



Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

DEPARTMENT OF NATURAL RESOURCES

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JAN 12 2016

Mr. Donald Johnston
Pittsburgh Corning Corporation
2700 W. 16th St.
Sedalia, MO 65301

Re: Pittsburgh Corning Corporation, 159-0009
Permit Number: OP2015-037

Dear Mr. Johnston:

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 (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.078.16 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you have any questions or need additional information regarding this permit, please contact the Air Pollution Control Program (APCP) at (573) 751-4817, or you may write to the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

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

MJS:jw

Enclosures

c: PAMS File: 2013-12-027



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: OP2015-037
Expiration Date: JAN 12 2021
Installation ID: 159-0009
Project Number: 2013-12-027

Installation Name and Address

Pittsburgh Corning Corporation
2700 W. 16th St.
Sedalia, MO 65301
Pettis County

Parent Company's Name and Address

Pittsburgh Corning Corporation
800 Presque Isle Dr.
Pittsburgh PA, 15239

Installation Description:

Pittsburgh Corning corporation manufactures cellulated rigid glass insulation blocks. Glass is made in a regenerative glass furnace after which it is formed, cooled and crushed. The glass is then mixed with additives, ground, cellulated, annealed, shaped and packaged. It is a major source of SO_x and NO_x emissions. Units at this facility are subject to 40 CFR Part 64, and 40 CFR Part 63 Subparts SSSSSS and ZZZZ.

Prepared by:
Jill Wade, P.E.

Environmental Engineer

Director of Designee Date
Department of Natural Resources

JAN 12 2016

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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

Pittsburgh Corning Corporation manufactures cellulated rigid glass insulation blocks. Glass is made in a regenerative glass furnace after which it is formed, cooled and crushed. The glass is then mixed with additives, ground, cellulated, annealed, shaped and packaged. It is a major source of SO_x and NO_x emissions.

| Reported Air Pollutant Emissions, tons per year | | | | | |
|--|--------|--------|--------|--------|--------|
| Pollutants | 2014 | 2013 | 2012 | 2011 | 2010 |
| Particulate Matter ≤ Ten Microns (PM ₁₀) | 34.49 | 36.34 | 43.14 | 40.29 | 43.65 |
| Particulate Matter ≤ 2.5 Microns (PM _{2.5}) | 26.29 | 28.94 | 3.24 | 3.03 | 3.11 |
| Sulfur Oxides (SO _x) | 58.10 | 64.82 | 162.05 | 150.74 | 157.99 |
| Nitrogen Oxides (NO _x) | 122.29 | 139.12 | 214.62 | 199.42 | 208.98 |
| Volatile Organic Compounds(VOC) | 10.49 | 12.48 | 4.53 | 5.94 | 6.70 |
| Carbon Monoxide (CO) | 29.71 | 42.56 | 26.75 | 24.57 | 25.23 |
| Hazardous Air Pollutants (HAPs) | 0.14 | 0.11 | 0.13 | 0.13 | 0.13 |

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 |
|-----------------|---|
| EU S-01 | Raw Ingredient Rail Unloading and Conveying |
| EU S-01B | Haul Road |
| EU S-02 | Batch Mixer |
| EU S-02A | Batch House Conveying and Unloading |
| EU S-05A | Batch House 4 Unloading and Conveying |
| EU S-05D | Tank 7 Batch Unloading |
| EU S-06A | Tank 4 Glass Furnace |
| EU S-08 | Cullet Crusher |
| EU S-09 | Mixed Batch Dispensers |
| EU S-10 | Cellulating Furnaces |
| EU S-12 | Mold Spraying |
| EU S-13 | Finishing Grinders and Saws |
| EU S-15 | Scrap Crusher |
| EU S-18 | Scrap Unloading |

| | |
|-------------------|-------------------------------|
| EU S-24 | Annealing Lehrs |
| EU S-22 | Milling |
| EU S-22A | Mill Screening |
| EU S-22B | Ground Batch Unloading |
| EU S-28 | Emergency Generator |
| EU S-29 | Glass Unloading |
| EU S-30 | Aux. Grinding and Unloading |
| EU S-31 | Aux. Grind Batch Transport |
| EU S-34A, B, C, D | Cullet Quench System (Dryers) |
| EU S-35 | Pre-Anneal Grinding |
| EU S-36 | Tank 7 |

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

| | |
|----------|--|
| EP S-03 | Cullet Pile |
| EP S-13B | Spraying Ware – Paint Solvent Based |
| EP S-16 | Scrap Haul Routes |
| EU S-32 | DC Unloading |
| S-33 | Solvent Cleaners |
| EP T-1 | 800 Gallon Kerosene Tank |
| EP T-2 | 800 Gallon Gasoline Tank |
| EP T-3 | 800 Gallon Diesel Fuel Tank |
| EU S-07A | Tank 4 Forehearth |
| EU S-25 | Natural Gas Space Heaters – 0.7 MMBtu/hr |

II. Plant Wide Emission Limitations

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

PERMIT CONDITION PW001
 10 CSR 10-6.060 Construction Permits Required
 Construction Permit 082014-015, Issued August 26, 2014

Emission Limitation:

The permittee shall emit less than 250.0 tons of NO_x in any consecutive 12-month period from the entire installation (equipment listed in Table 1 below). [Special Condition 2B]

Table 1: Emission Units with the Potential to Emit NO_x or SO_x

| Emission Unit | Description | Pollutant (NO _x or SO _x) |
|---------------|--------------------------|---|
| S-6A | Tank 4 | Both |
| | Tank 4 (gas) | |
| | Tank 4 (pulverized coal) | |
| S-7A | Forehearth/tube draw | Both |
| S-10 | Cellulating | SO _x |
| | Cellulating (gas) | Both |
| S-24 | Annealing (gas) | Both |
| S-25 | Space heaters | Both |
| S-28 | Generator | Both |
| S-34 A-D | Cullet Dryers | Both |
| S-36 | Tank 7 | Both |
| | Tank 7 (gas) | |

Monitoring/Recordkeeping:

Attachment F or an equivalent form approved by the Air Pollution Control Program shall be used to monitor the emission of nitrogen oxides. The permittee shall maintain all monthly records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. These records shall include SDS for all materials used. [Special Condition 2.C and 6.A]

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 the month during which the records indicate that the source exceeds the NO_x emission limitation. [Special Condition 6.B].
- 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 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION PW002

10 CSR 10-6.060 Construction Permits Required
Construction Permit 022009-010, Issued February 23, 2009

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

PERMIT CONDITION PW003

10 CSR 10-6.060 Construction Permits Required
Construction Permit 1294-007A, Issued November 23, 1994
Amendment to Construction Permit 1294-007A, Issued May 13, 2004

Emission Limitation:

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

Monitoring/Record Keeping:

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

Reporting:

- 1) The source shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the end of each month, if the twelve-month cumulative total records show that the source exceeded the limitation. [Special Condition 3]
- 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 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION PW004
 10 CSR 10-6.060 Construction Permits Required
 Construction Permit 082014-015, Issued August 26, 2014

Emission Limitation:

The permittee shall emit less than 250.0 tons of SO_x in any consecutive 12-month period from the entire installation (Equipment listed in table 1 below). [Special Condition 3.A]

Table 1: Emission Units with the Potential to Emit NO_x or SO_x

| Emission Unit | Description | Pollutant (NO _x or SO _x) |
|---------------|--------------------------|---|
| S-6A | Tank 4 | Both |
| | Tank 4 (gas) | |
| | Tank 4 (pulverized coal) | |
| S-7A | Forehearth/tube draw | Both |
| S-10 | Cellulating | SO _x |
| | Cellulating (gas) | Both |
| S-24 | Annealing (gas) | Both |
| S-25 | Space heaters | Both |
| S-28 | Generator | Both |
| S-34 A-D | Cullet Dryers | Both |
| S-36 | Tank 7 | Both |
| | Tank 7 (gas) | |

Monitoring/Record Keeping:

Attachment M or an equivalent form approved by the Air Pollution Control Program shall be used to monitor the emission of SO_x. The permittee shall maintain all monthly records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. These records shall include MSDS for all materials used. [Special Condition 3.B and 6.A]

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 the month during which the records indicate that the source exceeds the SO_x emission limitation. [Special Condition 6.B].
- 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 10 CSR 10-6.065(6)(C)1.C.(III).

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.

| PERMIT CONDITION 001 | |
|--|--|
| 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants | |
| Emission Unit | Description |
| EU S-01 | Raw Ingredient Rail Unloading and Conveying; MHDR = [REDACTED]; Controlled by Dust Collector 5 with [REDACTED] efficiency; Constructed 1947 |
| EU S-02 | Batch Mixer; MHDR = [REDACTED]; Controlled by Dust Collector 6 with [REDACTED] efficiency; Constructed 1981 |
| EU S-02A | Batch House Conveying and Unloading; MHDR = [REDACTED]; Controlled by Dust Collector 6 with [REDACTED] efficiency; Constructed 1981 |
| EU S-05A | Batch House 4 Unloading and Conveying; MHDR [REDACTED]; Controlled by Dust Collectors 20A, and with [REDACTED] efficiency; Constructed 1993 |
| EU S-05D | Tank 7 Batch Unloading; MHDR = [REDACTED]; Controlled by Baghouse with [REDACTED] efficiency |
| EU S-06A | Tank 4 – Regenerative Glass Furnace; Combusts Natural Gas; MHDR = [REDACTED]; Constructed 1951 |
| EU S-08 | Cullet Crusher; MHDR [REDACTED]; Controlled by Dust Collector 15 with [REDACTED] efficiency; Constructed 1993 |
| EU S-09 | Mixed Batch Dispensers; MHDR = [REDACTED]; Controlled by Dust Collectors 4(a, b, c) with [REDACTED] efficiency; Constructed 1982 |
| EU S-10 | Five (5) Cellulating Furnaces: Furnace 3, 4, 5, 6 and 7; Natural Gas; MHDR = [REDACTED]; Constructed 1982 |
| EU S-12 | Mold Spraying; MHDR = [REDACTED]; Controlled by Dust Collector 14(B, C, D) with [REDACTED] efficiency; Constructed 1981 |
| EU S-13 | Finishing Grinding and Saws; MHDR = [REDACTED]; Controlled by Dust Collectors 1, and 13 with [REDACTED] efficiency; Constructed 1951-1990, various dates |
| EU S-15 | Scrap Crusher; MHDR = [REDACTED]; Controlled by Dust Collector 12 with [REDACTED] efficiency; Constructed 1981 |
| EU S-18 | Scrap Unloading; MHDR = [REDACTED]; Controlled by Dust Collector 9 with [REDACTED] efficiency; Constructed 1951 |
| EU S-24 | Annealing Lehrs; MHDR = [REDACTED]; Constructed 1982 |
| EU S-30 | Aux. Grinding and Unloading; MHDR = [REDACTED]; Controlled by Dust Collector 20B with [REDACTED] efficiency; Constructed 1952 |
| EU S-34A, B, C | Three Natural Gas Cullet Dryers; [REDACTED] each; Controlled by reverse pulse jet collectors; Constructed 2009 |
| EU S-35 | Pre-Anneal Grinding; MHDR = [REDACTED]; Controlled by dust collector with [REDACTED] efficiency; Constructed 2009 |

