

STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES

Matt Blunt, Governor • Doyle Childers, Director

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APR 1 2008

CERTIFIED MAIL: 7004 1350 0003 1415 5469  
RETURN RECEIPT REQUESTED

Mr. Charles T. Franzoi  
Plant Manager  
Saint-Gobain Containers  
1500 Saint-Gobain Drive  
Pevely, MO 63070

RE: Saint-Gobain Containers, 099-0068  
Permit Number: OP2007-035A

Dear Mr. Franzoi:

Enclosed with this letter is your Part 70 operating permit. Please review this document carefully. Operation of your installation in accordance with the rules and regulations cited in this document is necessary for continued compliance. It is very important that you read and understand the requirements contained in your permit.

You may appeal this permit to the Administrative Hearing Commission, P.O. Box 1557, Jefferson City, Missouri 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the Administrative Hearing Commission within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the Administrative Hearing Commission.

If you have any questions or need additional information regarding this permit, please contact Mr. Berhanu Getahun at the Air Pollution Control Program at P.O. Box 176, Jefferson City, MO 65102 or by telephone at (573) 751-4817.

Sincerely,

AIR POLLUTION CONTROL PROGRAM



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

MJS:bn

Enclosure

c: Ms. Tamara Freeman, US Environmental Protection Agency Region VII  
Mr. Tom Sims, St. Louis Regional Office  
PAMS File: 2007-10-094



**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 here in.

**Operating Permit Number:** OP2007-035A  
**Expiration Date:** July 16, 2012  
**Installation ID:** 099-0068  
**Project Number:** 2007-10-094

**Installation Name and Address**

Saint-Gobain Containers  
1500 Saint-Gobain Drive  
Pevely, MO 63070  
Jefferson County

**Parent Company's Name and Address**

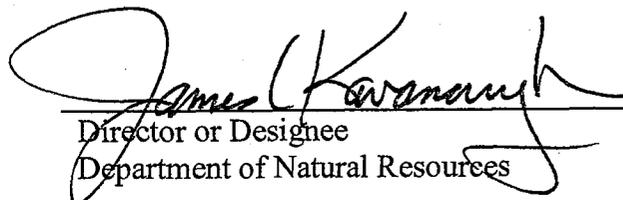
Saint-Gobain Containers, Inc.  
P.O. Box 4200  
Munice, IN 47307-4200

**Installation Description:**

Saint-Gobain Containers, Inc. (Saint-Gobain Containers) owns and operates a glass bottle manufacturing installation in Pevely, Missouri

MAR 31 2008

Effective Date

  
Director or Designee  
Department of Natural Resources

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## I. Installation Description and Equipment Listing

### INSTALLATION DESCRIPTION

The installation is a glass bottle manufacturing plant which includes one batch plant, two modified-process oxy-fuel glass furnaces, small combustion sources and other sources such as distributors and forehearths, etc. All combustion units are fired only with pipeline natural gas. The installation is a major emitter of nitrogen oxides (NO<sub>x</sub>) and sulfur oxides (SO<sub>x</sub>).

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

Reported Air Pollutant Emissions, tons per year							
Year	Particulate Matter ≤ Ten Microns (PM-10)	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)
2006	76.27	240.38	235.50	28.18	9.94	0.20	0.58
2005	105.00	245.12	240.00	4.30	42.80	0.20	—
2004	70.76	236.72	179.22	24.78	29.39	—	—
2003	69.76	239.91	181.82	25.01	31.24	—	—
2002	71.48	242.76	187.54	25.62	33.48	—	—

Saint-Gobain Containers received a renewed P70 Operating Permit (OP2007-035) on July 17, 2007. Saint-Gobain Containers requested several amendments to the P70 Operating Permit, Permit No. OP2007-035. Following is the summary of the changes made to the OP2007-035.

- Addition of insignificant activities not previously included in the renewed operating permit,
- Modifications to the monitoring and recordkeeping conditions in permit condition PW001,
- Correction to the descriptive fuel flow rate for Furnace #21,
- Addition of the NO<sub>x</sub> RACT (10 CSR 10-5.510, *Control of Emissions of Nitrogen Oxides*),
- Addition of 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*, requirements for Furnaces #20 and #21, and
- Language changes and updates to the upper confidence levels (UCL's) listed in requirements for Furnaces #20 and #21 (Permit Condition EU0030-001 through EU0031-001).

### 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 #	EIQ Reference #	Description of Emission Unit
EU0010	EP06	Rail Car Unloading (Screw), Baghouse #12
EU0011	EP06	Rail Car Unloading (Conveyor), Baghouse #13
EU0012	EP06	Truck Unloading (Screw)
EU0030	EP02	Glass Melting Furnace #20
EU0031	EP03	Glass Melting Furnace #21
EU0050	EP14	Parts Washer units, Four (4) Cold Solvent Cleaners

