



Missouri Department of Natural Resources
Air Pollution Control Program

PART 70 PERMIT TO OPERATE

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

Operating Permit Number: OP2009-001
Expiration Date: JUN 29 2014
Installation ID: 159-0009
Project Number: 2003-07-167

Installation Name and Address

Pittsburgh Corning Corporation
2700 West 16th Street
Sedalia, MO 65301
Pettis County

Parent Company's Name and Address

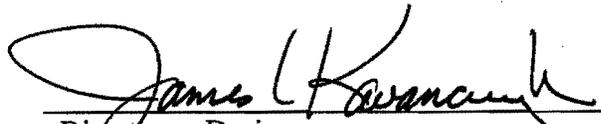
Pittsburgh Corning Corporation
800 Presque Isle Drive
Pittsburgh, PA 15239

Installation Description:

This installation manufactures cellulated rigid glass insulation blocks. Glass is made in a regenerative glass furnace after which it is formed, cooled and crushed. The glass is then mixed with additives, ground, cellulated, annealed, shaped and packaged.

JUN 30 2009

Effective Date



Director or Designee
Department of Natural Resources

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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

This installation manufactures cellulated rigid glass insulation blocks. Glass is made in a regenerative glass furnace after which it is formed, cooled and crushed. The glass is then mixed with additives, ground, cellulated, annealed, shaped and packaged.

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)
2006	49.96	132.46	174.76	5.06	20.66	---	---
2005	47.74	120.79	163.40	5.30	21.66	---	---
2004	49.97	116.64	160.02	5.36	22.71	---	---
2003	54.35	93.80	196.67	5.93	20.93	---	---
2002	42.03	80.68	204.34	4.79	19.60	---	---

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	Emission Point
EU0010	[REDACTED]	S-01
EU0020	[REDACTED]	S-02
EU0030	[REDACTED]	S-02A
EU0040	[REDACTED]	S-05A
EU0050	[REDACTED]	S-06A
EU0060	[REDACTED]	S-08
EU0070	[REDACTED]	S-09
EU0080	[REDACTED]	S-10
EU0090	[REDACTED]	S-12
EU0100	[REDACTED]	S-13
EU0110	[REDACTED]	S-15
EU0120	[REDACTED]	S-18
EU0130	[REDACTED]	S-21
EU0140	[REDACTED]	S-24
EU0150	[REDACTED]	S-30
EU0160	[REDACTED]	S-28
EU0170	[REDACTED]	S-34
EU0180	[REDACTED]	S-35

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

[REDACTED]	(EP S-03)
[REDACTED]	(EP S-13B)
[REDACTED]	(EP S-16)
[REDACTED]	(EP S-33)
[REDACTED]	(EP T-1)
[REDACTED]	(EP T-2)
[REDACTED]	(EP T-3)
[REDACTED]	(EP T-4)
[REDACTED]	
[REDACTED]	
[REDACTED]	

DOCUMENTS INCORPORATED BY REFERENCE

These documents have been incorporated by reference into this permit.

- 1) Construction Permit 1294-007 (and Amendment), Issued November 23, 1994;
- 2) Construction Permit 082001-025, Issued August 17, 2001;
- 3) Construction Permit 0696-017, Issued June 13, 1996;
- 4) Construction Permit 0999-004, Issued August 17, 1999;
- 5) Compliance Assurance Monitoring Plan;
- 6) Construction Permit 022009-010, Issued February 23, 2009.

II. Plant Wide Emission Limitations

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

PERMIT CONDITION PW001
10 CSR 10-6.060 Construction Permits Required
Construction Permit 1294-007

Emission Limitation:

- 1) Pittsburgh Corning Corporation shall not emit more than 0.19 tons per year of manganese dioxide. [Special Condition 1]
- 2) If the presence of fugitive glass dust in the ambient air is detected in quantity and duration that directly or proximately causes or contributes to injury to human, plant, or animal life or health, or to property or that unreasonably interferes with the enjoyment of life or the use of property, or is a violation of a state rule, then Pittsburgh Corning Corporation shall immediately undertake a program that will correct the problem. [Special Condition 4]

Monitoring/Record Keeping:

Records shall be kept on-site for the most recent twenty-four months of operation that show the tons of manganese dioxide emitted per year. Records shall contain both the monthly and previous twelve-month totals. This data shall be compiled on Attachment A or an equivalent record keeping form. These records shall be made available immediately to Department of Natural Resources' employees upon request. [Special Condition 2]

Reporting:

The source shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the end of each month, if the twelve-month cumulative total records show that the source exceeded the limitation. [Special Condition 3]

PERMIT CONDITION PW002
10 CSR 10-6.060 Construction Permits Required
Construction Permit 082001-025, Issued August 17, 2001
Construction Permit 022009-010, Issued February 23, 2009

Emission Limitation:

Pittsburgh Corning Corporation shall not emit an aggregate total of 250.0 tons or more of nitrogen oxide (NO_x) into the atmosphere during any consecutive twelve-month period. [Special Condition 1A of CP No.082001-025 and Special Condition 2A of CP No.200806-033A].

Monitoring/Recordkeeping:

Attachment B or an equivalent form approved by the Air Pollution Control Program shall be used to monitor the emission of nitrogen oxide. Pittsburgh Corning Corporation shall maintain all monthly records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.

[Special Condition 1B of CP No.082001-025 and Special Condition 2B of CP No.200806-033A].

Reporting:

Pittsburgh Corning Corporation shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the end of the month during which the records indicate that the source exceeds the NOx emission limitation.

[Special Condition 1C of CP No.082001-025 and Special Condition 2c of CP No.200806-033A].

PERMIT CONDITION PW003

10 CSR 10-6.060 Construction Permits Required

Construction Permit 082001-025, Issued August 17, 2001

Construction Permit 022009-010, Issued February 23, 2009

Pittsburgh Corning corporation shall notify the Air Pollution Control Program before initial startup of any modifications to the facility design that could impact the release parameters or emission rates as specified in the Memorandums from the Modeling Unit titled "Ambient Air Quality Impact Analysis (AAQIA) for Pittsburgh Corning Corporation – August 13, 2008" and "Ambient Air Quality Impact Analysis (AAQIA) for Pittsburgh Corning Corporation – Revision" dated January 6, 2009. In the event the Program determines that the changes are significant, Pittsburgh Corning Corporation shall submit an updated AAQIA to the Air Pollution Control Program that continues to demonstrate compliance with the National Ambient Air Quality Standards (NAAQS) and Prevention of Significant Deterioration (PSD) increment standards. [Special Condition 6]

III. Emission Unit Specific Emission Limitations

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

EU0010 through EU0020			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0010	; Controlled by #5 Dust Collector ; Constructed 1947	n/a	S-01

<p>PERMIT CONDITION EU0010-001</p> <p>10 CSR 10-6.400 Restriction of Emission of Particulate Matter From Industrial Processes 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants 40 CFR Part 64 Compliance Assurance Monitoring</p>

Emission Limitation:

- 1) The permittee shall not emit particulate matter from EU0010 in excess of 44.6 pounds per hour. This emission rate was calculated using the following equation:
 For process weight rates greater than 60,000 lbs/hr:

$$E = 55.0(P)^{0.11} - 40$$
 Where:
 E = rate of emission in lbs/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 grains per standard cubic feet of exhaust gases.

Monitoring:

- 1) The following CAM Indicators shall be used to monitor the control device (Dust Collector 5):
 - a) Visible Emissions (Opacity Monitoring) –
 - i) An excursion is determined to be an opacity observation greater than ten percent (six-minute average). An excursion will trigger an inspection and possible corrective action.
 - ii) An exceedance is determined to be opacity greater than twenty percent and requires inspection, corrective action, reporting and/or a Quality Improvement Plan (QIP).
 - iii) The permittee shall conduct daily six-minute opacity observations on this emission unit using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are 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. The observer must be a certified Method 9 observer and will be required to be recertified semi-annually.

b) Pressure Drop:

- i) Pressure drop across the dust collector shall be measured once daily.
- ii) An excursion is defined as pressure drop less than two inches of water or greater than ten inches of water or a pressure difference greater than one inch of water and physical samples that indicate a “High Action Level (see below).” An excursion will trigger an inspection and possible corrective action.
- iii) An exceedance occurs when the permittee is unable to take a pressure drop reading greater than five percent of the operating time. An exceedance requires reporting and/or a QIP.

c) Physical Samples

- i) Physical samples (sticky papers) shall be taken daily by qualified personnel.
 - ii) An excursion is defined as a sample indicating a “High Action Level” and a pressure drop out of the acceptable range. An excursion will trigger inspection and possible corrective action.
 - iii) An exceedance occurs when the permittee is unable to take a reading greater than five percent of the operating time. An exceedance requires reporting, and/or a QIP.
- 2) All instruments and control equipment shall be calibrated semi-annually and maintained and operated according to the manufacturer’s specifications and recommendations.
 - 3) Check and document the cleaning sequence of the dust collector every six months.
 - 4) Inspect bags for leaks and wear every six months.
 - 5) Inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods every six months.

Record Keeping:

- 1) Opacity readings shall be manually logged and entered into a central environmental database.
- 2) Pressure drop reading shall be recorded into a spreadsheet/database.
- 3) All results from physical samples shall be manually logged and entered into a central environmental database or spreadsheet.
- 4) All inspections, corrective actions, and instrument calibration shall be recorded (see Attachment C).
- 5) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) or the monitoring requirements indicated an exceedance.
- 2) Reports of any deviations from monitoring (other than the opacity observations, pressure drop range, physical sampling), record keeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

PERMIT CONDITION EU0010-002
 10 CSR 10-6.060 Construction Permits Required
 Construction Permit 022009-010, Issued February 23, 2009

Emission Limitation:

- 1) Pittsburgh Corning corporation shall unload less than 150 tons per day of material at emission point S-1A. [Special Condition 3A]
- 2) The sand delivery haul road (S-1B) shall be limited to six (6) trucks per day. [Special Condition 3B]
- 3) Pittsburgh Corning corporation shall maintain and/or repair the portions of the paved haul road associated with sand delivery (A-1A) and batch unloading (S-04). Maintenance of the surfaces will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating. [Special Condition 5A]
- 4) Pittsburgh Corning Corporation shall periodically water, wash and/or otherwise clean all of the paved portions of the haul roads as necessary to achieve control of fugitive emissions from these roads. [Special Condition 5B]

Monitoring/Recordkeeping:

Attachment P or an equivalent form approved by the Air Pollution Control Program shall be used to demonstrate compliance with these conditions. Pittsburgh Corning Corporation shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. [Special Condition 3C]

Reporting:

Pittsburgh Corning Corporation shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the end of the month during which the records indicate that the source exceeds the limitations. [Special Condition 3D]

EU0020 through EU0030			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0020	; Controlled by #6 Dust ; Constructed 1981	n/a	S-02
EU0030	Controlled by #6 Dust Collector ; Constructed 1981	n/a	S-02A

PERMIT CONDITION (EU0020 through EU0030)-001
 10 CSR 10-6.400 Restriction of Emission of Particulate Matter From Industrial Processes

Emission Limitation:

- 1) The permittee shall not emit particulate matter from EU0020 and EU0030 in excess of 30.5 pounds per hour. These emission rates were calculated using the following equation:

For process weight rates of 60,000 lbs/hr or less:

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

Where:

E = rate of emission in lbs/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 grains per standard cubic feet of exhaust gases.

Monitoring/Record Keeping:

- 1) The permittee shall retain the potential to emit calculations in Attachment D which demonstrate that the above emission limitations will not be exceeded.
- 2) The calculation shall be made available immediately for inspection to the 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's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION (EU0020 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 emissions to be discharged into the atmosphere from any **new** source any visible emissions with an opacity greater than twenty percent.
New source: any equipment, machine, device, article, contrivance or installation installed in the outstate Missouri area after February 24, 1971, or in the Springfield metropolitan area after September 24, 1971.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six minutes in any sixty minutes, air contaminants with an opacity up to sixty percent.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are 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 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.
- Note: The facility will only revert to weekly monitoring when a violation has been noted. Permit renewal or modification does not require the facility to revert to the weekly/bi-weekly opacity monitoring schedule. If the permittee is currently performing monthly monitoring it may continue unless a violation is noted.