Emission Limitation:

- 1) The permittee shall not cause or permit emissions to be discharged into the atmosphere from any **existing** source (EU S-01, EU S-06A, EU S-13, EU S-18, and EU S-30) any visible emissions with an opacity greater than forty percent.
Existing source-any equipment, machine, device, article, contrivance or installation installed or in construction in the outstate Missouri area on February 24, 1971, or in the Springfield metropolitan area on September 24, 1971.
Exception: If the source is altered, repaired, or rebuilt at a cost of fifty percent (50%) or more of its replacement cost exclusive of routine maintenance, it shall no longer be existing, but shall be considered new as defined in this regulation.
- 2) The permittee shall not cause or permit emissions to be discharged into the atmosphere from any **new** source (EU S-02, EU S-02A, EU S-05A, EU S-05D, EU S-08, EU S-09, EU S-10, EU S-12, EU S-13, EU S-15, EU S-24, EU S-34A, B, C and EU S-35) any visible emissions with an opacity greater than twenty percent.
Existing source-any equipment, machine, device, article, contrivance or installation installed or in construction in the outstate Missouri area on February 24, 1971, or in the Springfield metropolitan area on September 24, 1971.
Exception: If the source is altered, repaired, or rebuilt at a cost of fifty percent (50%) or more of its replacement cost exclusive of routine maintenance, it shall no longer be existing, but shall be considered new as defined in this regulation.
- 3) Exception: The permittee may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six minutes in any sixty minutes air contaminants with an opacity up to sixty percent.

Monitoring:

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

Record Keeping:

- 1) The permittee shall maintain records of all observation results (see Attachment B), 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 D)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment C)
- 4) Attachments B, C and D, contain logs including these record keeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available immediately for inspection to Department of Natural Resources' personnel upon request.
- 6) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

| PERMIT CONDITION 002 | |
|--|---|
| 10 CSR 10-6.400 Restriction of Emission of Particulate Matter from Industrial Processes | |
| 40 CFR Part 64 Compliance Assurance Monitoring (CAM) | |
| Emission Unit | Description |
| EU S-01 | Raw Ingredient Rail Unloading and Conveying; Controlled by Dust Collector 5 [REDACTED]; Constructed 1947 |
| EU S-08 | Cullet Crusher; Controlled by Dust Collector 15 [REDACTED]; Constructed 1993 |
| EU S-13 | Finishing Grinding and Saws; Controlled by Dust Collectors 1, and 13 [REDACTED]; Constructed 1951-1990, various dates |
| EU S-15 | Scrap Crusher; Controlled by Dust Collector 12 [REDACTED]; Constructed 1981 |

Emission Limitation:

- 1) The permittee shall not emit particulate matter in excess of the following amounts:

| Emission Unit | PM Emission Limitation (lb/hr) | Control Device |
|---------------|--------------------------------|------------------------|
| EU S-01 | 44.6 | Dust Collector 5 |
| EU S-08 | 22.9 | Dust Collector 15 |
| EU S-13 | 28.4 | Dust Collector 1 or 13 |
| EU S-15 | 10.4 | Dust Collector 12 |

The emission rates were calculated using the following equation:

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

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

Where:

E = rate of emission in lbs/hr

P = process weight rate in tons/hr

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

Monitoring:

- 1) The following CAM Indicators shall be used to monitor the control devices (Dust Collectors 5, 15, 4, 1 or 13, and 12):

| Pittsburgh Corning Corporation CAM Monitoring Approach for Dust Collectors | | | |
|--|--|---|---|
| Particulate Matter (PM₁₀) Compliance Indicator | | | |
| Indicator | Indicator #1 Visible Emissions (Opacity) | Indicator #2 Pressure Drop | Indicator #3 Physical Samples |
| Measurement Approach | Daily six-minute opacity observations using the procedures contained in U.S. EPA Test Method 22. If opacity limits observed are perceived or believed to exceed the indicator range, then a Method 9 observation is required. | Instrumentation is installed to collect monitor baghouse pressure drop (ΔP) across the collection control system. | Physical samples (sticky papers) shall be taken. |
| Indicator Range | <p>The opacity indicator range is a collection of all 6-minute averages. An excursion is determined to be opacity observed greater than ten percent (six-minute average).</p> <p>An exceedance is determined to be opacity greater than twenty percent.</p> | <p>The ΔP indicator range is a collection of all daily pressure drop readings. An excursion is defined as pressure drop less than 2 inches H₂O or greater than or equal to 10 inches H₂O or a pressure difference greater than 1 inch H₂O and physical samples that indicate a “High Action Level” (see indicator 3).</p> <p>An exceedance occurs when the permittee is unable to take a pressure drop reading greater than five percent of the operating time.</p> | <p>The indicator range is the collection of all daily physical samples taken. An excursion is defined as a sample indicating a “High Action Level” and a pressure drop out of the acceptable range (see Indicator 2).</p> <p>An exceedance occurs when the permittee is unable to take a reading greater than five percent of the operating time.</p> |
| Excursions and exceedances trigger an inspection, corrective action, and a reporting requirement | | | |
| QIP Threshold | The QIP threshold for any individual emission unit is 9 excursions in a 6-month reporting period or any exceedance. If an emission unit reaches the QIP threshold, the permittee shall submit a QIP for that unit along with the Semiannual Monitoring Report for that reporting period. | | |
| Performance Criteria | | | |
| Data Representativeness | Opacity is related to the size and concentration of particles in the flue gas. As particulate mass emissions increase, it can be reasonable expected that stack opacity will also increase. | The baghouse pressure drop system was installed at a representative location based on manufacturer recommendation and experience. | Physical samples (sticky papers) indicate correct operation of the control device. |
| Verification of Operational Status | N/A | Pressure drop taps are checked for plugging quarterly or upon reasonable suspicion of gauge malfunction. | N/A |

| | | | |
|------------------------------|---|--|--|
| QA/QC Practices and Criteria | Opacity observers shall 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. Method 22 observations shall be made by a trained observer and Method 9 observations, when required, shall be made by a Method-9 certified observer who will be required to be recertified semi-annually. | The differential pressure gauges shall be calibrated no less frequently than semiannually in accordance with the manufacturer's specifications. | Personnel shall be trained to use the physical samples in accordance with the manufacturer's specifications. |
| Monitoring Frequency | Once Daily whenever the units are operating | The baghouse ΔP is monitored and recorded once daily whenever the units are operating. | Physical samples shall be taken once daily whenever the units are operating |
| Averaging Period | N/A | N/A | N/A |
| Data Collection Procedure | The permittee shall retain records of all daily opacity Method 22 and/or Method 9 observations. All records of data collected shall be retained for a maximum period of five (5) years. | The permittee shall retain records of all daily pressure drop measurements. All records of data collected shall be retained for a maximum period of five (5) years | The permittee shall retain records of all physical samples. All results collected shall be retained for a maximum period of five (5) years |
| Corrective Action | Upon detecting an excursion, the permittee shall investigate the cause of the excursion and restore operation of the control device to its normal manner of operation as expeditiously as possible. | | |
| Reporting | Summary information of the number, duration, and cause for any excursions and will be reported on a semiannual basis in the Semiannual Monitoring Report for the Part 70 Operating Permit. | | |

- 2) All instruments and control equipment shall be calibrated semi-annually and maintained and operated according to the manufacturer's specifications and recommendations.
- 3) Check and document the cleaning sequence of the dust collector every six months.
- 4) Inspect bags for leaks and wear every six months.
- 5) Inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods every six months.

Record Keeping:

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

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) or the monitoring requirements indicated an exceedance.
- 2) Reports of any deviations from monitoring (other than the opacity observations, pressure drop range, physical sampling), record keeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

| PERMIT CONDITION 003 | |
|--|---|
| 10 CSR 10-6.400 Restriction of Emission of Particulate Matter from Industrial Processes | |
| Emission Unit | Description |
| EU S-06A | Tank 4 – Regenerative Glass Furnace; Combusts Natural Gas; MHDR [REDACTED] tons/hr; Constructed 1951 |
| EU S-10 | Five (5) Cellulating Furnaces: Furnace 3, 4, 5, 6 and 7; Natural Gas; MHDR = [REDACTED]; Constructed 1982 |
| EU S-18 | Scrap Unloading; MHDR = [REDACTED] Controlled by Dust Collector 9 with [REDACTED]; Constructed 1951 |
| EU S-24 | Annealing Lehrs; MHDR = [REDACTED] Constructed 1982 |
| EU S-30 | Aux. Grinding and Unloading; MHDR = [REDACTED]; Controlled by Dust Collector 20B with [REDACTED] Constructed 1952 |
| EU S-09 | Mixed Batch Dispensers; Controlled by Dust Collectors 4(a, b, c) [REDACTED] Constructed 1982 |

Emission Limitation:

- 1) The permittee shall not emit particulate matter in excess of the following amounts:

| Emission Unit | Emission Limitation (lb/hr) |
|---------------|-----------------------------|
| EU S-06A | 15.1 |
| EU S-10 | 14.0 |
| EU S-18 | 6.5 |
| EU S-24 | 14.0 |
| EU S-30 | 6.7 |
| EU S-09 | 22.9 |

These emission rates were calculated using the following equation:

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

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

Where:

E = rate of emission in lbs/hr

P = process weight rate in tons/hr

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

Monitoring/Record Keeping:

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

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

Reporting:

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

| PERMIT CONDITION 004 | |
|--|---|
| 10 CSR 10-6.400 Restriction of Emission of Particulate Matter from Industrial Processes | |
| Emission Unit | Description |
| EU S-12 | Mold Spraying; MHDR = [REDACTED]; Controlled by Dust Collector 14(B, C, D) with [REDACTED] Constructed 1981 |
| EU S-35 | Pre-Anneal Grinding; MHDR = [REDACTED]; Controlled by dust collector with [REDACTED]; Constructed 2009 |

Emission Limitation:

- 1) The permittee shall not emit particulate matter from EU S-12 in excess of 5.26 pounds per hour and from EU S-35 in excess of 6.7 lb/hr.
 These emission rates were calculated using the following equation:
 For process weight rates of 60,000 lbs/hr or less:

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

Monitoring:

- 1) Visible Emissions and physical samples will be used as an indicator of the proper operation of the control devices. Visual emission observations will be made using a U.S. EPA Method 22 like procedure. Physical samples will be taken and analyzed in accordance with the Pittsburgh Corning standard operating procedures (SOP). During proper operation, no visible emissions and levels on the physical samples as indicated as normal operation in the SOP manual are expected from this emission unit. The existence of visible emissions or presence of residue on the physical samples above normal levels will indicate a decrease in the efficiency of the control device and corrective actions shall be implemented.
- 2) Visible emissions from the exhaust shall be monitored on a daily basis when the process is in operation.
- 3) The duration of the observation for visible emissions shall be for a six minute time period.
- 4) The condition of no visible emissions or normal residue levels on the physical as indicated in the SOP manual is considered standard for this emission unit. When visible emissions or residue levels above normal are noted from the emission unit, it shall be documented and corrective actions taken.

