



## INTERMEDIATE STATE PERMIT TO OPERATE

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

**Intermediate Operating Permit Number:** OP2006-077  
**Expiration Date:** OCT 11 2011  
**Installation ID:** 183-0027  
**Project Number:** 2002-07-125

**Installation Name and Address**

MEMC Electronic Materials, Inc.  
501 Pearl Drive, PO Box 8 MZ 65  
St. Peters, MO 63376  
St. Charles County

**Parent Company's Name and Address**

MEMC Electronic Materials, Inc.  
501 Pearl Drive, PO Box 8 MZ 65  
St. Peters, MO 63376

**Installation Description:**

MEMC Electronic Materials, Inc. (MEMC) operates a silicon wafering installation in St. Peters, Missouri, which is in St. Charles County, part of the St. Louis ozone (O<sub>3</sub>) non attainment area.

OCT 12 2006

Effective Date

*Steven Fuller for JLR*

Director or Designee  
Department of Natural Resources

## Table of Contents

<b>I. INSTALLATION DESCRIPTION AND EQUIPMENT LISTING.....</b>	<b>4</b>
INSTALLATION DESCRIPTION.....	4
EMISSION UNITS WITH LIMITATIONS.....	4
EMISSION UNITS WITHOUT LIMITATIONS.....	5
DOCUMENTS INCORPORATED BY REFERENCE.....	5
<b>II. PLANT WIDE EMISSION LIMITATIONS.....</b>	<b>6</b>
Permit Condition PW001.....	6
10 CSR 10-6.060.....	6
Construction Permit 0694-004C, Issued August 15, 2006.....	6
10 CSR 10-6.065(2)(C) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s).....	6
Permit Condition PW002.....	7
10 CSR 10-6.060.....	7
Construction Permit 0694-004C, Issued August 15, 2006.....	7
10 CSR 10-6.065(2)(C) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s).....	7
Permit Condition PW003.....	7
10 CSR 10-6.065.....	7
10 CSR 10-6.065(2)(C) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s).....	7
Permit Condition PW004.....	8
10 CSR 10-6.065.....	8
10 CSR 10-6.065(2)(C) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s).....	8
Permit Condition PW005.....	8
10 CSR 10-6.065.....	8
10 CSR 10-6.065(2)(C) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s).....	8
Permit Condition PW006.....	9
10 CSR 10-6.065.....	9
10 CSR 10-6.065(2)(C) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s).....	9
Permit Condition PW007.....	9
10 CSR 10-6.220.....	9
<b>III. EMISSION UNIT SPECIFIC EMISSION LIMITATIONS.....</b>	<b>11</b>
EU0010 through EU0050.....	11
Permit Condition EU0010-001 through EU0050-001.....	11
10 CSR 10-6.060.....	11
Construction Permit 0694-004C, Issued August 15, 2006.....	11
EU0070 through EU0090 – Boilers 1, 2 and 3.....	11
Permit Condition EU0070-001 through EU0090-001.....	12
10 CSR 10-6.070.....	12
40 CFR Part 60 Subpart Dc.....	12
EU0100 through EU0110 – Boilers 4 and 5.....	12
Permit Condition EU0100-001 through EU0110-001.....	12
10 CSR 10-5.030.....	12
Permit Condition EU0110-002.....	13
10 CSR 10-6.260.....	13
EU0120 –Boiler 6.....	13
Permit Condition EU0120-001.....	13
10 CSR 10-6.070.....	13
40 CFR Part 60 Subpart Dc.....	13
Permit Condition EU0120-002.....	14
10 CSR 10-6.060.....	14
Construction Permit 0997-044, Issued September 9, 1997.....	14
EU0130 through EU0140 – Backup Diesel System.....	15
Permit Condition EU0130-001 through EU0140-001.....	15

---

10 CSR 10-6.060 .....	14
Construction Permit 0997-044, Issued September 9, 1997 .....	14
<b>EU0130 through EU0140 – Backup Diesel System.....</b>	<b>15</b>
<b>Permit Condition EU0130-001 through EU0140-001 .....</b>	<b>15</b>
10 CSR 10-6.060 .....	15
Construction Permit 0498-012, Issued March 30, 1998.....	15
<b>Permit Condition EU0130-002 through EU0140-002.....</b>	<b>15</b>
10 CSR 10-6.260 .....	15
<b>EU0150 –Maintenance Shop Naphtha Cleaners .....</b>	<b>16</b>
<b>Permit Condition EU0150-001.....</b>	<b>16</b>
10 CSR 10-5.300 .....	16
<b>IV. CORE PERMIT REQUIREMENTS .....</b>	<b>19</b>
<b>V. GENERAL PERMIT REQUIREMENTS.....</b>	<b>25</b>
<b>VI. ATTACHMENTS .....</b>	<b>29</b>
Attachment A-1 .....	30
Attachment A-2 .....	31
Attachment B .....	32
Attachment C-1.....	33
Attachment C-2.....	34
Attachment C-3.....	35
Attachment D.....	36
Attachment E .....	37
Attachment F .....	38
Attachment G-1 .....	39
Attachment G-2 .....	40
Attachment G-3 .....	41
Attachment G-4 .....	42