Record Keeping:

- 1) The permittee shall maintain records of all observation results (see Attachment E1 or E2), 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 F)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment G)
- 4) Attachments E1 or E2, F and G, contain logs including these record keeping 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's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

EU0040			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0040	; Controlled by Dust Collectors 20A, and ; Constructed 1993	n/a	S-05A

PERMIT CONDITION EU0040-001 10 CSR 10-6.400 Restriction of Emission of Particulate Matter From Industrial Processes

Emission Limitation:

- 1) The permittee shall not emit particulate matter from EU0040 in excess of 16.51 pounds per hour. These emission rates were calculated using the following equation:
 For process weight rates of 60,000 lbs/hr or less:

$$E = 4.10(P)^{0.67}$$
 Where:
 E = rate of emission in lbs/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 grains per standard cubic feet of exhaust gases.

Monitoring/Record Keeping:

- 1) The permittee shall retain the potential to emit calculations in Attachment D which demonstrate that the above emission limitations will not be exceeded.
- 2) The calculation shall be made available immediately for inspection to the 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's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION EU0040-002 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any **new** source any visible emissions with an opacity greater than twenty percent.
New source: any equipment, machine, device, article, contrivance or installation installed in the outstate Missouri area after February 24, 1971, or in the Springfield metropolitan area after September 24, 1971.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six minutes in any sixty minutes air contaminants with an opacity up to sixty percent.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are 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 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. Note: The facility will only revert to weekly monitoring when a violation has been noted. Permit renewal or modification does not require the facility to revert to the weekly/bi-weekly opacity monitoring schedule. If the permittee is currently performing semi-annual monitoring it may continue unless a violation is noted.

Record Keeping:

- 1) The permittee shall maintain records of all observation results (see Attachment E1 or E2), 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 F)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment G)
- 4) Attachments E1 or E2, F, and G, contain logs including these record keeping 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's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

EU0050			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0050	; Constructed 1951	n/a	S-06A

PERMIT CONDITION EU0050-001
 10 CSR 10-6.400 Restriction of Emission of Particulate Matter From Industrial Processes

Emission Limitation:

- 1) The permittee shall not emit particulate matter from EU0050 in excess of 15.1 pounds per hour. These emission rates were calculated using the following equation:
 For process weight rates of 60,000 lbs/hr or less:
 $E = 4.10(P)^{0.67}$
 Where:
 E = rate of emission in lbs/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 grains per standard cubic feet of exhaust gases.

Monitoring/Record Keeping:

- 1) The permittee shall retain the potential to emit calculations in Attachment D which demonstrate that the above emission limitations will not be exceeded.
- 2) The calculation shall be made available immediately for inspection to the 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's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION EU0050-002
 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any **existing** source any visible emissions with an opacity greater than forty percent.
- 2) *Existing source*-any equipment, machine, device, article, contrivance or installation installed or in construction in the outstate Missouri area on February 24, 1971, or in the Springfield metropolitan area on September 24, 1971.
- 3) Exception: If the source is altered, repaired, or rebuilt at a cost of fifty percent (50%) or more of its replacement cost exclusive of routine maintenance, it shall no longer be existing, but shall be considered new as defined in this regulation.

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

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are 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 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. Note: The facility will only revert to weekly monitoring when a violation has been noted. Permit renewal or modification does not require the facility to revert to the weekly/bi-weekly opacity monitoring schedule. If the permittee is currently performing semi-annual monitoring it may continue unless a violation is noted.

Record Keeping:

- 1) The permittee shall maintain records of all observation results (see Attachment E1 or E2), 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 F)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment G)
- 4) Attachments E1 or E2, F, and G, contain logs including these record keeping 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's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.

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

PERMIT CONDITION EU0050-003
 10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds

Emission Limitation:

- 1) Emissions from any existing or new source operation shall not contain more than two thousand parts per million by volume (2000 ppmv) or 141.1 pounds per hour of sulfur dioxide.
- 2) Stack gasses shall not contain more than seventy milligrams (70 mg) per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three-hour time period.
- 3) No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010, Ambient Air Quality Standards. [10 CSR 10-6.260(4) of August 30, 1996 version, 10 CSR 10-6.260(3)(B) of May 30, 2004 version and 10 CSR 10-6.010, Ambient Air Quality Standards]

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO ₂)	0.03 parts per million (ppm) (80 micrograms per cubic meter (µg/m ³))	Annual arithmetic mean
	0.14 ppm (365 µg/m ³)	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 µg/m ³)	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H ₂ S)	0.05 ppm (70 µg/m ³)	½-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 µg/m ³)	½-hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H ₂ SO ₄)	10 µg/m ³	24-hour average not to be exceeded more than once in any 90 consecutive days

Operational Limitation/Equipment Specifications:

This emission unit shall burn pipeline grade natural gas only.

Monitoring/Record Keeping:

- 1) The permittee shall maintain an accurate record of the sulfur content of fuel used. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 2) The permittee shall not utilize glass formulas for use in Tank 4 that exceed 141.1 pounds per hour of SO₂ emissions (including the fuel emissions), and shall demonstrate compliance by using Attachment H.

- 3) The permittee shall retain copies of the SO₂ mass balance calculations from Tank 4 formulas showing sulfur dioxide emissions per ton of glass made from Tank 4.
- 4) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 5) All records shall be maintained for 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's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION EU0050-004

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations
40 CFR Part 63 Subpart SSSSSS National Emission Standards for Hazardous Air Pollutants for Glass
Manufacturing Area Sources

Emissions Limitation:

- 1) The following emission limitations apply to the furnace if it produces glass at an annual rate of at least fifty tons per year and it is charged with compounds of arsenic, cadmium, chromium, manganese, lead or nickel as raw materials: [40 CFR 63.11451]
 - a) The three-hour block average production-based particulate matter mass emission rate of the furnace must not exceed zero and one-tenth grams per kilogram (0.2 pounds per ton) of glass produced; or
 - b) The three-hour block average production-based metal HAP mass emission rate must not exceed 0.01 grams per kilogram (0.02 pounds per ton) of glass produced.
- 2) This emission unit must comply with the emission limit no later than December 28, 2009. A request may be made to the administrator to grant an extension allowing up to one additional year to comply with the limit if such additional period is necessary for the installation of emission controls. [40 CFR 63.11450 (a)]
- 3) The permittee must be in compliance with this emission limit during all times except during periods of startup, shutdown, and malfunction. [40 CFR 63.11455(a)]
- 4) The permittee must always operate and maintain the furnace, including control and monitoring equipment, according to the provisions in §63.6(3)(1)(i). [40 CFR 63.11455(b)]

Initial Notification:

- 1) An Initial Notification must be submitted in accordance with §63.9(b)(2). [40 CFR 63.11456(a)]
- 2) If required to conduct a performance test, a Notification of Compliance Status must be submitted, including the test results before the close of business on the 60th day following completion of the performance test, according to §60.8 or §63.10(d)(2). [40 CFR 63.11456(b)(1)]
- 3) If not required to conduct a performance test, a Notification of Compliance Status must be submitted, including the results of the previous performance test, before the close of business on December 28, 2009. [40 CFR 63.11456(b)(2)]

Performance Testing Requirements:

- 1) A performance test must be conducted within 180 days after December 28, 2009 (the compliance date), and the results must be reported in the Notification of Compliance Status unless the following apply: [40 CFR 63.11452 (a)(1)-(2)]
 - a) A performance test on the furnace has been conducted within the past five years of the compliance date using the same test methods and procedures specified in this subpart;
 - b) The performance test demonstrated that the furnace met the applicable emission limit; and
 - c) Either no process changes have been made since the test, it can be demonstrated that the results of the performance test, with or without adjustments, are reliable to demonstrate compliance with the emission limit.
- 2) The performance test must be conducted according to the requirements in §63.7 and the following: [40 CFR 63.11452(3)(b)(1)-(14)]
 - a) All monitoring equipment must be installed and validated before conducting the performance test
 - b) The performance tests may not be conducted during periods of startup, shutdown, or malfunction, as specified in §63.7(e)(1).
 - c) The test must be conducted while the source is operating at the maximum production rate.
 - d) At least three separate test runs must be conducted with a minimum duration of one hour for each test run, as specified in §63.7(e)(3).
 - e) The test date must be recorded.
 - f) The emission source being tested must be identified.
 - g) The emission test data must be collected and recorded for each run of the performance test.
 - h) All sampling sites at the outlet of the furnace control device or at the furnace stack must be located prior to any releases into the atmosphere.
 - i) The locations of the sampling ports and the number of traverse points using Method 1 or 1A of 40 CFR Part 60, Appendix A-1, must be selected.
 - j) The gas velocity and volumetric flow rate must be measured using Method 2, 2A, 2C, 2F, or 2G of 40 CFR Part 60, Appendices A-1 and A-2, during each test run.
 - k) The gas molecular weight analysis must be conducted using Methods 3, 3A, or 3B of 40 CFR Part 60, Appendix A-2 during each test run. ANSI/ASME PTC 19.10-1981, Flue and Exhaust Gas Analyses may be used as an alternative to EPA Method 3B.
 - l) The gas moisture content must be measured using Method 4 of 40 CFR Part 60, Appendix A-3, during each test run.
 - m) To meet the particulate matter (PM) emission limit, the following procedures must be conducted:
 - i) Measure the PM mass emission rate at the outlet of the control device or at the stack using Method 5 or 17 of 40 CFR Part 60, Appendices A-3 or A-6 for each test run.
 - ii) Calculate the PM mass emission rate in the exhaust stream for each test run.
 - iii) Measure and record the glass production rate for each test run (kilograms (tons) per hour of product).
 - iv) Calculate the production-based PM mass emission rate (grams per kilogram) (pounds per ton) for each test run using the following equation:

$$MP = ER/P$$

Where:

MP = Production-based PM mass emission rate, grams of PM per kilogram (pounds of PM per ton) of glass produced

ER = PM mass emission rate measured using Methods 5 or 17 during each performance test run, grams (pounds) per hour, and

P = Average glass production rate for the performance test, kilograms (tons) of glass produced per hour.

- v) Calculate the three-hour block average production-based PM mass emission rate as the average of the production-based PM mass emission rates for each test run.
- n) To meet the metal HAP emission limit, the following procedures must be conducted:
 - i) Measure the metal HAP mass emission rate at the outlet of the control device or at the stack using Method 29 of 40 CFR Part 60, Appendix A-8 for each test run.
 - ii) Calculate the metal HAP mass emission rate in the exhaust stream for the glass manufacturing metal HAPs that are added as raw materials to the glass manufacturing formulation for each test run.
 - iii) Measure and record the glass production rate (kilograms (tons) per hour of product) for each test run.
 - iv) Calculate the production-based metal HAP mass emission rate (grams per kilogram) (pounds per ton) for each test run using the following equation:
MPM – ERM/P
Where:
MPM = Production-based metal HAP mass emission rate, grams of metal HAP per kilogram (lbs of metal HAP per ton) of glass produced,
ERM = Sum of the metal HAP mass emission rates for the glass manufacturing metal HAPs that are added as raw materials to the glass manufacturing formulation and are measured using Method 29 during each test run, grams (lbs) per hour,
P = Average glass production rate for the performance test, kilograms (tons) of glass.
- v) Calculate the three-hour block average production-based metal HAP mass emission rate as the average of the production-based metal HAP mass emission rates for each test run.

Initial Compliance Demonstration Requirements:

A Notification of Compliance Status must be submitted in accordance with §§63.9(h) and 63.111456(b).
[40 CFR 63.11453(a)]

Monitoring Requirements:

For each monitoring system required by this subpart the permittee must install, calibrate, operate, and maintain the system according to the manufacturer's specifications and the following requirements:
[40 CFR 63.11454(a)(1)-(7)]

- 1) The permittee must install each sensor of the monitoring system in a location that provides representative measurement of the appropriate parameter over all operating conditions, taking into account the manufacturer's guidelines.
- 2) The permittee must perform an initial calibration of the monitoring system based on the manufacturer's recommendations.
- 3) The permittee must use a monitoring system that is designed to complete a minimum of one cycle of operation for each successive fifteen-minute period.
- 4) The permittee must record the value of the monitored parameter at least every eight-hours, either manually or electronically.
- 5) The permittee must record the results of each inspection, calibration, monitoring system maintenance, and corrective action taken to return the monitoring system to normal operation.
- 6) The permittee must maintain the monitoring system at all times including, but not limited to, maintaining necessary parts for routine repairs of the system.

