



## 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:** OP2009-015  
**Expiration Date:** MAY 17 2014  
**Installation ID:** 187-0017  
**Project Number:** 2006-10-110

**Installation Name and Address**

Flat River Glass Company  
1000 Taylor Ave.  
Park Hills, MO 63601  
St. Francois County

**Parent Company's Name and Address**

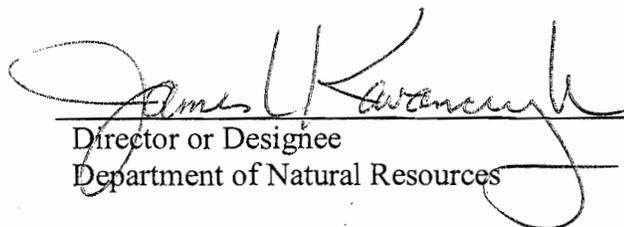
Gujarat Glass International, Inc.  
5176 Harding Hwy  
Mays Landing, NJ 08330

**Installation Description:**

Flat River Glass Company, located in Park Hills, Missouri, manufactures glass containers. The installation's operations include two natural gas/LPG fired glass melting furnaces, a sulfur lehr oven, and material handling and storage points.

MAY 18 2009

Effective Date

  
Director or Designee  
Department of Natural Resources

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## I. Installation Description and Equipment Listing

### INSTALLATION DESCRIPTION

Flat River Glass Company, located in Park Hills, Missouri, manufactures glass containers. The installation's operations include two natural gas/LPG fired glass melting furnaces, a sulfur Lehr oven, and material handling and storage points.

Reported Air Pollutant Emissions, tons per year								
Year	Particulate Matter ≤ Ten Microns (PM-10)	Particulate Matter ≤ 2.5 Microns (PM-2.5)	Sulfur Oxides (SO <sub>x</sub> )	Nitrogen Oxides (NO <sub>x</sub> )	Volatile Organic Compounds (VOC)	Carbon Monoxide (CO)	Lead (Pb)	Hazardous Air Pollutants (HAPs)
2007	89.12	16.12	18.82	339.07	7.35	4.88	--	--
2006	93.39	50.45	28.97	298.96	6.95	6.39	--	--
2005	91.77	42.18	29.94	313.46	5.38	6.13	--	--
2004	77.92	48.93	30.92	324.39	5.76	6.70	--	--
2003	68.81	45.63	27.87	296.58	5.94	5.87	--	--

### EMISSION UNITS WITH LIMITATIONS

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

Emission Unit #	Description of Emission Unit	
EU0010	Glass Melting Furnace #51	EP-04A-51
EU0020	Glass Melting Furnace #52	EP-05A-52
EU0030	Sulfur Lehr Oven	Not listed

### EMISSION UNITS WITHOUT LIMITATIONS

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

Description of Emission Source	
Refiner on Furnace #51, fugitive, natural gas-fired	EP-04B-51
Feeder on Furnace #51, fugitive, natural gas-fired	EP-04C-51
Refiner on Furnace #52, fugitive, natural gas-fired	EP-05B-52
Feeder on Furnace #52, fugitive, natural gas-fired	EP-05C-52
Raw material (sand, limestone, soda ash) unloading, fugitive	EP-1
Raw material (sand, limestone, soda ash) conveying, fugitive	EP-1
Raw material (sand, limestone, soda ash) storage bins, fugitive	EP-2
Bottle forming machine lubrication, fugitive	EP-6
Degreaser, Stoddard solvent, fugitive	EP-8
Annealing Lehrs, fugitive, natural gas-fired	EP-9
Space heaters, natural gas-fired	EP-10
Cullet crusher, fugitive	EP-14

**DOCUMENTS INCORPORATED BY REFERENCE**

These documents have been incorporated by reference into this permit.

- 1) Air Pollution Control Program Construction Permit 0586-005A, issued May 15, 1986
- 2) Air Pollution Control Program Construction Permit 022002-007, issued February 7, 2002

## **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.

None.

### 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.

<b>EU0010 – GLASS MELTING FURNACE #51</b>			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0010	Glass Melting Furnace #51: combination natural gas/LPG fired and electric boost glass manufacturing furnace; maximum production rate 4.37 tons glass/hr; installed 1977	In-house manufactured	EP-04A-51

<b>PERMIT CONDITION EU0010-001</b> 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants
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**Emission Limitation:**

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

**Monitoring:**

- 1) The permittee shall conduct opacity readings on this emission unit (EU0010) 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 (8) consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
  - b) Observations must be made once every two (2) weeks for a period of eight (8) 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 A-1 or A-2), noting:
  - a) Whether any air emissions (except for water vapor) were visible from the emission units,
  - b) All emission units from which visible emissions occurred, and
  - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment B)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment C)
- 4) Attachments A-1, A-2, B and C contain logs including these record keeping requirements. These logs, or equivalent forms created by the permittee, must be used to certify compliance with this requirement.
- 5) All records shall be maintained for five (5) years.
- 6) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon their verbal request and presentation of identification.

