	T.L. Smith	EP-DC-20

PERMIT CONDITION (EU0023 through EU0024)-001
10 CSR 10-6.065(2)(C) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s)

Operational Limitation:

The permittee shall limit chromium compounds used in refractory mortars mixes to 36,800 tons in any consecutive 12-month period expressed as chromic oxide (Cr₂O₃).

Monitoring/Recordkeeping:

- 1) The permittee shall maintain an accurate record of chromic oxide equivalent used in refractory mortars mixes from this installation. The permittee shall record the monthly chromic oxide equivalent used with a consecutive 12-month total. The permittee shall use Attachment C (Materials Tracking Record) or an equivalent form for this purpose.
- 2) The permittee shall maintain these records on site for the most recent 60 months.
- 3) The permittee shall immediately make such records available to any Department of Natural Resources personnel upon request.

Reporting:

The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month, if the consecutive 12-month total records show that the source exceeded the limitation of 36,800 tons of chromium compounds used in refractory mortars mixes.

PERMIT CONDITION (EU0023 through EU0024)-002

10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit to be discharged into the atmosphere from any source any visible emissions with an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any sixty (60) minutes air contaminants with an opacity up to 40%.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit using the procedures contained in USEPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant

emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.

- 2) The following monitoring schedule must be maintained:
 - a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two (2) weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made once per month. 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:

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

Reporting:

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

PERMIT CONDITION (EU0023 through EU0024)-003

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 EU0023 through EU0024 in excess of the following emission rates in lbs/hr:

Emission Unit	Allowable Emission Rate (lb/hr)
EU0023	13.6
EU0024	13.6

- 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

- 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:

- 1) The permittee shall retain the potential to emit calculations in Attachment G which demonstrate that the above emission limitations will not be exceeded.
- 2) The calculation shall be made available immediately for inspection by Department of Natural Resources' personnel upon request.
- 3) All records shall be kept for a period of five years.

Reporting:

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

EU0025 – REFRACTORY PLASTICS MIXER			
Emission Unit	Description	Manufacturer/Model #	2003 EIQ Reference #
EU0025	Plastics Batching and Mixing; Maximum Hourly Design Rate (MHDR) = 8.00 ton/hr; Installed 1966	Clearfield mixer #99C	EP-DC-21

PERMIT CONDITION EU0025-001

10 CSR 10-6.065(2)(C) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s)

Operational Limitations:

The permittee shall limit chromium compounds used in refractory plastics mixes to 24,500 tons in any consecutive 12-month period expressed as chromic oxide (Cr₂O₃).

Monitoring/Recordkeeping:

- 1) The permittee shall maintain an accurate record of chromic oxide equivalent used in refractory plastics mixes from this installation. The permittee shall record the monthly chromic oxide equivalent used with a consecutive 12-month total. The permittee shall use Attachment C (Materials Tracking Record) or an equivalent form for this purpose.
- 2) The permittee shall maintain these records on site for the most recent 60 months.
- 3) The permittee shall immediately make such records available to any Department of Natural Resources personnel upon request.

Reporting:

The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month, if the consecutive 12-month total records show that the source exceeded the limitation of 24,500 tons of chromium compounds used in refractory plastics mixes.

PERMIT CONDITION EU0025-002

10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit to be discharged into the atmosphere from any source any visible emissions with an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any sixty (60) minutes air contaminants with an opacity up to 40%.

Monitoring:

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

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

Reporting:

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

PERMIT CONDITION EU0025-003

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 EU0025 in excess of the 16.51 lbs/hr.
 - 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

- 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:

- 1) The permittee shall retain the potential to emit calculations in Attachment G which demonstrate that the above emission limitations will not be exceeded.
- 2) The calculation shall be made available immediately for inspection by Department of Natural Resources' personnel upon request.
- 3) All records shall be kept for a period of five years.

Reporting:

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

Emission Unit	Description	2003 EIQ Reference #
EU0026	Tote Can Sack Breaking; Maximum Hourly Design Rate (MHDR) = 3.00 ton/hr; Unknown installation date	EP-DC-27
EU0027	Tote Can Bulk Bag; Maximum Hourly Design Rate (MHDR) = 6.00 ton/hr; Unknown installation date	EP-DC-28

PERMIT CONDITION (EU0026 and EU0027)-001

10 CSR 10-6.065(2)(C) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s)

Operational Limitations:

The permittee shall limit chromium compounds used at bag breaking to 78,800 tons in any consecutive 12-month period expressed as chromic oxide (Cr₂O₃).

Monitoring/Recordkeeping:

- 1) The permittee shall maintain an accurate record of chromic oxide equivalent handled at bag breaking from this installation. The permittee shall record the monthly chromic oxide equivalent handled with a consecutive 12-month total. The permittee shall use Attachment C (Materials Tracking Record) or an equivalent form for this purpose.
- 2) The permittee shall maintain these records on site for the most recent 60 months.
- 3) The permittee shall immediately make such records available to any Department of Natural Resources personnel upon request.

Reporting:

The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month, if the consecutive 12-month

total records show that the source exceeded the limitation of 78,800 tons of chromium compounds used at bag breaking.

PERMIT CONDITION (EU0026 and EU0027)-002

10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit to be discharged into the atmosphere from any source any visible emissions with an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any sixty (60) minutes air contaminants with an opacity up to 40%.

Monitoring:

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

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

Reporting:

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

PERMIT CONDITION (EU0026 and EU0027)-003

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 EU0023 through EU0024 in excess of the following emission rates in lbs/hr:

Emission Unit	Allowable Emission Rate (lb/hr)
EU0026	8.56
EU0027	13.62

- 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

- 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:

- 1) The permittee shall retain the potential to emit calculations in Attachment G which demonstrate that the above emission limitations will not be exceeded.
- 2) The calculation shall be made available immediately for inspection by Department of Natural Resources' personnel upon request.
- 3) All records shall be kept for a period of five years.

Reporting:

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

EU0028 through EU0030- BATCHING

Emission Unit	Description	Manufacturer/Model #	2003 EIQ Reference #
EU0028	Weigh Scales #5 - #8; Maximum Hourly Design Rate (MHDR) = 2.5 ton/hr; Unknown installation date	Unknown	EP-DC-30
EU0029	Weigh Scales #1 - #4; Maximum Hourly Design Rate (MHDR) = 6.00 ton/hr; Installed 1980	Unknown	EP-DC-36
EU0030	Automated Batching 10 Station; Maximum Hourly Design Rate (MHDR) = 30.00 ton/hr; Installed 1997	Peabody 10 Position Automatic Batching	EP-DC-44

PERMIT CONDITION (EU0028 through EU0030)-001

10 CSR 10-6.065(2)(C) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s)

Operational Limitations:

The permittee shall limit chromium compounds used at batching stations for refractory shapes to 128,800 tons in any consecutive 12-month period expressed as chromic oxide (Cr₂O₃).

Monitoring/Recordkeeping:

- 1) The permittee shall maintain an accurate record of chromic oxide equivalent batched for all refractory shapes mixers from this installation. The permittee shall record the monthly chromic oxide equivalent batched with a consecutive 12-month total. The permittee shall use Attachment C (Materials Tracking Record) or an equivalent form for this purpose.
- 2) The permittee shall maintain these records on site for the most recent 60 months.
- 3) The permittee shall immediately make such records available to any Department of Natural Resources personnel upon request.