- 5) The observation of visible emissions or residue levels above normal on the physical sample from this emission unit will be considered an excursion and corrective actions shall be implemented within a reasonable period. An excursion does not necessarily indicate a violation of the applicable requirement. When the level of excursions exceed five percent of the total number of observations in a six month period and corrective actions fail to return the emission unit to a no visible emission condition, then the permittee shall conduct source testing within ninety days of the last excursion to demonstrate compliance with the particulate matter emission limitation. If the test demonstrates noncompliance with the above emission limitation, the permittee shall propose a schedule to implement further corrective actions to bring the source into compliance and demonstrate compliance.
- 6) All control equipment shall be maintained and operated according to the manufacturer’s specifications.

Record Keeping:

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

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten days after the permittee determined that the emission unit(s) exceeded the emission limitation(s).
- 2) Reports of any deviations from monitoring opacity observations, record keeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

| PERMIT CONDITION 005 10 CSR 10-6.400 Restriction of Emission of Particulate Matter from Industrial Processes 10 CSR 10-6.060 Construction Permits Required Construction Permit 022009-010, Issued February 23, 2009 | |
|--|--|
| Emission Unit | Description |
| EU S-34A, B, C | Three Natural Gas Cullet Dryers; [REDACTED] Controlled by reverse pulse jet collectors; Constructed 2009 |

Emission Limitation:

- 1) Particulate matter shall not be emitted from EU S-34A, B and C in excess of 15.1 pounds per hour.

This emission rate was calculated using the following equation:

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

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

Where:

E = rate of emission in lbs/hr

P = process weight rate in tons/hr

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

Monitoring:

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

Record Keeping:

- 1) The permittee shall maintain records of all observations. At a minimum the following observation conditions shall be noted:
 - a) The date and time of the observation and the weather condition;
 - b) Observations of visible emissions from the emission unit. Note: The absence of visible emission may be reported for all like emission units in a statement such as "No visible emissions were observed from any emission unit(s);" and

- c) The corrective actions taken during excursions.
- 2) Maintenance and inspection records shall also be maintained for the control device on this emission unit. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 3) All inspections, corrective actions, and instrument calibration shall be recorded.
- 4) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) listed above.
- 2) Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

| PERMIT CONDITION 006 | |
|---|---|
| 10 CSR 10-6.060 Construction Permits Required | |
| Construction Permit 022009-010, Issued February 23, 2009 | |
| Emission Unit | Description |
| EU S-01B | Haul Road for Raw Ingredient Rail Unloading and Conveying |

- 1) Pittsburgh Corning Corporation shall maintain and/or repair the portions of the paved haul road associated with sand delivery (A-1A) and batch unloading (S-04). Maintenance of the surfaces will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating. [Special Condition 5A]
- 2) Pittsburgh Corning Corporation shall periodically water, wash and/or otherwise clean all of the paved portions of the haul roads as necessary to achieve control of fugitive emissions from these roads. [Special Condition 5B]

Reporting:

Reports of any deviations from this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

| PERMIT CONDITION 007 | |
|---|--|
| 10 CSR 10-6.060 Construction Permits Required | |
| Construction Permit 0999-004, Issued August 17, 1999 | |
| Emission Unit | Description |
| EU S-28 | Emergency Diesel Generator; [REDACTED]; Installed 1999; Manufacturer - Caterpillar |

Emission Limitation:

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

Monitoring/Record Keeping:

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

Reporting:

- 1) The permittee shall report the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the end of each month, if the twelve-month cumulative total records show that the source exceeded the limitation.[Special Condition 3]
- 2) Reports of any deviations from this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

| PERMIT CONDITION 008 | |
|---|--|
| 10 CSR 10-6.060 Construction Permits Required | |
| Construction Permit 0696-017, Issued June 13, 1996 | |
| Emission Unit | Description |
| EU S-10 | Five (5) Cellulating Furnaces: Furnace 3, 4, 5, 6 and 7; Natural Gas; [REDACTED]; Constructed 1982 |

Emission Limitation:

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

Monitoring/Recordkeeping:

- 1) The permittee shall verify that the aluminum sulfate in the ground batch does not exceed 0.265 percent.
- 2) The permittee shall maintain monthly records of emissions from the cellulating furnaces. [Special Condition 3]
- 3) Records shall be on Attachments H equivalent forms created by the permittee. [Special Condition 3]

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 the month during which the records indicate that the source the emission limitations. [Special Condition 6]
- 2) Reports of any deviations from this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

| PERMIT CONDITION 009 | |
|---|---|
| 10 CSR 10-6.060 Construction Permits Required | |
| Construction Permit 1294-006, Issued November 27, 1994 | |
| Construction Permit 1294-006A, Issued April 8, 2004 | |
| Emission Unit | Description |
| EU S-29 | Glass Unloading; MHDR = [REDACTED] |
| EU S-30 | Aux. Grinding and Unloading; MHDR = [REDACTED]; Controlled by Dust Collector 7 with [REDACTED] efficiency; Constructed 1952 |
| EU S-31 | Auxiliary Ground Batch Transport; MHDR = [REDACTED] |

Emission Limitation:

The permittee shall not emit more than 3.34 tons per year of particulate matter less than ten micron (PM10) from the auxiliary glass unloading and grind operations (EU S-29, EU S-30 and EU S-31). [Special Condition 1, Construction Permit 1294-006]

Monitoring/Recordkeeping:

- 1) The permittee shall control emissions from S-29 (Glass Unloading) using Dust Collector 20B. The dust collector shall be operated and maintained in accordance with the manufacturer’s specifications. The dust collector shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that the DNR employees may easily observe them. Replacement filters for the dust collector shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur. [Special Condition 1, Construction Permit 1294-006A]
- 2) The permittee shall monitor and record the operating pressure drop across the dust collector at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer’s performance warranty. [Special Condition 2, Construction Permit 1294-006A]
- 3) The permittee shall maintain an operating and maintenance log for the dust collector which shall include the following: [Special Condition 3, Construction Permit 1294-006A]
 - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause and corrective actions, and;
 - b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
- 4) The permittee shall maintain monthly records of emissions from these units.
- 5) Records shall be on Attachment K or on an equivalent form created by the permittee. [Attachment updated in Construction Permit 1294-006A]
- 6) Records shall be kept on-site for the most recent 24 months of operation that show the tons of PM₁₀ emitted per year. Records shall contain both the monthly and previous 12-month totals. These records shall be made immediately available to Department of Natural Resources personnel upon verbal request. [Special Condition 2, Construction Permit 1294-006]

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 the month during which the records indicate that the source the emission limitations. [Special Condition 3, Construction Permit 1294-006]

- 2) Reports of any deviations from this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

| PERMIT CONDITION 010 | |
|--|--|
| 10 CSR 10-6.075 Maximum Achievable Control Technology Regulations | |
| 40 CFR Part 63 Subpart SSSSSS National Emission Standards for Hazardous Air Pollutants for Glass Manufacturing Area Sources | |
| Emission Unit | Description |
| EU S-06A | Tank 4 – Regenerative Glass Furnace; Combusts Natural Gas; MHDR = [REDACTED]; Constructed 1951 |
| EU S-36 | Tank 7 - Regenerative Glass Furnace; Combusts Natural Gas; MHDR = [REDACTED]; Constructed 2015 |

Emissions Limitation:

- 1) The following emission limitations apply to the furnace if it produces glass at an annual rate of at least fifty tons per year and it is charged with compounds of arsenic, cadmium, chromium, manganese, lead or nickel as raw materials: [40 CFR 63.11451]
 - a) The three-hour block average production-based particulate matter mass emission rate of the furnace must not exceed zero and one-tenth grams per kilogram (0.2 pounds per ton) of glass produced; or
 - b) The three-hour block average production-based metal HAP mass emission rate must not exceed 0.01 grams per kilogram (0.02 pounds per ton) of glass produced.
- 2) EU S-36 – Tank 7 must be in compliance with the applicable emissions limits upon initial startup of the source. [§63.11450(b)(2)]
- 3) The permittee must be in compliance with this emission limit during all times except during periods of startup, shutdown, and malfunction. [40 CFR 63.11455(a)]
- 4) The permittee must always operate and maintain the furnace, including control and monitoring equipment, according to the provisions in §63.6(3)(1)(i). [40 CFR 63.11455(b)]

Monitoring Requirements:

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

- 1) The permittee must install each sensor of the monitoring system in a location that provides representative measurement of the appropriate parameter overall operating conditions, taking into account the manufacturer’s guidelines.
- 2) The permittee must perform an initial calibration of the monitoring system based on the manufacturer’s recommendations.
- 3) The permittee must use a monitoring system that is designed to complete a minimum of one cycle of operation for each successive fifteen-minute period.
- 4) The permittee must record the value of the monitored parameter at least every eight-hours, either manually or electronically.
- 5) The permittee must record the results of each inspection, calibration, monitoring system maintenance, and corrective action taken to return the monitoring system to normal operation.