- 7) The permittee must perform the required monitoring whenever the affected furnace meets the following conditions:
 - a) The furnace is being charged with one or more of the glass manufacturing metal HAPs as raw materials;
 - b) The furnace is in transition between producing glass that contains one or more of the glass metal HAPs as raw materials and glass that does not contain any of the glass manufacturing metal HAPs as raw materials. The transition period begins when the furnace is charged with raw materials that do not contain any of the HAPs as raw materials and ends when the furnace begins producing a saleable glass product that does not contain any of the HAPs as raw materials.

Recordkeeping Requirements:

- 1) The permittee must keep the following records: [40 CFR 63.11457(a)(1)-(8)]
 - a) A copy of the Initial Notification and Notification of Compliance Status;
 - b) Records specified in §63.10(b)(2) and (c)(1)-(13);
 - c) Records that show continuous compliance with the emission limit;
 - d) All records of production rate on a process throughput basis, either feed rate to the process unit or discharge rate from the process unit. This must include the amount (weight or weight percent) of each ingredient in the batch formulation, including all glass manufacturing metal HAP compounds;
 - e) Records of all required monitoring data and supporting information including all calibration and maintenance records.
 - f) Records of any approved alternative monitoring method(s) or test procedure(s).
- 2) All records must be in a form suitable and readily available for expeditions review, according to §63.10(b)(1). [40 CFR 63.11457(b)]
- 3) Records of the results of each inspection and maintenance action must be kept in a logbook (written or electronic format). The logbook must be kept on-site and made available to the permitting authority upon request. [40 CFR 63.11457(c)]
- 4) All records must be kept for a minimum of five years and be kept on-site for at least two years. [40 CFR 63.11457(d)]

EU0060			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0060	Collector #15 ; Controlled by Dust ; Constructed 1993	n/a	S-08

PERMIT CONDITION EU0060-001
 10 CSR 10-6.400 Restriction of Emission of Particulate Matter From Industrial Processes
 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants
 40 CFR Part 64 Compliance Assurance Monitoring

Emission Limitation:

- 1) The permittee shall not emit particulate matter from EU0060 in excess of 22.9 pounds per hour. These emission rates were calculated using the following equation:

For process weight rates greater than 60,000 lbs/hr:

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

Where:

E = rate of emission in lbs/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 grains per standard cubic feet of exhaust gases.

Monitoring:

- 1) The following CAM Indicators shall be used to monitor the control device (Dust Collector 15):
 - a) Visible Emissions (Opacity Monitoring) –
 - i) An excursion is determined to be an opacity observation greater than ten percent (six-minute average). An excursion will trigger an inspection and possible corrective action.
 - ii) An exceedance determined to be opacity greater than twenty percent and requires inspection, corrective action, reporting and/or a Quality Improvement Plan (QIP).
 - iii) The permittee shall conduct daily six-minute opacity observations on this emission unit using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are 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. The observer must be a certified Method 9 observer and will be required to be re-certified semi-annually.
 - b) Pressure Drop:
 - i) Pressure drop across the dust collector shall be measured once daily.
 - ii) An excursion is defined as pressure drop less than two inches of water or greater than ten inches of water or a pressure difference greater than one inch of water and physical samples that indicate a “High Action Level” (see below). An excursion will trigger an inspection and possible corrective action.
 - iii) An exceedance occurs when the permittee is unable to take a pressure drop reading greater than five percent of the operating time. An exceedance requires reporting, and or a QIP.
 - c) Physical Samples
 - i) Physical samples (sticky papers) shall be taken daily by qualified personnel.
 - ii) An excursion is defined as a sample indicating a “High Action Level” and a pressure drop out of the acceptable range. An excursion will trigger inspection and possible corrective action.
 - iii) An exceedance occurs when the permittee is unable to take a reading greater than five percent of the operating time. An exceedance requires reporting, and or a QIP.
- 2) All instruments and control equipment shall be calibrated semi-annually and maintained and operated according to the manufacturer’s specifications and recommendations.
- 3) Check and document the cleaning sequence of the dust collector every six months.
- 4) Inspect bags for leaks and wear every six months.
- 5) Inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods every six months.

Record Keeping:

- 1) Opacity readings shall be manually logged and entered into a central environmental database.
- 2) Pressure drop reading shall be recorded into a spreadsheet/database.
- 3) All results from physical samples shall be manually logged and entered into a central environmental database or spreadsheet.
- 4) All inspections, corrective actions, and instrument calibration shall be recorded (see Attachment C).
- 5) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) or the monitoring requirements indicated an exceedance.
- 2) Reports of any deviations from monitoring (other than the opacity observations, pressure drop range, and physical sampling), record keeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

EU0070			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0070	[REDACTED]; Controlled by Dust Collectors 4(a, b, c) [REDACTED]; Constructed 1982	n/a	S-09

<p>PERMIT CONDITION EU0070-001</p> <p>10 CSR 10-6.400 Restriction of Emission of Particulate Matter From Industrial Processes</p> <p>10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants</p> <p>40 CFR Part 64 Compliance Assurance Monitoring</p>

Emission Limitation:

- 1) The permittee shall not emit particulate matter from EU0070 in excess of 22.9 pounds per hour. These emission rates were calculated using the following equation:
 For process weight rates of 60,000 lbs/hr or less:

$$E = 4.10(P)^{0.67}$$
 Where:
 E = rate of emission in lbs/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 grains per standard cubic feet of exhaust gases.

Monitoring:

- 1) The following CAM Indicators shall be used to monitor the control device (Dust Collector 4 (a, b, c):
 - a) Visible Emissions (Opacity Monitoring) –

- i) An excursion is determined to be an opacity observation greater than ten percent (six-minute average). An excursion will trigger an inspection and possible corrective action.
 - ii) An exceedance determined to be opacity greater than twenty percent and requires inspection, corrective action, reporting and/or a Quality Improvement Plan (QIP).
 - iii) The permittee shall conduct daily six-minute opacity observations on this emission unit using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are 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. The observer must be a certified Method 9 observer and will be required to be re-certified semi-annually.
- b) Pressure Drop:
- i) Pressure drop across the dust collector shall be measured once daily.
 - ii) An excursion is defined as pressure drop less than two inches of water or greater than ten inches of water or a pressure difference greater than one inch of water and physical samples that indicate a "High Action Level" (see below). An excursion will trigger an inspection and possible corrective action.
 - iii) An exceedance occurs when the permittee is unable to take a pressure drop reading greater than five percent of the operating time. An exceedance requires reporting, and/or a QIP.
- c) Physical Samples
- i) Physical samples (sticky papers) shall be taken daily by qualified personnel.
 - ii) An excursion is defined as a sample indicating a "High Action Level" and a pressure drop out of the acceptable range. An excursion will trigger inspection and possible corrective action.
 - iii) An exceedance occurs when the permittee is unable to take a reading greater than five percent of the operating time. An exceedance requires reporting, and/or a QIP.
- 2) All instruments and control equipment shall be calibrated semi-annually and maintained and operated according to the manufacturer's specifications and recommendations.
 - 3) Check and document the cleaning sequence of the dust collector every six months.
 - 4) Inspect bags for leaks and wear every six months.
 - 5) Inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods every six months.

Record Keeping:

- 1) Opacity readings shall be manually logged and entered into a central environmental database.
- 2) Pressure drop reading shall be recorded into a spreadsheet/database.
- 3) All results from physical samples shall be manually logged and entered into a central environmental database or spreadsheet.
- 4) All inspections, corrective actions, and instrument calibration shall be recorded (see Attachment C).
- 5) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten days after the permittee determined

that the emission unit(s) exceeded the emission limitation(s) or the monitoring requirements indicated an exceedance.

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

EU0080			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0080	; Constructed 1982	n/a	S-10

<p>PERMIT CONDITION EU0080-001 10 CSR 10-6.400 Restriction of Emission of Particulate Matter From Industrial Processes</p>
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Emission Limitation:

- 1) The permittee shall not emit particulate matter from EU0080 in excess of 14.0 pounds per hour. These emission rates were calculated using the following equation:
 For process weight rates of 60,000 lbs/hr or less:

$$E = 4.10(P)^{0.67}$$
 Where:
 E = rate of emission in lbs/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 grains per standard cubic feet of exhaust gases.

Monitoring/Record Keeping:

- 1) The permittee shall retain the potential to emit calculations in Attachment D which demonstrate that the above emission limitations will not be exceeded.
- 2) The calculation shall be made available immediately for inspection to the 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's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION EU0080-002

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

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any **new** source any visible emissions with an opacity greater than twenty percent.
New source: any equipment, machine, device, article, contrivance or installation installed in the outstate Missouri area after February 24, 1971, or in the Springfield metropolitan area after September 24, 1971.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six minutes in any sixty minutes air contaminants with an opacity up to sixty percent.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are 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 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. Note: The facility will only revert to weekly monitoring when a violation has been noted. Permit renewal or modification does not require the facility to revert to the weekly/bi-weekly opacity monitoring schedule. If the permittee is currently performing semi-annual monitoring it may continue unless a violation is noted.

Record Keeping:

- 1) The permittee shall maintain records of all observation results (see Attachment E1 or E2), 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 F)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment G)
- 4) Attachments E1 or E2, F, and G, contain logs including these record keeping 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's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

PERMIT CONDITION EU0080-003
 10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds

Emission Limitation:

- 1) Emissions from any existing or new source operation shall not contain more than two thousand parts per million by volume (2000 ppmv) of sulfur dioxide.
- 2) Stack gasses shall not contain more than seventy milligrams (70 mg) per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three hour time period.
- 3) No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010, Ambient Air Quality Standards. [10 CSR 10-6.260(4) of August 30, 1996 version, 10 CSR 10-6.260(3)(B) of May 30, 2004 version and 10 CSR 10-6.010, Ambient Air Quality Standards]

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO ₂)	0.03 parts per million (ppm) (80 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$))	Annual arithmetic mean
	0.14 ppm (365 $\mu\text{g}/\text{m}^3$)	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 $\mu\text{g}/\text{m}^3$)	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H ₂ S)	0.05 ppm (70 $\mu\text{g}/\text{m}^3$)	½-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 $\mu\text{g}/\text{m}^3$)	½-hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H ₂ SO ₄)	10 $\mu\text{g}/\text{m}^3$	24-hour average not to be exceeded more than once in any 90 consecutive days

Operational Limitation/Equipment Specifications:

This emission unit shall burn pipeline grade natural gas only.

Monitoring/Record Keeping:

- 1) The permittee shall maintain an accurate record of the sulfur content of fuel used. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 2) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 3) All records shall be maintained for 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's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION EU0080-004

10 CSR 10-6.060 Construction Permits Required
Construction Permit 0696-017, Issued June 13, 1996

Emission Limitation:

- 1) The permittee shall not discharge into the atmosphere from the cellulating furnace stacks (S-10 A through O) sulfur dioxide in an amount exceeding forty tons in any twelve-month period. This limitation shall apply to the combined sulfur dioxide emissions resulting from the addition of aluminum sulfate and all fuel combustion. [Special Condition 1]
- 2) The permittee shall not charge into the ground batch more than 0.265 percent (by mass) of aluminum sulfate. [Special Condition 2]

Monitoring/Recordkeeping:

- 1) The permittee shall verify that the aluminum sulfate in the ground batch does not exceed 0.265 percent.
- 2) The permittee shall maintain monthly records of emissions from the equipment herein permitted.
- 3) Records shall be on Attachments I, J, and K or on equivalent forms created by the permittee. [Special Condition 3]

Reporting:

Pittsburgh Corning Corporation shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the end of the month during which the records indicate that the source exceeds the NO_x emission limitation. [Special Condition 6]

EU0090			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0090	Collector 14(B, C, D) ; Controlled by Dust Constructed 1981	n/a	S-12

PERMIT CONDITION EU0090-001
 10 CSR 10-6.400 Restriction of Emission of Particulate Matter From Industrial Processes

Emission Limitation:

- 1) The permittee shall not emit particulate matter from EU0090 in excess of 5.26 pounds per hour. These emission rates were calculated using the following equation:
 For process weight rates of 60,000 lbs/hr or less:

$$E = 4.10(P)^{0.67}$$
 Where:
 E = rate of emission in lbs/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 grains per standard cubic feet of exhaust gases.