# I. Installation Description and Equipment Listing

## INSTALLATION DESCRIPTION

MEMC Electronic Materials, Inc. (MEMC) operates a silicon wafering installation in St. Peters, MO, which is in St. Charles County, part of the St. Louis ozone (O<sub>3</sub>) non attainment area. The plant uses batch processing and other manufacturing equipment to produce a variety of silicon crystal products for use in the electronic industry. MEMC has the potential to be a major source for both criteria pollutants and HAPs. However, MEMC is limited in their Intermediate Operating Permit. The operating permit limits the plant wide emissions to less than 100 tons per year for each criteria pollutant, less than 10 tons per year each HAP, and less than 25 tons per year total HAPs, on a 12 month rolling average. The installation has stated in their operating permit application if the ozone non attainment area is bumped up to serious status they may elect to change status to a Part 70 Operating permit. The reported actual emissions for the past five years for the installation are listed below:

Reported Air Pollutant Emissions, tons per year							
Year	Particulate Matter ≤ Ten Microns (PM-10)	Sulfur Oxides (SO <sub>x</sub> )	Nitrogen Oxides (NO <sub>x</sub> )	Volatile Organic Compounds (VOC)	Carbon Monoxide (CO)	Lead (Pb)	Hazardous Air Pollutants (HAPs)
2005	8.37	0.08	55.94	23.27	10.58	0.00	6.97
2004	54.17	0.09	64.70	31.14	9.70	0.00	5.84
2003	47.31	0.11	53.53	27.77	9.17	0.00	2.88
2002	47.40	0.13	50.13	24.03	10.29	0.00	3.12
2001	47.90	0.28	33.58	15.46	3.51	0.00	3.53

## EMISSION UNITS WITH LIMITATIONS

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

Emission Unit #	EIQ Reference #	Description of Emission Unit
EU0010	EP-04	N-120 SPD MOD AS-CUT
EU0020	EP-07	N-120 SPD MOD ETCHING
EU0030	EP-10	N-120 PRE HEAT TREAT CLEAN
EU0040	EP-12	N-85, N-43 SPD EPI
EU0050	EP-12L	I-25, I-35 APD EPI
EU0070	EP-11B4	Heating Boiler 1
EU0080	EP-11B5	Heating Boiler 2
EU0090	EP-11B2	Heating Boiler 3
EU0100	EP-11B3	Heating Boiler 4
EU0110	EP-11B1	Heating Boiler 5
EU0120	EP-11B6	Heating Boiler 6
EU0130	EP-12D-L	Two Diesel Engines/Emergency Backup
EU0140	EP-12D-S	Five Diesel Engines/Emergency Backup
EU0150		Five (5) Maintenance Shop Naphtha Cleaners

---

---

### EMISSION UNITS WITHOUT LIMITATIONS

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

Reference #	Description of Emission Unit
EP-1	Small Diameter Crystal Pulling L100
EP-2	Rod Lab L100
EP-3	Rod Grinding L100
EP-5	Lapping N120
EP-6	As Lap Cleaning N120
EP-8	CVDF A N60
EP-9	Watkins Johnson Furnace N120
EP-1L	Large Diameter Crystal Pulling P120
EP-2L	Rod Lab R120
EP-3L	Rod Grinding R120
EP-4L	Slicing Wire Saws K45
EP-5L	Lapping K45
EP-6L	As Lap Cleaning K45
EP-07L	K-45 APD ETCHING
EP-9L	Heat Transfer Clean & Heat Treat
EP-10L	Polishing K45
EP-11L	Final Clean K45
EP-12L	EPI 125/135
EP-30	Research L120/N60
EP-12B	Air Stripper – Ground Water Treatment
EP-12W-T	Waste Treatment – Lime Transfer (fugitive)
EP-12W-U	Waste Treatment – Lime Transfer Unload (fugitive)
EP-20	Cooling Tower
EP-43	300MM N43
EP-5AL	Applications Laboratory
EP-BF-IPA	Building Fugitives IPA Wipes 12,000 Gallon Above Ground Horizontal Tank for No. 2 Distillate 300 Gallon Fire Water Diesel Fuel Tank #1 300 Gallon Fire Water Diesel Fuel Tank #2 185 Gallon Diesel Tank for 350 kW Emergency Diesel Generator 1,360 Gallon Diesel Tank for 750 kW Emergency Diesel Generator 2,000 Gallon Diesel Tank for 1250 kW Emergency Diesel Generator 450 Gallon Diesel Tank for 250 kW Emergency Diesel Generator 100 Gallon Diesel Tank for R&S Services 100 Gallon Gasoline Tank for R&S Services Maintenance Shop Aqueous Cleaner #107243, 45 Gallons

### DOCUMENTS INCORPORATED BY REFERENCE

These documents have been incorporated by reference into this permit.

- 1) Construction Permit 0694-004C, Issued August 15, 2006
- 2) Construction Permit 092001-018, Issued September 21, 2001.
- 3) Construction Permit 0498-012, Issued March 30, 1998.
- 4) Construction Permit 0997-044, Issued September 9, 1997.

## 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 0694-004C, Issued August 15, 2006

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

#### **Emission Limitation:**

MEMC shall emit into the atmosphere less than 100 tons of Volatile Organic Compounds (VOCs) from the entire installation in any 12 - month rolling average period.

[[Construction Permit 0694-004C: Special Condition Number 3.A.](#)]

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

MEMC shall maintain the monthly and the sum of the most recent consecutive 12 - month records of the VOC emissions from the entire installation. MEMC shall use Attachment B (Plant-wide Emissions Tracking Record) or an Air Pollution Control Program approved equivalent form to demonstrate compliance with Special Condition Number 3.A. These records shall be maintained on-site for five (5) years and shall be made available to Missouri Department of Natural Resources' personnel upon request. [[Construction Permit 0694-004C: Special Condition Number 3.B.](#)]

#### **Reporting:**

MEMC shall report to the air pollution Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the end of the month during which Monthly VOC Tracking Records (Special Condition Number 3.B.) indicate that MEMC exceeded the limitation of Special Condition Number 3.A. [[Construction Permit 0694-004C: Special Condition Number 3.C.](#)]

### Permit Condition PW002

10 CSR 10-6.060

#### **Construction Permits Required**

Construction Permit 0694-004C, Issued August 15, 2006

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

#### **Emission Limitation:**

- 1) MEMC shall emit less than ten (10) tons individually of Hazardous Air Pollutants (HAPs) from the entire installation in any consecutive 12-month rolling average period.
- 2) MEMC shall emit less than twenty-five (25) tons combined of Hazardous Air Pollutants (HAPs) from the entire installation in any consecutive 12-month rolling average period.