- 6) The permittee must maintain the monitoring system at all times including, but not limited to, maintaining necessary parts for routine repairs of the system.
- 7) The permittee must perform the required monitoring whenever the affected furnace meets the following conditions:
 - a) The furnace is being charged with one or more of the glass manufacturing metal HAPs as raw materials;
 - b) The furnace is in transition between producing glass that contains one or more of the glass metal HAPs as raw materials and glass that does not contain any of the glass manufacturing metal HAPs as raw materials. The transition period begins when the furnace is charged with raw materials that do not contain any of the HAPs as raw materials and ends when the furnace begins producing a saleable glass product that does not contain any of the HAPs as raw materials.

Performance Testing Requirements:

For EU S-36 – Tank 7:

- 1) The permittee must conduct a performance test within 180 days after the compliance date and report the results in the Notification of Compliance Status. [§63.11452(a)(1)]
- 2) The permittee must conduct each performance test according to the requirements in §63.7 and paragraphs (b)(1) through (b)(12) and either paragraph (b)(13) or (b)(14) of §63.11452. [§63.11452(b)]

Initial Compliance Demonstration Requirements:

For EU S-36 – Tank 7:

- 1) For each new affected furnace subject to an emission limit and controlled with a fabric filter, the permittee must install, operate and maintain a bag leak detection system. [§63.11453(c)]
- 2) Each bag leak detection system must meet the following specifications and requirements:
- 3) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per dry standard cubic meter (0.00044 grains per actual cubic foot) or less and be operated according the requirements in §63.11453(c)(1).
- 4) The permittee must develop and submit to the director for approval a site-specific monitoring plan for each bag leak detection system. The permittee must operate and maintain the bag leak detection system according this plan at all times. Each monitoring plan must describe the items listed in §63.11453(c)(2)(i) through (vi). [§63.11453(c)(2)]
- 5) For each bag leak detection system, the permittee must initiate procedures to determine the cause of every alarm within 1 hour of the alarm. The permittee must alleviate the cause of the alarm within 3 hours by taking whatever corrective actions are necessary. [§63.11453(c)(3)]

Initial Notification Requirements:

For EU S-36 – Tank 7:

- 1) The permittee must submit an Initial Notification in accordance with §63.9(b). [§63.11456(a)]
- 2) The Initial Notification must include the information specified in §63.9(b)(2)(i) through (iv). [§63.11456 (a)(2)]
- 3) The permittee must submit a Notification of Compliance Status, including performance test results, before the close of business on the 60th day following the completing of the performance test, according to §60.8 or §63.10(d)(2). [§63.11456(b)(1)]

Recordkeeping Requirements:

- 1) The permittee must keep the following records: [40 CFR 63.11457(a)(1)-(8)]

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

| PERMIT CONDITION 011 | |
|--|--|
| 10 CSR 10-6.075 Maximum Achievable Control Technology Regulations | |
| 40 CFR Part 63 Subpart ZZZZ National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines | |
| Emission Unit | Description |
| EU S-28 | Emergency Diesel Generator; [REDACTED]; Installed 1999; Manufacturer - Caterpillar |

Emission Limitations:

Table 2d of 40 CFR Part 63 Subpart ZZZZ:

| For each . . . | The permittee must meet the following requirement, except during periods of startup . . . | During periods of startup you must . . . |
|---|---|--|
| Emergency stationary CI RICE and black start stationary CI RICE. ² | a. Change oil and filter every 500 hours of operation or annually, whichever comes first; ¹ | |
| | b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and | |
| | c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. | |

¹ Sources have the option to utilize an oil analysis program as described in §63.6625(i) or (j) in order to extend the specified oil change requirement.

² If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk has abated. The management practice should be performed as soon as practicable after the emergency or risk has abated. Sources must report any failure to perform the management practice on the schedule required and the law under which the risk was deemed unacceptable.

Monitoring:

1. The permittee must operate and maintain start up engines according to the manufacturer's emission-related written instructions. [§63.6625(e)]
2. The permittee must install a non-resettable hour meter if one is not already installed. [§63.6625(f)]
3. The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup apply. [§63.6625(h)]

Continuous Compliance:

1. The permittee must demonstrate compliance according to the methods specified in Table 6 to 40 CFR Part 63 Subpart ZZZZ: [§63.6640(a)]

Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, and Other Requirements

| For each . . . | Complying with the requirement to . . . | The permittee must demonstrate continuous compliance by . . . |
|--|---|---|
| Existing emergency and black start stationary RICE ≤500 HP located at a major source of HAP, existing non-emergency stationary RICE <100 HP located at a major source of HAP, existing emergency and black start stationary RICE located at an area source of HAP, existing non-emergency stationary CI RICE ≤300 HP located at an area source of HAP, existing non-emergency 2SLB stationary RICE located at an area source of HAP, existing non-emergency stationary SI RICE located at an area source of HAP which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, existing non-emergency 4SLB and 4SRB stationary RICE ≤500 HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate 24 hours or less per calendar year, and existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are remote stationary RICE | a. Work or Management practices | i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. |

2. The permittee must be in compliance with the operating limitations and other requirements in 40 CFR Part 63 Subpart ZZZZ that apply at all times. [§63.6605(a)]
3. At all times the permittee must operate and maintain any affected source in a manner consistent with safety and good air pollution control practices for minimizing emissions. [§63.6605(b)]
4. In order for the engine to be considered an emergency stationary RICE under Subpart ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations is limited to less than 50 hours per year. There is no time limit on the use of emergency stationary RICE in emergency situations. [§63.6640(f)(1)]
5. Emergency stationary RICE may be operated for any combination of the purposes specified below for maximum of 100 hours per calendar year:
 - a) Maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine

- b) Emergency demand response for periods in which the Reliability Coordination under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3; and/or
- c) Periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [§63.6640(f)(2)(i)-(iii)]

Recordkeeping/Reporting:

The permittee shall keep records and submit reports as described in §63.6655 (except §63.6655(c)) and Footnote 1 of Table 2d §63.6640(b).

Reporting:

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

| PERMIT CONDITION 012 | |
|--|---|
| 10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds | |
| Emission Unit | Description |
| EU S-28 | Emergency Diesel Generator; [REDACTED]; Installed 1999; Manufacturer - Catepillar |

Emission Limitation:

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

Operational Limitation/Equipment Specifications:

The emission units shall be limited to burning diesel fuel with a sulfur content less than 0.5%.

Monitoring/Recordkeeping:

- 1. The permittee shall maintain an accurate record of the sulfur content of fuel used. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 2. These records shall be made available for inspection to the Department of Natural Resources' personnel upon request.
- 3. All records shall be maintained for five years.

Reporting:

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

| PERMIT CONDITION 013 10 CSR 10-6.060 Construction Permits Required Construction Permit 082014-015, Issued August 26, 2014 | |
|--|---|
| Emission Unit | Description |
| EU S-36 | Tank 7 (sodium nitrate use) and Tank 7 (combustion) |
| EU S-34D | Cullet Dryer |

Emission Limitation:

The permittee shall emit less than 40.0 tons of NOx in any consecutive 12-month period from the following equipment:

- 1) Tank 7 sodium nitrate use (S-36);
- 2) Tank 7 combustion (S-36); and
- 3) Cullet Dryer (S-34D).

Monitoring/Recordkeeping:

Attachment N or an equivalent form approved by the Air Pollution Control Program shall be used to monitor the emission of nitrogen oxide. The permittee shall maintain all monthly records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. These records shall include MSDS for all materials used. [Special Condition 2.B and 6.A]

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 the month during which the records indicate that the source exceeds the NOx emission limitation.[Special Condition 6.B].
- 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 10 CSR 10-6.065(6)(C)1.C.(III).

| PERMIT CONDITION 014 10 CSR 10-6.060 Construction Permits Required Construction Permit 082014-015, Issued August 26, 2014 | |
|--|---|
| Emission Unit | Description |
| EU S-02 | Batch Mixer; MHDR = ██████; Controlled by Dust Collector 6 with ██████ efficiency; Constructed 1981 |
| EU S-02A | Batch House Conveying and Unloading; MHDR = ██████; Controlled by Dust Collector 6 with ██████ efficiency; Constructed 1981 |
| EU S-05D | Tank 7 Batch Unloading; MHDR = ██████; Controlled by Baghouse with ██████ efficiency |
| EU S-36 | Tank 7 |

Emission/Operational Limitations:

- 1) The permittee shall control emissions from EU S-02 Batch Mixer, EU S-02A Batch House Conveying and Unloading, EU S-05D Tank 7 Batch Unloading and EU S-36 Tank 7 using baghouses. [Special Condition 4.A]
- 2) The baghouses shall be operated and maintained in accordance with the manufacturer's specifications. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that Department of Natural Resources' employees may easily observe them. [Special Condition 4.B]
- 3) Replacement filters for the baghouses shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance and abrasion resistance). [Special Condition 4.C]
- 4) The permittee shall totally enclose EU S-02 Batch Mixer, EU S-02A Batch House Conveying and Unloading, EU S-05D Tank 7 Batch Unloading and Conveying and EU S-36 Tank 7 and maintain negative pressure for the purpose of maximizing the capture efficiency of particulate emissions. [Special Condition 5.A]
- 5) If any openings or holes should appear due to wear or maintenance activities these openings or holes shall maintain negative pressure. [Special Condition 5.B]

Monitoring and Recordkeeping:

- 1) The permittee shall monitor and record the operating pressure drop across the baghouses at least once every 24 hours while the equipment is operating. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty. [Special Condition 4. D]
- 2) The permittee shall maintain a copy of the baghouse manufacturer's performance warranty on site. [Special Condition 4.E]
- 3) The permittee shall maintain an operating and maintenance log for the baghouses which shall include the following: [Special Condition 4.F and 5.D]
 - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause and corrective actions;
 - b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.; and
 - c) A record of regular inspection schedule, the date and results of all inspections, including any actions or maintenance activities that result from the inspections.
- 4) The permittee shall demonstrate negative pressure at all emission unit openings by using visual indicators such as streamers, talc puff test, negative pressure gauges, flags, etc. at openings that are not closed during normal operations. These opening shall include but are not limited to head boxes, drop point opening, etc. All openings, when operating, must indicate the presence of negative pressure for compliance. Inspections shall occur daily. [Special Condition 5.C]
- 5) The permittee shall maintain all records for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. [Special Condition 6.A]

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 the month during which the records indicate an exceedance from an emission or operational limitation. [Special Condition 6.B].