Monitoring:

- 1) Visible Emissions and physical samples will be used as an indicator of the proper operation of the control device. Visual emission observations will be made using a U.S. EPA Method 22 like procedure. Physical samples will be taken and analyzed in accordance with the Pittsburgh Corning standard operating procedures (SOP). During proper operation, no visible emissions and levels on the physical samples as indicated as normal operation in the SOP manual are expected from this emission unit. The existence of visible emissions or presence of residue on the physical samples above normal levels will indicate a decrease in the efficiency of the control device and corrective actions shall be implemented.
- 2) Visible emissions from the exhaust shall be monitored on a daily basis when the process is in operation.
- 3) The duration of the observation for visible emissions shall be for a six minute time period.
- 4) The condition of no visible emissions or normal residue levels on the physical as indicated in the SOP manual is considered standard for this emission unit. When visible emissions or residue levels above normal are noted from the emission unit, it shall be documented and corrective actions taken.
- 5) The observation of visible emissions or residue levels above normal on the physical sample from this emission unit will be considered an excursion and corrective actions shall be implemented within a reasonable period. An excursion does not necessarily indicate a violation of the applicable requirement. When the level of excursions exceed five percent of the total number of observations in a six month period and corrective actions fail to return the emission unit to a no visible emission condition, then the permittee shall conduct source testing within ninety days of the last excursion to demonstrate compliance with the particulate matter emission limitation. If the test demonstrates noncompliance with the above emission limitation, the permittee shall propose a schedule to implement further corrective actions to bring the source into compliance and demonstrate compliance.

- 6) All control equipment shall be maintained and operated according to the manufacturer's specifications.

Record Keeping:

- 1) The permittee shall maintain records of all observations. At a minimum the following observation conditions shall be noted:
 - a) The date and time of the observation and the weather condition;
 - b) Observations of visible emissions from the emission unit. Note: The absence of visible emission may be reported for all like emission units in a statement such as "No visible emissions were observed from any emission unit(s);" and
 - c) The corrective actions taken during excursions.
- 2) Maintenance and inspection records shall also be maintained for the control device on this emission unit. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 3) All inspections, corrective actions, and instrument calibration shall be recorded.
- 4) All records shall be maintained for five years.

Reporting:

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

PERMIT CONDITION EU0090-002

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

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any **new** source any visible emissions with an opacity greater than twenty percent.
New source: any equipment, machine, device, article, contrivance or installation installed in the outstate Missouri area after February 24, 1971, or in the Springfield metropolitan area after September 24, 1971.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six minutes in any sixty minutes air contaminants with an opacity up to sixty percent.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are 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 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. Note: The facility will only revert to weekly monitoring when a violation has been noted. Permit renewal or modification does not require the facility to revert to the weekly/bi-weekly opacity monitoring schedule. If the permittee is currently performing monthly monitoring it may continue unless a violation is noted.

Record Keeping:

- 1) The permittee shall maintain records of all observation results (see Attachment E1 or E2), 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 F)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment G)
- 4) Attachments E1 or E2, F, and G, contain logs including these record keeping 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's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

EU0100			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0100	[REDACTED]; Controlled by Dust Collectors 1, and 13 [REDACTED]; Constructed 1951-1990, various dates	n/a	S-13

PERMIT CONDITION EU0100-001

10 CSR 10-6.400 Restriction of Emission of Particulate Matter From Industrial Processes
 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants
 40 CFR Part 64 Compliance Assurance Monitoring

Emission Limitation:

- 1) The permittee shall not emit particulate matter from EU0100 in excess of 28.4 pounds per hour. These emission rates were calculated using the following equation:
 For process weight rates of 60,000 lbs/hr or less:

$$E = 4.10(P)^{0.67}$$
 Where:
 E = rate of emission in lbs/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 grains per standard cubic feet of exhaust gases.

Monitoring:

- 1) The following CAM Indicators shall be used to monitor the control device (Dust Collector 1 or 13):
 - a) Visible Emissions (Opacity Monitoring) –
 - i) An excursion is determined to be an opacity observation greater than ten percent (six-minute average). An excursion will trigger an inspection and possible corrective action.
 - ii) An exceedance determined to be opacity greater than twenty percent and requires inspection, corrective action, reporting and/or a Quality Improvement Plan (QIP).
 - iii) The permittee shall conduct daily six-minute opacity observations on this emission unit using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are 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. The observer must be a certified Method 9 observer and will be required to be recertified semi-annually.
 - b) Pressure Drop-
 - i) Pressure drop across the dust collector shall be measured daily.
 - ii) An excursion is defined as pressure drop less than two inches of water or greater than ten inches of water or a pressure difference greater than one inch of water and physical samples

that indicate a “High Action Level” (see below). An excursion will trigger an inspection and possible corrective action.

iii) An exceedance occurs when the permittee is unable to take a pressure drop reading greater than five percent of the operating time. An exceedance requires reporting, and/or a QIP.

c) Physical Samples

i) Physical samples (sticky papers) shall be taken daily by qualified personnel.

ii) An excursion is defined as a sample indicating a “High Action Level” and a pressure drop out of the acceptable range. An excursion will trigger inspection and possible corrective action.

iii) An exceedance occurs when the permittee is unable to take a reading greater than five percent of the operating time. An exceedance requires reporting, and/or a QIP.

2) All instruments and control equipment shall be calibrated semi-annually and maintained and operated according to the manufacturer’s specifications and recommendations.

3) Check and document the cleaning sequence of the dust collector every six months.

4) Inspect bags for leaks and wear every six months.

5) Inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods every six months.

Record Keeping:

1) Opacity readings shall be manually logged and entered into a central environmental database.

2) Pressure drop reading shall be recorded into a spreadsheet/database.

3) All results from physical samples shall be manually logged and entered into a central environmental database or spreadsheet.

4) All inspections, corrective actions, and instrument calibration shall be recorded (see Attachment C).

5) All records shall be maintained for five years.

Reporting:

1) The permittee shall report to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) or the monitoring requirements indicated an exceedance.

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

EU0110			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0110	Collector 12 ; Controlled by Dust ; Constructed 1981	n/a	S-15

<p>PERMIT CONDITION EU0110-001</p> <p>10 CSR 10-6.400 Restriction of Emission of Particulate Matter From Industrial Processes 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants 40 CFR Part 64 Compliance Assurance Monitoring</p>

Emission Limitation:

- 1) The permittee shall not emit particulate matter from EU0110 in excess of 10.4 pounds per hour. These emission rates were calculated using the following equation:
 For process weight rates of 60,000 lbs/hr or less:

$$E = 4.10(P)^{0.67}$$
 Where:
 E = rate of emission in lbs/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 grains per standard cubic feet of exhaust gases.

Monitoring:

- 1) The following CAM Indicators shall be used to monitor the control device (Dust Collector 12):
 - a) Visible Emissions (Opacity Monitoring) –
 - i) An excursion is determined to be an opacity observation greater than ten percent (six-minute average). An excursion will trigger an inspection and possible corrective action.
 - ii) An exceedance determined to be opacity greater than twenty percent and requires inspection, corrective action, reporting and/or a Quality Improvement Plan (QIP).
 - iii) The permittee shall conduct daily six-minute opacity observations on this emission unit using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are 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. The observer must be a certified Method 9 observer and will be required to be recertified semi-annually.
 - b) Pressure Drop-
 - i) Pressure drop across the dust collector shall be measured once daily.
 - ii) An excursion is defined as pressure drop less than two inches of water or greater than ten inches of water or a pressure difference greater than one inch of water and physical samples that indicate a “High Action Level” (see below). An excursion will trigger an inspection and possible corrective action.

- iii) An exceedance occurs when the permittee is unable to take a pressure drop reading greater than five percent of the operating time. An exceedance requires reporting, and/or a QIP.
- c) Physical Samples
 - i) Physical samples (sticky papers) shall be taken daily by qualified personnel.
 - ii) An excursion is defines as a sample indicating a “High Action Level” and a pressure drop out of the acceptable range. An excursion will trigger inspection and possible corrective action.
 - iii) An exceedance occurs when the permittee is unable to take a reading greater than five percent of the operating time. An exceedance requires reporting, and/or a QIP.
- 2) All instruments and control equipment shall be calibrated semi-annually and maintained and operated according to the manufacturer’s specifications and recommendations.
- 3) Check and document the cleaning sequence of the dust collector every six months.
- 4) Inspect bags for leaks and wear every six months.
- 5) Inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods every six months.

Record Keeping:

- 1) Opacity readings shall be manually logged and entered into a central environmental database.
- 2) Pressure drop reading shall be recorded into a spreadsheet/database.
- 3) All results from physical samples shall be manually logged and entered into a central environmental database or spreadsheet.
- 4) All inspections, corrective actions, and instrument calibration shall be recorded (see Attachment C).
- 5) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) or the monitoring requirements indicated an exceedance.
- 2) Reports of any deviations from monitoring (other than the opacity observations, pressure drop range, and physical sampling), record keeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

EU0120			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0120	Dust Collector #9 1951	n/a	S-18

PERMIT CONDITION EU0120-001
 10 CSR 10-6.400 Restriction of Emission of Particulate Matter From Industrial Processes

Emission Limitation:

- 1) The permittee shall not emit particulate matter from EU0120 in excess of 6.5 pounds per hour. These emission rates were calculated using the following equation:

For process weight rates of 60,000 lbs/hr or less:

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

Where:

E = rate of emission in lbs/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 grains per standard cubic feet of exhaust gases.

Monitoring/Record Keeping:

- 1) The permittee shall retain the potential to emit calculations in Attachment D which demonstrate that the above emission limitations will not be exceeded.
- 2) The calculation shall be made available immediately for inspection to the 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's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION EU0120-002

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

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any **existing** source any visible emissions with an opacity greater than forty percent.
Existing source-any equipment, machine, device, article, contrivance or installation installed or in construction in the outstate Missouri area on February 24, 1971, or in the Springfield metropolitan area on September 24, 1971.
- 2) Exception: If the source is altered, repaired, or rebuilt at a cost of fifty percent (50%) or more of its replacement cost exclusive of routine maintenance, it shall no longer be existing, but shall be considered new as defined in this regulation.
- 3) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six minutes in any sixty minutes air contaminants with an opacity up to sixty percent.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are 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 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. Note: The facility will only revert to weekly monitoring when a violation has been noted. Permit renewal or modification does not require the facility to revert to the weekly/bi-weekly opacity monitoring schedule. If the permittee is currently performing monthly monitoring, it may continue unless a violation is noted.

Record Keeping:

- 1) The permittee shall maintain records of all observation results (see Attachment E1 or E2), 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 F)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment G)
- 4) Attachments E1 or E2, F, and G, contain logs including these record keeping 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's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

EU0130			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0130	; Installed 1977	York-Shipley	S-21

PERMIT CONDITION EU0130-001
 10 CSR 10-3.060 Maximum Allowable Emissions of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating

Emission Limitation:

The permittee shall not emit particulate matter in excess of zero and six-tenths pounds per million British Thermal units of heat input from this emission unit while it is operating.

Operation Limitation/Equipment Specifications:

This emission unit shall be limited to burning No. 4 Distillate Oil.

Monitoring/Record Keeping:

- 1) The permittee shall maintain on the premises of the installation calculations demonstrating compliance with this rule (See Attachment M).
- 2) The calculation shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.

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's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION EU0130-002
 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any **new** source any visible emissions with an opacity greater than twenty percent.
New source: any equipment, machine, device, article, contrivance or installation installed in the outstate Missouri area after February 24, 1971, or in the Springfield metropolitan area after September 24, 1971.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six minutes in any sixty minutes air contaminants with an opacity up to sixty percent.