### 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.

Reference #	Description of Emission Unit
EU0020	Raw Material Batching - Fourteen (14) baghouses #1 through #11, #14 through #16, and #20 for the eight (8) raw material silos, weighing and mixing systems and second floor delivery conveyor. Constructed 1980
EU0040	Cullet Crushing System
EU4	Glass Annealing Lehr - 4 MMBtu/hr, pipeline natural gas fired
EU5	Glass Annealing Lehr - 4 MMBtu/hr, pipeline natural gas fired
EU7	Mold Swabbing
EU8	Mold Repair
EU9	Sandblasting
EU10	Caustic Dip Tank
EU11	Thirteen (13) Video Ink Jet Printers
EU13	Eleven (11) Space Heaters, for total of 1,504 MMBtu/hr, pipeline natural gas fired
EU15	Three (3) Mold Preheat Ovens, 800,00 Btu/hr each, pipeline natural gas fired
EU16	Two (2) Electric Mold Preheat Ovens (05-OVEN-04 and 05-OVEN-05)
EU17	Glass Annealing Lehr - 4 MMBtu/hr, pipeline natural gas fired
EU18	Glass Annealing Lehr - 4 MMBtu/hr, pipeline natural gas fired
EU19	Glass Annealing Lehr - 4 MMBtu/hr, pipeline natural gas fired
EU20	Forehearth, 2.5 MMBtu/hr, pipeline natural gas fired (05-FORE-01)
EU21	Forehearth, 2.5 MMBtu/hr, pipeline natural gas fired (05-FORE-02)
EU22	Forehearth, 3 MMBtu/hr, pipeline natural gas fired (05-FORE-03)
EU23	Forehearth, 2.5 MMBtu/hr, pipeline natural gas fired (05-FORE-04)
EU24	Forehearth, 3.1 MMBtu/hr, pipeline natural gas fired (05-FORE-05)
EU25	Forehearth, 3.1 MMBtu/hr, pipeline natural gas fired (05-FORE-06)
EU26	Cooling Water Tower, 473 gallons per minute
EU27	Cooling Water Tower, 450 gallons per minute
EU28	Cooling Water Tower, 400 gallons per minute
EU29	Cooling Water Tower, 1,100 gallons per minute
EU30	Four (4) Above Ground Storage Tanks
EU31	Distributor #20
EU32	Distributor #21
EU33	Laser Jet Coders
EU34	Six (6) Hot End Treatment Hoods

### DOCUMENTS INCORPORATED BY REFERENCE

These documents have been incorporated by reference into this permit.

- 1) Construction Permit No. 0397-006; and
- 2) Construction Permit No. 0680-014 through 017.

## 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 10-6.220

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 source in the St. Louis metropolitan area any visible emissions with an opacity greater than 20%.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six minutes in any 60 minutes air contaminants with an opacity up to 40%.

#### **Monitoring:**

- 1) For each dust collector, a preventive maintenance check shall be performed weekly. The maintenance check shall consider air pressure, differential pressure, blower condition, condition of door seals, and whether visible emissions are detected — the visible emissions checks are only for those units which vent outdoors (to be read by a trained reader as normal or abnormal). If a maintenance check reveals that maintenance is necessary, the filter must be restored to its normal or usual manner of operation as expeditiously as practicable, but at a minimum within three working days, in accordance with air pollution control practices for minimizing emissions.
- 2) The continuous opacity monitoring and recording systems required for glass melting furnaces #20 (EU0030) and #21 (EU0031) shall adhere to the requirements contained in §60.13 and shall be performance evaluated using the procedures and specifications of 40 CFR Part 60 Appendix B, Performance Specification 1.

#### **Recordkeeping:**

- 1) For each dust collector, records of weekly maintenance checks and maintenance activities shall be kept on site and available for review by the Missouri Department of Natural Resources.
- 2) For the continuous opacity monitoring system, the permittee shall keep records as specified in Permit Condition Permit Condition EU0030-001 through EU0031-001.

#### **Reporting:**

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

### 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 through EU0012 – Raw Material Unloading</b>			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0010	Rail Car Unloading (Screw), Constructed 1980, MHDR = 131 TPH (Baghouse #12)	AAF International, Serial #01-3556	EP06
EU0011	Rail Car Unloading (Conveyor), Constructed 1980, MHDR = 260 TPH (Baghouse #13)	FlexKleen, Model 58BVB	EP06
EU0012	Truck Unloading (Screw), Constructed 1980, MHDR = 180 TPH	Not Available	EP06

#### **Permit Condition EU0010-001 through EU0012-001**

10 CSR 10-6.400

Restriction of Emission of Particulate Matter from Industrial Processes

**Emission Limitation:**

- 1) The permittee shall not emit particulate matter in excess of:
  - 54.03 lbs/hr from EU0010;
  - 61.39 lbs/hr from EU0011; and
  - 57.37 lbs/hr from EU0012.
- 2) No person shall cause, allow or permit the emission of particulate matter from any source in a concentration in excess of 0.30 grain per standard cubic foot of exhaust gases.

**Monitoring/Recordkeeping/Reporting:**

Not required (See Statement of Basis).

<b>EU0030 through EU0031 – Glass Melting Furnaces</b>			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0030	Glass Melting Furnace #20, Oxy-fueled, 70 MMBtu/hr pipe line natural gas, Constructed 1980	Saint-Gobain Containers/ Oxy-fuel	EP02
EU0031	Glass Melting Furnace #21, Oxy-fueled, 98 MMBtu/hr pipe line natural gas, Constructed 1980	Saint-Gobain Containers/ Oxy-fuel	EP03