[Construction Permit 0694-004C: Special Condition Number 4.A.]

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

Attachment A-1 and Attachment A-2 or equivalent forms approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Conditions 4.A. The records must include each individual HAP identified on a Material Safety Data Sheets (MSDS) for the HAP containing products in use in the entire installation. The total of the individual HAPs must add up to the total combined HAPs. MEMC shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. These records shall include MSDS for all materials used.

[Construction Permit 0694-004C: Special Condition Number 4.B.]

#### **Reporting:**

MEMC 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 from Special Condition Number 4.B. indicate that the source exceeds the limitation of Special Conditions Number 4.A. [Construction Permit 0694-004C: Special Condition Number 4.C.]

### Permit Condition PW003

10 CSR 10-6.065

#### **Operating Permits**

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

#### **Emission Limitation:**

The permittee shall discharge into the atmosphere from the entire installation less than 100 tons of particulate matter with an aerodynamic diameter of less than or equal to 10 microns (PM-10) in any consecutive 12-month period.

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

The permittee shall maintain an accurate record of emissions of PM-10 emitted into the atmosphere from this installation. The permittee shall record the monthly and running 12-month totals of the PM-10 emissions from this installation. Example form is attached as Attachment B (Plant-wide Emissions Tracking Record). The permittee may use this form, or forms of its own, so long as the forms used will accurately demonstrate compliance with the PM-10 emission limitation (less than 100 tons per consecutive 12-month period of PM-10).

**Reporting:**

The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this permit condition, or any malfunction which causes a deviation from or exceedance of this permit condition.

**Permit Condition PW004**

10 CSR 10-6.065

**Operating Permits**

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

**Emission Limitation:**

The permittee shall discharge into the atmosphere from the entire installation less than 100 tons of Sulfur Oxides (SO<sub>x</sub>) in any consecutive 12-month period.

**Monitoring/Record Keeping:**

The permittee shall maintain an accurate record of emissions of SO<sub>x</sub> emitted into the atmosphere from this installation. The permittee shall record the monthly and running 12-month totals of the SO<sub>x</sub> emissions from this installation. Example form is attached as Attachment B (Plant-wide Emissions Tracking Record). The permittee may use this form, or forms of its own, so long as the forms used will accurately demonstrate compliance with the SO<sub>x</sub> emission limitation (less than 100 tons per consecutive 12-month period of SO<sub>x</sub>).

**Reporting:**

The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this permit condition, or any malfunction which causes a deviation from or exceedance of this permit condition.

**Permit Condition PW005**

10 CSR 10-6.065

**Operating Permits**

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

**Emission Limitation:**

The permittee shall discharge into the atmosphere from the entire installation less than 100 tons of Nitrogen Oxides (NO<sub>x</sub>) in any consecutive 12-month period.

**Monitoring/Record Keeping:**

The permittee shall maintain an accurate record of emissions of NO<sub>x</sub> emitted into the atmosphere from this installation. The permittee shall record the monthly and running 12-month totals of the NO<sub>x</sub> emissions from this installation. Example form is attached as Attachment B (Plant-wide Emissions Tracking Record). The permittee may use this form, or forms of its own, so long as the forms used will accurately demonstrate compliance with the NO<sub>x</sub> emission limitation (less than 100 tons per consecutive 12-month period of SO<sub>x</sub>).

**Reporting:**

The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this permit condition, or any malfunction which causes a deviation from or exceedance of this permit condition.

**Permit Condition PW006**

10 CSR 10-6.065

**Operating Permits**

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

**Emission Limitation:**

The permittee shall discharge into the atmosphere from the entire installation less than 100 tons of Carbon Monoxide (CO) in any consecutive 12-month period.

**Monitoring/Record Keeping:**

The permittee shall maintain an accurate record of emissions of CO emitted into the atmosphere from this installation. The permittee shall record the monthly and running 12-month totals of the CO emissions from this installation. Example form is attached as Attachment B (Plant-wide Emissions Tracking Record). The permittee may use this form, or forms of its own, so long as the forms used will accurately demonstrate compliance with the CO emission limitation (less than 100 tons per consecutive 12-month period of CO).

**Reporting:**

The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this permit condition, or any malfunction which causes a deviation from or exceedance of this permit condition.

**Permit Condition PW007**

10 CSR 10-6.220

**Restriction of Emission of Visible Air Contaminants**

**Emission Limitation:**

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

**Monitoring:**

- 1) The permittee shall conduct opacity readings on the emission unit(s) using the procedures contained in USEPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit(s) 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) Monthly observations shall be conducted for a minimum of eight consecutive months after permit issuance. Should no violation of this regulation be observed during this period then-
  - b) Observations must be made once every two months for a period of eight months. If a violation is noted, monitoring reverts to monthly. Should no violation of this regulation be observed during this period then-
  - c) Observations must be made semi-annually (i.e., once per reporting period). Observation shall be conducted during the January-June reporting period and during the July-December reporting period. If a violation is noted, monitoring reverts to monthly.
- 3) If the source reverts to monthly 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 Attachments C-1 or C-2), noting:
  - a) Whether any air emissions (except for water vapor) were visible from the emission units,
  - b) All emission units from which visible emissions occurred, and
  - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions.
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment C-3)
- 4) Attachments C-1, C-2 and C-3 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.