Monitoring:

- 1) When this unit is operating, the permittee shall conduct opacity readings on this emission unit using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of

uncombined water. Readings are 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 while the unit is operating:
 - 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 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. Note: The facility will only revert to weekly monitoring when a violation has been noted. Permit renewal or modification does not require the facility to revert to the weekly/bi-weekly opacity monitoring schedule. If the permittee is currently performing semi-annual monitoring it may continue unless a violation is noted.

Record Keeping:

- 1) The permittee shall maintain records of all observation results (see Attachment E1 or E2), 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 F)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment G)
- 4) Attachments E1 or E2, F, and G, contain logs including these record keeping 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's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

PERMIT CONDITION EU0130-003
 10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds

Emission Limitation:

- 1) No person shall cause or permit emissions of sulfur dioxide into the atmosphere from any indirect heating source in excess of eight pounds of sulfur dioxide per million British Thermal units actual heat input averaged on any consecutive three-hour time period
- 2) No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010, Ambient Air Quality Standards.
- 3) No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010, Ambient Air Quality Standards. [10 CSR 10-6.260(4) of August 30, 1996 version, 10 CSR 10-6.260(3)(B) of May 30, 2004 version and 10 CSR 10-6.010, Ambient Air Quality Standards]

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO ₂)	0.03 parts per million (ppm) (80 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$))	Annual arithmetic mean
	0.14 ppm (365 $\mu\text{g}/\text{m}^3$)	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 $\mu\text{g}/\text{m}^3$)	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H ₂ S)	0.05 ppm (70 $\mu\text{g}/\text{m}^3$)	$\frac{1}{2}$ -hour average not to be exceeded over 2 times per year
	0.03 ppm (42 $\mu\text{g}/\text{m}^3$)	$\frac{1}{2}$ -hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H ₂ SO ₄)	10 $\mu\text{g}/\text{m}^3$	24-hour average not to be exceeded more than once in any 90 consecutive days

Operational Limitation/Equipment Specifications:

The emission unit shall be limited to fuel with a sulfur content of no more than 1.2 percent sulfur by weight.

Monitoring:

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

Record Keeping:

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

Reporting:

The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten days after any exceedance of the emission limit or sulfur content limit established by 10 CSR 10-6.260, or any malfunction which causes an exceedance.

EU0140			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0140	X [REDACTED]; Constructed 1982	n/a	S-24

PERMIT CONDITION EU0140-001
 10 CSR 10-6.400 Restriction of Emission of Particulate Matter From Industrial Processes

Emission Limitation:

- 1) Particulate matter shall not be emitted from EU0140 in excess of 14.0 pounds per hour.
 These emission rates were calculated using the following equation:
 For process weight rates of 60,000 lbs/hr or less:

$$E = 4.10(P)^{0.67}$$
 Where:
 E = rate of emission in lbs/hr
 P = process weight rate in tons/hr
- 2) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 grains per standard cubic feet.

Monitoring/Record Keeping:

- 1) The permittee shall retain the potential to emit calculations in Attachment D which demonstrate that the above emission limitations will not be exceeded.
- 2) The calculation shall be made available immediately for inspection to the 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's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION EU0140-002

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

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any **new** source any visible emissions with an opacity greater than twenty percent.
New source: any equipment, machine, device, article, contrivance or installation installed in the outstate Missouri area after February 24, 1971, or in the Springfield metropolitan area after September 24, 1971.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six minutes in any sixty minutes air contaminants with an opacity up to sixty percent.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are 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 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. Note: The facility will only revert to weekly monitoring when a violation has been noted. Permit renewal or modification does not require the facility to revert to the weekly/bi-weekly opacity monitoring schedule. If the permittee is currently performing semi-annual monitoring it may continue unless a violation is noted.

Record Keeping:

- 1) The permittee shall maintain records of all observation results (see Attachment E1 or E2), 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 F)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment G)
- 4) Attachments E1 or E2, F, and G, contain logs including these record keeping 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's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

EU0150			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0150	Controlled by Dust Collector #7 Constructed 1952	n/a	S-30

<p>PERMIT CONDITION EU0150-001 10 CSR 10-6.400 Restriction of Emission of Particulate Matter From Industrial Processes</p>
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Emission Limitation:

- 1) The permittee shall not emit particulate matter from EU0150 in excess of 6.7 pounds per hour. These emission rates were calculated using the following equation:
 For process weight rates of 60,000 lbs/hr or less:

$$E = 4.10(P)^{0.67}$$
 Where:
 E = rate of emission in lbs/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 grains per standard cubic feet of exhaust gases.

Monitoring/Record Keeping:

- 1) The permittee shall retain the potential to emit calculations in Attachment D which demonstrate that the above emission limitations will not be exceeded.
- 2) The calculation shall be made available immediately for inspection to the 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's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION EU0150-002

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

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any **existing** source any visible emissions with an opacity greater than forty percent.
Existing source-any equipment, machine, device, article, contrivance or installation installed or in construction in the outstate Missouri area on February 24, 1971, or in the Springfield metropolitan area on September 24, 1971.
- 2) Exception: If the source is altered, repaired, or rebuilt at a cost of fifty percent (50%) or more of its replacement cost exclusive of routine maintenance, it shall no longer be existing, but shall be considered new as defined in this regulation.
- 3) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six minutes in any sixty minutes air contaminants with an opacity up to sixty percent.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are 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 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. **Note:** The facility will only revert to weekly monitoring when a violation has been noted. Permit renewal or modification does not require the facility to revert to the weekly/bi-weekly opacity monitoring schedule. If the permittee is currently performing semi-annual monitoring it may continue unless a violation is noted.

Record Keeping:

- 1) The permittee shall maintain records of all observation results (see Attachment E1 or E2), 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 F)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment G)

- 4) Attachments E1 or E2, F, and G, contain logs including these record keeping 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's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

EU0160 – [REDACTED]			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0160	[REDACTED]; Installed 1999	Caterpillar	S-28

PERMIT CONDITION EU0160-001
 10 CSR 10-6.060 Construction Permits Required
 Construction Permit 0999-004, Issued August 19, 1999

Emission Limitation:

Pittsburgh Corning Corporation shall emit into the atmosphere from the emergency generator nitrogen oxides (NOx) in amounts less than forty tons in any consecutive twelve-month period.
 [Special Condition 1]

Monitoring/Record Keeping:

Pittsburgh Corning Corporation shall keep monthly records that are adequate to determine the NOx emissions from the emergency generator. Attachment N, NOx Compliance Worksheet, or an equivalent form is suitable for this purpose. The most recent sixty months of records shall be maintained on-site and shall be made immediately available to the Department of Natural Resources' personnel upon request. [Special Condition 2]

Reporting:

Pittsburgh Corning Corporation shall report the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the end of each month, if the twelve-month cumulative total records show that the source exceeded the limitation.
 [Special Condition 3]

EU0170			
Emission Unit	Description	Manufacturer/ Model #	EIQ Reference #
EU0170	reverse pulse jet collectors. ; Controlled by	n/a	S34a, S34b and S34c

<p>PERMIT CONDITION EU0170-001</p> <p>10 CSR 10-6.400 Restriction of Emission of Particulate Matter From Industrial processes 10 CSR 10-6.060 Construction Permits Required Construction Permit 022009-010, Issued February 23, 2009</p>

Emission Limitation:

- 1) Particulate matter shall not be emitted from EU0170 in excess of 15.1 pounds per hour.
 This emission rate was calculated using the following equation:
 For process weight rates of 60,000 lbs/hr or less:

$$E = 4.10(P)^{0.67}$$
 Where:
 E = rate of emission in lbs/hr
 P = process weight rate in tons/hr
- 2) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 grains per standard cubic feet.

Monitoring:

- 1) Visible Emissions and physical samples will be used as an indicator of the proper operation of the control device. Visual emission observations will be made using a U.S. EPA Method 22 like procedure. Physical samples will be taken and analyzed in accordance with the Pittsburgh Corning standard operating procedures (SOP). During proper operation, no visible emissions and levels on the physical samples as indicated as normal operation in the SOP manual are expected from this emission unit. The existence of visible emissions or presence of residue on the physical samples above normal levels will indicate a decrease in the efficiency of the control device and corrective actions shall be implemented. [Special Condition 4A]
- 2) Visible emissions from the exhaust shall be monitored on a daily basis when the process is in operation. Physical samples shall also be taken on a daily basis when the process is in operation. [Special Condition 4B]
- 3) The duration of the observation for visible emissions shall be for a six minute time period. [Special Condition 4C]
- 4) The condition of no visible emissions or normal residue levels on the physical as indicated in the SOP manual is considered standard for this emission unit. When visible emissions or residue levels above normal are noted from the emission unit, it shall be documented and corrective actions taken. [Special Condition 4D]
- 5) The observation of visible emissions or residue levels above normal on the physical sample from this emission unit will be considered an excursion and corrective actions shall be implemented within a reasonable period. An excursion does not necessarily indicate a violation of the applicable requirement. When the level of excursions exceed five percent of the total number of observations in a six month period and corrective actions fail to return the emission unit to a no visible emission condition, then the permittee shall conduct source testing within ninety days of the last excursion to demonstrate compliance with the particulate matter emission limitation. If the test demonstrates

noncompliance with the above emission limitation the permittee shall propose a schedule to implement further corrective actions to bring the source into compliance and demonstrate compliance. [Special Condition 4E]

- 6) All control equipment shall be maintained and operated according to the manufacturer's specifications. [Special Condition 4F]

Record Keeping:

- 1) The permittee shall maintain records of all observations. At a minimum the following observation conditions shall be noted:
 - a) The date and time of the observation and the weather condition;
 - b) Observations of visible emissions from the emission unit. Note: The absence of visible emission may be reported for all like emission units in a statement such as "No visible emissions were observed from any emission unit(s);" and
 - c) The corrective actions taken during excursions.
- 2) Maintenance and inspection records shall also be maintained for the control device on this emission unit. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 3) All inspections, corrective actions, and instrument calibration shall be recorded.
- 4) All records shall be maintained for five years.

Reporting:

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

PERMIT CONDITION EU0170-002

10 CSR 10-6.220 Restriction of Emission of Visible Emissions

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any **new** source any visible emissions with an opacity greater than twenty percent.
New source: any equipment, machine, device, article, contrivance or installation installed in the outstate Missouri area after February 24, 1971, or in the Springfield metropolitan area after September 24, 1971.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six minutes in any sixty minutes air contaminants with an opacity up to sixty percent.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are 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) As required by Construction Permit 062008-033, visible emissions observations shall be conducted daily for a period of six-minutes in duration.

Record Keeping:

- 1) The permittee shall maintain records of all observation results (see Attachment E1 or E2), 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 F)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment G)
- 4) Attachments E1 or E2, F, and G, contain logs including these record keeping 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's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

PERMIT CONDITION EU0170-003

10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds

Emission Limitation:

- 1) Emissions from any new source operation shall not contain more than five hundred parts per million by volume (500 ppmv) of sulfur dioxide.
- 2) Stack gasses shall not contain more than thirty-five milligrams (35 mg) per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three-hour time period.

Operational Limitation/Equipment Specifications:

The emission unit shall be limited to burning pipeline grade natural gas.

Monitoring/Record Keeping:

Documentation supporting the fuel used is pipeline grade natural gas.

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’s Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

EU0180 – [REDACTED]			
Emission Unit	Description	Manufacturer/ Model #	EIQ Reference #
EU0180	[REDACTED]; Controlled by dust collector 35 [REDACTED]	n/a	S-35

<p>PERMIT CONDITION EU0180-001 10 CSR 10-6.400 Restriction of Emission of Particulate Matter From Industrial Processes</p>
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Emission Limitation:

- 1) The permittee shall not emit particulate matter from EU0180 in excess of 6.7 pounds per hour. These emission rates were calculated using the following equation:
 For process weight rates of 60,000 lbs/hr or less:

$$E = 4.10(P)^{0.67}$$
 Where:
 E = rate of emission in lbs/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 grains per standard cubic feet of exhaust gases.