**Reporting:**

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

**PERMIT CONDITION EU0010-002**  
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.
- 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.

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO <sub>2</sub> )	0.03 parts per million (ppm) (80 micrograms per cubic meter (µg/m <sup>3</sup> ))	Annual arithmetic mean
	0.14 ppm (365 µg/m <sup>3</sup> )	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 µg/m <sup>3</sup> )	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H <sub>2</sub> S)	0.05 ppm (70 µg/m <sup>3</sup> )	½-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 µg/m <sup>3</sup> )	½-hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	10 µg/m <sup>3</sup>	24-hour average not to be exceeded more than once in any 90 consecutive days
	30 µg/m <sup>3</sup>	1-hour average not to be exceeded more than once in any 2 consecutive days

**Operational Limitation/Equipment Specifications:**

The emission unit shall be limited to burning either pipeline grade natural gas or liquid petroleum gas (LPG).

**Monitoring/Record Keeping/Reporting:**

The permittee is assumed always to be in compliance with this regulation. No monitoring, additional record keeping or reporting is required for this permit condition.

**PERMIT CONDITION EU0010-003**  
10 CSR 10-6.400 Restriction of Emission of Particulate Matter from Industrial Processes

**Emission Limitation:**

- 1) Particulate matter shall not be emitted from EU0010 in excess of 11.0 pounds per hour.

- 2) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 grains per standard cubic feet of exhaust gases.

**Monitoring/Record Keeping/Reporting:**

The permittee is assumed always to be in compliance with this regulation. Calculations demonstrating compliance are in Attachment D. The permittee shall keep this attachment with this permit. No monitoring, additional record keeping or reporting is required for this permit condition.

<b>EU0020 – GLASS MELTING FURNACE #52</b>			
<b>Emission Unit</b>	<b>Description</b>	<b>Manufacturer/ Model #</b>	<b>2006 EIQ Reference #</b>
EU0020	Glass Melting Furnace #52: combination natural gas/LPG fired and electric boost glass manufacturing furnace; maximum production rate 4.58 tons glass/hr, installed 1979; modified 1997 and 1999	In-house manufactured	EP-05A-52

<p><b>PERMIT CONDITION EU0020-001</b>                  10 CSR 10-6.060 Construction Permits Required                  Construction Permit 022002-007, Issued February 7, 2002                  10 CSR 10-6.070 New Source Performance Regulations                  40 CFR Part 60 Subpart A General Provisions and Subpart CC Standards of Performance for Glass Manufacturing Plants</p>
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**Emission Limitation:**

- 1) The permittee shall not discharge into the atmosphere from Glass Melting Furnace #52 (EU0020), NO<sub>x</sub> in excess of 187.5 tons in any consecutive 12-month period. [Construction Permit 022007-007, Special Condition 1A]
- 2) The permittee shall not cause to be discharged into the atmosphere from Glass Melting Furnace #52 (EU0020): [§60.293(b)]
  - a) Particulate matter at emission rates exceeding 0.5 gram of particulate per kilogram of glass produced (g/kg) as measured according to §60.293(e) for container glass, flat glass, and pressed and blown glass with a soda-lime recipe melting furnaces. [§60.293(b)(1)]

**Testing:**

- 1) The permittee shall conduct any performance test required to determine compliance with NSPS Subpart CC using the test methods and procedures as specified in §60.296 with the exception that to determine compliance for any glass melting furnace using modified processes and fired with either a gaseous fuel or a liquid fuel containing less than 0.50 weight percent sulfur, Method 5 shall be used with the probe and filter holder heating system in the sampling train set to provide a gas temperature of 120 ±14 degrees Celsius (248 ±25 degrees Fahrenheit). [Construction Permit 022007-007, Special Condition 2B and §60.293(f)]
- 2) In conducting the performance tests required in §60.8, the permittee shall use as reference methods and procedures the test methods in Appendix A of Part 60 or other methods and procedures as specified in §60.296, except as provided in §60.8(b). [§60.296(c)]

3) The permittee shall determine compliance with the particulate matter standards in §60.293 as follows: [§60.296(d)]

a) The emission rate (E) of particulate matter shall be computed for each run using the following equation: [§60.296(d)(1)]

$$E = (c_s Q_{sd} - A) / P$$

Where:

E = emission rate of particulate matter, g/kg.

$c_s$  = concentration of particulate matter, g/dsm.

$Q_{sd}$  = volumetric flow rate, dscm/hr.

A = zero production rate correction

= 227 g/hr for container glass, pressed and blown (soda-lime and lead) glass, and pressed and blown (other than borosilicate, soda-lime, and lead) glass.

= 454 g/hr for pressed and blown (borosilicate) glass, wool fiberglass, and flat glass.