**Reporting:**

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

### III. Emission Unit Specific Emission Limitations

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

<b>EU0010 through EU0050</b>			
Emission Unit	Description	Manufacturer/Model #	2005 EIQ Reference #
EU0010	N-120 SPD MOD AS-CUT	Not Available	EP-04
EU0020	N-120 SPD MOD ETCHING	Not Available	EP-07
EU0030	N-120 PRE HEAT TREAT CLEAN	Not Available	EP-10
EU0040	N-85, N-43 SPD EPI	Not Available	EP-12
EU0050	I-25, I-35 APD EPI	Not Available	EP-12L

<b>Permit Condition EU0010-001 through EU0050-001</b>
10 CSR 10-6.060 <b>Construction Permits Required</b> Construction Permit 0694-004C, Issued August 15, 2006

**Operational Limitation/Equipment Specifications:**

MEMC Electronic Materials Incorporated shall implement packed water scrubbers on the following emission units EU0010 (EP-04), EU0020 (EP-07) and EU0030 (EP-10) to control the volatile organic compounds, toxics, and particulate matter emanating from these process steps; and also on emission units EU0040 (EP-12) and EU0050 (EP-12L) (EPI furnaces) to control hydrogen chloride (HCl) and PM<sub>10</sub>. The destruction efficiency shall be maintained at 99% for HCl and PM<sub>10</sub>. The control device(s) shall be in use at all times the installation is producing wafers, and shall be operated and maintained using the principles Good Engineering Practice.

[[Construction Permit 0694-004C: Special Condition Number 2.](#)]

<b>EU0070 through EU0090 – Boilers 1, 2 and 3</b>			
Emission Unit	Description	Manufacturer/Model #	2005 EIQ Reference #
EU0070	Heating Boiler 1 - 10.043 MMBtu/hr, Natural Gas Fired, Constructed March 3, 1997	Kewanee/ Model L3W-300-G02-LE	EP-11B4
EU0080	Heating Boiler 2 - 10.043 MMBtu/hr, Natural Gas Fired, Constructed March 3, 1997	Kewanee/ Model L3W-300-G02-LE	EP-11B5
EU0090	Heating Boiler 3 - 10.461 MMBtu/hr, Natural Gas Fired, Constructed October 8, 1991	Cleaver Brooks/ Model CBW200-250	EP-11B2

**Permit Condition EU0070-001 through EU0090-001**

10 CSR 10-6.070

**New Source Performance Regulations**

40 CFR Part 60 Subpart Dc

**Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units**

**Record Keeping:**

The owner or operator of an affected facility that only burns very low sulfur fuel oil or other liquid or gaseous fuels with potential sulfur dioxide emissions rate of 140 nanograms/joule (ng/J) (0.32 lb/MMBtu) heat input or less shall record and maintain records of the fuels combusted during each calendar month. [40 CFR 60.48c(g)]

**EU0100 through EU0110 – Boilers 4 and 5**

Emission Unit	Description	Manufacturer/Model #	2005 EIQ Reference #
EU0100	Heating Boiler 4 - 6.277 MMBtu/hr, Natural Gas Fired, Constructed November 22,1991	Cleaver Brooks/ Model CBW200-150	EP-11B3
EU0110	Heating Boiler 5 - 20.922 MMBtu/hr, Natural Gas/Fuel Oil Fired, Constructed 1974	Cleaver Brooks/ Model CB600-500	EP-11B1

**Permit Condition EU0100-001 through EU0110-001**

10 CSR 10-5.030

**Maximum Allowable Emissions of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating**

**Emission Limitation:**

The permittee shall not emit particulate matter in excess of 0.22 pounds per million Btu of heat input from each of the emission units EU0100 and EU0110.

**Operational Limitation:**

- 1) Boiler 4 (EU0100) shall be limited to burning pipeline grade natural gas.
- 2) Boiler 5 (EU0110) shall be limited to burning pipeline grade natural gas and fuel oil with a sulfur content of no more than 0.5% by weight sulfur. The fuel oils known to be less than 0.5% by weight sulfur per Chapter 414 RSMo, section 414.032, ASTM D396 - Table 1 and ASTM D975 - Table 1, are fuel oil No. 1 and No. 2 and diesel fuel oil Grade Low Sulfur No. 1-D, Grade Low Sulfur No. 2-D. However, the unit is not limited to the known fuel oils listed, above, but limited to fuel oils based solely on having a percent sulfur by weight content of 0.5% or less.

**Monitoring/Record Keeping:**

The permit shall maintain documentation supporting the fuel used is pipeline grade natural gas and records on the premises of the fuel suppliers analysis of distillate oil fired in Boiler 5 which shows weight percentage of sulfur in the fuel.

**Reporting:**

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program

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

**Permit Condition EU0110-002**

10 CSR 10-6.260

**Restriction of Emissions of Sulfur Compounds <sup>1</sup>**

**Emission Limitation:**

No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010 Ambient Air Quality Standards. [10 CSR 10-6.260(3)(B) & 10 CSR 10-6.010 Ambient Air Quality Standards]

**Operational Limitation:**

- 1) When burning natural gas, only pipeline grade natural gas shall be burned in the boiler.
- 2) When burning fuel oil the sulfur content of the fuel shall be limited to no more than 0.5% by weight sulfur.