Monitoring:

- 1) Visible Emissions and physical samples will be used as an indicator of the proper operation of the control device. Visual emission observations will be made using a U.S. EPA Method 22 like procedure. Physical samples will be taken and analyzed in accordance with the Pittsburgh Corning standard operating procedures (SOP). During proper operation, no visible emissions and levels on the physical samples as indicated as normal operation in the SOP manual are expected from this emission unit. The existence of visible emissions or presence of residue on the physical samples above normal levels will indicate a decrease in the efficiency of the control device and corrective actions shall be implemented.
- 2) Visible emissions from the exhaust shall be monitored on a daily basis when the process is in operation.
- 3) The duration of the observation for visible emissions shall be for a six minute time period. The condition of no visible emissions or normal residue levels on the physical as indicated in the SOP manual is considered standard for this emission unit. When visible emissions or residue levels above normal are noted from the emission unit, it shall be documented and corrective actions taken.
- 4) The observation of visible emissions or residue levels above normal on the physical sample from this emission unit will be considered an excursion and corrective actions shall be implemented within a reasonable period. An excursion does not necessarily indicate a violation of the applicable requirement. When the level of excursions exceed five percent of the total number of observations in a six month period and corrective actions fail to return the emission unit to a no visible emission

condition, then the permittee shall conduct source testing within ninety days of the last excursion to demonstrate compliance with the particulate matter emission limitation. If the test demonstrates noncompliance with the above emission limitation the permittee shall propose a schedule to implement further corrective actions to bring the source into compliance and demonstrate compliance.

- 5) All control equipment shall be maintained and operated according to the manufacturer's specifications.

Record Keeping:

- 1) The permittee shall maintain records of all observations. At a minimum the following observation conditions shall be noted:
 - a) The date and time of the observation and the weather condition;
 - b) Observations of visible emissions from the emission unit. Note: The absence of visible emission may be reported for all like emission units in a statement such as "No visible emissions were observed from any emission unit(s);" and
 - c) The corrective actions taken during excursions.
- 2) Maintenance and inspection records shall also be maintained for the control device on this emission unit. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 3) All inspections, corrective actions, and instrument calibration shall be recorded.
- 4) All records shall be maintained for 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's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION EU0180-002

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

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any **new** source any visible emissions with an opacity greater than twenty percent. *Existing source*-any equipment, machine, device, article, contrivance or installation installed or in construction in the outstate Missouri area on February 24, 1971, or in the Springfield metropolitan area on September 24, 1971.
- 2) Exception: If the source is altered, repaired, or rebuilt at a cost of fifty percent (50%) or more of its replacement cost exclusive of routine maintenance, it shall no longer be existing, but shall be considered new as defined in this regulation.
- 3) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six minutes in any sixty minutes air contaminants with an opacity up to sixty percent.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are 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 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.

Record Keeping:

- 1) The permittee shall maintain records of all observation results (see Attachment E1 or E2), 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 F)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see AttachmentG)
- 4) Attachments E1 or E2, F, and G, contain logs including these record keeping 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's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

IV. Core Permit Requirements

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

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

- 1) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the Director within two business days, in writing, the following information:
 - a) Name and location of installation;
 - b) Name and telephone number of person responsible for the installation;
 - c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
 - d) Identity of the equipment causing the excess emissions;
 - e) Time and duration of the period of excess emissions;
 - f) Cause of the excess emissions;
 - g) Air pollutants involved;
 - h) Best estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;
 - i) Measures taken to mitigate the extent and duration of the excess emissions; and
 - j) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
- 2) The permittee shall submit the paragraph 1 information list to the Director in writing at least ten days prior to any maintenance, start-up or shutdown, which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event cannot be given ten days prior to the planned occurrence, it shall be given as soon as practicable prior to the release. If an unplanned excess release of emissions exceeding one hour occurs during maintenance, start-up or shutdown, the Director shall be notified verbally as soon as practical during normal working hours and no later than the close of business of the following working day. A written notice shall follow within ten working days.
- 3) Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under Section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the paragraph 1 list and shall be submitted not later than fifteen 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 Section 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 10-6.045 Open Burning Requirements

- 1) General Provisions. The open burning of tires, petroleum-based products, asbestos containing materials, and trade waste is prohibited, except as allowed below. Nothing in this rule may be construed as to allow open burning which causes or constitutes a public health hazard, nuisance, a hazard to vehicular or air traffic, nor which violates any other rule or statute.
- 2) Refer to the regulation for a complete list of allowances. The following is a listing of exceptions to the allowances:
 - a) Burning of household or domestic refuse. Burning of household or domestic refuse is limited to open burning on a residential premises having not more than four dwelling units, provided that the refuse originates on the same premises, with the following exceptions:
 - i) Kansas City metropolitan area. The open burning of household refuse must take place in an area zoned for agricultural purposes and outside that portion of the metropolitan area surrounded by the corporate limits of Kansas City and every contiguous municipality;
 - ii) Springfield-Greene County area. The open burning of household refuse must take place outside the corporate limits of Springfield and only within areas zoned A-1, Agricultural District;
 - iii) St. Joseph area. The open burning of household refuse must take place within an area zoned for agricultural purposes and outside that portion of the metropolitan area surrounded by the corporate limits of St. Joseph; and
 - iv) St. Louis metropolitan area. The open burning of household refuse is prohibited;
 - b) Yard waste, with the following exceptions:
 - i) Kansas City metropolitan area. The open burning of trees, tree leaves, brush or any other type of vegetation shall require an open burning permit;
 - ii) Springfield-Greene County area. The City of Springfield requires an open burning permit for the open burning of trees, brush or any other type of vegetation. The City of Springfield prohibits the open burning of tree leaves;
 - iii) St. Joseph area. Within the corporate limits of St. Joseph, the open burning of trees, tree leaves, brush or any other type of vegetation grown on a residential property is allowed during the following calendar periods and time-of-day restrictions:
 - (1) A three (3)-week period within the period commencing the first day of March through April 30 and continuing for twenty-one (21) consecutive calendar days;
 - (2) A three (3)-week period within the period commencing the first day of October through November 30 and continuing for twenty-one (21) consecutive calendar days;
 - (3) The burning shall take place only between the daytime hours of 10:00 a.m. and 3:30 p.m.; and
 - (4) In each instance, the twenty-one (21)-day burning period shall be determined by the Director of Public Health and Welfare of the City of St. Joseph for the region in which the City of St. Joseph is located provided, however, the burning period first shall receive the approval of the Department Director; and
 - iv) St. Louis metropolitan area. The open burning of trees, tree leaves, brush or any other type of vegetation is limited to the period beginning September 16 and ending April 14 of each calendar year and limited to a total base area not to exceed sixteen (16) square feet. Any open burning shall be conducted only between the hours of 10:00 a.m. and 4:00 p.m. and is limited to areas outside of incorporated municipalities;

- 3) Certain types of materials may be open burned provided an open burning permit is obtained from the Director. The permit will specify the conditions and provisions of all open burning. The permit may be revoked if the owner or operator fails to comply with the conditions or any provisions of the permit.
- 4) Pittsburgh Corning Corporation may be issued an annually renewable open burning permit for open burning provided that an air curtain destructor or incinerator is utilized and only tree trunks, tree limbs, vegetation or untreated wood waste are burned. Open burning shall occur at least two hundred (200) yards from the nearest occupied structure unless the owner or operator of the occupied structure provides a written waiver of this requirement. Any waiver shall accompany the open burning permit application. The permit may be revoked if Installation Name fails to comply with the provisions or any condition of the open burning permit.
 - a) In a nonattainment area, as defined in 10 CSR 10-6.020, paragraph (2)(N)5., the Director shall not issue a permit under this section unless the owner or operator can demonstrate to the satisfaction of the Director that the emissions from the open burning of the specified material would be less than the emissions from any other waste management or disposal method.
- 5) Reporting and Record Keeping. New Source Performance Standard (NSPS) 40 CFR Part 60 Subpart CCCC establishes certain requirements for air curtain destructors or incinerators that burn wood trade waste. These requirements are established in 40 CFR 60.2245-60.2260. The provisions of 40 CFR Part 60 Subpart CCCC promulgated as of September 22, 2005 shall apply and are hereby incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N Capitol Street NW, Washington, DC 20401. To comply with NSPS 40 CFR 60.2245-60.2260, sources must conduct an annual Method 9 test. A copy of the annual Method 9 test results shall be submitted to the Director.
- 6) Test Methods. The visible emissions from air pollution sources shall be evaluated as specified by 40 CFR Part 60, Appendix A–Test Methods, Method 9–Visual Determination of the Opacity of Emissions from Stationary Sources. The provisions of 40 CFR Part 60, Appendix A, Method 9, promulgated as of December 23, 1971, is incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N Capitol Street NW, Washington, DC 20401.

10 CSR 10-6.060 Construction Permits Required

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

10 CSR 10-6.065 Operating Permits

The permittee shall file a complete application for renewal of this operating permit at least six months before the date of permit expiration. In no event shall this time be greater than eighteen months.

[10 CSR 10-6.065(6)(B)1.A(V)] The permittee shall retain the most current operating permit issued to this installation on-site. [10 CSR 10-6.065(6)(C)1.C(II)] The permittee shall immediately make such permit available to any Missouri Department of Natural Resources' personnel upon request.

[10 CSR 10-6.065(6)(C)3.B]

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

- 1) The permittee shall complete and submit an Emission Inventory Questionnaire (EIQ) in accordance with the requirements outlined in this rule.

- 2) The permittee shall pay an annual emission fee per ton of regulated air pollutant emitted according to the schedule in the rule. This fee is an emission fee assessed under authority of RSMo 643.079 to satisfy the requirements of the Federal Clean Air Act, Title V.
- 3) The fees shall be 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 10-3.090 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 fifteen minutes apart within the period of one hour. **This requirement is not federally enforceable.**

Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone

- 1) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
 - b) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
 - c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
 - d) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
- 2) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
 - a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
 - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).
 - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
 - f) Owners/operators of appliances normally containing fifty 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:
- Monitoring methods outlined in 40 CFR Part 64;
 - Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - 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:
- Monitoring methods outlined in 40 CFR Part 64;
 - A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - 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:
- Applicable monitoring or testing methods, cited in:
 - 10 CSR 10-6.030, "Sampling Methods for Air Pollution Sources";
 - 10 CSR 10-6.040, "Reference Methods";
 - 10 CSR 10-6.070, "New Source Performance Standards";
 - 10 CSR 10-6.080, "Emission Standards for Hazardous Air Pollutants"; or
 - Other testing, monitoring, or information gathering methods, if approved by the Director, that produce information comparable to that produced by any method listed above.

V. General Permit Requirements

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

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

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

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

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

the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.

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

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

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

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

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

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

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

- 1) The permittee must comply with all of the terms and conditions of this permit. Any noncompliance with a permit condition constitutes a violation and is grounds for enforcement action, permit termination, permit revocation and re-issuance, permit modification or denial of a permit renewal application.
- 2) The permittee may not use as a defense in an enforcement action that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit
- 3) The permit may be modified, revoked, reopened, reissued or terminated for cause. Except as provided for minor permit modifications, the filing of an application or request for a permit modification, revocation and reissuance, or termination, or the filing of a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- 4) This permit does not convey any property rights of any sort, nor grant any exclusive privilege.

- 5) The permittee shall furnish to the Air Pollution Control Program, upon receipt of a written request and within a reasonable time, any information that the Air Pollution Control Program reasonably may require to determine whether cause exists for modifying, reopening, reissuing or revoking the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the Air Pollution Control Program copies of records required to be kept by the permittee. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 10 CSR 10-6.065(6)(C)1.

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

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

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

None.