P = glass production rate, kg/hr.

b) Method 5 shall be used to determine the particulate matter concentration ( $c_s$ ) and volumetric flow rate ( $Q_{sd}$ ) of the effluent gas. The sampling time and sample volume for each run shall be at least 60 minutes and 0.90 dscm (31.8 dscf). As specified in §60.293(e), to determine compliance for any glass melting furnace using modified processes and fired with either a gaseous fuel or a liquid fuel containing less than 0.50 weight percent sulfur, Method 5 shall be used with the probe and filter holder heating system in the sampling train set to provide a gas temperature of  $120 \pm 14$  degrees Celsius ( $248 \pm 25$  degrees Fahrenheit). [§60.296(d)(2)]

c) Direct measurement or material balance using good engineering practice shall be used to determine the amount of glass pulled during the performance test. The rate of glass produced is defined as the weight of glass pulled from the affected facility during the performance test divided by the number of hours taken to perform the performance test. [§60.296(d)(3)]

d) Method 9 and the procedures in §60.11 shall be used to determine opacity. [§60.296(d)(4)]

### **Monitoring/Record Keeping:**

1) The permittee shall maintain an accurate record of emissions of NO<sub>x</sub> emitted into the atmosphere from Glass Melting Furnace #52 (EU0020) and shall record the average hourly natural gas usage per day, the number of hours of operation per day and the average hourly, daily, monthly and running 12-month totals of NO<sub>x</sub> emissions from Furnace #52 (EU0020). The permittee shall use *Attachment E, Monthly NO<sub>x</sub> Emission Tracking Record - Furnace #52*, or an equivalent form (upon receiving Missouri Air Pollution Control Program approval) for this purpose.

[Construction Permit 022007-007, Special Condition 1B]

2) The owner or operator of an affected facility that is subject to emission limits specified under Emission Limitation 2 of this Permit Condition shall: [Construction Permit 022007-007, Special Condition 2C and §60.293(c)]

a) Install, calibrate, maintain, and operate a continuous monitoring system for the measurement of the opacity of emissions discharged into the atmosphere from the affected facility.

b) During the performance test required to be conducted by §60.8 or for Emission Limitation 2, conduct continuous opacity monitoring during each test run.

c) Calculate 6-minute opacity averages from 24 or more data points equally spaced over each 6-minute period during the test runs for the most recently completed compliance testing.

- d) Determine, based on the 6-minute opacity averages, the opacity value corresponding to the 99 percent upper confidence level of a normal distribution of average opacity values for the most recently completed compliance testing.
  - e) For the purposes of §60.7, report to the Director of the Air Pollution Program as excess emissions all of the 6-minute periods during which the average opacity, as measured by the continuous monitoring system installed under §60.293(c)(1), exceeds the opacity value corresponding to the 99 percent upper confidence level determined under §60.293(c)(4) for the most recently completed compliance testing.
- 3) An owner or operator may redetermine the opacity value corresponding to the 99 percent upper confidence level as described in §60.293(c)(4) if the owner or operator:  
[Construction Permit 022007-007, Special Condition 2D and §60.293(e)]
- a) Conducts continuous opacity monitoring during each test run of a performance test that demonstrates compliance with an emission limit of §60.293(b),
  - b) Recalculates the 6-minute opacity averages as described in §60.293(c)(3), and
  - c) Uses the re-determined opacity value corresponding to the 99 percent upper confidence level for the purposes of §60.293(c)(5).
- 4) After receipt and consideration of written application, the Director of the Air Pollution Program may approve alternative continuous monitoring systems for the measurement of one or more process or operating parameters that is or are demonstrated to enable accurate and representative monitoring of an emission limit specified in §60.293(b)(1). After the Director of the Air Program approves an alternate continuous monitoring system for an affected facility, the requirements of §60.293(c)(1) through (5), and Monitoring Requirements Number 3(a) through (e) of this Permit Condition will not apply for that affected facility. [Construction Permit 022007-007, Special Condition 2E and §60.293(d)(1)]
- 5) The permittee shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. [Construction Permit 022007-007, Special Condition 4]

**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 (10) days after the end of each month, if the 12-month cumulative total records show that the source exceeded the limitation of 187.5 tons of NO<sub>x</sub> from Furnace Number #52 (EU0020) in any consecutive 12-month period. [Construction Permit 022007-007, Special Condition 1C]
- 2) Quarterly Excess Opacity Emissions Reporting Requirements: The permittee shall submit quarterly excess opacity emission reports to the Air Pollution Control Program's Enforcement Section, P. O. Box 176, Jefferson City, Missouri 65102, within 15 days following the end of each calendar quarter. These reports must include, but are not limited to, the following information:  
[Construction Permit 022007-007, Special Condition 3]
  - a) The date and time of commencement and completion of each period of excess emissions;
  - b) The magnitude of the excess emissions;
  - c) The amounts of natural gas and electrical boost consumption along with the 6-minute opacity readings for each period of excess emissions;
  - d) The nature and cause of the excess emissions (if known) and the corrective action taken or preventative measures adopted;

- e) The date and time of commencement and completion of any period which the emissions monitoring system was inoperative except for zero and span checks. The report shall identify the repairs or adjustments made to the system;
  - f) When no excess emissions have occurred during the quarter and the monitoring system had no period of downtime or did not require repairs or adjustments, an excess emissions report shall be filed stating such information.
- 3) If a glass melting furnace with modified processes is changed to one without modified processes or if a glass melting furnace without modified processes is changed to one with modified processes, the owner or operator shall notify the Administrator at least 60 days before the change is scheduled to occur. [§60.296(a)]

**PERMIT CONDITION EU0020-002**  
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.
- 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.