**Monitoring/Record Keeping:**

The permit shall maintain documentation supporting the fuel used is pipeline grade natural gas and records on the premises of the fuel suppliers analysis of distillate oil fired in Boiler 5 which shows weight percentage of sulfur in the fuel.

**Reporting:**

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

<b>EU0120 –Boiler 6</b>			
<b>Emission Unit</b>	<b>Description</b>	<b>Manufacturer/Model #</b>	<b>2005 EIQ Reference #</b>
EU0120	Heating Boiler 6 – 14.288 MMBtu/hr, Natural Gas/Distillate Oil Fired, Constructed December 23, 1997	Cleaver Brooks/ Model CBI1200 350 125	EP-11B6

**Permit Condition EU0120-001**

10 CSR 10-6.070

**New Source Performance Regulations**

40 CFR Part 60 Subpart Dc

**Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units**

**Emission Limitation:**

Standard for sulfur dioxide:

- 1) On and after the date on which the initial performance test is completed or required to be completed under §60.8 of 40 CFR part 60, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility

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

- any gases that contain SO<sub>2</sub> in excess of 215 nanograms per joule (ng/J) (0.50 lb/million Btu) heat input; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. [§60.42c (d)]
- 2) For distillate oil-fired boilers, compliance with the emission limits or fuel oil sulfur limits may be determined based on a certification from the fuel supplier, as described under §60.48c(f)(1). [§60.42c (h) & (h)(1)]
  - 3) The SO<sub>2</sub> emission limits and fuel oil sulfur limits apply at all times, including periods of startup, shutdown, and malfunction. [§60.42c (i)]

**Monitoring:**

The Permittee shall monitor the sulfur dioxide emissions by maintaining the fuel supplier certification of the oil combusted.

**Record Keeping:**

- 1) For distillate oil: Records of fuel supplier certification.  
The Fuel Supplier Certification shall include the name of the oil supplier; and a statement from the oil supplier that the oil complies with the specifications for distillate oil (Distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98 "Standard Specification for Fuel Oils"). [§60.48c(f)(1) & §60.41c – Definition]
- 2) The owner or operator of an affected facility that only burns very low sulfur fuel oil or other liquid or gaseous fuels with potential sulfur dioxide emissions rate of 140 nanograms/joule (ng/J) (0.32 lb/MMBtu) heat input or less shall record and maintain records of the fuels combusted during each calendar month. [40 CFR 60.48c(g)]
- 3) The permittee shall maintain all records required under §60.48c for a period of two (2) years following the date of such record. [§60.48c(i)]

**Reporting:**

The permittee shall submit records of fuel supplier certification with a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certification submitted represent all of the fuel combusted during the reporting period. The reporting period for the reports required is each six-month period. All reports including calendar dates covered in the reporting period shall be submitted to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 by the 30th day following the end of the reporting period. [§60.48c(d), (e)(1) & (e)(11)]

**Permit Condition EU0120-002**

10 CSR 10-6.060

**Construction Permits Required**

Construction Permit 0997-044, Issued September 9, 1997

**Emission Limitation:**

MEMC shall not discharge into the atmosphere from Boiler 6 (EU0120) sulfur dioxide (SO<sub>2</sub>) in excess of 40 tons in any consecutive 12-month period.

**Monitoring/Record Keeping:**

MEMC shall maintain an accurate record of emissions of SO<sub>2</sub> from this emission unit. MEMC shall record the monthly and running 12-month totals of SO<sub>2</sub> emissions from this emission unit. MEMC shall use Attachment D.

**Reporting:**

MEMC shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of each month, if the 12-month cumulative total records show that the source exceeded the emission limitations 40 tons of SO<sub>2</sub>.

<b>EU0130 through EU0140 – Backup Diesel System</b>			
Emission Unit	Description	Manufacturer/Model #	2005 EIQ Reference #
EU0130	Two Diesel Engines/Emergency Backup Constructed 1996	Cummins/ 1135HP & 1850HP	EP-12DL
EU0140	Five Diesel Engines/Emergency Backup Constructed 1988, 1978, 1998 & 1991	Cummins/ 102HP, 305HP, 310HP, 380HP & 535 HP	EP-12DS

**Permit Condition EU0130-001 through EU0140-001**

10 CSR 10-6.060

**Construction Permits Required**

Construction Permit 0498-012, Issued March 30, 1998

**Operational Limitation:**

- MEMC shall not operate EU0130 (EP-12DL) in excess of 500 hours in any consecutive 12-month period.
- MEMC shall not operate EU0140 (EP-12DS) in excess of 500 hours in any consecutive 12-month period.

**Monitoring/Record Keeping:**

MEMC shall keep monthly records that are adequate to determine the operational schedule of the emergency backup diesel system at this installation. Attachments E, Diesel System Compliance Worksheet, or equivalent forms of the company's own design are suitable for this purpose.

**Reporting:**

MEMC shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of each month, if the 12-month cumulative total records show that the source exceeded the operating hours limitations.

**Permit Condition EU0130-002 through EU0140-002**

10 CSR 10-6.260

**Restriction of Emissions of Sulfur Compounds <sup>2</sup>**

**Emission Limitation:**

- Emissions from this source operation shall not contain more than 500 parts per million by volume (ppmv) of sulfur dioxide or more than 35 milligrams per cubic meter (mg/m<sup>3</sup>) of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three hour time period.