Reporting:

The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month, if the consecutive 12-month total records show that the source exceeded the limitation of 128,800 tons of chromium compounds used at batching stations for refractory shapes.

PERMIT CONDITION (EU0028 through EU0030)-002

10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit to be discharged into the atmosphere from any source any visible emissions with an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any sixty (60) minutes air contaminants with an opacity up to 40%.

Monitoring:

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

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

- 4) Attachments D, E and F contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available immediately for inspection to Department of Natural Resources personnel upon request.
- 6) All records shall be maintained for five years.

Reporting:

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

PERMIT CONDITION (EU0028 through EU0030)-003
 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 EU0028 through EU0030 in excess of the following emission rates in lbs/hr:

Emission Unit	Allowable Emission Rate (lb/hr)
EU0028	7.58
EU0029	13.62
EU0030	40.04

- 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

- 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:

- 1) The permittee shall retain the potential to emit calculations in Attachment G which demonstrate that the above emission limitations will not be exceeded.
- 2) The calculation shall be made available immediately for inspection by Department of Natural Resources' personnel upon request.
- 3) All records shall be kept for a period of five years.

Reporting:

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

Emission Unit	Description	2003 EIQ Reference #
EU0031	Ball Milling and Screening: Belt conveyor, ball mill, elevator and screen; Maximum Hourly Design Rate (MHDR) = 3.0 ton/hr; Installed 1996	EP-DC-38

PERMIT CONDITION EU0031-001

10 CSR 10-6.060 Construction Permits Required

Construction Permit Number 1296-009, Issued November 12, 1996

Operational Standard:

- 1) The permittee shall equip baghouse DC-38 with a gauge or meter which indicates the pressure drop across the baghouse. The gauge or meter shall be located such that it may be easily observed by the Department of Natural Resources' employees.
- 2) The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
- 3) The permittee shall keep replacement bags for the baghouse 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:

- 1) The permittee shall monitor and record the operating pressure drop across the baghouse at least once every twenty-four hours.
- 2) The permittee 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
 - b) maintenance activities, with inspection schedule, repair actions and replacements

Reporting:

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

PERMIT CONDITION EU0031-002

10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit to be discharged into the atmosphere from any source any visible emissions with an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any sixty (60) minutes air contaminants with an opacity up to 40%.

Monitoring:

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

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

Reporting:

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

PERMIT CONDITION EU0031-003

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 EU0031 in excess of the 8.56 lbs/hr.
 - 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

- 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:

- 1) The permittee shall retain the potential to emit calculations in Attachment G which demonstrate that the above emission limitations will not be exceeded.
- 2) The calculation shall be made available immediately for inspection by Department of Natural Resources' personnel upon request.
- 3) All records shall be kept for a period of five years.

Reporting:

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

EU0032 through EU0036- GROUND MATERIAL BINS AND BARMAC CRUSHING & SCREENING			
Emission Unit	Description	Manufacturer/ Model #	2003 EIQ Reference #
EU0032	Ground Material Bins: Conveying: belt conveyor, elevator, screen, consigners, bins, shredder and Sturdevent mill; Maximum Hourly Design Rate (MHDR) = 27.0 ton/hr; Installed 1951, modified 1998	Unknown	EP-DC-11
EU0033	Ground Material Bins: Milling; Conveying: belt conveyor, elevator, screen, consigners, bins, shredder and Sturdevent mill; Maximum Hourly Design Rate (MHDR) = 27.0 ton/hr; Installed 1951, modified 1998	Unknown	EP-DC-11
EU0034	Barmac Crushing and Screening System- Crushing: surge hopper with fedder, Barmac crusher, elevator, screen, 3-belt conveyors, consigners and bins; Maximum Hourly Design Rate (MHDR) = 100 ton/hr; Installed 1999	Barmac Crusher	EP-DC-45
EU0035	Barmac Crushing and Screening System- Screening: surge hopper with fedder, Barmac crusher, elevator, screen, 3-belt conveyors, consigners and bins Maximum Hourly Design Rate (MHDR) = 100 ton/hr; Installed 1999	Unknown	EP-DC-45
EU0036	Barmac Crushing and Screening System-Conveying: surge hopper with fedder, Barmac crusher, elevator, screen, 3-belt conveyors, consigners and bins; Maximum Hourly Design Rate (MHDR) = 100 ton/hr; Installed 1999	Unknown	EP-DC-45

<p>PERMIT CONDITION (EU0032 through EU0036)-001 10 CSR 10-6.060 Construction Permits Required Construction Permit Number 0199-015, Issued December 30, 1998</p>

Operational Standard:

- 1) The permittee shall operate baghouses DC-11 and DC-45 at all times when the associated processes are in operation. The baghouses shall be operated and maintained in accordance with the manufacturer's specifications.
- 2) The baghouses shall be equipped with a gauge or meter which indicates the pressure drop across the baghouses. This gauge or meter shall be located such that it may be easily observed by the Department of Natural Resources' employees.
- 3) The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
- 4) Replacement bags 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).

Monitoring/Recordkeeping:

- 1) The permittee shall monitor and record the operating pressure drop across the baghouses at least once every twenty-four hours.
- 2) The permittee shall maintain an operating and maintenance log for the baghouses which shall include the following:
 - a) incidents of malfunction, with impact on emissions, duration of event, probable cause and corrective actions; and
 - b) maintenance activities, with inspection schedule, repair actions and replacements

Reporting:

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

PERMIT CONDITION (EU0032 through EU0036)-002

10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit to be discharged into the atmosphere from any source any visible emissions with an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any sixty (60) minutes air contaminants with an opacity up to 40%.

Monitoring:

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

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

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.

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

PERMIT CONDITION (EU0032 through EU0036)-003
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 EU0032 through EU0036 in excess of the following emission rates in lbs/hr:

Emission Unit	Allowable Emission Rate (lb/hr)
EU0032	37.31
EU0033	37.31
EU0034	51.28
EU0035	51.28
EU0036	51.28

- 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.

Monitoring/Recordkeeping:

- 1) The permittee shall retain the potential to emit calculations in Attachment G which demonstrate that the above emission limitations will not be exceeded.
- 2) The calculation shall be made available immediately for inspection by Department of Natural Resources' personnel upon request.
- 3) All records shall be kept for a period of five years.