**Permit Condition EU0030-001 through EU0031-001**

10 CSR 10-6.060

Construction Permits Required

Construction Permit No.: 0397-006

10 CSR 10-6.070

New Source Performance Standards

40 CFR Part 60, Subpart CC

Standards of Performance for Glass Manufacturing Plant

**Emission Limitation:**

- 1) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator of a glass melting furnace with modified-processes subject to the provisions of this subpart shall cause to be discharged into the atmosphere from the affected facility 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)]
- 2) The owner or operator of an affected facility that is subject to emission limits specified under §60.293(b)(1) of this section shall: [§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. [§60.293(c)(1)] and [Permit No. 0397-006, Special Condition 5]
  - b) During the performance test required to be conducted by §60.8, conduct continuous opacity monitoring during each test run. [§60.293(c)(2)]
  - c) Calculate six-minute opacity averages from 24 or more data points equally spaced over each six-minute period during the test runs. [§60.293(c)(3)]
  - d) Determine, based on the six-minute opacity averages, the opacity value corresponding to the 99% upper confidence level of a normal distribution of average opacity values. [§60.293(c)(4)]

Based on the stack tests conducted on March 25-26, 1999, and September 21, 2000, the opacity values corresponding to the 99% upper confidence level of a normal distribution of average opacity values are:

- i) 11.9% for Furnace #20, and
  - ii) 14.6% for furnace #21.
- e) For the purposes of §60.7, report to the Administrator as excess emissions all of the six-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% upper confidence level determined under §60.293(c)(4). [§60.293(c)(5)]
  - f) An owner or operator may redetermine the opacity value corresponding to the 99% upper confidence level as described in paragraph §60.293(c)(4) if the owner or operator:
    - i) Conducts continuous opacity monitoring during each test run of a performance test that demonstrates compliance with an emission limit of §60.293 (b)(1), [§60.293(e)(1)]
    - ii) Recalculates the six-minute opacity averages as described in §60.293(c)(3), and [§60.293(e)(2)]
    - iii) Uses the redetermined opacity value corresponding to the 99% upper confidence level for the purposes of §60.293(c)(5). [§60.293(e)(3)]

**Monitoring:**

The continuous opacity monitoring and recording systems shall adhere to the requirements contained in §60.13 and shall be performance evaluated using the procedures and specifications of 40 CFR Part 60 Appendix B, Performance Specification 1. [Permit No. 0397-006, Special Condition 5]

**Recordkeeping:**

- 1) The permittee shall maintain all monitoring information, data and test results for five years from the date of sample, measurement or report. [Permit No. 0397-006, Special Condition 8]
- 2) The permittee shall maintain for five years any compliance test reports or quality assurance checks for the monitoring system. [Permit No. 0397-006, Special Condition 9]

**Reporting:**

- 1) The permittee shall submit quarterly opacity excess emission reports within 30 days following the end of each quarter to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. The report will include, but not limited to, the following information: [Permit No. 0397-006, Special Condition 6]
  - a) The date and time of commencement and completion of each period of excess emissions (Opacity excess emissions are defined to be all six-minute averages of opacity greater than the limits established in Emission Limitation 3);
  - b) The magnitude of the excess emissions, which is determined by arithmetically averaging a minimum of 36 equally spaced instantaneous opacity measurements per six-minute period;
  - c) The nature and cause of the excessive emissions (if known) and the corrective action taken or preventative measures adopted; and
  - d) The date and time of commencement and completion of any period in which the opacity monitoring system was inoperative except for zero and span checks. The report shall identify the repairs or adjustments made to the system.
- 2) 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 emission report shall be filed stating such information. [Permit No. 0397-006, Special Condition 7]

**Permit Condition EU0030-002 through EU0031-002**

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 35 milligrams (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(3)(B) & 10 CSR 10-6.010 Ambient Air Quality Standards] <sup>1</sup>

<sup>1</sup> 10 CSR 10-6.260(3)(B) is state-only requirement.

**Monitoring:**

Compliance shall be determined by source testing as specified in 10 CSR 10-6.030(6) for emissions and T Screen Modeling for estimating ambient sulfur compound concentrations if modifications result in potential increase in sulfur dioxide emissions.

**Recordkeeping:**

The permittee shall retain copies of all source tests to show compliance with 10 CSR 10-6.260.

**Reporting:**

The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) listed above.

**Permit Condition EU0030-003 through EU0031-003**

10 CSR 10-5.510

Control of Emissions of Nitrogen Oxides

**Emission Limitation:**

No owner or operator of a regenerative container glass melting furnace shall allow the unit to emit NO<sub>x</sub> in excess of 5.5 pounds of NO<sub>x</sub> per ton of glass pulled. [10 CSR 10-6.510(3) (E)]

**Performance Testing:**

Compliance Testing. Initial compliance testing for all units subject to 10 CSR 10-5.510(3)(E) shall be determined through a stack test performed prior to the implementation date under 10 CSR 10-5.510(1) except those units complying with the provisions of 10 CSR 10-5.510(5)(B). After the initial stack test, stack tests shall be required every three years to determine compliance except for units complying with the provisions of 10 CSR 10-5.510(5)(B). The following test methods shall be used for all stack tests:

- 1) 40 CFR Part 60, Appendix A, Method 7, 7A, 7C, 7D or 7E shall be used to determine NO<sub>x</sub> concentrations in stack gases;
- 2) 40 CFR Part 60, Appendix A, Method 1A, 2, 2A, 2B, 2C, 2D, 2F, 2G or 2H shall be used to determine the exit velocity of stack gases;
- 3) 40 CFR Part 60, Appendix A, Method 3 or 3A shall be used to determine carbon dioxide, oxygen, excess air and molecular weight of stack gases;
- 4) 40 CFR Part 60, Appendix A, Method 4 shall be used to determine moisture content of stack gases from applicable stationary sources; or
- 5) 40 CFR Part 60, Appendix A, Method 20 may be used to determine NO<sub>x</sub> concentrations for stationary combustion turbines.