<sup>2</sup> 10 CSR 10-6.260(3)(B) is a state-only requirement

- 2) No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010 Ambient Air Quality Standards. [10 CSR 10-6.260(3)(B) & 10 CSR 10-6.010 Ambient Air Quality Standards]

**Operational Limitation:**

The emission units shall be limited to burning fuel oil with a sulfur content of no more than 0.5% sulfur by weight. The fuel oils known to be less than 0.5% by weight sulfur per Chapter 414 RSMo, section 414.032, ASTM D396-Table 1 and ASTM D975-Table 1, are fuel oil No. 1 and No. 2 and diesel fuel oil Grade Low Sulfur No. 1-D, Grade Low Sulfur No. 2-D. However, these units are not limited to the known fuel oils listed above, but are limited to fuel oils based solely on having a percent sulfur by weight content of 0.5% or less.

**Monitoring/Record Keeping:**

The permittee shall maintain records of the fuel type used verifying a sulfur content less than 0.5% by weight. Purchase receipts, analyzed samples or certifications that verify the fuel type as a grade level with a sulfur content less than 0.5% by weight will be acceptable.

**Reporting:**

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

<b>EU0150 –Maintenance Shop Naphtha Cleaners</b>			
<b>Emission Unit</b>	<b>Description</b>	<b>Manufacturer/Model #</b>	<b>2005 EIQ Reference #</b>
EU0150	20 Gallons (each) Maintenance Shop Naphtha Cleaners #95310 – #95314 & #102804	Leased from Heritage Crystal Clean	NA

<b>Permit Condition EU0150-001</b>
10 CSR 10-5.300 <b>Control of Emissions From Solvent Metal Cleaning</b>

**Emission Limitation:**

- 1) After April 1, 2001, no owner or operator shall operate a cold cleaner using a solvent with a vapor pressure greater than 1.0 millimeters of Mercury (mmHg) (0.019 psi) at 20 degrees Celsius (20°C) (68 degrees Fahrenheit (68°F)).
- 2) Exception: The permittee may use an alternative method for reducing cold cleaning emissions if the level of emission control is equivalent to or greater than the requirements listed above. The director must approve the alternative method.

**Operational Limitation/Equipment Specifications:**

- 1) Each cold cleaner shall have a cover which will prevent the escape of solvent vapors from the solvent bath while in the closed position, or an enclosed reservoir which limits the escape of solvent vapors from the solvent bath whenever parts are not being processed in the cleaner.
- 2) When one or more of the following conditions exist, the design of the cover shall be such that it can be easily operated with one hand such that minimal disturbing of the solvent vapors in the tank occurs. (For covers larger than ten square feet, this shall be accomplished by either mechanical assistance such as spring loading or counter weighing or by power systems):

- a) The solvent vapor pressure is greater than 0.3 psi measured at 37.8 degrees Celsius (37.8°C) (100 degrees Fahrenheit (100°F)), such as in mineral spirits;
- b) The solvent is agitated; or
- c) The solvent is heated.
- 3) Each cold cleaner shall have a drainage facility which will be internal so that parts are enclosed under the cover while draining.
- 4) If an internal drainage facility cannot fit into the cleaning system and the solvent vapor pressure is less than 0.6 psi measured at 37.8°C (100°F), then the cold cleaner shall have an external drainage facility which provides for the solvent to drain back into the solvent bath.
- 5) Solvent sprays, if used, shall be a solid fluid stream (not a fine, atomized or shower-type spray) and at a pressure which does not cause splashing above or beyond the freeboard.
- 6) A permanent conspicuous label summarizing the operating procedures shall be affixed to the equipment.
- 7) Any cold cleaner which uses a solvent that has a solvent vapor pressure greater than 0.6 psi measured at 37.8°C (100°F) or is heated above 48.9°C (120°F), must use one of the following control devices:
  - a) A freeboard ratio of at least 0.75;
  - b) Water cover (solvent must be insoluble in and heavier than water); or
  - c) Other control systems with a mass balance demonstrated overall VOC emissions reduction efficiency greater than or equal to 65%. These control systems must receive approval from the director prior to their use.
- 8) Each cold cleaner shall be operated as follows:
  - a) Cold cleaner covers shall be closed whenever parts are not being handled in the cleaners or the solvent must drain into an enclosed reservoir except when performing maintenance or collecting solvent samples.
  - b) Cleaned parts shall be drained in the freeboard area for at least 15 seconds or until dripping ceases, whichever is longer.
  - c) Whenever a cold cleaner fails to perform within the operating parameters established for it by this regulation, the unit shall be shut down immediately and shall remain shut down until trained service personnel are able to restore operation within the established operating parameters.
  - d) Solvent leaks shall be repaired immediately or the cleaner shall be shut down and leaks secured until the leaks are repaired.
  - e) Any waste material removed from a cold cleaner shall be disposed of by one of the following methods in accordance with the Missouri Hazardous Waste Management Commission Rules codified as 10 CSR 25, as applicable:
    - i) Reduction of the waste material to less than 20% VOC solvent by distillation and proper disposal of the still bottom waste; or
    - ii) Stored in closed containers for transfer to a contract reclamation service or disposal facility approved by the director.
    - iii) Waste solvent shall be stored in covered containers only.
- 9) Operators must be trained as follows:
  - a) Only persons trained in at least the operation and equipment requirements specified in this rule for their particular solvent metal cleaning process to operate this equipment;
  - b) The supervisor of any person who operates a solvent metal cleaning process shall receive equivalent or greater operational training than the operators; and
  - c) Refresher training shall be given to all solvent metal cleaning equipment operators at least once every 12 month period.

**Monitoring:**

The permittee shall monitor the throughputs of the solvents monthly and maintain material safety data sheets of the cleanup solvents used at the installation.