- 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 10 CSR 10-6.065(6)(C)1.C.(III).

| PERMIT CONDITION 015 | |
|--|--|
| 10 CSR 10-6.070 New Source Performance Standards | |
| 40 CFR Part 60 Subpart CC Standards of Performance for Glass Manufacturing Plants | |
| Emission Unit | Description |
| EU S-36 | Tank 7; fired with natural gas; installed 2015 |

Emission Limitations:

On and after the date on which the performance test required to be conducted by §60.8 is completed, the permittee shall not cause to be discharged into the atmosphere from Tank 7, particulate matter at emission rates exceeding 0.225 g/kg of glass produced. [§60.292(a)(1)]

Test Methods and Procedures:

- 1) The permittee shall determine compliance with the particulate matter standard using the following equation:

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

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 (454 g/hr for flat glass)
- P = glass production nrate, kg/hr.

- 2) Method 5 shall be used to determine the particulate matter concentration (c_s) and volumetric flow rate (Q_{sd}) of the effluent gass. The sampling time and sample volume for each run shall be at least 60 minutes and 0.90 dscm (31.8 dscf). The probe and filter holder heating system may be set to provide a gas temperature no greater than $177 \pm 14^\circ$ C.
- 3) 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 yb the number of hours taken to perform the performance test.

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 the month during which the records indicate an exceedance from an emission or operational limitation.[Special Condition 6.B].
- 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 10 CSR 10-6.065(6)(C)1.C.(III).

IV. Core Permit Requirements

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

10 CSR 10-6.045 Open Burning Requirements

- 1) General Provisions. The open burning of tires, petroleum-based products, asbestos containing materials, and trade waste is prohibited, except as allowed below. Nothing in this rule may be construed as to allow open burning which causes or constitutes a public health hazard, nuisance, a hazard to vehicular or air traffic, nor which violates any other rule or statute.
- 2) 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.

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

- 1) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the director within two business days, in writing, the following information:
 - a) Name and location of installation;
 - b) Name and telephone number of person responsible for the installation;
 - c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
 - d) Identity of the equipment causing the excess emissions;
 - e) Time and duration of the period of excess emissions;
 - f) Cause of the excess emissions;
 - g) Air pollutants involved;
 - h) Best estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;
 - i) Measures taken to mitigate the extent and duration of the excess emissions; and
 - j) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
- 2) The permittee shall submit the paragraph 1 information list to the director in writing at least ten days prior to any maintenance, start-up or shutdown, which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event cannot be given ten days prior to the planned occurrence, it shall be given as soon as practicable prior to the release. If an unplanned excess release of emissions exceeding one hour occurs during maintenance, start-up or shutdown, the director shall be notified verbally as soon as practical during normal working hours and no later than the close of business of the following working day. A written notice shall follow within ten working days.
- 3) Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the paragraph 1 list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other

pertinent information available, the director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under section 643.080 or 643.151, RSMo.

- 4) Nothing in this rule shall be construed to limit the authority of the director or commission to take appropriate action, under sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.
- 5) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

10 CSR 10-6.060 Construction Permits Required

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

10 CSR 10-6.065 Operating Permits

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

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

- 1) The permittee shall submit full emissions report either electronically via MoEIS, which requires Form 1.0 signed by an authorized company representative, or on Emission Inventory Questionnaire (EIQ) paper forms on the frequency specified in this rule and in accordance with the requirements outlined in this rule. Alternate methods of reporting the emissions, such as spreadsheet file, can be submitted for approval by the director.
- 2) The permittee may be required by the director to file additional reports.
- 3) Public Availability of Emission Data and Process Information. Any information obtained pursuant to the rule(s) of the Missouri Air Conservation Commission that would not be entitled to confidential treatment under 10 CSR 10-6.210 shall be made available to any member of the public upon request.
- 4) The permittee shall pay an annual emission fee per ton of regulated air pollutant emitted according to the schedule in the rule. This fee is an emission fee assessed under authority of RSMo. 643.079.
- 5) The fees shall be payable to the Department of Natural Resources and shall be accompanied by the emissions report.
- 6) The permittee shall complete required reports on state supplied EIQ forms or electronically via MoEIS. Alternate methods of reporting the emissions can be submitted for approval by the director. The reports shall be submitted to the director by April 1 after the end of each reporting year. If the full emissions report is filed electronically via MoEIS, this due date is extended to May 1.
- 7) The reporting period shall end on December 31 of each calendar year. Each report shall contain the required information for each emission unit for the twelve (12)-month period immediately preceding the end of the reporting period.
- 8) The permittee shall collect, record and maintain the information necessary to complete the required forms during each year of operation of the installation.

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

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

10 CSR 10-6.150 Circumvention

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

10 CSR 10-6.170

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

Emission Limitation:

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

Monitoring:

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

The permittee shall maintain the following monitoring schedule:

- 1) The permittee shall conduct weekly observations for a minimum of eight (8) consecutive weeks after permit issuance.
- 2) Should no violation of this regulation be observed during this period then-
 - a) The permittee may observe once every two (2) weeks for a period of eight (8) weeks.
 - b) If a violation is noted, monitoring reverts to weekly.
 - c) Should no violation of this regulation be observed during this period then-
 - i) The permittee may observe once per month.
 - ii) If a violation is noted, monitoring reverts to weekly.

- 3) If the permittee reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner to the initial monitoring frequency.

Recordkeeping:

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

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

10 CSR 10-6.180 Measurement of Emissions of Air Contaminants

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

10 CSR 10-6.165 Restriction of Emission of Odors

This requirement is not federally enforceable.

No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one volume of odorous air is diluted with seven volumes of odor-free air for two separate trials not less than 15 minutes apart within the period of one hour. This odor evaluation shall be taken at a location outside of the installation's property boundary.

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, 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, 11201 Renner Blvd., Lenexa, KS 66219, 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 applicable requirements are included and specifically identified in this permit, or
 - b) The permitting authority, in acting on the permit revision or permit application, determines in writing that other requirements, as specifically identified in the permit, are not applicable to the installation, and this permit expressly includes that determination or a concise summary of it.
- 2) Be aware that there are exceptions to this permit protection. The permit shield does not affect the following:
 - a) The provisions of section 303 of the Act or section 643.090, RSMo concerning emergency orders,
 - b) Liability for any violation of an applicable requirement which occurred prior to, or was existing at, the time of permit issuance,
 - c) The applicable requirements of the acid rain program,
 - d) The authority of the Environmental Protection Agency and the Air Pollution Control Program of the Missouri Department of Natural Resources to obtain information, or
 - e) Any other permit or extra-permit provisions, terms or conditions expressly excluded from the permit shield provisions.

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

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

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

An installation that has been issued a Part 70 operating permit is not required to apply for or obtain a permit revision in order to make any of the changes to the permitted installation described below if the changes are not Title I modifications, the changes do not cause emissions to exceed emissions allowable under the permit, and the changes do not result in the emission of any air contaminant not previously

emitted. The permittee shall notify the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, at least seven days in advance of these changes, except as allowed for emergency or upset conditions. Emissions allowable under the permit means a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that establishes an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

- 1) Section 502(b)(10) changes. Changes that, under section 502(b)(10) of the Act, contravene an express permit term may be made without a permit revision, except for changes that would violate applicable requirements of the Act or contravene federally enforceable monitoring (including test methods), 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, 11201 Renner Blvd., Lenexa, KS 66219, describing the changes to be made, the date on which the change will occur, and any changes in emission and any permit terms and conditions that are affected. The permittee shall maintain a copy of the notice with the permit, and the APCP shall place a copy with the permit in the public file. Written notice shall be provided to the EPA and the APCP 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 APCP 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 contemporaneous written notice of the change to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219. This notice shall not be required for changes that are insignificant activities under 10 CSR 10-6.065(6)(B)3 of this rule. 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)39 Responsible Official

The application utilized in the preparation of this permit was signed by Donald Johnston, Plant Manager, however Mr. Johnston is no longer with the company. Mr. Michael Bradford is the new Plant Manager and Responsible official for Pittsburgh Corning Corporation. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Director of the Air Pollution Control Program of the change. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

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

This permit may be reopened for cause if:

- 1) The Missouri Department of Natural Resources (MDNR) receives notice from the Environmental Protection Agency (EPA) that a petition for disapproval of a permit pursuant to 40 CFR § 70.8(d) has been granted, provided that the reopening may be stayed pending judicial review of that determination,
- 2) MDNR or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,
- 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) MDNR or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

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

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

VI. Attachments

Attachments follow.

Attachment C

| 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 | | | | | | | |
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| | 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 E

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

PM Emission limit:

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

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

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

Potential PM Emission Rate:

Emission Rate (lbs/hr) = Process Weight Rate (ton/hr)*PM Emission Factor (lbs/ton)

| Emission Point # | Associated Equipment | Process Weight Rate (ton/hr) | PM Emission Factor (lbs/ton) | Emission Factor Reference | Potential Uncontrolled Emission Rate (lbs/hr) | Emission Rate Limit (lbs/hr) |
|------------------|-----------------------------------|------------------------------|------------------------------|---------------------------|---|------------------------------|
| S-06A | Tank 4 Regenerative Glass Furnace | ■ | ■ | Stack Test | ■ | 15.1 |
| S-10 | Cellulating Furnaces 3 through 7 | ■ | ■ | FIRE | ■ | 14.0 |
| S-18 | Scrap Unloading | ■ | ■ | FIRE | ■ | 6.52 |
| S-24 | Annealing Lehrs | ■ | ■ | FIRE | ■ | 14.0 |
| S-30 | Aux. Grinding and Unloading | ■ | ■ | FIRE | ■ | 6.7 |
| S-09 | Mixed Batch Dispensers | ■ | ■ | FIRE | ■ | 22.9 |

ATTACHMENT F

NO_x Compliance Worksheet

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

Copy this sheet as needed

| Column A | Column B | Column C | Column D |
|--|------------------|---------------------------------|--------------------------------------|
| Description | Amount Processed | NO _x Emission Factor | (a) NO _x Emissions (tons) |
| Sodium Nitrate Used in Tank 4 | Tons | 0.465 | |
| Sodium Nitrate Used in Tank 7 | Tons | 0.541 | |
| Coal Used in Glass Production | Tons | 34 lb/ton | |
| Natural Gas Combusted | MMCF | 100 lb/MMscf | |
| Distillate Oil Combusted | Mgal | 47 lb/Mgal | |
| Liquefied Petroleum Gas Combusted | Mgal | 19 lb/Mgal | |
| Emergency Diesel Generator | Mgal | 604 lb/Mgal | |
| (b) Total NO _x Emissions Calculated for this Month in Tons: | | | |
| (c) 12-Month NO _x Emissions Total From Previous Month's Worksheet, in Tons: | | | |
| (d) Monthly NO _x Emissions Total (b) from Previous Year's Worksheet, In Tons: | | | |
| (e) Current 12-month Total of NO _x Emissions in Tons : [(b) + (c) - (d)] | | | |

- (a) [Column D] = [Column B] x [Column C] x 0.0005
- (b) Summation of [Column D] in Tons;
- (c) 12-Month NO_x emissions total (e) from last month's Worksheet A, in Tons;
- (d) Monthly NO_x emissions total (b) from previous year's Worksheet A, in Tons;
- (e) Calculate the new 12-month NO_x emissions total.