[10 CSR 10-5.510(5)(A)1-5]

**Monitoring:**

- 1) Emissions Averaging – The permittee may comply with the emission limitations by averaging between two or more similar emission units provided they are located in the St. Louis ozone nonattainment area and provided that both units are required to comply with 10 CSR 10-5.510(3)(E).
  - a) Compliance shall be based on the weighted average of actual NO<sub>x</sub> emissions from the units on a monthly basis. The averaged emissions rate for the units must be equal to or less than the allowable emissions rate for the units as defined in 10 CSR 10-5.510. The permittee who elects to comply with an average NO<sub>x</sub> emission limit shall use the following equation to determine compliance.

$$\sum (ER_{\text{Actual}} \times HI_{\text{Actual}}) \leq \sum (ER_{\text{Allowable}} \times HI_{\text{Actual}})$$

Where:

$ER_{Actual}$  = actual NO<sub>x</sub> emission rate from each unit;  
 $HI_{Actual}$  = actual monthly heat input from each unit; and  
 $ER_{Allowable}$  = allowable NO<sub>x</sub> emission rate from each unit

- b) NO<sub>x</sub> emission rates shall be calculated from actual data from continuous emissions monitoring system (CEMS), predictive emissions monitoring system (PEMS) or established through stack testing at several loads.
- c) NO<sub>x</sub> emissions averaging may only occur between emission units operated under same owner unless a binding legal agreement between two owners is filed with the director and provided the emission units are located in the St. Louis ozone nonattainment area. The binding legal agreement must specify the following:
  - i) A commitment between the two owners or operators to comply with the averaging provisions;
  - ii) Identification of the emission units which will be used for averaging;
  - iii) An outline of how the emission units will comply with the averaging provisions;
  - iv) A schedule for submitting the monthly data used to determine compliance with the averaging provisions; and
  - v) Contacts from each owner or operator who will be responsible for the monthly compliance reports.
- 2) As an alternative to the compliance testing required under 10 CSR 10-5.510(5)(A), the permittee of an emission unit may install, calibrate, maintain and operate a CEMS or PEMS approved by the director and the U.S. Environmental Protection Agency (EPA), or use an equivalent procedure for measuring or estimating NO<sub>x</sub> emissions approved by the director and the EPA. For units operating CEMS, PEMS or an equivalent procedure for estimating NO<sub>x</sub> emissions, the following requirements shall apply:
  - a) Compliance shall be measured on a 30-day rolling average;
  - b) All valid data shall be used for calculating NO<sub>x</sub> emission rates;
  - c) The procedures under 40 CFR 60.13(d), (e) and (f) and 40 CFR Part 60, Appendix B, Performance Specification 2 shall be followed, or other procedures approved by the director; for the installation, evaluation and operation of CEMS or PEMS;
  - d) Quarterly accuracy and daily calibration drift test shall be performed in accordance with 40 CFR Part 60, Appendix F, or other tests approved by the director; and
  - e) CEMS installed, certified and operated in accordance with 40 CFR Part 75 are deemed to be approved by the director to meet the monitoring and quality assurance requirements of 10 CSR 10-5.510(5)(B).
- 3) The permittee shall monitor the total fuel consumed on a monthly basis.
- 4) The permittee shall monitor the total heat input for each emissions unit on a monthly basis.

**Recordkeeping:**

- 1) The permittee shall maintain records of the following:
  - a) Total fuel consumed on a monthly basis;
  - b) The total heat input for each emissions unit on a monthly basis; and
  - c) Reports of all stack testing conducted to meet the requirements of 10 CSR 10-5.510;
- 2) All records must be kept on-site for a period of five years and made available to the department upon request.

**Reporting:**

The permittee shall comply with the following reporting requirements:

- 1) Submit for each NO<sub>x</sub> emissions unit which uses stack tests to demonstrate compliance, an annual report identifying monthly fuel usage and monthly total heat input, and
- 2) Submit a written report of all stack tests completed after controls are effective to the director within 60 days after completion of sample and data collection.

<b>EU0050 – Parts Washer Units</b>			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0050	Four (4) Cold Solvent Cleaners, Constructed 1980	Safety-Kleen #81	EP14