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO <sub>2</sub> )	0.03 parts per million (ppm) (80 micrograms per cubic meter (µg/m <sup>3</sup> ))	Annual arithmetic mean
	0.14 ppm (365 µg/m <sup>3</sup> )	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 µg/m <sup>3</sup> )	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H <sub>2</sub> S)	0.05 ppm (70 µg/m <sup>3</sup> )	½-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 µg/m <sup>3</sup> )	½-hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	10 µg/m <sup>3</sup>	24-hour average not to be exceeded more than once in any 90 consecutive days
	30 µg/m <sup>3</sup>	1-hour average not to be exceeded more than once in any 2 consecutive days

**Operational Limitation/Equipment Specifications:**

The emission unit shall be limited to burning either pipeline grade natural gas or liquid petroleum gas (LPG).

**Monitoring/Record Keeping/Reporting:**

The permittee is assumed always to be in compliance with this regulation. No monitoring, additional record keeping or reporting is required for this permit condition.

<b>EU0030 – SULFUR LEHR OVEN</b>			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0030	Sulfur Lehr Oven: oven raises the temperature of glass bottles to between 1000 and 1100 degrees Fahrenheit and exposes the bottles to sulfur dioxide (SO <sub>2</sub> ) gas for improved chemical durability; MHDR: 2 MMBtu/hr; permitted 1986	Unknown	NA

**PERMIT CONDITION EU0030-001**  
 10 CSR 10-6.060 Construction Permits Required  
 Construction Permit 0586-005A, Issued May 15, 1986

**Operational Specifications/Emission Limitation:**

- 1) The Sulfur Lehr Oven (EU0030) shall not be operated more than 24 hours per day, 80 days per year with a sulfur dioxide feed rate not to exceed ten pounds SO<sub>2</sub> per hour.  
 [Construction Permit 0586-005A, Special Condition 2]
- 2) The process shall be operated in such a manner so as not to cause the opacity from the exhaust stack to exceed 20 percent as specified in Permit Condition EU0030-002.  
 [Construction Permit 0586-005A, Special Condition 2]
- 3) If any of these conditions are violated, Construction Permit 0586-005A shall become void and the process shall cease operation until such time as all conditions are met.  
 [Construction Permit 0586-005A, Special Condition 2]

**Monitoring/Record Keeping:**

The facility shall maintain records on the number of hours per month the Sulfur Lehr Oven (EU0030) is in operation and the flow rate of SO<sub>2</sub> per hour into the Sulfur Lehr Oven (EU0030). These records shall be kept for a period of at least 5 years and shall be made available to Missouri Department of Natural Resources' personnel upon request. [Construction Permit 0586-005A, Special Condition 2]

**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 (10) days after records show that the limits established in this permit condition were exceeded.
- 2) Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

**PERMIT CONDITION EU0030-002**  
 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

**Emission Limitation:**

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

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

**Monitoring:**

- 1) The permittee shall conduct opacity readings on this emission unit (EU0030) 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 only are 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 (8) consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
  - b) Observations must be made once every two (2) weeks for a period of eight (8) 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 A-1 or A-2), noting:
  - a) Whether any air emissions (except for water vapor) were visible from the emission units,
  - b) All emission units from which visible emissions occurred, and
  - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment B)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment C)
- 4) Attachments A-1, A-2, B and C contain logs including these record keeping requirements. These logs, or equivalent forms created by the permittee, must be used to certify compliance with this requirement.
- 5) All records shall be maintained for five (5) years.
- 6) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon their verbal request and presentation of identification.

**Reporting:**

- 1) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the permittee determined using the Method 9 test that the emission unit exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, 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 V of this permit.

**PERMIT CONDITION EU0030-003**  
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.
- 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.

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO <sub>2</sub> )	0.03 parts per million (ppm) (80 micrograms per cubic meter (µg/m <sup>3</sup> ))	Annual arithmetic mean
	0.14 ppm (365 µg/m <sup>3</sup> )	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 µg/m <sup>3</sup> )	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H <sub>2</sub> S)	0.05 ppm (70 µg/m <sup>3</sup> )	½-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 µg/m <sup>3</sup> )	½-hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	10 µg/m <sup>3</sup>	24-hour average not to be exceeded more than once in any 90 consecutive days
	30 µg/m <sup>3</sup>	1-hour average not to be exceeded more than once in any 2 consecutive days

**Operational Limitation/Equipment Specifications:**

The emission unit shall be limited to burning either pipeline grade natural gas or liquid petroleum gas (LPG).

**Monitoring/Record Keeping/Reporting:**

The permittee is assumed always to be in compliance with this regulation. No monitoring, additional record keeping or reporting is required for this permit condition.