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

ATTACHMENT G

NO_x Compliance Worksheet for Emergency Generator (EU S-28)

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

| Column A | Column B | Column C | Column D |
|--|---|---|---|
| Process | Amount of Fuel Used (gallons) Note 1 | NO_x Emission Factor (lbs/gallon) Note 2 | NO_x Emissions (tons) Note 3 |
| Emergency Diesel Generator (S-28) | | 0.604 | |
| Total NO _x Emissions Calculated for this Month (tons) Note 4 | | | |
| 12-Month NO _x Emissions Total From Previous Month's Worksheet (tons) Note 5 | | | |
| Monthly NO _x Emissions Total From Previous Years Worksheet (tons) Note 6 | | | |
| Current 12-Month Total NO _x Emissions (tons) Note 7 | | | |

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

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

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

Note 4: Sum of Emission reported in Column D.

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

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

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

ATTACHMENT H

SO₂ Emissions From Furnace Stacks S-10

This sheet covers the period
 of

_____ (month)

_____ (year)

| Mass % of Aluminum Sulfate ¹ | SO ₂ Conversion Factor | SO ₂ Emissions from Aluminum Sulfate (tons) |
|---|-----------------------------------|--|
| | 0.3231* | |

*SO₂ conversion factor taken from Construction Permit 0696-017

| Natural Gas ² Combusted in Furnaces (MMCF) | Emissions Factor (lb/MMCF) | SO ₂ Emissions from Natural Gas (tons) |
|---|----------------------------|---|
| | 0.6* | |

*Emission factor from AP-42 SCC code 10200603

| | |
|--|--|
| Total SO ₂ Emission Calculate for This Month | |
| 12-Month SO ₂ Emissions Total from Previous Month's Worksheet | |
| Monthly SO ₂ Emission Total from Previous Year's Worksheet | |
| Current 12-Month Total SO ₂ Emissions ³ | |

¹ Must not exceed 0.265%.

² Only pipeline grade natural gas is permitted.

³ Must not exceed 40 tons. If an exceedance occurs, report it to MoDNR within 10 day of the end of the month in which the exceedance occurred.

ATTACHMENT K

PM₁₀ Emissions Tracking Record for CP 1294-006

Month: _____ Year: _____

| | Column 1 | Column 2 | Column 3 | Column 4¹ |
|-----------------------|-------------------------------|---------------------------------|----------------------------|---|
| Emission Point | Bath Throughput (tons) | Emission Factor (lb/ton) | Control (%) | PM₁₀ Emission Rate (ton/year) |
| S-29 | | 0.0111 | | |
| S-30 | | 1.5 | | |
| S-31 | | 0.1 | | |
| | | | Monthly Total ² | |
| | | | Rolling Total ³ | |

¹Column 4 = (Column 1) x (Column 2) x (100-Column 3)/100 x 0.0005

²Summation of Column 4

³Rolling Total = Current Month Total Plus Previous 11 months total (Not to exceed 3.34 tons/year)

ATTACHMENT L

Monthly MnO₂ Tracking Record

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

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

| Column A | Column B | Column C | Column D | Column E | Column F |
|--|-------------------------|------------------------------|-----------------------|------------------------|---------------------------------------|
| Emission Point(s) | Batch Throughput (tons) | PM Emission Factor (lbs/ton) | % of MnO ₂ | Control Efficiency (%) | (a) MnO ₂ Emissions (tons) |
| S-2 | | 0.6 | | | |
| S-4 | | 0.2 | | | |
| S-5A | | 3.0 | | | |
| S-5B | | 0.6 | | | |
| S-6A | | 0.99 | | | |
| S-6B | | 0.28 | | | |
| (b) Total MnO ₂ Emissions Calculated for this Month (tons): | | | | | |
| (c) 12-month MnO ₂ Emissions Total From Previous Month's Form (tons): | | | | | |
| (d) Monthly MnO ₂ Emissions Total (b) from Previous Year's Form (tons): | | | | | |
| (e) Current 12-month Total of MnO ₂ Emissions (tons): [(b) +(c) -(d)] | | | | | |

- (a) [Column F] = [Column B] x [Column C] x [Column D/100] x [1-(Column E/100)] x 0.0005
- (b) Summation of [Column F] in tons.
- (c) 12-month MnO₂ emissions total (e) from last month's form (tons).
- (d) Monthly MnO₂ emissions total (b) from previous year's form (tons).
- (e) Calculate the new 12-month MnO₂ emissions total.

A 12-month MnO₂ emissions total (e) of less than or equal to 0.19 tons indicates compliance.

ATTACHMENT M

SO_x Compliance Worksheet

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

Copy this sheet as needed

| Column A | Column B | Column C | Column D |
|--|------------------|---|--------------------------------------|
| Description | Amount Processed | SO _x Emission Factor | (a) SO _x Emissions (tons) |
| Glass Produced | Tons | Average calculated as stoichiometric mass balance | |
| Coal Used in Glass Production | Tons | *39(S) lb/ton | |
| Natural Gas Combusted | MMcf | 0.6 lb/MMcf | |
| Distillate Oil Combusted | Mgal | *152(S) lb/Mgal | |
| Liquefied Petroleum Gas Combusted | Mgal | *0.1(S) lb/Mgal | |
| Emergency Diesel Generator | Mgal | 39.7 lb/Mgal | |
| (b) Total SO _x Emissions Calculated for this Month in Tons: | | | |
| (c) 12-Month SO _x Emissions Total From Previous Month's Worksheet, in Tons: | | | |
| (d) Monthly SO _x Emissions Total (b) from Previous Year's Worksheet, In Tons: | | | |
| (e) Current 12-month Total of SO _x Emissions in Tons : [(b) + (c) - (d)] | | | |

- (a) For glass production and emergency diesel generator SO_x emissions, a stoichiometric mass balance should be performed to determine SO_x emissions. For other processes, use the following equation: Column (D) = Column (B) x Column (C) / 2000.
- (b) Add all applicable SO_x emissions for this month
- (c) Record the 12-month SO_x emission total from previous Month's Worksheet: (e)_{last month}
- (d) Record the monthly SO_x emissions from this month last year: (b)_{this month last year}
- (e) Calculate using the following equation: (e) = (b) + (c) - (d)

*S indicates that the weight % of sulfur in the oil should be multiplied by the value given. For example if the fuel is 1% sulfur, then S = 1
 **S equals the sulfur content expressed in gr/100 ft³ gas vapor. For example if the propane sulfur content is 0.18 gr/100ft³, the emission factor would be (0.1 x 0.18) = 0.018 lb of SO₂/Mgal propane burned.

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

ATTACHMENT N

NO_x Compliance Worksheet

This sheet covers _____
 (month/year)

| | Column A | Column B | Column C | Column D | Column E |
|---|------------------|-------------------|-------------------|-----------------|----------------------------------|
| Production Process | Amount Processed | Conversion Factor | Correction Factor | Emission Factor | NO _x Emissions (tons) |
| Sodium Nitrate Use | Tons | 0.541 | 1 | | (a) |
| Natural Gas Use | MMCF | | | 100 lb/MMCF | (b) |
| (c) Total NO _x Emission Calculated for this Month (tons) | | | | | |
| (d) 12-Month Rolling NO _x Emissions Total from Previous Month (tons) | | | | | |
| (e) Monthly NO _x Emissions Total from this Month Last Year (tons) | | | | | |
| (f) Current 12- Month Rolling Total NO _x Emissions (tons) | | | | | |

- a) Calculate using the equation Column E = Column A x Column B x Column C
- b) Calculate using the equation Column E = Column A x Column D / 2000
- c) Calculate by adding NO_x emissions for this month
- f) Calculate using the equation (f) = (c) + (d) - €

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 December 23, 2013;
- 2) 2013 Emissions Inventory Questionnaire, received April 28, 2014; and
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition;
- 4) Construction Permit 082014-015, Issued August 26, 2014;
- 5) Construction Permit 022009-010A, Issued December 12, 2013;
- 6) Construction Permit 022009-010, Issued February 23, 2009;
- 7) Construction Permit 062008-003, Issued June 9, 2008;
- 8) Construction Permit 082001-025, Issued August 17, 2001;
- 9) Construction Permit 0999-004, Issued August 17, 1999;
- 10) Construction Permit 0899-014, Issued July 28, 1999;
- 11) Construction Permit 0696-017, Issued June 13, 1996;
- 12) Construction Permit 1294-006, Issued November 27, 1994;
- 13) Construction Permit 1294-006A, Issued April 8, 2004
- 14) Construction Permit 0894-015, Issued July 28, 1994;
- 15) Construction Permit 1294-007, Issued November 23, 1994 ;
- 16) Construction Permit 1294-007A, Issued May 13, 2004;
- 17) Construction Permit 0793-023, Issued July 26, 1993; and
- 18) Construction Permit 0592-0010, Issued May 19, 1992.

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.

10 CSR 10-6.075, *Maximum Achievable Control Technology Regulations*
40 CFR Part 63 Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*

It was determined that this regulation applies to EU S-28, Emergency Generator. It is included in the operating permit under Permit Condition 012.

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.

10 CSR 10-6.100, *Alternate Emission Limits*

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

10 CSR 10-3.060, *Maximum Allowable Emissions of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating*

This rule was applied to EU0130 (EP S-21), a 2.8 MMBtu/hr Boiler. This boiler has been removed from the facility since the issuance of the previous operating permit, therefore neither this rule (which was rescinded October 30, 2011) nor 10 CSR 10-6.405, *Restriction of Particulate Matter Emissions from Fuel Burning Equipment Used for Indirect Heating*, were applied in this operating permit.

Construction Permit History

Construction Permit 082014-015, Issued August 26, 2014

This permit authorized the construction of a new glass furnace and cullet quench system. The conditions of this permit supersedes Special Condition 2 of previously issued construction permit 022009-010.

Construction Permit 022009-010A, Issued December 12, 2013

This amendment to Construction Permit 022009-010 removed the limitations put on the truck unloading and the sand delivery haul road. The truck unloading was previously limited to 150 tons per day and the delivery of sand was limited to 6 trucks per day. This permit supersedes Special Condition 3 of permit 022009-010.