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

- 1) Any document (including reports) required to be submitted under this permit shall contain a certification signed by the responsible official.
- 2) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized officials of the Missouri Department of Natural Resources, or their authorized agents, to perform the following (subject to the installation's right to seek confidential treatment of information submitted to, or obtained by, the Air Pollution Control Program):
 - a) Enter upon the premises where a permitted installation is located or an emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
 - b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c) Inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - d) As authorized by the Missouri Air Conservation Law, Chapter 643, RSMo or the Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the terms of this permit, and all applicable requirements as outlined in this permit.
- 3) All progress reports required under an applicable schedule of compliance shall be submitted semiannually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following:
 - a) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and
 - b) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
- 4) The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards, or work practices. These certifications shall be submitted annually by April 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, as well as the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102. All

deviations and Part 64 exceedances and excursions must be included in the compliance certifications. The compliance certification shall include the following:

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

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

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

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

- 1) An emergency or upset as defined in 10 CSR 10-6.065(6)(C)7.A shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emissions limitations. To establish an emergency- or upset-based defense, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, the following:
 - a) That an emergency or upset occurred and that the permittee can identify the source of the emergency or upset,
 - b) That the installation was being operated properly,
 - c) That the permittee took all reasonable steps to minimize emissions that exceeded technology-based emissions limitations or requirements in this permit, and
 - d) That the permittee submitted notice of the emergency to the Air Pollution Control Program within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.
- 2) Be aware that an emergency or upset shall not include noncompliance caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

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

An installation that has been issued a Part 70 operating permit is not required to apply for, or obtain a permit revision in order to make any of the changes to the permitted installation described below if the changes are not Title I modifications, the changes do not cause emissions to exceed emissions allowable under the permit, and the changes do not result in the emission of any air contaminant not previously emitted. The permittee shall notify the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, at least seven days in advance of these changes, except as allowed for emergency or upset conditions. Emissions allowable under the permit means a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that establishes an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

- 1) Section 502(b)(10) changes. Changes that, under Section 502(b)(10) of the Act, contravene an express permit term may be made without a permit revision, except for changes that would violate applicable requirements of the Act or contravene federally enforceable monitoring (including test methods), record keeping, reporting or compliance requirements of the permit.
 - a) Before making a change under this provision, The permittee shall provide advance written notice to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, describing the changes to be made, the date on which the change will occur, and any changes in emission and any permit terms and conditions that are affected. The permittee shall maintain a copy of the notice with the permit, and the Air Pollution Control Program shall place a copy with the permit in the public file. Written notice shall be provided to the EPA and the Air Pollution Control Program as above at least seven days before the change is to be made. If less than seven days notice is provided because of a need to respond more quickly to these unanticipated conditions, the permittee shall provide notice to the EPA and the Air Pollution Control Program as soon as possible after learning of the need to make the change.
 - b) The permit shield shall not apply to these changes.

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

- 1) Except as noted below, the permittee may make any change in its permitted operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. Insignificant activities listed in the application, but not otherwise addressed in or prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the off-permit provisions of this section. Off-permit changes shall be subject to the following requirements and restrictions:
 - a) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; the permittee may not change a permitted installation without a permit revision if this change is subject to any requirements under Title IV of the Act or is a Title I modification;
 - b) The permittee must provide written notice of the change to the Air Pollution Control Program's, Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, no later than the next annual emissions report. This notice shall not be required for changes that are insignificant activities under

10 CSR 10-6.065(6)(B)3. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change.

- c) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes; and
- d) The permit shield shall not apply to these changes.

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

The application utilized in the preparation of this permit was signed by Al Close, Plant Manager. 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 thirty days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

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

This permit may be reopened for cause if:

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

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

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

VI. Attachments

Attachments follow.

**ATTACHMENT B
 Monthly NO_x Tracking Record**

Pittsburgh Corning Corporation
 Pettis County, S5SW, T45N, R21W
 Installation ID: 159-0009
 Permit Number: OP2009-001

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

Copy this sheet as needed

Column A	Column B	Column C	Column D	Column E
Emission Point(s)	Description	Amount Processed	NO _x Emission Factor	(a) NO _x Emissions (tons)
S-06A	Tank 4 Batch	Tons	8.9 lb/ton	
S-06A	Tank 4 Coal	Tons	21.7 lb/ton	
S-06A	Tank 4 Natural Gas	MMcf	100 lb/MMcf	
S-06A	Tank 4 Distillate Oil	Mgal	47 lb/Mgal	
S-06A	Tank 4 LPQ	Mgal	19 lb/Mgal	
S-07A	Tank 4 Roof Monitor Natural Gas	MMcf	100 lb/MMcf	
S-10	Cellulating Natural Gas	MMcf	100 lb/MMcf	
S-24	Annealing Natural Gas	MMcf	100 lb/MMcf	
S-25	Roof Exhausters (Misc. Natural Gas)	MMcf	100 lb/MMcf	
S-28	Emergency Diesel Generator	Mgal	604 lb/Mgal	
S-34	Cullet Dryers	MMcf	100 lb/MMcf	
(b) Total NO _x Emissions Calculated for this Month in Tons:				
(c) 12-Month NO _x Emissions Total From Previous Month's Worksheet A, in Tons:				
(d) Monthly NO _x Emissions Total (b) from Previous Year's Worksheet A, In Tons:				
(e) Current 12-month Total of NO _x Emissions in Tons : [(b) + (c) - (d)]				

(a) [Column E] = [Column C] x [Column D] x 0.0005

(b) Summation of [Column E] in Tons;

(c) 12-Month NO_x emissions total (e) from last month's Worksheet A, in Tons;

(d) Monthly NO_x emissions total (b) from previous year's Worksheet A, in Tons;

(e) Calculate the new 12-month NO_x emissions total. **A 12-Month NO_x emissions total (e) of less than 250.0 tons for the facility indicates compliance.**

ATTACHMENT D

This attachment may be used to demonstrate compliance with the limitations of 10 CSR 10-6.400 *Restriction of Emission of Particulate Matter From Industrial Processes* for the equipment listed.

PM Emission limit:

$$E = 4.1(P)^{0.67} \quad (P \leq 30)$$

$$E = 55(P)^{0.11} - 40 \quad (P > 30)$$

P is process weight rate in tons/hour and E is emission rate limit in lbs/hour

Potential PM Emission Rate:

$$\text{Emission Rate (lbs/hr)} = \text{Process Weight Rate (ton/hr)} * \text{PM Emission Factor (lbs/ton)}$$

Emission Point #	Associated Equipment	Process Weight Rate (ton/hr)	PM Emission Factor (lbs/ton)	Emission Factor Reference	Potential Uncontrolled Emission Rate (lbs/hr)	Emission Rate Limit (lbs/hr)
S-02	EU0020 Batch House	20.0	0.3	Fire	6.0	30.5
S-02A	EU0030 –Batch House Conveying and Unloading	20.0	1.5	Fire	30.0	30.5
S-05A	EU0040 – Batch House 4 Unloading and Conveying	8.0	1.5	Fire	12.0	16.51
S-06A	EU0050 – Tank 4 Regenerative Glass Furnace	7.0	0.994	ST	15.1	6.9
S-10	EU0080 – Cellulating Furnaces 3 through 7	6.25	0.5	Fire	13.69	14.0
S-18	EU0120 – Scrap Unloading	2.0	1.5	Fire	3.5	6.52
S-24	EU0140 – Annealing Lehrs	6.25	0.5	Fire	13.69	14.0
S-30	EU0150 – Aux. Grinding and Unloading	2.08	1.5	Fire	1.5	6.7

ATTACHMENT E2
Method 22 (Outdoor) Observation Log

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

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

ATTACHMENT G
Method 9 Opacity Emissions Observations

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

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

Readings ranged from _____ to _____ % opacity.

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

ATTACHMENT I

SO₂ Emissions From Furnace Stacks S-10 (A through O)

This sheet covers the month of _____ in the year of _____ (one sheet per month)

Column A	Column B
SO ₂ Emission Source	SO ₂ (tons)
Aluminum Sulfate	(a)
Natural Gas Combustion	(b)
Monthly Totals (tons)	(e)

- (a) From Attachment J
- (b) From Attachment K

Rolling 12-Month Cumulative Total: _____ (tons)

If rolling 12-month cumulative total exceeds 40.0 tons, report exceedance to Enforcement Section, Air Pollution Control Program, Missouri Department of Natural Resources, P.O. Box 176, Jefferson City, MO 65102.

ATTACHMENT M

This attachment may be used to demonstrate compliance with 10 CSR 10-3.060 *Maximum Allowable Emission of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating*

Emission Limit for EU01600 (2.8 MMBtu/hr No. 4 or No. 6 fuel oil) = 0.60 lbs MMBtu

10 CSR 10-6.3060(4)(A)1. states that if the total equipment heat input has a capacity rating of ten (10) million Btu or less, the limit shall be 0.60 lbs for each million Btu per hour input.

Equipment	Heat Input (mmBtu/hr)
Boiler (EU0160)	2.8
Space Heaters	0.7
TOTAL	3.5

The various natural gas process burners at the installation are considered direct heating sources, and therefore were not included in the calculation of total heat input.

The following table demonstrates compliance with the emission limit:

Emission Rate (lbs/mmBtu) = MHDR*Emission Factor/Heat Capacity (mmBtu/hr)

Emission Unit #	Heat Capacity	Maximum Hourly Design Rate ¹	PM Emission Factor	Emission Factor Reference	Potential Emission Rate	Emission Rate Limit
EU0010 (No. 4 fuel oil)	2.8 (mmBtu/hr)	0.020 Mgal/hr	8.5 lbs/Mgal	FIRE SCC 10200504	.0667 lbs/MMBtu	0.60 (lbs/mmBtu)
EU0010 (No. 6 fuel oil)	2.8 (mmBtu/hr)	0.020 Mgal/hr	37.01 lbs/mmft ³	FIRE SCC 10100401	0.2915 (lbs/mmBtu)	0.60 (lbs/mmBtu)

Emission Factor for No. 4 Fuel Oil = EF for PM Condensable + PM Filterable = 1.5 + 7.0 = 8.5 lbs/Mgal

Emission Factor for No. 6 Fuel Oil = EF for PM Condensable + PM Filterable = 1.5 + (9.19S + 3.22), where S = 1.2% maximum.

¹ Heat capacity divided by heating value of fuel; 1050 mmBtu/mmft³ for natural gas, 140 mmBtu/1000gal for fuel oil (AP-42, Appendix A)

ATTACHMENT N
NOx Compliance Worksheet

Pittsburgh Corning Corporation
 Pettis County, S5, T45N, R21W
 Installation ID: 159-0009
 Construction Permit 0999-004

This sheet covers the month of _____ in the year _____.

Column A	Column B	Column C	Column D
Process	Amount of Fuel Used (gallons) Note 1	NOx Emission Factor (lbs/gallon) Note 2	NOx Emissions (tons) Note 3
Emergency Diesel Generator (S-28)		0.604	
Total NOx Emissions Calculated for this Month (tons) Note 4			
12-Month NOx Emissions Total From Previous Months's Worksheet (tons) Note 5			
Monthly NOx Emissions Total From Previous Years Worksheet (tons) Note 6			
Current 12-Month Total NOx Emissions (tons) Note 7			

Note 1: Total amount of diesel fuel used for this month.

Note 2: NOx emission factor from AP-42 Section 3.3.

Note 3: Column D = (Column B) x (Column C) *(.0005)

Note 4: Sum of Emission reported in Column D.

Note 5: Running 12-month total of NOx emissions.

Note 6: Nox Emissions reported for this month in the last calendar year.

Note 7: Amount reported in Note 4 minus amount reported in Note 6 plus amount reported in Note 5. Less than 40 tons indicates compliance.

STATEMENT OF BASIS

Permit Reference Documents

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

- 1) Part 70 Operating Permit Application, received July 30, 2003;
- 2) 2006 Emissions Inventory Questionnaire, received May 8, 2007; and
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition.
- 4) Construction Permit 1294-007, Issued November 23, 1994;
- 5) Construction Permit 1294-007A, Issued May 13, 2004;
- 6) Construction Permit 082001-025, Issued August 17, 2001;
- 7) Construction Permit 0696-017, Issued June 13, 1996;
- 8) Construction Permit 0999-004, Issued August 17, 1999;
- 9) Compliance Assurance Monitoring Plan;
- 10) Construction Permit 022009-010, Issued February 23, 2009.

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 has determined the following requirements to not be 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.

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

This regulation was applied to Tank 4 and Tank 3 Forehearths in the previous operating permit. It was not applied to these units in this renewal permit because the emissions from these units are fugitive.