**Permit Condition EU0050-001**

10 CSR 10-5.300

Control of Emissions From Solvent Metal Cleaning

**Emission Limitation:**

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

**Operational Limitation/Equipment Specifications:**

- 1) Each cold cleaner shall have a cover which will prevent the escape of solvent vapors from the solvent bath while in the closed position, or an enclosed reservoir which limits the escape of solvent vapors from the solvent bath whenever parts are not being processed in the cleaner.
- 2) When one or more of the following conditions exist, the cover shall be designed to operate easily such that minimal disturbing of the solvent vapors in the tank occurs. (For covers larger than ten square feet, this shall be accomplished by either mechanical assistance such as spring loading or counter weighing or by power systems):
  - a) The solvent vapor pressure is greater than 0.3 psi measured at 37.8 degrees Celsius (37.8°C) (100 degrees Fahrenheit (100°F));
  - b) The solvent is agitated; or
  - c) The solvent is heated.
- 3) Each cold cleaner shall have an internal drainage facility so that parts are enclosed under the cover while draining.
- 4) If an internal drainage facility cannot fit into the cleaning system and the solvent vapor pressure is less than 0.6 psi measured at 37.8°C (100°F), then the cold cleaner shall have an external drainage facility which provides for the solvent to drain back into the solvent bath.
- 5) Solvent sprays, if used, shall be a solid fluid stream (not a fine, atomized or shower-type spray) and at a pressure which does not cause splashing above or beyond the freeboard.
- 6) A permanent conspicuous label summarizing the operating procedures shall be affixed to the equipment or in a location readily visible during operation of the equipment.
- 7) Any cold cleaner which uses a solvent that has a solvent vapor pressure greater than 0.6 psi measured at 37.8°C (100°F) or is heated above 48.9°C (120°F), must use one of the following control devices:
  - a) A freeboard ratio of at least 0.75;
  - b) Water cover (solvent must be insoluble in and heavier than water); or
  - c) Other control systems with a mass balance demonstrated overall VOC emissions reduction efficiency greater than or equal to 65%. These control systems must receive approval from the director and EPA prior to their use.
- 8) Each cold cleaner shall be operated as follows:
  - a) Cold cleaner covers shall be closed whenever parts are not being handled in the cleaners or the solvent must drain into an enclosed reservoir except when performing maintenance or collecting solvent samples.
  - b) Cleaned parts shall be drained in the freeboard area for at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining, the parts shall be positioned so that the solvent drains directly back to the cold cleaner.
  - c) Whenever a cold cleaner fails to perform within the rule operating requirements, the unit shall be shut down immediately and shall remain shut down until operation is restored to meet the rule operating requirements.
  - d) Solvent leaks shall be repaired immediately or the cleaner shall be shut down until the leaks are repaired.
  - e) Any waste material removed from a cold cleaner shall be disposed of by one of the following methods or an equivalent method approved by the director and EPA:

- i) Reduction of the waste material to less than 20% VOC solvent by distillation and proper disposal of the still bottom waste; or
  - ii) Stored in closed containers for transfer to a contract reclamation service or disposal facility approved by the director and EPA.
- f) Waste solvent shall be stored in covered containers only.
- 9) Operators must be trained as follows:
- a) Only persons trained in at least the operation and equipment requirements specified in this rule for their particular solvent metal cleaning process to operate this equipment;
  - b) The person who supervises any person who operates solvent cleaning equipment regulated by this rule shall receive equal or greater operational training than the operators; and
  - c) A procedural review shall be given to all solvent metal cleaning equipment operators at least once each 12 months.

**Monitoring/Recordkeeping:**

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

**Reporting:**

Reports of any deviations from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation shall be submitted semiannually, in the semiannual monitoring report and annual compliance certification and monitoring report, as required by Section V 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 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under section 643.080 or 643.151, RSMo.
- 4) Nothing in this rule shall be construed to limit the authority of the director or commission to take appropriate action, under sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.
- 5) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

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

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

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

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

[10 CSR 10-6.065(6)(B)1.A(V)] The permittee shall retain the most current operating permit issued to this installation on-site. [10 CSR 10-6.065(6)(C)1.C(II)] The permittee shall immediately make such permit available to any Missouri Department of Natural Resources' personnel upon request. [10 CSR 10-6.065(6)(C)3.B]

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

- 1) The permittee shall complete and submit an 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 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 10-5.040 Use of Fuel in Hand-Fired Equipment Prohibited**

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

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

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

#### **10 CSR 10-5.070 Open Burning Restrictions**

- 1) The permittee shall not conduct, cause, permit or allow a salvage operation, the disposal of trade wastes or burning of refuse by open burning.
- 2) Exception - Open burning of trade waste or vegetation may be permitted only when it can be shown that open burning is the only feasible method of disposal or an emergency exists which requires open burning.
- 3) Any person intending to engage in open burning shall file a request to do so with the director. The request shall include the following:
  - a) The name, address and telephone number of the person submitting the application; The type of business or activity involved; A description of the proposed equipment and operating practices,

- the type, quantity and composition of trade wastes and expected composition and amount of air contaminants to be released to the atmosphere where known;
- b) The schedule of burning operations;
  - c) The exact location where open burning will be used to dispose of the trade wastes;
  - d) Reasons why no method other than open burning is feasible; and
  - e) Evidence that the proposed open burning has been approved by the fire control authority which has jurisdiction.
- 4) Upon approval of the open burning permit application by the director, the person may proceed with the operation under the terms of the open burning permit. Be aware that such approval shall not exempt Saint-Gobain Containers from the provisions of any other law, ordinance or regulation.
  - 5) The permittee shall maintain files with letters from the director approving the open burning operation and previous Department of Natural Resources' inspection reports.

#### **10 CSR 10-5.160 Control of Odors in the Ambient Air**

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

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

The previously mentioned requirement shall apply only to objectionable odors. An odor will be deemed objectionable when 30% or more of a sample of the people exposed to it believe it to be objectionable in usual places of occupancy; the sample size to be at least 20 people or 75% of those exposed if fewer than 20 people are exposed. **This requirement is not federally enforceable.**

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

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

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

#### **10 CSR 10-6.100 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 10-6.080 Emission Standards for Hazardous Air Pollutants and 40 CFR Part 61 Subpart M National Emission Standard for Asbestos**

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

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

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

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

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

- d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with 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.