Construction Permit 022009-010, Issued February 23, 2009

This construction permit authorized the removal of the glass production limitation that was established in Permit No. 062008-003. The special conditions of this permit supersede all special conditions of permit 062008-003. The permit contains a 250 tons per year NO_x limitation and requires monitoring of the Baghouse Control System for the Cullet Quench System (EU S-34). The NO_x limitation was not included in this operating permit because it was superseded by the special conditions of Construction Permit 082014-015, which established a new NO_x limit. Special Condition 3 limiting truck unloading and the delivery of sand was not included in the operating permit because these limits were removed by the construction permit amendment 022009-010A. Special Condition 5 requires maintenance and repair of the haul roads associated with delivery and periodic watering, washing and/or cleaning of the haul roads. This condition was included in the operating permit under Permit Condition 006.

Construction Permit 062008-003, Issued June 9, 2008

This permit authorized the installation of a cullet quench system. All special conditions were superseded by permit 022009-010 therefore they are not included in the operating permit.

Construction Permit 082001-025, Issued August 17, 2001

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

Construction Permit 062008-003), therefore they are both cited in Plant Wide Condition PW002. The recordkeeping attachment in this operating permit was taken from the more recent permit (062008-033A).

This permit also required that the permittee conduct stack testing for NO_x emissions from Tank 4 to determine the pound of NO_x emissions per tons of glass processed. This testing has been completed and the results are used in the compliance worksheet, therefore the requirement was not included in the operating permit.

This permit supersedes all of the special conditions that were previously established in permit 0793-023.

Construction Permit 0999-004, Issued August 17, 1999

This permit authorized the replacement of the existing diesel generator with a new 300 hp diesel generator. The generator is limited to 40 tons NO_x in any consecutive 12-month period. The special conditions of this permit are included in the operating permit under Permit Condition 007.

Construction Permit 0899-014, Issued July 28, 1999

This construction permit authorized the installation of two Foamglas block printers. This permit does not contain any special conditions.

Construction Permit 0696-017, Issued June 13, 1996

This permit authorized the addition of aluminum sulfate into the existing glass batching process. It contains an SO₂ limit of 40 tons per 12-month period on the cellulating furnace stacks and a 0.265 percent limit by mass aluminum sulfate limit in the ground batch. The special conditions of this permit are included in the operating permit under Permit Condition 008.

Construction Permit 1294-006, Issued November 27, 1994

Construction Permit 1294-006A, Issued April 8, 2004

This permit authorized the permittee to resume operation of existing glass unloading and grinding equipment. The permit limits the auxiliary glass unloading and grinding operations to 3.344 tons per year PM₁₀. The special conditions of this permit are included in the operating permit under Permit Condition 009.

This permit was amended April 8, 2004. The amendment authorized the installation of dust collector 20B for the Auxiliary Glass unloading process. The new control efficiency of the dust collector for this emission unit will be 90% which is reflected in the updated record keeping attachment K. Special conditions from this permit amendment are also included in Permit Condition 009.

Construction Permit 0894-015, Issued July 28, 1994

This permit authorized the addition of two ball mills. Special Condition 1 of this permit is repeated in construction permit 1294-007 and is included in the operating permit under Permit Condition PW003 along with the other special conditions from that permit.

Construction Permit 1294-007, Issued November 23, 1994

Construction Permit 1294-007A, Issued May 13, 2004

This permit authorized the addition of manganese dioxide to the existing batch operations. The permit limits the facility to 0.19 tons per year manganese dioxide emissions. The special conditions of this permit are included in the operating permit under Permit Condition PW003. The amendment revised the

Monthly Manganese Dioxide Emissions tracking sheet which is included in the operating permit as Attachment L.

Construction Permit 0793-023, Issued July 26, 1993

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

Construction Permit 0592-0010, Issued May 19, 1992

This permit authorized the installation of an additional cellulating furnace and annealing lehr. This permit does not contain any special conditions.

New Source Performance Standards (NSPS) Applicability

40 CFR Part 60 Subpart CC, *Standards of Performance for Glass Manufacturing Plants* does not apply to the regenerative glass furnace, Tank 4, because it was constructed prior to June 15, 1979. This subpart does apply to Tank 7 and is included in the operating permit as Permit Condition 015.

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

40 CFR Part 60, Subparts IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*

40 CFR Part 60, Subparts JJJJ, *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*

The Emergency Generator (EU S-28) was installed in 1999 which is prior to the applicability date for engines subject to Subparts IIII and JJJJ, therefore these regulations are not included in the operating permit.

Maximum Achievable Control Technology (MACT) Applicability

40 CFR Part 63 Subpart SSSSSS National Emission Standards for Hazardous Air Pollutants for Glass Manufacturing Area Sources applies Emission Units EU06A – Tank 4 Glass Furnace and EUS-36 – Tank 7. The requirements of this subpart are included in the operating permit under Permit Condition 010. Initial notification for Subpart SSSSSS for EU06A was submitted on March 23, 2009 and the Notice of Compliance Status was submitted on April 13, 2009. Initial performance testing for manganese was performed in February 2009.

40 CFR Part 63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

This subpart applies to EU 2-28, Emergency Generator. The requirements of this subpart are included in the operating permit under Permit Condition 011.

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

In the permit application and according to APCP records, there was no indication that any Missouri Air Conservation Law, Asbestos Abatement, 643.225 through 643.250; 10 CSR 10-6.080, Emission

Standards for Hazardous Air Pollutants, Subpart M, National Standards for Asbestos; and 10 CSR 10-6.250, Asbestos Abatement Projects - Certification, Accreditation, and Business Exemption Requirements apply to this installation. The installation is subject to these regulations if they undertake any projects that deal with or involve any asbestos containing materials. None of the installation's operating projects underway at the time of this review deal with or involve asbestos containing material. Therefore, the above regulations were not cited in the operating permit. If the installation should undertake any construction or demolition projects in the future that deal with or involve any asbestos containing materials, the installation must follow all of the applicable requirements of the above rules related to that specific project.

Compliance Assurance Monitoring (CAM) Applicability

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

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

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

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

| Emission Unit | Control Device | MHDR (ton/hr) | Pollutant | Emission Factor (lbs/ton) | Pre-Control Potential (ton/yr) | Emissions Limit (ton/yr) | Controlled Potential (ton/yr) |
|---------------|------------------|---------------|-----------|---------------------------|--------------------------------|--------------------------|-------------------------------|
| EU S-01 | DC #5 | | PM | | | 195.3 | 65.7 |
| EU S-01 | DC #5 | | PM10 | | | 195.3 | 32.85 |
| EU S-02 | DC #6 | | PM | | | 133.6 | 5.26 |
| EU S-02 | DC #6 | | PM10 | | | 133.6 | 2.63 |
| EU S-05A | DC#17 | | PM10 | | | 72.27 | 5.26 |
| EU S-05A | DC#17 | | PM | | | 72.27 | 10.5 |
| EU S-05B | DC #20A | | PM | | | 52.56 | 1.31 |
| EU S-05B | DC #20A | | PM10 | | | 52.56 | 0.657 |
| EU S-05C | DC #20B | | PM | | | 52.56 | 1.31 |
| EU S-05C | DC #20B | | PM10 | | | 52.56 | 0.657 |
| EU S-08 | DC #15 | | PM | | | 75.3 | 12.3 |
| EU S-08 | DC #15 | | PM10 | | | 75.3 | |
| EU S-09 | DC #4(a-c) | | PM | | | 8.24 | 3.942 |
| EU S-09 | DC #4(a-c) | | PM10 | | | 8.24 | 1.97 |
| EU S-12 | DC #14(b-d) & 19 | | PM | | | 23.0 | 3.42 |
| EU S-12 | DC #14(b-d) & 19 | | PM10 | | | 23.0 | |
| EU S-13 | DC #13 & 1 | | PM10 | | | 61.3 | |
| EU S-13 | DC #13 & 1 | | PM | | | 61.3 | 14.5 |
| EU S-15 | DC #12 | | PM10 | | | 45.6 | |
| EU S-15 | DC #12 | | PM | | | 45.6 | 20.3 |
| EU S-18 | DC #9 | | PM | | | 45.6 | 2.03 |

| | | | | | | | |
|---------|-------|--|------|--|--|------|-------|
| EU S-18 | DC #9 | | PM10 | | | 45.6 | 0.20 |
| EU S-30 | DC #7 | | PM | | | 29.3 | 0.02 |
| EU S-30 | DC #7 | | PM10 | | | 29.3 | 0.002 |

- following Control Devices and associated Emission Units are subject to CAM:
- Dust Collector 5 associated with EU S-01
- Dust Collector 15 associated with EU S-08
- Dust Collector 14(b-d) associated with EU S-09 and EU S-12
- Dust Collector 13 associated with EU S-12 and EU S-13
- Dust Collector 1 associated with EU S-12 and EU S-13
- Dust Collector 12 associated with EU S -13 and EU15

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

Greenhouse Gas Emissions

A facility must report GHG emissions under 40 CFR 98 if it contains one or more stationary fuel combustion sources and the facility meets the applicability requirements of either §§98.2(a)(1), 98.2(a)(2), or 98.2(a)(3). However, the preamble of the GHG Reporting Rule clarifies that Part 98 requirements do not have to be incorporated in Part 70 permits operating permits at this time. In addition, Missouri regulations do not require the installation to report CO₂ emissions in their Missouri Emissions Inventory Questionnaire; therefore, the installation’s CO₂ emissions were not included within this permit. The applicant is required to report the data directly to EPA. The public may obtain CO₂ emissions data for this installation by visiting EPA’s Clean Air Markets website at: <http://camddataandmaps.epa.gov/gdm/index.cfm>.

Updated Potential to Emit for the Installation

| Pollutant | Potential to Emit (tons/yr) ¹ |
|-------------------------|--|
| CO | 75.35 |
| HAP | 1.46 |
| NO _x | <250.0 |
| PM ₁₀ | 87.72 |
| PM _{2.5} | N/D |
| SO _x | <250.0 |
| VOC | 12.23 |
| GHG (CO ₂ e) | N/D |

Potential Emissions were taken from the most recently issued construction permit (Permit No. 082014-015).