Reporting:

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

EU0037 through EU0044- MONOLITHS PROCESS			
Emission Unit	Description	Manufacturer/Model #	2003 EIQ Reference #
EU0037	Monoliths Process: Automatic Batch Station; Maximum Hourly Design Rate (MHDR) = 30.0 ton/hr; Installed 2000	SPJ-64-X4B8 Scientific	EU-DC-55A
EU0038	Monoliths Process: Tote Can Fill Station; Maximum Hourly Design Rate (MHDR) = 3.0 ton/hr; Installed 2000	Ducan High Efficiency Single Cyclone	EU-DC-55B
EU0039	Monoliths Process: Zirconia Mixer; Maximum Hourly Design Rate (MHDR) = 6.0 ton/hr; Installed 2000	Ultra #BB-36-84-IIG	EU-DC-54
EU0040	Monoliths: Ribbon Mixer and Sacking; Maximum Hourly Design Rate (MHDR) = 14.0 ton/hr; Installed 2000	Torit Model DFT 3-6 Downflo II Cartridge	EU-DC-56
EU0041	Monoliths: Belt Conveyor and Feed Hopper; Maximum Hourly Design Rate (MHDR) = 14.0 ton/hr; Installed 2000	Torit Model DFT 3-6 Downflo II Cartridge	EU-DC-57
EU0042	Monoliths: Bagger; Maximum Hourly Design Rate (MHDR) = 14.0 ton/hr; Installed 2000	Torit Model DFT 3-6 Downflo II Cartridge	EU-DC-58
EU0043	Monoliths: Storage Bin; Maximum Hourly Design Rate (MHDR) = 30.0 ton/hr; Installed 2000	Bin Vent	EU-DC-59
EU0044	Monoliths: Storage Bin; Maximum Hourly Design Rate (MHDR) = 30.0 ton/hr; Installed 2000	Bin Vent	EU-DC-60

PERMIT CONDITION (EU0037 through EU0044)-001
 10 CSR 10-6.060 Construction Permits Required
Construction Permit Number 082000-008, Issued July 28, 2000

Operational Standard:

- 1) The permittee shall operate the baghouses associated with the tote can fill (DC-55A), automated batch station (DC-55B), lift & dump transfer (DC-56), ribbon mixer (DC-57A), hopper (DC-57B), belt conveyor (DC-57C) and sacker(DC-58) at all times when the associated processes are in operation. The baghouses shall be operated and maintained in accordance with the manufacturer's specifications.
- 2) The baghouses shall be equipped with a gauge or meter which indicates the pressure drop across the baghouses. This gauge or meter shall be located such that it may be easily observed by the Department of Natural Resources' employees.
- 3) The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
- 4) Replacement bags 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).

Monitoring/Recordkeeping:

- 1) The permittee shall monitor and record the operating pressure drop across the baghouses at least once every twenty-four hours.
- 2) The permittee shall maintain an operating and maintenance log for the baghouses which shall include the following:
 - a) incidents of malfunction, with impact on emissions, duration of event, probable cause and corrective actions; and

- b) maintenance activities, with inspection schedule, repair actions and replacements

Reporting:

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

PERMIT CONDITION (EU0037 through EU0044)-002

10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit to be discharged into the atmosphere from any source any visible emissions with an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any sixty (60) minutes air contaminants with an opacity up to 40%.

Monitoring:

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

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

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.

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

PERMIT CONDITION (EU0037 through EU0044)-003
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 EU0037 through EU0043 in excess of the following emission rates in lbs/hr:

Emission Unit	Allowable Emission Rate (lb/hr)
EU0037	40.04
EU0038	8.56
EU0039	13.62
EU0040	24.03
EU0041	24.03
EU0042	24.03
EU0043	40.04
EU0044	40.04

- 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

- 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:

- 1) The permittee shall retain the potential to emit calculations in Attachment G which demonstrate that the above emission limitations will not be exceeded.
- 2) The calculation shall be made available immediately for inspection by Department of Natural Resources' personnel upon request.
- 3) All records shall be kept for a period of five years.

Reporting:

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

EU0045- SILICA REFRACTORIES MATERIALS PROCESS: VISIL MIXING/WEIGHING			
Emission Unit	Description	Manufacturer/Model #	2003 EIQ Reference #
EU0045	Bag breaker, minor additives stations, weigh hopper, belt conveyor and visil mixer; Maximum Hourly Design Rate (MHDR) = 6.00 tons/hr; Installed 1999	Eirich Mixer/ DE-22	EU-DC-53

PERMIT CONDITION EU0045-001
10 CSR 10-6.060 Construction Permits Required
Construction Permit Number 0699-029, Issued May 24, 1999

Operational Standard:

- 1) The permittee shall operate baghouse DC-53 at all times when the associated processes are in operation. The baghouse shall be operated and maintained in accordance with the manufacturer's specifications.
- 2) The baghouse shall be equipped with a gauge or meter which indicates the pressure drop across the baghouse. This gauge or meter shall be located such that it may be easily observed by the Department of Natural Resources' employees.
- 3) The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
- 4) Replacement bags 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).

Monitoring/Recordkeeping:

- 1) The permittee shall monitor and record the operating pressure drop across the baghouse at least once every twenty-four hours.
- 2) The permittee 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
 - b) maintenance activities, with inspection schedule, repair actions and replacements

Reporting:

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

PERMIT CONDITION EU0045-002

10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit to be discharged into the atmosphere from any source any visible emissions with an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any sixty (60) minutes air contaminants with an opacity up to 40%.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit using the procedures contained in USEPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position

relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.

- 2) The following monitoring schedule must be maintained:
 - a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two (2) weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made once per month. 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:

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

Reporting:

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

PERMIT CONDITION EU0045-003

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 EU0045 in excess of 13.6 lbs/hr.
 - 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

- 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:

- 1) The permittee shall retain the potential to emit calculations in Attachment G which demonstrate that the above emission limitations will not be exceeded.

- 2) The calculation shall be made available immediately for inspection by Department of Natural Resources' personnel upon request.
- 3) All records shall be kept for a period of five years.

Reporting:

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

Emission Unit	Description	2003 EIQ Reference #
EU0046	2- Belt conveyors and bucket elevator; Maximum Hourly Design Rate (MHDR) = 50.00 tons/hr; Installed 2001	EU-DC-61

PERMIT CONDITION EU0046-001

10 CSR 10-6.060 Construction Permits Required

Construction Permit Number 032001-008, Issued January 23, 2001

Operational Standard:

- 1) The permittee shall operate baghouse DC-61 at all times when the associated processes are in operation. The baghouse shall be operated and maintained in accordance with the manufacturer's specifications.
- 2) The baghouse shall be equipped with a gauge or meter which indicates the pressure drop across the baghouse. This gauge or meter shall be located such that it may be easily observed by the Department of Natural Resources' employees.
- 3) The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
- 4) Replacement bags 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).

Monitoring/Recordkeeping:

- 1) The permittee shall monitor and record the operating pressure drop across the baghouse at least once every twenty-four hours.
- 2) The permittee 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
 - b) maintenance activities, with inspection schedule, repair actions and replacements

Reporting:

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

PERMIT CONDITION EU0046-002

10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

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

- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any sixty (60) minutes air contaminants with an opacity up to 40%.

Monitoring:

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

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

Reporting:

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

PERMIT CONDITION EU0046-003

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 EU0046 in excess of 44.6 lbs/hr.

a) 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.

Monitoring/Recordkeeping:

1) The permittee shall retain the potential to emit calculations in Attachment G which demonstrate that the above emission limitations will not be exceeded.

2) The calculation shall be made available immediately for inspection by Department of Natural Resources' personnel upon request.

3) All records shall be kept for a period of five years.