## IV. Core Permit Requirements

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

### **10 CSR 10-6.045 Open Burning Requirements**

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

which the City of St. Joseph is located provided, however, the burning period first shall receive the approval of the Department Director; and

- iv) St. Louis metropolitan area. The open burning of trees, tree leaves, brush or any other type of vegetation is limited to the period beginning September 16 and ending April 14 of each calendar year and limited to a total base area not to exceed sixteen (16) square feet. Any open burning shall be conducted only between the hours of 10:00 a.m. and 4:00 p.m. and is limited to areas outside of incorporated municipalities;
- 3) Certain types of materials may be open burned provided an open burning permit is obtained from the Director. The permit will specify the conditions and provisions of all open burning. The permit may be revoked if the owner or operator fails to comply with the conditions or any provisions of the permit.
- 4) Flat River Glass Company may be issued an annually renewable open burning permit for open burning provided that an air curtain destructor or incinerator is utilized and only tree trunks, tree limbs, vegetation or untreated wood waste are burned. Open burning shall occur at least two hundred (200) yards from the nearest occupied structure unless the owner or operator of the occupied structure provides a written waiver of this requirement. Any waiver shall accompany the open burning permit application. The permit may be revoked if Flat River Glass Company fails to comply with the provisions or any condition of the open burning permit.
  - a) In a nonattainment area, as defined in 10 CSR 10-6.020, paragraph (2)(N)5., the Director shall not issue a permit under this section unless the owner or operator can demonstrate to the satisfaction of the Director that the emissions from the open burning of the specified material would be less than the emissions from any other waste management or disposal method.
- 5) Reporting and 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 10-6.050 Start-up, Shutdown and Malfunction Conditions**

- 1) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the Director within two business days, in writing, the following information:
  - a) Name and location of installation;
  - b) Name and telephone number of person responsible for the installation;
  - c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
  - d) Identity of the equipment causing the excess emissions;
  - e) Time and duration of the period of excess emissions;
  - f) Cause of the excess emissions;
  - g) Air pollutants involved;

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

#### **10 CSR 10-6.060 Construction Permits Required**

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

#### **10 CSR 10-6.065 Operating Permits**

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

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

- 1) The permittee shall follow the procedures and requirements of 40 CFR Part 61, Subpart M for any activities occurring at this installation which would be subject to provisions for 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos.

- 2) The permittee shall conduct monitoring to demonstrate compliance with registration, certification, notification, and Abatement Procedures and Practices standards as specified in 40 CFR Part 61, Subpart M.

#### **10 CSR 10-6.100 Alternate Emission Limits**

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

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

- 1) The permittee shall complete and submit an Emission Inventory Questionnaire (EIQ) annually.
- 2) The permittee may be required by the Director to file additional reports.
- 3) Public Availability of Emission Data and Process Information. Any information obtained pursuant to the rule(s) of the Missouri Air Conservation Commission that would not be entitled to confidential treatment under 10 CSR 10-6.210 shall be made available to any member of the public upon request.
- 4) The permittee shall pay an annual emission fee per ton of regulated air pollutant emitted according to the schedule in the rule. This fee is an emission fee assessed under authority of RSMo. 643.079 to satisfy the requirements of the Federal Clean Air Act, Title V.
- 5) The permittee shall complete required reports on state supplied EIQ forms or in a form satisfactory to the Director and the reports shall be submitted to the Director by June 1 after the end of each reporting period.
- 6) The reporting period shall end on December 31 of each calendar year. Each report shall contain the required information for each emission unit for the twelve (12)-month period immediately preceding the end of the reporting period.
- 7) The permittee shall collect, record and maintain the information necessary to complete the required forms during each year of operation of the installation.

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

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

#### **10 CSR 10-6.150 Circumvention**

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

#### **10 CSR 10-6.170**

#### **Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin**

##### **Emission Limitation:**

- 1) The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may

allow, fugitive particulate matter emissions to go beyond the premises of origin in quantities that the particulate matter may be found on surfaces beyond the property line of origin. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the Director.

- 2) The permittee shall not cause nor allow to occur any fugitive particulate matter emissions to remain visible in the ambient air beyond the property line of origin.
- 3) Should it be determined that noncompliance has occurred, the Director may require reasonable control measures as may be necessary. These measures may include, but are not limited to, the following:
  - a) Revision of procedures involving construction, repair, cleaning and demolition of buildings and their appurtenances that produce particulate matter emissions;
  - b) Paving or frequent cleaning of roads, driveways and parking lots;
  - c) Application of dust-free surfaces;
  - d) Application of water; and
  - e) Planting and maintenance of vegetative ground cover.

**Monitoring:**

The permittee shall conduct inspections of its facilities sufficient to determine compliance with this regulation. If the permittee discovers a violation, the permittee shall undertake corrective action to eliminate the violation.