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”;
  - b) Other testing, monitoring, or information gathering methods, if approved by the director, that produce information comparable to that produced by any method listed above.

## V. General Permit Requirements

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

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

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

### 10 CSR 10-6.065(6)(C)1.C General Recordkeeping and Reporting Requirements

#### 1) Recordkeeping

- a) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
- b) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any Missouri Department of Natural Resources' personnel upon request.

#### 2) Reporting

- a) All reports shall be submitted to the Air Pollution Control Program, Enforcement Section, P. O. Box 176, Jefferson City, MO 65102.
- b) The permittee shall submit a report of all required monitoring by:
  - i) October 1st for monitoring which covers the January through June time period, and
  - ii) April 1st for monitoring which covers the July through December time period.
  - iii) Exception. Monitoring requirements which require reporting more frequently than semi annually shall report no later than 30 days after the end of the calendar quarter in which the measurements were taken.
- c) Each report shall identify any deviations from emission limitations, monitoring, record keeping, reporting, or any other requirements of the permit, this includes deviations or Part 64 exceedances.
- d) Submit supplemental reports as required or as needed. 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, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and Part 64 exceedances and excursions must be included in the compliance certifications. The compliance certification shall include the following:
  - a) The identification of each term or condition of the permit that is the basis of the certification;
  - b) The current compliance status, as shown by monitoring data and other information reasonably available to the installation;
  - c) Whether compliance was continuous or intermittent;

- d) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period; and
- e) Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

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

- 1) Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date that this permit is issued, provided that:
  - a) The 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 EPA 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, Enforcement Section, P.O. Box 176, Jefferson City, MO 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, Enforcement Section, P.O. Box 176, Jefferson City, MO 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, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, no later than the next annual emissions report. This 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 Mr. Charles T. Franzoi, 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 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 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) 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) 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.









## 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 OP2007 - 035 Significant Modification Application, received October 19, 2007;
- 2) Renewal Part 70 Operating Permit (OP2007-035) issued July 17, 2007;
- 3) Initial Part 70 Operating Permit (OP2000-076) issued July 3, 2000;
- 4) 2006 Emissions Inventory Questionnaire, received April 9, 2007;
- 5) U.S. EPA document AP-42, Compilation of Air Pollutant Emission Factors; Volume I, Stationary Point and Area Sources, Fifth Edition; and
- 6) Construction Permit No. 042000-008, Issued April 6, 2000.

### 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

#### 10 CSR 10-5.330, *Control of Emissions From Industrial Surface Coating Operations*

This rule is not applicable to this installation, as the Video-Jet code daters and Laser Jet Code Daters emit less than two and one-half (2.5) tons in any calendar year of volatile organic compounds (VOCs) from surface coating operations covered under this rule. Therefore, the rule is not included in this permit.

### Construction Permit Revisions

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

- 1) Special Conditions No. 10 and No. 11 of Construction Permit No. 0397-006  
Two special conditions exist concerning the emissions of odor and the presence of PM<sub>10</sub> in the ambient air. These special conditions of permit #0397-006 are covered in the core permit requirements under 10 CSR 10-6.170 and 10 CSR 10-5.160 even though this permit does not contain the verbiage of the construction permit.
- 2) Net emissions calculations requirement of Construction Permit No. 0397-006:  
Special Condition No. 1 in the construction permit states that "the source's net emissions increases of PM<sub>10</sub>, NO<sub>x</sub> or SO<sub>2</sub> as determined as follows, due to the modifications of furnaces #20 and #21 shall be less than the de minimis levels for these pollutants." Special Condition #1 then establishes equations for each of the three pollutants with fixed baseline emissions (77.94 tons per year for PM<sub>10</sub>, 235.38 tons per year for NO<sub>x</sub> and 236.64 tons per year for SO<sub>2</sub>) that are to be subtracted from the calculated new emission rates for the two furnaces.

Special Condition No. 2 in the construction permit states that “if the net emission increase for PM<sub>10</sub>, NO<sub>x</sub>, or SO<sub>2</sub> as determined above is 75% or greater of its respective de minimis level, then records...shall be kept on site for the most recent 60 month period of operation that show the net emissions increase is not significant for each of the above pollutants that meets this criteria.” Further Special Condition No. 3 states that, “if recordkeeping is required per Condition Number 2., then the source shall report to the Air Pollution Control Enforcement ...no later than ten days after the end of each month, if the 12-month cumulative total (Condition Number 2) records show that the source exceeded the limitation of Condition Number 1.”

The post-modification emission factors were established through performance testing that was conducted as required by Special Condition No. 4 of the construction permit. Following the stack testing, Saint-Gobain performed the net emissions increase calculations as required and demonstrated that the net emissions increases were below the de minimis thresholds and thus confirmed that the project did not trigger new source review (NSR) permitting requirements. Also, since the calculated net emissions increases were below 75% of the de minimis level for all three pollutants the recordkeeping and reporting requirements of the construction permit were not triggered.

These conditions are not incorporated in this operating permit because the conditions are considered as one-time requirements.

3) Construction Permit No. 042000-008

This permit allowed the permittee to modify glass melting Furnace 20. The only special condition, Special Condition No. 1, requires the installation to conduct performance testing. The performance test has been conducted for this furnace that satisfies the only special condition of this permit. Therefore, Special Condition No 1 is not included in the operating permit and the construction permit is not incorporated by reference into this operating permit.