**Record Keeping:**

- 1) The permittee shall maintain the following records for each purchase of cold cleaner solvent (Attachment G-3):
  - a) Name and address of the solvent supplier.
  - b) Date of purchase.
  - c) Type of solvent purchased.
  - d) Vapor pressure of solvent in mm Hg at 20°C or 68°F.
- 2) The permittee shall keep monthly inventory records of solvent types and amounts purchased and solvent consumed. The records shall include all types and amounts of solvent containing waste material transferred to either a contract reclamation service or to a disposal installation and all amounts distilled on the premises (see Attachment G-1). The record also shall include maintenance and repair logs that occurred on the cold cleaner (Attachments G-2).
- 3) The permittee shall keep training records of solvent metal cleaning for each employee on an annual basis (Attachment G-4).
- 4) All records shall be maintained for five years.

**Reporting:**

Reports of any deviations from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

## IV. Core Permit Requirements

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

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

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

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

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

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

The permittee shall file a complete application for renewal of this operating permit at least six months before the date of permit expiration. In no event shall this time be greater than eighteen months. [10 CSR 10-6.065(5)(B)1.A(III)] The permittee shall retain the most current operating permit issued to this installation on-site. [10 CSR 10-6.065, §(5)(C)(1) and §(6)(C)1.C(II)] The permittee shall immediately make such permit available to any Missouri Department of Natural Resources personnel upon request. [10 CSR 10-6.065, §(5)(C)(1) and §(6)(C)3.B]

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

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

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

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

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

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

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

- 1) The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive particulate matter emissions to go beyond the premises of origin in quantities that the particulate matter may be found on surfaces beyond the property line of origin. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the director.
- 2) The permittee shall not cause nor allow to occur any fugitive particulate matter emissions to remain visible in the ambient air beyond the property line of origin.

- 3) Should it be determined that noncompliance has occurred, the director may require reasonable control measures as may be necessary. These measures may include, but are not limited to, the following:
  - a) Revision of procedures involving construction, repair, cleaning and demolition of buildings and their appurtenances that produce particulate matter emissions;
  - b) Paving or frequent cleaning of roads, driveways and parking lots;
  - c) Application of dust-free surfaces;
  - d) Application of water; and
  - e) Planting and maintenance of vegetative ground cover.

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

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

#### **10 CSR 10-5.040 Use of Fuel in Hand-Fired Equipment Prohibited**

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

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

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

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

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

the type, quantity and composition of trade wastes and expected composition and amount of air contaminants to be released to the atmosphere where known;

- b) The schedule of burning operations;
  - c) The exact location where open burning will be used to dispose of the trade wastes;
  - d) Reasons why no method other than open burning is feasible; and
  - e) Evidence that the proposed open burning has been approved by the fire control authority which has jurisdiction.
- 4) Upon approval of the open burning permit application by the director, the person may proceed with the operation under the terms of the open burning permit. Be aware that such approval shall not exempt MEMC Electronic Materials, Inc. from the provisions of any other law, ordinance or regulation.
  - 5) The permittee shall maintain files with letters from the director approving the open burning operation and previous DNR inspection reports.

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

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

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

The previously mentioned requirement shall apply only to objectionable odors. An odor will be deemed objectionable when 30% or more of a sample of the people exposed to it believe it to be objectionable in usual places of occupancy; the sample size to be at least 20 people or 75% of those exposed if fewer than 20 people are exposed.

**This requirement is not federally enforceable.**

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

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

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

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

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

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

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

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

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

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

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

- d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).
  - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
  - f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
- 3) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
  - 4) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.

The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR part 82*

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

- 1) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
  - a) Monitoring methods outlined in 40 CFR Part 64;
  - b) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
  - c) Any other monitoring methods approved by the director.
- 2) Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred by a permittee:
  - a) Monitoring methods outlined in 40 CFR Part 64;
  - b) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
  - c) Compliance test methods specified in the rule cited as the authority for the emission limitations.
- 3) The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
  - a) Applicable monitoring or testing methods, cited in:
    - i) 10 CSR 10-6.030, "Sampling Methods for Air Pollution Sources";
    - ii) 10 CSR 10-6.040, "Reference Methods";
    - iii) 10 CSR 10-6.070, "New Source Performance Standards";
    - iv) 10 CSR 10-6.080, "Emission Standards for Hazardous Air Pollutants"; or
  - b) Other testing, monitoring, or information gathering methods, if approved by the director, that produce information comparable to that produced by any method listed above.

## V. General Permit Requirements

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

### **10 CSR 10-6.065, §(5)(C)1 and §(6)(C)1.B Permit Duration**

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

### **10 CSR 10-6.065, §(5)(C)1 and §(6)(C)1.C General 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) April 1st for monitoring which covers the January through December time period.
  - ii) Exception. Monitoring requirements which require reporting more frequently than annually shall report no later than 30 days after the end of the calendar quarter in which the measurements were taken.
- c) Each report shall identify any deviations from emission limitations, monitoring, record keeping, reporting, or any other requirements of the permit.
- d) Submit supplemental reports as required or as needed. Supplemental reports are required no later than ten days after any exceedance of any applicable rule, regulation or other restriction. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken.
  - i) Notice of any deviation resulting from an emergency (or upset) condition as defined in paragraph (6)(C)7 of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if the permittee wishes to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and the permittee can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.
  - ii) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.
  - iii) Any other deviations identified in the permit as requiring more frequent reporting than the permittee's annual report shall be reported on the schedule specified in this permit, and no

later than ten days after any exceedance of any applicable rule, regulation, or other restriction.