The permittee shall maintain the following monitoring schedule:

- 1) The permittee shall conduct weekly observations for a minimum of eight (8) consecutive weeks after permit issuance.
- 2) Should no violation of this regulation be observed during this period then-
  - a) The permittee may observe once every two (2) weeks for a period of eight (8) weeks.
  - b) If a violation is noted, monitoring reverts to weekly.
  - c) Should no violation of this regulation be observed during this period then-
    - i) The permittee may observe once per month.
    - ii) If a violation is noted, monitoring reverts to weekly.
- 3) If the permittee reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner to the initial monitoring frequency.

**Recordkeeping:**

The permittee shall document all readings on Attachment A, or its equivalent, noting the following:

- 1) Whether air emissions (except water vapor) remain visible in the ambient air beyond the property line of origin.
- 2) Whether the visible emissions were normal for the installation.
- 3) Whether equipment malfunctions contributed to an exceedance.
- 4) Any violations and any corrective actions undertaken to correct the violation.

**10 CSR 10-6.180 Measurement of Emissions of Air Contaminants**

- 1) The Director may require any person responsible for the source of emission of air contaminants to make or have made tests to determine the quantity or nature, or both, of emission of air contaminants from the source. The Director may specify testing methods to be used in accordance with good professional practice. The Director may observe the testing. All tests shall be performed by qualified personnel.

- 2) The Director may conduct tests of emissions of air contaminants from any source. Upon request of the Director, the person responsible for the source to be tested shall provide necessary ports in stacks or ducts and other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants.
- 3) The Director shall be given a copy of the test results in writing and signed by the person responsible for the tests.

**10 CSR 10-3.090 Restriction of Emission of Odors**  
**This requirement is not federally enforceable.**

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

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

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

**Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone**

- 1) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
  - a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
  - b) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
  - c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
  - d) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
- 2) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
  - a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.

- b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
  - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
  - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).
  - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
  - f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
- 3) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A, Production and Consumption Controls.
  - 4) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.
  - 5) The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR Part 82*

#### **10 CSR 10-6.280 Compliance Monitoring Usage**

- 1) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
  - a) Monitoring methods outlined in 40 CFR Part 64;
  - b) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
  - c) Any other monitoring methods approved by the Director.
- 2) Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred by a permittee:
  - a) Monitoring methods outlined in 40 CFR Part 64;
  - b) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
  - c) Compliance test methods specified in the rule cited as the authority for the emission limitations.
- 3) The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
  - a) Applicable monitoring or testing methods, cited in:
    - i) 10 CSR 10-6.030, "Sampling Methods for Air Pollution Sources";
    - ii) 10 CSR 10-6.040, "Reference Methods";
    - iii) 10 CSR 10-6.070, "New Source Performance Standards";

- iv) 10 CSR 10-6.080, "Emission Standards for Hazardous Air Pollutants"; or
- b) Other testing, monitoring, or information gathering methods, if approved by the Director, that produce information comparable to that produced by any method listed above.

## V. General Permit Requirements

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

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

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

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

- 1) Record Keeping
  - a) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
  - b) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any Missouri Department of Natural Resources' personnel upon request.
- 2) Reporting
  - a) All reports shall be submitted to the Air Pollution Control Program's Enforcement Section, P. O. Box 176, Jefferson City, Missouri 65102.
  - b) The permittee shall submit a report of all required monitoring by:
    - i) October 1st for monitoring which covers the January through June time period, and
    - ii) April 1st for monitoring which covers the July through December time period.
    - iii) Exception. Monitoring requirements which require reporting more frequently than semi annually shall report no later than 30 days after the end of the calendar quarter in which the measurements were taken.
  - c) Each report shall identify any deviations from emission limitations, monitoring, record keeping, reporting, or any other requirements of the permit, this includes deviations or Part 64 exceedances.
  - d) Submit supplemental reports as required or as needed. 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 semi-annually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following:
  - a) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and
  - b) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
- 4) The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards, or work practices. These certifications shall be submitted annually by April 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to EPA Region VII, 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 B.K. Chetal. On May 12, 2009, the Air Pollution Control Program was informed that Rajendra Kulkarni is now the responsible official. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Director of the Air Pollution Control Program of the change. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

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

This permit may be reopened for cause if:

- 1) The Missouri Department of Natural Resources 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.

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

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

## **VI. Attachments**

Attachments follow.



**ATTACHMENT A-2**  
**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	
<p>Sketch process unit: Indicate the position relative to the source and sun; mark the potential emission points and/or the observing emission points.</p>          		
Observation Clock Time	Observation Period Duration (minute: second)	Accumulative Emission Time (minute: second)
Begin Observation		
End Observation		



**ATTACHMENT C**  
**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 D**  
**10 CSR 10-6.400 Compliance Demonstration**

This attachment may be used to demonstrate that Glass Melting Furnace #51 (EU0010) is in compliance with 10 CSR 10-6.400, *Restriction of Emission of Particulate Matter from Industrial Processes*.