10 CSR 10-3.060, *Maximum Allowable Emission s of Particulate Matter From Fuel Burning equipment Used for Indirect Heating*

This rule does not apply to the newly permitted dryers associated with the Cullet Quench System (EU0170). This type of equipment is listed under Construction Permit Exemptions, 10 CSR 10-6.061 (3)(A)(1)(A), which describes any combustion equipment that uses exclusively natural gas and has a heat input capacity less than ten million British Thermal units per hour. 10 CSR 10-6.020(2)(I)5.B - Definitions and Common Reference Tables, describes any source which is listed in 10 CSR 10-6.061 as an Insignificant Activity.

Construction Permit Revisions

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

Construction Permit 0793-023, Issued July 26, 1993

This permit authorized the construction of a new glass melting furnace and limited the production of glass in the existing furnace to 52,000 tons in any consecutive twelve-month period. This permit and its special conditions are superseded by Construction Permit 082001-025, which establishes a NO_x emission limit for several pieces of equipment.

Construction Permit 0696-017, Issued June 13, 1996

This construction permit authorized the burning of propane and fuel oil in the furnaces (EU0080). The facility insists that these fuels are not used and will not be used in the future, therefore the references to these fuel and the record keeping sheets attached to this construction permit were removed from this operating permit (previously Attachments K and L).

Construction Permit 082001-025, Issued August 17, 2001

Special Condition 1A of this construction permit limits the emissions of NO_x from several emission units to less than 250 tons in any consecutive twelve-month period. The emission units included are: Tank 4(S-06A), Tank 4 Forehearth (S-07A), Furnace 3, Furnace 4, Furnace 5, Furnace 6, Furnace 7 (S-10), Lehr 3, Lehr 4, Lehr 5, Lehr 6, Lehr 7 (S-24), Boiler (S-21), Flare (S-23), Various Space Heaters (S-25), and Emergency Generator (S-28). Monitoring, recordkeeping and reporting requirements were also stated in Special Conditions 1B and 1C. The permittee requested that the 250 ton NO_x limit be changed to a plant wide emission limitation that would include all emission units at the facility and not just the units specified by the permit, therefore this limit is included in the operating permit as Plant Wide Condition PW002. The NO_x emission limitation of 250 tons in any consecutive twelve-month period is restated in the amendment to Construction Permit 062008-003, therefore they are both cited in Plant Wide Condition PW002. The recordkeeping attachment in this operating permit was taken from the more recent permit (062008-033A).

Construction Permit 062008-033 and 062008-033A

These permits were superseded by Construction Permit No. 022009-010, Issued February 23, 2009, therefore the special conditions of these construction permits were not included in the operating permit.

New Source Performance Standards (NSPS) Applicability

40 CFR Part 60 Subpart CC, *Standards of Performance for Glass Manufacturing Plants* does not apply to the regenerative glass furnace, Tank 4, because it was constructed prior to June 15, 1979.

40 CFR Part 60 Subpart K, *Standards of Performance for Storage Vessels for Petroleum Liquids* does not apply to tanks constructed prior to June 12, 1974. All the fuel storage tanks at this installation were constructed prior to 1973.

Maximum Available Control Technology (MACT) Applicability

40 CFR Part 63 Subpart SSSSSS National Emission Standards for Hazardous Air Pollutants for Glass Manufacturing Area Sources applies Emission Unit EU0050 – Glass Furnace.

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

In the permit application and according to Air Pollution Control Program 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.

Several Emission Units controlled by Dust Collectors are subject to CAM. The following table shows the calculations that were made to determine CAM applicability:

Emission Unit	Emission Point	Control Device	MHDR (ton/hr)	Pollutant	Emission Factor (lbs/ton)	Pre-Control Potential (ton/yr)	Emissions Limit (ton/yr)	Controlled Potential (ton/yr)
EU0010	S-01	DC #5	50	PM	3.0	657	195.3	65.7
EU0010	S-01	DC #5	50	PM10	1.5	328.5	195.3	32.85
EU0010	S-01	DC #6	50	PM	0.6	52.56	133.6	5.26
EU0020- EU0030	S-02	DC #6	20	PM10	0.3	26.28	133.6	2.63
EU0020- EU0030	S-02	DC#20B	20	PM10	1.5	52.56	72.27	5.26
EU0040	S-05A	DC#20B	8	PM	3.0	105.12	72.27	10.5
EU0040	S-05A	DC #20A	8	PM	0.6	13.14	52.56	1.31
EU0040	S-05B	DC #20A	5	PM10	0.3	6.57	52.56	0.657
EU0040	S-05B	DC #20B	5	PM	0.6	13.14	52.56	1.31
EU0040	S-05C	DC #20B	5	PM10	0.3	6.57	52.56	0.657
EU0040	S-05C	DC #15	5	PM		2365.7	75.3	12.3
EU0060	S-08	DC #15	8.5	PM10	7.625	283.9	75.3	
EU0070	S-09	DC #4(a-c)	3	PM10	1.5	19.71	37.5	1.97
EU0090	S-12	DC #14(b-d) & 19	1.45	PM10	654	4153.6	23.0	
EU0100	S-13	DC #13 & 1	6.25	PM		17546	61.3	14.5
EU0100	S-13	DC #12	6.25	PM10	96.6	1692.4	45.6	
EU0110	S-15	DC #12	4	PM		33848.6	45.6	20.3
EU0110	S-15	DC #9	4	PM	3.0	52.56	45.6	2.03
EU0120	S-18	DC #9	4	PM10	1.5	26.28	45.6	0.20
EU0120	S-18	DC #7	4	PM	3.0	27,3	29.3	0.02
EU0150	S-30	DC #7	2.08	PM10	1.5	13.7	29.3	0.002

Based on the calculations in the table the following Control Devices and associated Emission Units are subject to CAM:

- Dust Collector 5 associated with EU0010
- Dust Collector 15 associated with EU0060
- Dust Collector 14(b-d) associated with EU0070 and EU0090
- Dust Collector 13 associated with EU0090 and EU0100
- Dust Collector 1 associated with EU0090 and EU0100
- Dust Collector 12 associated with EU0100 and EU0110

Note: Dust Collector 20A and 20B will not be considered CAM applicable because they discharge into the building. Dust Collector 19 will not be considered because it is limited by the mixing of the mold coating and operates a maximum of three hours per day.

Other Regulatory Determinations

10 CSR 10-6.400 *Restriction of Emission of Particulate Matter From Industrial Processes* was not applied to the following Emission Points because the emissions from these points are fugitive:

- S-03
- S-04
- S-11
- S-10
- S-16
- S-22
- S-22B
- S-29
- S-31
- S-32
- S-01A

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

This rule was applied to the following Emission Units which are not subject to 40 CFR Part 64 Compliance Assurance Monitoring (CAM): EU0090- [REDACTED], EU0170 [REDACTED] and EU0180- [REDACTED]. Monitoring of the control devices associated with these units was required to demonstrate compliance with the emissions limitations. Compliance calculations are demonstrated below.

EU0090 [REDACTED]
MHDR = [REDACTED]
Emission Limit = $4.1([REDACTED])^{0.67} = 5.25 \text{ lb/hr}$
Emission factor = [REDACTED] (Source: Emission Calculation)
Control Device Efficiency = [REDACTED] (Dust Collector 14(B, C, D))
Uncontrolled Potential Emissions = [REDACTED] = 948.3 lb/hr
Controlled Potential Emissions = [REDACTED] x [REDACTED] 100) x ([REDACTED]) = 0.57 lb/hr

EU0170 [REDACTED]
MHDR = [REDACTED]
Emission Limitation = $4.1 \times [REDACTED]^{0.67} = 15.1 \text{ lb/hr}$
Emission Factor = [REDACTED] (AP-42)
Control Device Efficiency = [REDACTED] %
Uncontrolled Potential Emissions = [REDACTED] = [REDACTED] lb/hr
Controlled Potential Emissions = [REDACTED] lb/hr $\times [(REDACTED)/100] = 0.0533 \text{ lb/hr}$

EU0180 [REDACTED]
MHDR = [REDACTED]
Emission Limit = $4.1 \times [REDACTED]^{0.67} = .683 \text{ lb/hr}$
Control Device Efficiency = [REDACTED] %
Uncontrolled Potential Emissions = [REDACTED]
Controlled Potential Emissions = [REDACTED] = .083 lb/hr

10 CSR 10-6.400 *Restriction of Emission of Particulate Matter From Industrial Processes* was applied to the following Emission Units where calculations demonstrate continuous compliance without required control device monitoring: EU0020-[REDACTED], EU0030-[REDACTED], EU0040-[REDACTED], EU0050-[REDACTED], EU0080 [REDACTED], EU0120-[REDACTED], EU0140-[REDACTED], EU0150-[REDACTED]. Attachment C contains the compliance calculations.

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

The regenerative glass furnace forehearths, electric furnace forehearth and annealing lehrs (EU0140) are limited to combusting pipeline natural gas or propane and will never exceed the 2000 ppm SO₂ limit. Therefore, the rule was not applied to these emission units.

10 CSR 10-6.260 *Restriction of Emission of Sulfur Compounds* applies to EU0050 – [REDACTED]

Limit = 2000 ppm SO₂
1991 Stack Test Flow = 14, 717 acfm at 637°F
MHDR = [REDACTED]
Air at 1 atm = 0.0808 lb/ft^3 at 32°F and $0.0808 \times 492/1097 = 0.0362 \text{ lb/ft}^3$ at 637°F
Therefore, $14, 717 \text{ cfm} \times 0.0362 \text{ lb/ft}^3 \times 60 \text{ min/hr} = 31, 965 \text{ lb/hr}$ stack exhaust

At 2000 ppm, $\text{lb SO}_2/\text{hr} = 2000/10^6 \times 31, 965 \text{ lb/exh/hr} \times \text{lb-mole exh}/29 \text{ lb/lb-mole} \times 64 \text{ lb SO}_2/\text{lb-mole} = 141.1 \text{ lbs SO}_2/\text{hr}$ limit.

SO₂ released from glass making is calculated from the raw material composition and analysis of SO₂ remaining in the glass. This information is available on the formula sheets as Calculated Emisted SO₂ (lb/ton glass).

SO_2 from fuel oil (1.2% sulfur max) = 30 MMBtu/hr x gal/150,000 Btu x 7.88 lb/gal x 0.012 x 64/32 = 37.8 lb SO_2 /hr.

SO_2 from natural gas or propane is insignificant. Assuming a Calculated Emitted SO_2 of 11.0 lb/ton (a high value), 7 tons gal/hr (max rate) and combustion fuel oil at 1.2%, the SO_2 emissions = $(11 \times 7) + 37.8 = 114.8$ lbs/hr. $114.8 / 141.5 \times 2000$ ppm = 1623 ppm. This would be a very high value for this emission unit as oil is only burned during natural gas curtailment. Normally the SO_2 concentration would be 900-1200 ppm.

10 CSR 10-6.260 *Restriction of Emission of Sulfur Compounds* applies to EU0080 –

Limit = 2000 ppm

MHDR =

Aluminum Sulfate addition = 0.265% maximum

Molecular Weight = 594

All sulfur from addition assumed to be emitted as SO_2 , so $6.25 \times 2000 \times 0.00265 \times 3 \times 64 / 594 = 10.71$ lb/hr.

SO_2 ppm = $(10.71 \text{ lb/hr} \times 10^6) \times \text{hr} / 42 \text{ MMBtu} \times \text{MMBtu} / 9710 \text{ scf} = 29.3$ ppm
 SO_2 emitted from natural gas or propane is insignificant.

10 CSR 10-6.260 *Restriction of Emission of Sulfur Compounds* applies to EU0130 –

Limit = 8.0 lb SO_2 /MMBtu

MHDR =

Sulfur Content = 1.2%

Fuel = 150 MMBtu/Mgal

SO_2 Emission Factor = 142 x Sulfur Content

Therefore, $SO_2 = [(142 \times 1.2) \text{ lb } SO_2/\text{Mgal}] / [150 \text{ MMBtu}/\text{Mgal}] = 1.14 \text{ lb } SO_2/\text{MMBtu}$.

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

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

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

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

Prepared by:

Jill Wade, P.E.
Environmental Engineer