Reporting:

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

Emission Unit	Description	2003 EIO Reference #
EU0047	Rotary Dryer; Maximum Hourly Design Rate (MHDR) = 3.5 MMBtu/hr; Installed 1973	EP-L
EU0048	Semco Material Unloading System; Maximum Hourly Design Rate (MHDR) = 4.64 tons/hr; Unknown installation date	EP-DC-01
EU0049	Silo #3 Vent (M & D Ball Clay); Maximum Hourly Design Rate (MHDR) = 4.64 tons/hr; Unknown installation date	EP-DC-02
EU0050	Silo #4 Vent (Kentucky #6 Dark); Maximum Hourly Design Rate (MHDR) = 4.64 tons/hr; Unknown installation date	EP-DC-03
EU0051	Silo #1 Vent (Lumnite Cement); Maximum Hourly Design Rate (MHDR) = 4.64 tons/hr; Unknown installation date	EP-DC-04
EU0052	Silo #2 Vent (Potters Flint); Maximum Hourly Design Rate (MHDR) = 4.64 tons/hr; Unknown installation date	EP-DC-05
EU0053	Silo #6 Vent (Gleason Ball Clay); Maximum Hourly Design Rate (MHDR) = 4.64 tons/hr; Unknown installation date	EP-DC-06
EU0054	Silo #5 Vent (A2); Maximum Hourly Design Rate (MHDR) = 4.64 tons/hr; Unknown installation date	EP-DC-07
EU0055	Silo #7 Vent (A2); Maximum Hourly Design Rate (MHDR) = 4.64 tons/hr; Unknown installation date	EP-DC-08
EU0056	Nordberg Bauxite System, Dry Pan Process & Plastics Manufacturing; Maximum Hourly Design Rate (MHDR) = 27.0 tons/hr; Unknown installation date	EP-DC-09
EU0057	Milling Process; Maximum Hourly Design Rate (MHDR) = 2.5 tons/hr; Unknown installation date	

EU0058	Dried Raw Material Wall Belt System; Maximum Hourly Design Rate (MHDR) = 50.0 tons/hr; Unknown installation date	EP-DC-12
EU0059	T-64 Nordberg Crushing System; Maximum Hourly Design Rate (MHDR) = 15.0 tons/hr; Unknown installation date	EP-DC-13
EU0060	Raw Material Bin System; Maximum Hourly Design Rate (MHDR) = 50.0 tons/hr; Unknown installation date	EP-DC-14
EU0061	North and South Pan Screening; Maximum Hourly Design Rate (MHDR) = 15.0 tons/hr; Unknown installation date	EP-DC-15
EU0062	North and South Pan Grinding Maximum Hourly Design Rate (MHDR) = 15.0 tons/hr; Unknown installation date	EP-DC-15
EU0063	Materials Mixing: #3; Mixer Maximum Hourly Design Rate (MHDR) = 6.0 tons/hr; Unknown installation date	EP-DC-16
EU0064	Materials Mixing: #4 Mixer; Maximum Hourly Design Rate (MHDR) = 6.0 tons/hr; Unknown installation date	EP-DC-17
EU0065	Materials Mixing: #5 Mixer; Maximum Hourly Design Rate (MHDR) = 4.0 tons/hr; Unknown installation date	EP-DC-18
EU0066	D-1 Bin Vent (Kyanite 100 mesh); Maximum Hourly Design Rate (MHDR) = 3.0 tons/hr; Unknown installation date	EP-DC-22
EU0067	D-1 A-2 Bin Vent; Maximum Hourly Design Rate (MHDR) = 8.0 tons/hr; Unknown installation date	EP-DC-23
EU0068	D-3 M&D Bin Vent; Maximum Hourly Design Rate (MHDR) = 3.0 tons/hr; Unknown installation date	EP-DC-24
EU0069	A-4 A-2 Bin Vent; Maximum Hourly Design Rate (MHDR) = 8.0 tons/hr; Unknown installation date	EP-DC-25
EU0070	A-5 Kentucky #6 Dark Bin Vent; Maximum Hourly Design Rate (MHDR) = 3.0 tons/hr; Unknown installation date	EP-DC-26
EU0071	S.G. Screening – Transfer; Maximum Hourly Design Rate (MHDR) = 12.0 tons/hr; Unknown installation date	EP-DC-29
EU0072	S.G. Screening – Crushing; Maximum Hourly Design Rate (MHDR) = 12.0 tons/hr; Unknown installation date	EP-DC-29
EU0073	S.G. Screening – Screening; Maximum Hourly Design Rate (MHDR) = 12.0 tons/hr; Unknown installation date	EP-DC-29
EU0074	S.G. Bin Vent (T-61); Maximum Hourly Design Rate (MHDR) = 1.0 tons/hr; Unknown Installation Date	EP-DC-31
EU0075	S.G. Bin Vent 2(T-61); Maximum Hourly Design Rate (MHDR) = 1.0 tons/hr; Unknown Installation Date	EP-DC-32

EU0076	Taphole Mixing/Weighing; Maximum Hourly Design Rate (MHDR) = 2.5 tons/hr; Unknown installation date	EP-DC-33
EU0077	Mold Making Wood Shop Maximum Hourly Design Rate (MHDR) = 0.001 tons/hr; Unknown installation date	EP-DC-34
EU0078	A-4 Fillite Mix Bin; Maximum Hourly Design Rate (MHDR) = 3.0 tons/hr; Unknown installation date	EP-DC-35
EU0079	TRP Taphole Mixing; Maximum Hourly Design Rate (MHDR) = 10.0 tons/hr; Unknown installation date	EP-DC-37
EU0080	HB 50 Ton Bin; Maximum Hourly Design Rate (MHDR) = 3.0 tons/hr; Unknown installation date	EP-DC-39
EU0081	A-5 Gleason Bin; Maximum Hourly Design Rate (MHDR) = 3.0 tons/hr; Unknown installation date	EP-DC-40
EU0082	East Kiln Car Vacuum System; Maximum Hourly Design Rate (MHDR) = 0.5 tons/hr; Unknown installation date	EP-DC-41
EU0083	Shipping Grinding Room; Maximum Hourly Design Rate (MHDR) = 1.0 tons/hr; Unknown installation date	EP-DC-42
EU0084	West Kiln Car Vacuum System; Maximum Hourly Design Rate (MHDR) = 0.5 tons/hr; Unknown installation date	EP-DC-43

PERMIT CONDITION (EU0047 through EU0084)-001
 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit to be discharged into the atmosphere from any source any visible emissions with an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any sixty (60) minutes air contaminants with an opacity up to 40%.

Monitoring:

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

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

Reporting:

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

PERMIT CONDITION (EU0047 through EU0084)-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 EU0046 through EU0081 in excess of emission rates in lbs/hr:

Emission Unit	Allowable Emission Rate (lb/hr)
EU0047	44.6
EU0048	11.5
EU0049	11.5
EU0050	11.5
EU0051	11.5
EU0052	11.5
EU0053	11.5
EU0054	11.5
EU0055	11.5
EU0056	37.31
EU0057	7.58
EU0058	44.6
EU0059	25.2
EU0060	44.6
EU0061	25.2
EU0062	25.2
EU0063	13.6
EU0064	13.6
EU0065	10.4
EU0066	8.6
EU0067	16.5
EU0068	8.56
EU0069	16.5
EU0070	8.56
EU0071	21.7
EU0072	21.7
EU0073	21.7
EU0074	4.1
EU0075	4.1
EU0076	7.6
EU0077	0.4
EU0078	8.6
EU0079	19.2
EU0080	8.56
EU0081	8.56
EU0082	2.58
EU0083	4.1
EU0084	2.6

- 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.