Allowable PM Emission Rate (E)

$$E \text{ (lbs/hr)} = 4.10(P)^{0.67}$$

Where:

P = process weight rate in tons/hr = 4.37 tons/hr

$$E = 4.10(4.37)^{0.67}$$

$$E = 11.01 \text{ lbs/hr}$$

Potential Uncontrolled PM Emission Rate (PTE)

$$\text{PTE (lbs/hr)} = \text{MHDR (ton/hr)} \times \text{Emission Factor (lbs/ton)}$$

Where:

PM Emission Factor = 2.06 lb/ton

[Source: June 2006 Stack Testing]

$$\text{PTE} = 4.37 \text{ tons/hr} \times 2.06 \text{ lbs/ton}$$

$$\text{PTE} = 9.00 \text{ lbs/hr}$$

IN COMPLIANCE

Allowable PM Concentration = 0.3 gr/scf

Potential PM Concentration

$$\text{Emission rate (gr/dscf)} = \text{Emission Rate (lbs/hr)} \times (7000 \text{ grains/lb}) / \text{Stack flow rate (scfm)} / (60 \text{ min/hr})$$

Where:

Emission Rate = 9.00 lbs/hr

Stack Flow Rate = 21,246 scfm

[Source: June 2006 Stack Testing]

$$\text{Emission rate (gr/dscf)} = 9.00 \text{ lbs/hr} \times 7000 \text{ grains/lb} / 21,246 \text{ scfm} / 60 \text{ min/hr}$$

$$\text{Emission rate (gr/dscf)} = 0.049 \text{ gr/scf}$$

IN 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 October 23, 2006;
- 2) 2006 Emissions Inventory Questionnaire, received May 25, 2007; and
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition.

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

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

None.

### Other Air Regulations Determined Not to Apply to the Operating Permit

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

- 1) 10 CSR 10-3.050, *Restriction of Emission of Particulate Matter from Industrial Processes*  
This rule was listed as applicable in the permit application; however, this rule was rescinded on March 30, 2001, and replaced by 10 CSR 10-6.400. The requirements of 10 CSR 10-6.400 are included in the operating permit.
- 2) 10 CSR 10.3080, *Restriction of Emission of Visible Air Contaminants*  
This rule was listed as applicable in the permit application; however, this rule was rescinded on May 30, 2000, and replaced by 10 CSR 10-6.220. The requirements of 10 CSR 10-6.220 are included in the operating permit.
- 3) 10 CSR 10-6.100, *Alternate Emission Limits*  
This rule is not applicable because the installation is in an ozone attainment area.

### Construction Permit Revisions

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

- 1) Air Pollution Control Program Construction Permit 0586-005A, issued May 15, 1986, authorized the installation of a Sulfur Lehr Oven (EU0030).
  - a) This construction permit required that records be kept for a period of at least two years. This requirement has been revised in the operating permit such that records must be kept for a period of at least five years to comply with General Permit and Record Keeping Requirements of 10 CSR 10-6.065.

- b) This construction permit required that the opacity from the exhaust stack not exceed 20 percent as specified in 10 CSR 10-3.080. 10 CSR 10-3.080 was rescinded on May 30, 2000, and replaced by 10 CSR 10-6.220. The requirements of 10 CSR 10-6.220 are included in Permit Condition EU0030-002.
- 2) Air Pollution Control Program Construction Permit 022002-007, issued February 7, 2002, authorized the installation of two replacement electrical transformers with a resulting increase in the maximum production capacity of Glass Melting Furnace #52 (EU0020).
  - a) 10 CSR 10-6.220 was listed as an applicable rule; however, according to §(1)(H), emission sources regulated by 40 CFR Part 60 and 10 CSR 10-6.070 are exempt. Therefore, 10 CSR 10-6.220 was not applied to Glass Melting Furnace #52 (EU0020).

#### **New Source Performance Standards (NSPS) Applicability**

- 1) 40 CFR Part 60 Subpart CC, *Standards of Performance for Glass Manufacturing Plants*, applies to each glass melting furnace that commenced construction or modification after June 15, 1979.
  - a) Glass Melting Furnace #51 (EU0010) is not subject to this rule because the unit was constructed in 1977.
  - b) Glass Melting Furnace #52 (EU0020) was modified after June 15, 1979, and therefore is subject to this rule. Emission testing conducted at the installation on June 21 and 22, 2006, demonstrated that the emission unit is in compliance with the rule.

#### **Maximum Available Control Technology (MACT) Applicability**

None of the MACT standards applies.

#### **National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

- 1) 40 CFR Part 63 Subpart T, *National Emission Standards for Halogenated Solvent Cleaning*  
This rule does not apply because the installation does not use halogenated solvent cleaners.
- 2) 40 CFR Part 63 Subpart SSSSSS, National Emission Standards for Glass Manufacturing Area  
On September 20, 2007, the U.S. EPA proposed standards for glass manufacturing area sources that operate one or more glass melting furnaces that produce at least 45 Mg/yr (50 tpy) of glass and are charged with one or more of the glass manufacturing metal HAP. This installation does not manufacture glass that is charged with one or more of the glass manufacturing metal HAP and therefore will not be subject to this rule.

None of the other NESHAP standards applies.