Other Regulatory Determinations

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

- S-03 Cullet Pile
- S-04 Batch Haul
- S-11 Mold Coating
- S-10 Cellulating Furnaces

| | |
|-------|--|
| S-16 | Scrap Haul Routes |
| S-22 | Ball Mills |
| S-22B | Ground Batch Unloading and Conveying |
| S-29 | Glass Unloading |
| S-31 | Aux. Ground Batch Transport |
| S-32 | Unloading Dust Collectors |
| S-01A | Raw Ingredient Truck Unloading and Conveying |

This rule was applied to the following Emission Units which are not subject to 40 CFR Part 64 Compliance Assurance Monitoring (CAM): EU S-12-Mold Spraying, EU S-08 Cullet Quench System and EU S-35-Pre-Anneal Grinding. Monitoring of the control devices associated with these units was required to demonstrate compliance with the emissions limitations. Compliance calculations are demonstrated below.

EU S-12 Mold Spraying

Emission Limit = [REDACTED] = 5.25 lbs/hr
Emission factor = [REDACTED] (Source: Emission Calculation)
Control Device Efficiency = [REDACTED] (Dust Collector 14(B, C, D))
Uncontrolled Potential Emissions = [REDACTED]
Controlled Potential Emissions = [REDACTED] = 0.57 lbs/hr

EU S-34 Cullet Quench System

MHDR = [REDACTED]
Emission Limitation [REDACTED]
Emission Factor = [REDACTED]
Control Device Efficiency = [REDACTED]
Uncontrolled Potential Emissions = [REDACTED]
Controlled Potential Emissions = [REDACTED]

EU S-35 Pre-Anneal Grinding

MHDR = [REDACTED]
Emission Limit = [REDACTED] = .683 lbs/hr
Control Device Efficiency = [REDACTED]
Uncontrolled Potential Emissions = [REDACTED]
Controlled Potential Emissions = [REDACTED]

10 CSR 10-6.400 *Restriction of Emission of Particulate Matter From Industrial Processes* was applied to the following Emission Units where calculations demonstrate continuous compliance without required control device monitoring: EU S-06A-Tank 4, EU S-10 Cellulating Furnaces, EU S-18-Scrap Unloading, EU S-24-Annealing Lehrs, and EU S-30-Aux. Grinding and Unloading. Attachment E contains the compliance calculations.

10 CSR 10-6.400 *Restriction of Emission of Particulate Matter From Industrial Processes* is not applicable to EU S-02-Batch Mixer, EU S-02A-Batch House Conveying and Unloading, EU S-05A-Batch House 4 Unloading and Conveying, EU S-05D Tank 7 Batch Unloading. These units are exempt by 10 CSR 10-6.400(1)(B)15 which exempts any PM emission unit that is subject to a federally

enforceable requirement to install, operate, and maintain a PM control device system that controls at least 90% of PM emissions. These units are required to install and maintain baghouses to control PM emissions under construction permit 082014-015. The special conditions of this construction permit are included in this operating permit under Permit Condition 014.

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

In the previous permit this regulation was applied to the following Emission Units:

EU S-06A – Glass Furnace

EU S-10 – Cellulating Furnaces

EU S-21 – Boiler

EU S-34A/B/C – Cullet Dryers

The Boiler has since been removed from the facility and Emission Units EU S-06A, EU S-10 and EU S34A/B/C combust only natural gas. According to 10 CSR 10-6.260(1)(A)(2), units which combust natural gas are not subject to this rule, therefore it was not applied to these units. EU S-28, Emergency Generator is a diesel powered generator and is subject to this regulation, which included in the operating permit under Permit Condition 012. The following calculations demonstrate that when fuel with a sulfur content less than 0.5% is used the Emergency Generator will be in compliance with 10 CSR 10-6.260:

$$\text{Distillate Oil SO}_2 \text{ emission factor (lbs / MMBtu)} = \frac{142(0.5) \text{ lbs}/10^3 \text{ gal}}{140 \text{ MMBtu} / 10^3 \text{ gal}} = 0.507 \text{ lb/MMBtu}$$

(AP - 42 Table 1.3 - 1(9/98))

$$\text{ppmv SO}_2 = \left(\frac{0.507 \text{ lb}}{\text{MMBtu}} \right) \times \left(\frac{\text{MMBtu}}{10,320 \text{ wscf}} \right) \times \left(\frac{\text{ppmw}}{1.660\text{E}^{-7} \text{ lb / scf}} \right) \times \left(\frac{0.45 \text{ ppmv}}{\text{ppmw}} \right) = 133.22 \text{ ppmv}$$

(Appendix A – 7 to Part 60)

SO₃

$$\text{Distillate Oil SO}_3 \text{ emission factor (lbs / MMBtu)} = \frac{2(0.5) \text{ lbs}/10^3 \text{ gal}}{140 \text{ MMBtu} / 10^3 \text{ gal}} = 0.007 \text{ lb/MMBtu}$$

(AP - 42 Table 1.3 - 1(9/98))

$$\text{ppmv SO}_3 = \left(\frac{0.007 \text{ lb}}{\text{MMBtu}} \right) \times \left(\frac{\text{MMBtu}}{10,320 \text{ wscf}} \right) \times \left(\frac{1.602 \times 10^7 \text{ mg ft}^3}{\text{lb m}^3} \right) = 11.088 \frac{\text{mg}}{\text{m}^3}$$

(Appendix A – 7 to Part 60)

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 APCP's satisfaction, the installation's compliance with that regulation(s). If the installation is not in compliance with a regulation which was not previously cited, the installation shall submit to the APCP a schedule for achieving compliance for that regulation(s).

Response to Public Comments

The draft Part 70 Operating Permit for Pittsburgh Corning Corporation (159-0009) was placed on public notice as of January 23, 2015 for a 30-day comment period. The public notice was published on the Department of Natural Resources' Air Pollution Control Program's web page at: <http://www.dnr.mo.gov/env/apcp/PermitPublicNotices.htm>. On February 11, 2015 the Air Pollution Control Program received comments from Leslie Werner (on behalf of Mark Smith), EPA Region 7. The comments are addressed below in the order in which they appear within the letter.

Comment #1: The draft Part 70 Operating permit has the description of emission units in Section I; description of emission units in all plant wide permit conditions in Section II; emission unit descriptions of all emission unit specific permit conditions in Section III; emission unit descriptions in Attachment E; emission unit descriptions in the Construction History section and Other Regulatory Determination section of the Statement of Basis are redacted. Also, emission factors in Attachments E, F, G, K, L, M and N; and in the Compliance Assurance Monitoring section of the Statement of Basis are redacted. It is unclear to EPA why this information has been redacted from the operating permit. All of the emission unit descriptions and emission factors that are redacted are already included in publically available construction permits. Therefore, EPA does not believe this information is confidential business information in accordance with 10 CSR 10-6.020(2)(C)57. EPA recommends MDNR unredact the information.

Response to Comment: Emission Unit descriptions throughout the permit have been unredacted as requested. Maximum hourly design rates (MHDRs) and control efficiencies for various control equipment will remain redacted in the public copy of the operating permit per the applicant's request.

Comment #2: Emission Limitation #2 and Emission Limitation #3 in Permit Condition PW003 (page 7) appear to be identical, therefore, EPA recommends MDNR eliminate Emission Limitation #3 or provide an explanation as to why Emission Limitation #3 is unique from Emission Limitation #2.

Response to Comment: Emission Limitation #3 has been removed from Permit Condition PW003.

Comment #3: Emission Limitations #1, #2 and #3 in Permit Condition 001 indicate that the "owner or other person" is the individual responsible for compliance and compliance verification. This permit condition is included in an operating permit being issued to Pittsburgh Corning – Sedalia (permittee). Therefore, the permittee is responsible for compliance and compliance verification and EPA recommends MDNR replace owner or other person with "permittee."

Response to Comment: The term "owner or other person" has been replace with "permittee" in permit condition 001.

Comment #4: The Monitoring/Record Keeping requirement #1 in Permit Condition 008 requires the permittee to verify that the aluminum sulfate in the ground batch does not exceed 0.265 percent. For this requirement to be practically enforceable, EPA recommends that MDNR include Pittsburgh Corning – Sedalia's discussion from its permit application regarding the process for verification.

Response to Comment: The permittee is authorized to add up to 0.265% of aluminum sulfate into the ground batch for emission unit EU-S10 Cellulating Furnaces. It is assumed that the permittee will comply with this limit by knowing the amount of ground batch entering the furnaces, multiplying that quantity by 0.265% and not exceeding that amount. The actual percentage added to the ground batch is required to be recorded on Attachment H.

Comment #5: Monitoring/Record Keeping requirement #3 indicates that Attachment H shall serve as the verification record. However, Attachment H does not include the SO₂ conversion factor and the source of the factor, both of which are included in construction permit 0696-017. Additionally, Attachment H does not include the natural gas emission factor and the source of the natural gas emission factor. EPA recommends MDNR include the conversion factor, emission factor and the source of these factors in Attachment H. Additionally, construction permit 0696-017 shows the derivation of the conversion factor and EPA recommends MDNR include this information in the Statement of Basis.

Response to Comment: The SO₂ conversion factor and SO₂ emission factor for natural gas as well as the source of each factor has been added to Attachment H. Because the derivation of the SO₂ conversion factor is included in construction permit 0696-017 it is not necessary to repeat the derivation in the operating permit statement of basis.

Comment #6: Permit Condition 010 incorporates the applicable requirements from 40 CFR Part 63 Subpart SSSSSS. Permit Condition 010, includes requirements associated with initial notification and performance testing, or which the statutory deadline has already passed. Therefore, EPA believes these requirements have likely been completed and are no longer applicable. Therefore, EPA recommends MDNR discuss in the Statement of Basis whether the initial notification and performance testing requirements have been completed.

Response to Comment: Initial notification for Subpart SSSSSS was submitted on March 23, 2009 and the Notice of Compliance Status was submitted on April 13, 2009. Initial performance testing for manganese was performed in February 2009. Because the initial notification and performance testing requirements for this subpart have been completed, they were removed from Permit Condition 010.

Comment #7: The Statement of Basis includes a list of Permit Reference Documents. However, Construction Permit 1294-006A, issued in 2004 is not on the list. Additionally Construction Permit 1294-006A is not among the Construction Permit History discussion in the Statement of Basis. EPA recommends MDNR include the pertinent information regarding Construction Permit 1294-006A in the Statement of Basis or describe why the permit is not included on the list.

Response to Comment: Construction Permit 1294-006A was overlooked during the permit renewal process. The special conditions of this permit, issued April 8, 2004, have been added to Permit Condition 009 within the operating permit. Attachment K has also been updated to include the new control efficiency of the dust collector 20B and a discussion has been added to the statement of basis regarding this permit amendment.