Monitoring/Recordkeeping:

- 1) The permittee shall retain the potential to emit calculations in Attachment G which demonstrate that the above emission limitations will not be exceeded.
- 2) The calculation shall be made available immediately for inspection by Department of Natural Resources' personnel upon request.
- 3) All records shall be kept for a period of five years.

Reporting:

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

IV. Core Permit Requirements

The installation shall comply with each of the following requirements. Consult the appropriate sections in the Code of Federal Regulations (CFR), 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.

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(5)(B)1.A(III)] The permittee shall retain the most current operating permit issued to this installation on-site. [10 CSR 10-6.065, §(5)(C)(1) and §(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, §(5)(C)(1) and §(6)(C)3.B]

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

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

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

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

10 CSR 10-6.150 Circumvention

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

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

- 1) The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive particulate matter emissions to go beyond the premises of origin in quantities that the particulate matter may be found on surfaces beyond the property line of origin. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the director.
- 2) The permittee shall not cause nor allow to occur any fugitive particulate matter emissions to remain visible in the ambient air beyond the property line of origin.
- 3) Should it be determined that noncompliance has occurred, the director may require reasonable control measures as may be necessary. These measures may include, but are not limited to, the following:
 - a) Revision of procedures involving construction, repair, cleaning and demolition of buildings and their appurtenances that produce particulate matter emissions;

- b) Paving or frequent cleaning of roads, driveways and parking lots;
- c) Application of dust-free surfaces;
- d) Application of water; and
- e) Planting and maintenance of vegetative ground cover.

10 CSR 10-6.180 Measurement of Emissions of Air Contaminants

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

10 CSR 10-3.030 Open Burning Restrictions

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

10 CSR 10-3.090 Restriction of Emission of Odors

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

This requirement is not federally enforceable.

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

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

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

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

Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone

- 1) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
 - b) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
 - c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
 - d) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
- 2) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
 - a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
 - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).
 - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.

- f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
- 3) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
- 4) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.

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, §(5)(C)1 and §(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, §(5)(C)1 and §(6)(C)1.C General Recordkeeping and Reporting Requirements

- 1) Recordkeeping
 - a) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
 - b) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any Missouri Department of Natural Resources' personnel upon request.
- 2) Reporting
 - a) All reports shall be submitted to the Air Pollution Control Program, Enforcement Section, P. O. Box 176, Jefferson City, MO 65102.
 - b) The permittee shall submit a report of all required monitoring by:
 - i) April 1st for monitoring which covers the January through December time period.
 - ii) Exception. Monitoring requirements which require reporting more frequently than annually shall report no later than 30 days after the end of the calendar quarter in which the measurements were taken.
 - c) Each report shall identify any deviations from emission limitations, monitoring, recordkeeping, reporting, or any other requirements of the permit.
 - 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 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 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 §(5)(C)1 and §(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(5)(C)1.A 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 under this rule.
- 6) Failure to comply with the limitations and conditions that qualify the installation for an Intermediate permit make the installation subject to the provisions of 10 CSR 10-6.065(6) and enforcement action for operating without a valid part 70 operating permit.

10 CSR 10-6.065(5)(C)1.C Reasonably Anticipated Operating Scenarios

None.

10 CSR 10-6.065, §(5)(B)4; §(5)(C)1, §(6)(C)3.B; and §(6)(C)3.D; and §(5)(C)3 and §(6)(C)3.E.(I) – (III) and (V) – (VI) 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 the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and exceedances 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, §(5)(C)1 and §(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(5)(C)5 Off-Permit Changes

- 1) Except as noted below, the permittee may make any change in its permitted installation's operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. 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 a Title I modification; Please Note: Changes at the installation which affect the emission limitation(s) classifying the installation as an intermediate source (add additional equipment to the recordkeeping requirements, increase the emissions above major source level) do not qualify for off-permit changes.
 - b) The permittee must provide written notice of the change to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, no later than the next annual emissions report. 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; and
 - 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.

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

The application utilized in the preparation of this permit was signed by Michael Schalk, Corporate Secretary. 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 §(5)(E)4 and §(6)(E)6.A(III)(a)-(c) Reopening-Permit for Cause

This permit may be reopened for cause if:

- 1) The Missouri Department of Natural Resources (MDNR) or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,
- 2) 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,

- 3) MDNR or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

10 CSR 10-6.065 §(5)(E)1.A and §(6)(E)1.C Statement of Basis

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

VI. Attachments

Attachments follow.

ATTACHMENT A
Aggregate HAP Emissions Tracking Record

This sheet covers the period from _____ to _____
 (month, year) (month, year)

Date (month/year)	Column A Emission Point	Column B Raw Material Usage (gal)	Column C Material Density (lbs/gal)	Column D Total HAP Content (%/100)	Column E Monthly Aggregate HAP Emissions (tons)	Column F Sum of Most Recent 12 months HAP (tons)
	Total Aggregate HAP Emissions for this Month:					
	Total Aggregate HAP Emissions for this Month:					
	Total Aggregate HAP Emissions for this Month:					
	Total Aggregate HAP Emissions for this Month:					

¹ Column E = (Column B) x (Column C) x (Column D) / 2000.
² Sum of the last 12 consecutive monthly aggregate HAP emissions totals including the current month.

ATTACHMENT F

This attachment may be used to help meet the recordkeeping requirements of Permit Conditions: (EU0001 through EU0007)-002, (EU0008 through EU0015)-002, (EU0016 through EU0022) – 002, (EU0023 and EU0024)-002, EU0025-002, (EU0026 and EU0027)-002, (EU0028 through EU0030)-002, EU0031-002, (EU0032 through EU0036)-002, (EU0037 through EU0044)-002, EU0045-002, EU0046-002 and (EU0047 through EU0084)-001.

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

Hour	Minute	Seconds				Steam Plume (check if applicable)		Comments
		0	15	30	45	Attached	Detached	
	0							
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							

SUMMARY OF AVERAGE OPACITY				
Set Number	Time		Opacity	
	Start	End	Sum	Average

Readings ranged from _____ to _____ % opacity.

Was the emission unit in compliance at the time of evaluation? _____

YES NO Signature of Observer _____

ATTACHMENT G

This attachment may be used to help meet the recordkeeping requirements of Permit Conditions: (EU0001 through EU0007)-003, (EU0008 through EU0015)-003, (EU0016 through EU0022) – 003, (EU0023 and EU0024)-003, EU0025-003, (EU0026 and EU0027)-003, (EU0028 through EU0030)-003, EU0031-003, (EU0032 through EU0036)-003, (EU0037 through EU0044)-003, EU0045-003, EU0046-003 and (EU0047 through EU0084)-002.