#### **Compliance Assurance Monitoring (CAM) Applicability**

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

The CAM rule applies to each pollutant specific emission unit that:

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

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

### Other Regulatory Determinations

- 1) 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*  
Glass Melting Furnace #52 (EU0020) is not subject to this rule because according to §(1)(H), emission sources regulated by 40 CFR Part 60 and 10 CSR 10-6.070 are exempt.
  
- 2) 10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds*
  - a) Glass Melting Furnace #51 (EU0010) and Glass Melting Furnace #52 (EU0020) combust pipeline grade natural gas and/or liquid petroleum gas exclusively; however, since an electrical boost is used; this rule is applied in the operating permit. Based on results from the 2006 stack test, the maximum predicted concentration of SO<sub>2</sub> from EU0010 and EU0020 are 12.9 and 27 ppmv, respectively. Therefore, these units are considered to be always in compliance and no further record keeping or reporting are required.
  - b) Sulfur Lehr Oven (EU0030) combusts pipeline grade natural gas and/or liquid petroleum gas exclusively; however, since sulfur dioxide (SO<sub>2</sub>) is pumped into the oven, this rule is applied in the operating permit. The sulfur dioxide (SO<sub>2</sub>) is pumped into the oven to convert any alkali salt on the glass surface to a neutral salt that can be flushed away in washing machines. According to Construction Permit 0586-005A, the maximum sulfur dioxide concentration of the stack gas is reported by the installation to be 130 ppm. Therefore, this unit is considered to be always in compliance and no further record keeping or reporting are required.
  - c) The following emission units are not subject to this rule because according to §(1)(A)2, combustion equipment that uses exclusively pipeline grade natural gas as defined in 40 CFR 72.2 or liquid petroleum gas as defined in American Society for Testing and Materials (ASTM), or any combination of these fuels are exempt:
    - i) Refiner on Furnace #51, fugitive, natural gas-fired (EP-04B-51)
    - ii) Feeder on Furnace #51, fugitive, natural gas-fired (EP-04C-51)
    - iii) Refiner on Furnace #52, fugitive, natural gas-fired (EP-05B-52)
    - iv) Feeder on Furnace #52, fugitive, natural gas-fired (EP-05C-52)
    - v) Annealing Lehrs, fugitive, natural gas-fired (EP-9)
    - vi) Space heaters, natural gas-fired (EP-10)
  
- 3) 10 CSR 10-6.400, *Restriction of Emission of Particulate Matter from Industrial Processes*
  - a) Glass Melting Furnace #51 (EU0010) is subject to this rule. Calculations demonstrating compliance are listed in Attachment D.
  - b) Glass Melting Furnace #52 (EU0020) is subject to this rule. However, as shown below, the emission limit established by this rule is less restrictive than the emission limit that is established by NSPS Subpart CC in Permit Condition EU0020-001. Therefore, the emission limit established by 10 CSR 10-6.400 is not included in the operating permit.  
10 CSR 10-6.400 PM emission limit:  
$$\text{Allowable PM Emission Rate (E)} = 4.10 (\text{P})^{0.67} \quad [\text{Source: 10 CSR 10.6.400(3)(a)1}]$$

Where P = Process weight rate in tons/hr  
$$E = 4.10 (4.58)^{0.67} = 11.36 \text{ lbs/hr}$$

NSPS Subpart CC PM emission limit:  
PM Emission Limit = 0.5 g/kg or 1.0 lb/ton glass [Source: Subpart CC, §60.293(b)(1)]  
Maximum Production Rate = 110 tons glass/day [Source: 2006 stack test]  
PM emission limit = 1.0 lb/ton x 110 tons/24 hours = 4.58 lbs/hr

- c) Sulfur Lehr Oven (EU0030) is not subject to this rule because according to §(1)(B)11, emission units that at maximum design capacity have a potential to emit less than one-half (0.5) pounds per hour of particulate matter are exempt. As demonstrated below, Sulfur Lehr Oven (EU0030) has the potential to emit less than 0.5 lbs PM/hr.

MHDR: 2.0 MMBtu/hr [Source: Construction Permit 0586-005A]

PM Emission factor: 7.6 lb/MMcf [Source: EPA document AP-42, Table 1.4-2]

Natural gas heating value: 1020 MMBtu/MMcf [Source: EPA document AP-42, Table 1.4-2]

$$PTE\ PM = \frac{2.0\ MMBtu}{hr} \times \frac{7.6\ lbs\ PM}{MMcf} \times \frac{MMcf}{1020\ MMBtu} = 0.015\ lbs/hr$$

- d) The following emission units are not subject to this rule because according to §(1)(B)7, fugitive emissions are exempt:
- i) Raw material (sand, limestone, soda ash) unloading, fugitive (EP-1)
  - ii) Raw material (sand, limestone, soda ash) conveying, fugitive (EP-1)
  - iii) Raw material (sand, limestone, soda ash) storage bins, fugitive (EP-2)
  - iv) Cullet (broken glass) crusher, fugitive (EP-14)

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

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

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

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

Prepared by:

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Jason Dickneite  
Environmental Engineer