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

10 CSR 10-6.070, *New Source Performance Regulations*

40 CFR Part 60, *Subpart CC, Standards of Performance for Glass Manufacturing Plants*

The provisions of this subpart apply to each glass melting furnace that commenced construction, reconstruction or modification on or after June 15, 1979. This subpart does not apply to hand glass melting furnaces, glass melting furnaces designed to produce less than 4.55 Mg (5 tons) of glass per day and all-electric melters.

The two glass melting furnaces (#20 and #21), constructed after June 15, 1979, are subject to 40 CFR Part 60, Subpart CCC as the furnaces are natural gas/oxy fueled melters designed to produce more than 5 tons of glass per day.

40 CFR Part 60, Subpart Ka, *Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification commenced After May 18, 1978, and Prior to July 23, 1984*

40 CFR Part 60, Subpart Kb, *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984.*

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

Description	Capacity	Date Placed in Service
Hydraulic oil storage tank	10,800 gallons	1980
Used oil storage tank	2,500 gallons	1980
Diesel fuel oil storage tank	300 gallons	2004
Gasoline storage tank	300 gallons	2004

### Maximum Available Control Technology (MACT) Applicability

10 CSR 10-6.075, *Maximum Achievable Control Technology Regulations*

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

The cleaning solvents covered by the MACT standard are solvents containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent.

The installation operates three Safety-Kleen cold parts washers (EU0050) that use petroleum naphtha as the cleaning solvent. Therefore, the installation is not subject to the MACT.

40 CFR Part 63, *Subpart Q, National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers*

The cooling towers located at this facility do not use chromium-based water treatment chemicals, therefore, this rule is not applicable to this installation.

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

10 CFR 10-6.080, *Emission Standards for Hazardous Air Pollutants*.

40 CFR Part 61 Subpart M applies to all installations in the state of Missouri as described in Section IV Core Permit Requirements

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

10 CSR 10-6.400 limits the amount of particulate matter that is allowed from an emission unit, and is dependent on the process weight rate material processed. The emission units to which this rule applies are listed below. The following calculations provide the allowable particulate emission rate based on 10 CSR 10-6.400 and the potential (maximum) emission rate including particulate emission control equipment. Potentials to emit presented below were calculated based on sources Maximum

Hourly Design Rate (MHDR). If the emissions from these emission units can not violate the limits of this rule then evidence of this is demonstrated in the following calculations.

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

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

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

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

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

a) EU0010 – Rail Car Unloading - Screw (EIQ Ref. #EP06)

Process weight rate (P) = 131 ton/hr

Emission limit (lb/hr) =  $55.0P^{0.11} - 40 = (55.0 \times 131^{0.11}) - 40 = 54.03$  lb PM/hr

PM emission factor = 0.0507 lb PM/ton (AP-42, Section 13.24, Equation 1)

Control device (Fabric Filter) Efficiency = 99%

Capture Efficiency = 50% (the rail car enclosure can achieve 100% but 50% is conservatively used here)

Overall Control Efficiency =  $(50 \times 99) \div 100 = 49.5\%$

PM uncontrolled emission = 131 ton/ hr  $\times$  0.0507 lb/ton = 6.68 lb/hr

PM controlled emission = 6.68 lb/hr  $\times$  (1 - 0.495) = 0.37 lb/hr

At the maximum hourly design rate (131 tons/hr), the potential PM emission rate based on the AP 42 factor is approximately eight times less than the allowable PM emission rate. It is highly unlikely that the allowable emission rate will be exceeded, therefore there are no recordkeeping or monitoring requirements.

b) EU0011 – Rail Car Unloading - Conveyor (EIQ Ref. #EP06)

Process weight rate (P) = 260 ton/hr

Emission limit (lb/hr) =  $55.0P^{0.11} - 40 = (55.0 \times 260^{0.11}) - 40 = 61.39$  lb PM/hr

PM emission factor = 0.0507 lb PM/ton (AP-42, Section 13.24, Equation 1)

Control device (Fabric Filter) Efficiency = 99%

Capture Efficiency = 100%

PM uncontrolled emission = 260 ton/ hr  $\times$  0.0507 lb/ton = 13.18 lb/hr

PM controlled emission = 13.18 lb/hr  $\times$  (1 - 0.99) = 0.13 lb/hr

At the maximum hourly design rate (260 tons/hr), the uncontrolled emission rate (13.18 lbs/hr) is approximately four and seven tenth (4.7) times less than the allowable emission rate (61.39 lbs/hr). It is highly unlikely that the allowable emission rate will be exceeded, therefore there are no recordkeeping or monitoring requirements.

c) EU0012 – Truck Unloading - Screw (EIQ Ref. #EP06)

Process weight rate (P) = 180 ton/hr

Emission limit (lb/hr) =  $55.0P^{0.11} - 40 = (55.0 \times 180^{0.11}) - 40 = 57.37$  lb PM/hr

PM emission factor = 0.0507 lb PM/ton (AP-42, Section 13.24, Equation 1)

PM uncontrolled emission = 180 ton/ hr  $\times$  0.0507 lb/ton = 9.10 lb/hr

At the maximum hourly design rate (180 tons/hr), the potential PM emission rate is approximately six and three tenth (6.3) times less than the allowable PM emission rate. It is highly unlikely that the allowable emission rate will be exceeded, therefore there are no

recordkeeping or monitoring requirements.

d) EU0020 – Raw Material Batching (EIQ Ref. #EP01)