EP#	EU#/Associated Equipment	Process Weight Rate (ton/hr)	PM Emission Factor (lb/ton)	Potential Uncontrolled Emission Rate (lb/hr)	Emission Rate Limit (lb/hr)
EP-B	EU0001 #2 Tunnel Kiln: Natural gas fired tunnel kiln; Maximum Hourly Design Rate (MHDR) = 50 MMBtu/hr; Installed 1929	4.75	0.56	2.66	11.65
EP-C	EU0002 #3 Tunnel Kiln: Natural gas fired tunnel kiln; Maximum Hourly Design Rate (MHDR) = 50 MMBtu/hr; Installed 1951	3.60	0.56	2.02	9.67
EP-D	EU0003 #4 Tunnel Kiln: Natural gas fired tunnel kiln; Maximum Hourly Design Rate (MHDR) = 40 MMBtu/hr; Installed 1957	3.60	0.56	2.02	9.67
EP-E	EU0004 #5 Tunnel Kiln: Natural gas fired periodic kiln; Maximum Hourly Design Rate (MHDR) = 10 MMBtu/hr; Installed 1965	0.04	0.07	3.5 x 10 ⁻³	0.47
EP-K	EU0005 Bickley Bell Kiln: Natural gas fired periodic kiln; Maximum Hourly Design Rate (MHDR) = 6 MMBtu/hr; Installed 1969	0.08	0.07	5.6 x 10 ⁻³	0.75
EP-Q	EU0006 Lab Test Kiln: Natural gas fired periodic kiln; Maximum Hourly Design Rate (MHDR) = 2 MMBtu/hr; Installed 1955	0.05	0.07	3.5 x 10 ⁻³	0.55
EP-S	EU0007 Bickley Shuttle Kiln: Natural gas fired periodic kiln; Maximum Hourly Design Rate (MHDR) = 20 MMBtu/hr; Installed 1984	0.92	0.07	6.4 x 10 ⁻²	3.88
EP-F	EU0008 East Pallet Dryer: Natural gas fired shapes dryer; Maximum Hourly Design Capacity (MHDR) = 1.05 MMBtu/hr; Installed 1973	0.47	0.07	3.3 x 10 ⁻²	2.47
EP-H	EU0009 #3 Tunnel Kiln Double Dryer: Natural gas fired shapes dryer; Maximum Hourly Design Capacity (MHDR) = 4.20 MMBtu/hr; Installed 1951	2.5	0.07	0.8	7.57
EP-M	EU0010 South Tunnel Dryer: Natural gas fired tunnel dryer; Maximum Hourly Design Capacity (MHDR) = 1.00 MMBtu/hr; Installed 1951	3.6	0.07	0.25	9.67

* PM emission factor = 2 x published PM₁₀ emission factor or reported in 2004 EIQ

EP#	EU#/Associated Equipment	Process Weight Rate (ton/hr)	PM Emission Factor (lb/ton)	Potential Uncontrolled Emission Rate (lb/hr)	Emission Rate Limit (lb/hr)
EP-N-1	EU0011 Tunnel Dryer (Compartment 1 of 2): Natural gas fired tunnel dryer; Maximum Hourly Design Capacity (MHDR) = 1.72 MMBtu/hr;	3.44	0.08	0.26	9.38
EP-N-2	EU0012 Tunnel Dryer (Compartment 2 of 2): Natural gas fired tunnel dryer; Maximum Hourly Design Capacity (MHDR) = 1.72 MMBtu/hr;	0.002	6.00	1.2 x 10 ⁻²	0.06
EP-O	EU0013 East Chemical Bond Dryer: Natural gas fire dryer; Maximum Hourly Design Capacity (MHDR) = 1.05 MMBtu/hr; Installed 1967	4.5	0.07	0.32	11.23
EP-P	EU0014 West Chemical Bond Dryer: Natural gas fire dryer; Maximum Hourly Design Capacity (MHDR) = 1.05 MMBtu/hr; Installed 1973	4.5	0.07	0.32	11.23
EP-R	EU0015 Sec. 41 Shipping Dryer: Natural gas fire dryer; Maximum Hourly Design Capacity (MHDR) = 0.25 MMBtu/hr; Installed 1969	0.05	0.08	3.9 x 10 ⁻³	0.55
EP-DC-46	EU0016 #1 Mixer; Batch dump system and mixer; Maximum Hourly Design Rate (MHDR) – 6.00 ton/hr; Installed 1999	6.00	0.60	3.60	13.62
EP-DC-47	EU0017 #2 Mixer; Batch dump system and mixer; Maximum Hourly Design Rate (MHDR) – 6.00 ton/hr; Installed 1999	6.00	0.60	3.60	13.62
EP-DC-48	EU0018 #3 Mixer; Batch dump system and mixer; Maximum Hourly Design Rate (MHDR) – 6.00 ton/hr; Installed 1999	6.00	0.60	3.60	13.62
EP-DC-49	EU0019 #4 Mixer; Batch dump system and mixer; Maximum Hourly Design Rate (MHDR) – 6.00 ton/hr; Installed 1999	6.00	0.60	3.60	13.62
EP-DC-50	EU0020 #5 Mixer; Batch dump system and mixer; Maximum Hourly Design Rate (MHDR) – 6.00 ton/hr; Installed 1999	6.00	0.60	3.60	13.62
EP-DC-51	EU0021 #6 Mixer; Batch dump system and mixer; Maximum Hourly Design Rate (MHDR) – 6.00 ton/hr; Installed 1999	6.00	0.60	3.60	13.62
EP-DC-52	EU0022 #7 Mixer; Batch dump system and mixer; Maximum Hourly Design Rate (MHDR) – 6.00 ton/hr; Installed 1999	6.00	0.60	3.60	13.62

EP#	EU#/Associated Equipment	Process Weight Rate (ton/hr)	PM Emission Factor (lb/ton)	Potential Uncontrolled Emission Rate (lb/hr)	Emission Rate Limit (lb/hr)
EP-DC-19	EU0023 Wet and Dry Mortars Batching and Mixing (#1 Mortar Mixer); Maximum Hourly Design Rate (MHDR) = 6.0 tons/hr; Installed 1968	6.00	0.60	3.60	13.62
EP-DC-20	EU0024 Wet and Dry Mortars Batching And Mixing (#2 Mortar Mixer); Maximum Hourly Design Rate (MHDR) = 6.0 tons/hr; Installed 1970	6.00	0.60	3.60	13.62
EP-DC-21	EU0025 Plastics Batching and Mixing; Maximum Hourly Design Rate (MHDR) = 8.00 ton/hr; Installed 1966	8.00	0.6	4.80	16.51
EP-DC-27	EU0026 Tote Can Sack Breaking; Maximum Hourly Design Rate (MHDR) = 3.00 ton/hr; Unknown installation date	3.00	0.24	0.72	8.56
EP-DC-28	EU0027 Tote Can Bulk Bag; Maximum Hourly Design Rate (MHDR) = 6.00 ton/hr; Unknown installation date	6.00	0.24	1.44	13.62
EP-DC-30	EU0028 Weigh Scales #5 - #8; Maximum Hourly Design Rate (MHDR) = 2.5 ton/hr; Unknown installation date	2.50	0.60	1.50	7.58
EP-DC-36	EU0029 Weigh Scales #1 - #4; Maximum Hourly Design Rate (MHDR) = 6.00 ton/hr; Installed 1980	6.00	0.60	3.60	13.62
EP-DC-44	EU0030 Automated Batching 10 Station; Maximum Hourly Design Rate (MHDR) = 30.00 ton/hr; Installed 1997	30.00	0.24	7.20	40.04
EP-DC-38	EU0031 Ball Milling and Screening: Belt conveyor, ball mill, elevator and screen; Maximum Hourly Design Rate (MHDR) = 3.0 ton/hr; Installed 1996	3.00	0.22	0.66	8.56
EP-DC-11	EU0032 Ground Material Bins: Conveying: belt conveyor, elevator, screen, consigners, bins, shredder and Sturdevent mill; Maximum Hourly Design Rate (MHDR) = 27.0 ton/hr; Installed 1951, modified 1998	27.00	0.24	6.48	37.31
EP-DC-11	EU0033 Ground Material Bins: Milling; Conveying: belt conveyor, elevator, screen, consigners, bins, shredder and Sturdevent mill; Maximum Hourly Design Rate (MHDR) = 27.0 ton/hr; Installed 1951, modified 1998	27.00	0.24	6.48	37.31
EP-DC-45	EU0034 Barmac Crushing and Screening System-Crushing: surge hopper with fedder, Barmac crusher, elevator, screen, 3-belt conveyors,	100.00	0.22	22.00	51.28

EP#	EU#/Associated Equipment	Process Weight Rate (ton/hr)	PM Emission Factor (lb/ton)	Potential Uncontrolled Emission Rate (lb/hr)	Emission Rate Limit (lb/hr)
	consigners and bins; Maximum Hourly Design Rate (MHDR) = 100 ton/hr; Installed 1999				
EP-DC-45	EU0035 Barmac Crushing and Screening System-Screening: surge hopper with fedder, Barmac crusher, elevator, screen, 3-belt conveyors, consigners and bins Maximum Hourly Design Rate (MHDR) = 100 ton/hr; Installed 1999	100.00	0.45	45.00	51.28
EP-DC-45	EU0036 Barmac Crushing and Screening System-Conveying: surge hopper with fedder, Barmac crusher, elevator, screen, 3-belt conveyors, consigners and bins; Maximum Hourly Design Rate (MHDR) = 100 ton/hr; Installed 1999	100.00	0.24	24.00	51.28
EU-DC-55A	EU0037 Monoliths Process: Automatic Batch Station; Maximum Hourly Design Rate (MHDR) = 30.0 ton/hr; Installed 2000	30.00	0.12	3.60	40.04
EU-DC-55B	EU0038 Monoliths Process: Tote Can Fill Station; Maximum Hourly Design Rate (MHDR) = 3.0 ton/hr; Installed 2000	3.00	0.12	0.36	8.56
EU-DC-55D	EU0039 Monoliths Process: Zirconia Mixer; Maximum Hourly Design Rate (MHDR) = 6.0 ton/hr; Installed 2000	6.00	0.60	3.60	13.62
EU-DC-56	EU0040 Monoliths: Ribbon Mixer and Sacking; Maximum Hourly Design Rate (MHDR) = 14.0 ton/hr; Installed 2000	14.00	0.60	8.40	24.03
EU-DC-57	EU0041 Monoliths: Belt Conveyor and Feed Hopper; Maximum Hourly Design Rate (MHDR) = 14.0 ton/hr; Installed 2000	14.00	0.24	3.36	24.03
EU-DC-58	EU0042 Monoliths: Bagger; Maximum Hourly Design Rate (MHDR) = 14.0 ton/hr; Installed 2000	14.00	0.24	3.36	24.03
EU-DC-59	EU0043 Monoliths: Storage Bin; Maximum Hourly Design Rate (MHDR) = 30.0 ton/hr; Installed 2000	30.00	0.24	7.20	40.04
EU-DC-60	EU0044 Monoliths: Storage Bin; Maximum Hourly Design Rate (MHDR) = 30.0 ton/hr; Installed 2000	30.00	0.24	7.20	40.04
EU-DC-53	EU0045 Bag breaker, minor additives stations, weigh hopper, belt conveyor and visil mixer; Maximum Hourly Design Rate (MHDR) = 6.00 tons/hr; Installed 1999	6.00	0.60	3.60	13.62
EU-DC-61	EU0046 2- Belt conveyors and bucket elevator;	50.00	0.24	12.00	44.58

EP#	EU#/Associated Equipment	Process Weight Rate (ton/hr)	PM Emission Factor (lb/ton)	Potential Uncontrolled Emission Rate (lb/hr)	Emission Rate Limit (lb/hr)
	Maximum Hourly Design Rate (MHDR) = 50.00 tons/hr; Installed 2001				
EP-L	EU0047 Rotary Dryer; Maximum Hourly Design Rate (MHDR) = 3.5 MMBtu/hr; Installed 1973	50.00	0.035	1.75	44.58
EP-DC-01	EU0048 Semco Material Unloading System; Maximum Hourly Design Rate (MHDR) = 4.64 tons/hr;	4.64	0.24	1.11	11.46
EP-DC-02	EU0049 Silo #3 Vent (M & D Ball Clay); Maximum Hourly Design Rate (MHDR) = 4.64 tons/hr;	4.64	0.24	1.11	11.46
EP-DC-03	EU0050 Silo #4 Vent (Kentucky #6 Dark); Maximum Hourly Design Rate (MHDR) = 4.64 tons/hr;	4.64	0.24	1.11	11.46
EP-DC-04	EU0051 Silo #1 Vent (Lumnite Cement); Maximum Hourly Design Rate (MHDR) = 4.64 tons/hr;	4.64	0.24	1.11	11.46
EP-DC-05	EU0052 Silo #2 Vent (Potters Flint); Maximum Hourly Design Rate (MHDR) = 4.64 tons/hr;	4.64	0.24	1.11	11.46
EP-DC-06	EU0053 Silo #6 Vent (Gleason Ball Clay); Maximum Hourly Design Rate (MHDR) = 4.64 tons/hr;	4.64	0.24	1.11	11.46
EP-DC-07	EU0054 Silo #5 Vent (A2); Maximum Hourly Design Rate (MHDR) = 4.64 tons/hr;	4.64	0.24	1.11	11.46
EP-DC-08	EU0055 Silo #7 Vent (A2); Maximum Hourly Design Rate (MHDR) = 4.64 tons/hr;	4.64	0.24	1.11	11.46
EP-DC-09	EU0056 Nordberg Bauxite System, Dry Pan Process & Plastics Manufacturing; Maximum Hourly Design Rate (MHDR) = 27.0 tons/hr;	27.0	0.46	12.42	37.31
EP-DC-10	EU0057 Milling Process; Maximum Hourly Design Rate (MHDR) = 2.5 tons/hr;	2.50	0.22	0.55	7.58
EP-DC-12	EU0058 Dried Raw Material Wall Belt System; Maximum Hourly Design Rate (MHDR) = 50.0 tons/hr;	50.00	0.24	12.00	44.58
EP-DC-13	EU0059 T-64 Nordberg Crushing System; Maximum Hourly Design Rate (MHDR) = 15.0 tons/hr;	15.00	0.22	3.30	25.16
EP-DC-14	EU0060 Raw Material Bin System; Maximum Hourly Design Rate (MHDR) = 50.0 tons/hr;	50.00	0.24	12.0	44.58
EP-DC-15	EU0061 North and South Pan Screening; Maximum Hourly Design Rate (MHDR) = 15.0 tons/hr;	15.00	0.12	1.8	25.16
EP-DC-15	EU0062 North and South Pan Grinding Maximum	15.00	0.22	3.30	25.16