Process weight rate (P) = 35.6 ton/hr

Emission limit (lb/hr) =  $55.0P^{0.11} - 40 = (55.0 \times 35.6^{0.11}) - 40 = 41.47$  lb PM/hr

PM emission factor = 0.0021 lb PM/ton (AP-42, Section 11.12, Table 11.12-2)

Control device (Fabric Filter) Efficiency = 99%

PM uncontrolled emission = 35.6 ton/hr  $\times$  0.0021 lb/ton = 0.07 lb/hr

PM controlled emission = 0.07 lb/hr  $\times$  (1 - 0.99) = 0.0007 lb/hr

At the maximum hourly design rate (35.6 tons/hr), the uncontrolled emission rate (0.07 lb/hr) is less than the allowed exemption level of 10 CSR 10-6.400(1)(B)11. (i.e., 0.5 lbs/hr), therefore this unit is not subject to the provisions of this rule.

e) EU0030 – Glass Melting Furnace #20 (EIQ Ref. #EP02)

EU0031 – Glass Melting Furnace #21 (EIQ Ref. #EP03)

Since the glass melting furnaces are subject to NSPS (40 CFR Part 60, Subpart CC), the melting furnaces are exempt from the requirements of this rule.

f) EU0040 – Cullet Crushing System (EIQ Ref. #EP02)

Process weight rate (P) = 3.41 ton/hr

Emission limit (lb/hr) =  $4.1P^{0.67} = 4.1 \times 3.14^{0.67} = 9.33$  lb PM/hr

PM emission factor = 0.039 lb PM/ton (AP-42, Section 11.19, Table 11.19, 1-1)

PM uncontrolled emission = 3.14 ton/hr  $\times$  0.039 lb/ton = 0.13 lb/hr

At the maximum hourly design rate (3.41 tons/hr), the uncontrolled emission rate (0.13 lb/hr) is less than the allowed exemption level of 10 CSR 10-6.400(1)(B)11. (i.e., 0.5 lbs/hr), therefore this unit is not subject to the provisions of this rule.

- 2) 10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds*, establishes the maximum allowable concentration of sulfur compounds in source emissions and ambient air. This regulation applies to the two glass melting furnaces (EU0030 and EU0031). The regulation limits the amount of sulfur dioxide emissions to 500 parts per million by volume (ppmv) from new sources. If the emissions from these emission units can not violate the limits of this rule then evidence of this is demonstrated in the following calculations.

EU0030 – Gas Melting Furnace #20:

Maximum hourly design rate = 12.08 ton/hr

SO<sub>2</sub> emission factor = 1.85 lb/ton (Stack Test)

Stack gas flow rate = 41,000 cf/min

Stack gas temperature = 480°F

SO<sub>2</sub> emission = 1.85 lb/ton  $\times$  12.08 ton/hr = 22.35 lbs/hr

PPMv SO<sub>2</sub> = [lbs SO<sub>2</sub>/hr  $\times$  Specific volume SO<sub>2</sub>(ft<sup>3</sup>/lb)  $\times$  106]  $\div$  [flow rate(acfm)  $\times$  60 min/hr]

$$\text{SO}_{2(\text{ppmv})} = \frac{\left(22.35 \frac{\text{lbs}}{\text{hr}}\right) \times \left(1545 \frac{\text{ft}\cdot\text{lb}}{\text{mole}\cdot^{\circ}\text{R}}\right) \times \left((460+480^{\circ}\text{F})^{\circ}\text{R}\right) \times 10^6}{\left(64 \frac{\text{lbs}}{\text{mol}}\right) \times \left(14.7 \frac{\text{lbs}}{\text{in}^2}\right) \times \left(144 \frac{\text{in}^2}{\text{ft}^2}\right) \times \left(41,000 \frac{\text{ft}^3}{\text{min}}\right) \times \left(60 \frac{\text{min}}{\text{hr}}\right)} = 97.40 \text{ ppmv}$$

EU0031 – Gas Melting Furnace #21:

Maximum hourly design rate = 19.47 ton/hr

SO<sub>2</sub> emission factor = 1.99 lb/ton (Stack Test)

Stack gas flow rate = 61,200 cf/min

Stack gas temperature = 500°F

SO<sub>2</sub> emission = 1.99 lb/ton x 19.17 ton/hr = 38.15 lbs/hr

$$\text{PPMv SO}_2 = [\text{lbs SO}_2/\text{hr} \times \text{Specific volume SO}_2(\text{ft}^3/\text{lb}) \times 106] \div [\text{flow rate}(\text{acfm}) \times 60 \text{ min/hr}]$$

$$\text{SO}_{2(\text{ppmv})} = \frac{\left(38.15 \frac{\text{lbs}}{\text{hr}}\right) \times \left(1545 \frac{\text{ft}\cdot\text{lb}}{\text{mole}\cdot^{\circ}\text{R}}\right) \times \left((460+500^{\circ}\text{F})^{\circ}\text{R}\right) \times 10^6}{\left(64 \frac{\text{lbs}}{\text{mol}}\right) \times \left(14.7 \frac{\text{lbs}}{\text{in}^2}\right) \times \left(144 \frac{\text{in}^2}{\text{ft}^2}\right) \times \left(61,200 \frac{\text{ft}^3}{\text{min}}\right) \times \left(60 \frac{\text{min}}{\text{hr}}\right)} = 113.74 \text{ ppmv}$$

**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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