EP#	EU#/Associated Equipment	Process Weight Rate (ton/hr)	PM Emission Factor (lb/ton)	Potential Uncontrolled Emission Rate (lb/hr)	Emission Rate Limit (lb/hr)
	Hourly Design Rate (MHDR) = 15.0 tons/hr;				
EP-DC-16	EU0063 Materials Mixing: #3; Mixer Maximum Hourly Design Rate (MHDR) = 6.0 tons/hr;	6.00	0.60	3.60	13.62
EP-DC-17	EU0064 Materials Mixing: #4 Mixer; Maximum Hourly Design Rate (MHDR) = 6.0 tons/hr;	6.00	0.60	3.60	13.62
EP-DC-18	EU0065 Materials Mixing: #5 Mixer; Maximum Hourly Design Rate (MHDR) = 4.0 tons/hr;	4.00	0.60	2.40	10.40
EP-DC-22	EU0066 D-1 Bin Vent (Kyanite 100 mesh); Maximum Hourly Design Rate (MHDR) = 3.0 tons/hr;	3.00	0.24	0.72	8.56
EP-DC-23	EU0067 D-1 A-2 Bin Vent; Maximum Hourly Design Rate (MHDR) = 8.0 tons/hr;	8.00	0.24	1.92	16.51
EP-DC-24	EU0068 D-3 M&D Bin Vent; Maximum Hourly Design Rate (MHDR) = 3.0 tons/hr;	3.00	0.24	0.72	8.56
EP-DC-25	EU0069 A-4 A-2 Bin Vent; Maximum Hourly Design Rate (MHDR) = 8.0 tons/hr;	8.00	0.24	1.92	16.51
EP-DC-26	EU0070 A-5 Kentucky #6 Dark Bin Vent; Maximum Hourly Design Rate (MHDR) = 3.0 tons/hr;	3.00	0.24	0.72	8.56
EP-DC-29	EU0071 S.G. Screening – Transfer; Maximum Hourly Design Rate (MHDR) = 12.0 tons/hr;	12.00	0.24	2.88	21.67
EP-DC-29	EU0072 S.G. Screening – Crushing; Maximum Hourly Design Rate (MHDR) = 12.0 tons/hr;	12.00	0.22	2.64	21.67
EP-DC-29	EU0073 S.G. Screening – Screening; Maximum Hourly Design Rate (MHDR) = 12.0 tons/hr;	12.00	0.92	11.04	21.67
EP-DC-31	EU0074 S.G. Bin Vent (T-61); Maximum Hourly Design Rate (MHDR) = 0.06 tons/hr;	1.00	0.24	0.01	4.10
EP-DC-32	EU0075 S.G. Bin Vent 2(T-61); Maximum Hourly Design Rate (MHDR) = 0.08 tons/hr;	0.08	0.24	0.02	4.10
EP-DC-33	EU0076 Taphole Mixing/Weighing; Maximum Hourly Design Rate (MHDR) = 2.5 tons/hr;	2.50	0.60	1.50	7.58
EP-DC-34	EU0077 Mold Making Wood Shop Maximum Hourly Design Rate (MHDR) = 0.001 tons/hr;	0.001	0.40	0.00004	0.04
EP-DC-35	EU0078 A-4 Fillite Mix Bin; Maximum Hourly Design Rate (MHDR) = 3.0 tons/hr;	3.00	0.24	0.72	8.56

EP#	EU#/Associated Equipment	Process Weight Rate (ton/hr)	PM Emission Factor (lb/ton)	Potential Uncontrolled Emission Rate (lb/hr)	Emission Rate Limit (lb/hr)
EP-DC-37	EU0079 TRP Taphole Mixing; Maximum Hourly Design Rate (MHDR) = 10.0 tons/hr;	10.00	0.60	6.00	19.18
EP-DC-39	EU0080 HB 50 Ton Bin; Maximum Hourly Design Rate (MHDR) = 3.0 tons/hr;	3.00	0.24	0.72	8.56
EP-DC-40	EU0081 A-5 Gleason Bin; Maximum Hourly Design Rate (MHDR) = 3.0 tons/hr;	3.00	0.24	0.72	8.56
EP-DC-41	EU0082 East Kiln Car Vacuum System; Maximum Hourly Design Rate (MHDR) = 0.5 tons/hr;	0.50	0.24	0.12	2.52
EP-DC-42	EU0083 Shipping Grinding Room; Maximum Hourly Design Rate (MHDR) = 1.0 tons/hr;	1.00	0.53	0.53	4.10
EP-DC-43	EU0084 West Kiln Car Vacuum System; Maximum Hourly Design Rate (MHDR) = 0.5 tons/hr;	0.50	0.24	0.12	2.58

STATEMENT OF BASIS

Voluntary Limitations

In order to qualify for this Intermediate State Operating Permit, the permittee has accepted voluntary, federally enforceable emission limitations. Per 10 CSR 10-6.065(5)(C)1.A.(VI), if these limitations are exceeded, the installation immediately becomes subject to 10 CSR 10-6.065(6) and enforcement action for operating without a valid part 70 operating permit. It is the permittee's responsibility to monitor emission levels and apply for a part 70 operating permit far enough in advance to avoid this situation. This may mean applying more than eighteen months in advance of the exceedance, since it can take that long or longer to obtain a part 70 operating permit.

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 November 9, 2005;
- 2) 2004 Emissions Inventory Questionnaire, received April 1, 2005; and
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition.

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

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

None.

Other Air Regulations Determined Not to Apply to the Operating Permit

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

10 CSR 10-6.100, Alternate Emission Limits

This rule is not applicable because the installation is in an ozone attainment area.

Construction Permit Revisions

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

None.

New Source Performance Standards (NSPS) Applicability

Although 40 CFR Part 60 Subpart Kb was marked applicable in the application, it was determined not to apply since none of the tanks located at this facility are over 19,800 gallons.

Maximum Available Control Technology (MACT) Applicability

None.

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

In the permit application and according to APCP records, there was no indication that any Missouri Air Conservation Law, Asbestos Abatement, 643.225 through 643.250; 10 CSR 10-6.080, Emission Standards for Hazardous Air Pollutants, Subpart M, National Standards for Asbestos; and 10 CSR 10-6.250, Asbestos Abatement Projects - Certification, Accreditation, and Business Exemption Requirements apply to this installation. The installation is subject to these regulations if they undertake any projects that deal with or involve any asbestos containing materials. None of the installation's operating projects underway at the time of this review deal with or involve asbestos containing material. Therefore, the above regulations were not cited in the operating permit. If the installation should undertake any construction or demolition projects in the future that deal with or involve any asbestos containing materials, the installation must follow all of the applicable requirements of the above rules related to that specific project.

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.

40 CFR Part 64 is not applicable because none of the pollutant-specific emission units uses a control device to achieve compliance with a relevant standard.

Other Regulatory Determinations

Permit Conditions (EU0016 through EU0022)-004, EU0031-001, (EU0032 through EU0036)-001, (EU0037 through EU0044)-001 EU0045-001 and EU0046-001 are construction permits that required control device monitoring. However, control device monitoring is not necessary for compliance with 10 CSR 10-6.400 (as demonstrated in Attachment G).

The following units were not included in the permit application, however, each of these units have emissions as reported on the 2004 EIQ and therefore, are included in this permit: DC-23, DC-24, DC-25, DC-26, DC-29, DC-37, G and T.

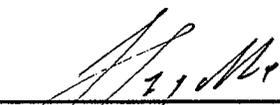
Other Regulations Not Cited in the Operating Permit or the Above Statement of Basis

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

Prepared by:



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