- e) Every report submitted shall be certified by the responsible official, except that, if a report of a deviation must be submitted within ten days after the deviation, the report may be submitted without a certification if the report is resubmitted with an appropriate certification within ten days after that, together with any corrected or supplemental information required concerning the deviation.
- f) The permittee may request confidential treatment of information submitted in any report of deviation.

**10 CSR 10-6.065 §(5)(C)1 and §(6)(C)1.D Risk Management Plan Under Section 112(r)**

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

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

**10 CSR 10-6.065(5)(C)1.A General Requirements**

- 1) The permittee must comply with all of the terms and conditions of this permit. Any noncompliance with a permit condition constitutes a violation and is grounds for enforcement action, permit termination, permit revocation and re-issuance, permit modification or denial of a permit renewal application.
- 2) The permittee may not use as a defense in an enforcement action that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit
- 3) The permit may be modified, revoked, reopened, reissued or terminated for cause. Except as provided for minor permit modifications, the filing of an application or request for a permit modification, revocation and reissuance, or termination, or the filing of a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- 4) This permit does not convey any property rights of any sort, nor grant any exclusive privilege.
- 5) The permittee shall furnish to the Air Pollution Control Program, upon receipt of a written request and within a reasonable time, any information that the Air Pollution Control Program reasonably may require to determine whether cause exists for modifying, reopening, reissuing or revoking the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the Air Pollution Control Program copies of records required to be kept by the permittee. The permittee may make a claim of confidentiality for any information or records submitted under this rule.
- 6) Failure to comply with the limitations and conditions that qualify the installation for an Intermediate permit make the installation subject to the provisions of 10 CSR 10-6.065(6) and enforcement action for operating without a valid part 70 operating permit.

---

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

None

**10 CSR 10-6.065, §(5)(B)4; §(5)(C)1, §(6)(C)3.B; and §(6)(C)3.D; and §(5)(C)3 and §(6)(C)3.E.(I) – (III) and (V) – (VI) Compliance Requirements**

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

**10 CSR 10-6.065, §(5)(C)1 and §(6)(C)7 Emergency Provisions**

- 1) An emergency or upset as defined in 10 CSR 10-6.065(6)(C)7.A shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emissions

limitations. To establish an emergency- or upset-based defense, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, the following:

- a) That an emergency or upset occurred and that the permittee can identify the source of the emergency or upset,
  - b) That the installation was being operated properly,
  - c) That the permittee took all reasonable steps to minimize emissions that exceeded technology-based emissions limitations or requirements in this permit, and
  - d) That the permittee submitted notice of the emergency to the Air Pollution Control Program within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.
- 2) Be aware that an emergency or upset shall not include noncompliance caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

#### **10 CSR 10-6.065(5)(C)5 Off-Permit Changes**

- 1) Except as noted below, the permittee may make any change in its permitted installation's operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. Off-permit changes shall be subject to the following requirements and restrictions:
  - a) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; the permittee may not change a permitted installation without a permit revision if this change is a Title I modification; Please Note: Changes at the installation which affect the emission limitation(s) classifying the installation as an intermediate source (add additional equipment to the record keeping requirements, increase the emissions above major source level) do not qualify for off-permit changes.
  - b) The permittee must provide written notice of the change to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, no later than the next annual emissions report. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change; and
  - c) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes.

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

The application utilized in the preparation of this permit was signed by Frank McLaughlin, Site Manager. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Director of the Air Pollution Control Program of the change. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

**10 CSR 10-6.065 §(5)(E)4 and §(6)(E)6.A(III)(a)-(c) Reopening-Permit for Cause**

This permit may be reopened for cause if:

- 1) The Missouri Department of Natural Resources (MDNR) or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,
- 2) Additional applicable requirements under the Act become applicable to the installation; however, reopening on this ground is not required if—
  - a) The permit has a remaining term of less than three years;
  - b) The effective date of the requirement is later than the date on which the permit is due to expire;or
  - c) The additional applicable requirements are implemented in a general permit that is applicable to the installation and the installation receives authorization for coverage under that general permit,
- 3) MDNR or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

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

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

**VI. Attachments**

Attachments follow.









Attachment C-2

**10 CSR 10-6.220 Compliance Demonstration**

This attachment or an equivalent may be used to help meet the record keeping requirements of Permit Condition PW007.

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







Attachment F

**10 CSR 10-5.030 Compliance Demonstration**

This attachment may be used to demonstrate compliance with 10 CSR 10-5.030, *Maximum Allowable Emission of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating*

Emission Limit for EU0100 and EU0110 (new, i.e. installed after February 15, 1979):

$$0.80 Q^{-0.301} = 0.80(72.034)^{-0.301} = 0.22 \text{ lb / MMBtu}$$

Where Q is the total heat input of all indirect heating sources at the installation.

The following equipment was used to obtain the total heat input (Q) for the above equation:

Equipment	Heat Input (MMBtu/hr)
Heating Boiler 1 (EU0070)	10.043
Heating Boiler 2 (EU0080)	10.043
Heating Boiler 3 (EU0090)	10.461
Heating Boiler 4 (EU0100)	6.277
Heating Boiler 5 (EU0110)	20.922
Heating Boiler 6 (EU0120)	14.288
<b>TOTAL</b>	<b>72.034</b>

The following table demonstrates compliance with the emission limit:

Unit	Boiler Heat Capacity (MMBtu/hr)	Fuel Type	Maximum Hourly Design Rate <sup>1</sup>	Emission Factor <sup>2</sup>	Potential Emission Rate <sup>3</sup> (lbs/MMBtu)	Emission Limitation (lbs/MMBtu)
EU0100	6.277	Natural Gas	0.00598	7.6	0.007	0.22
EU0110	20.922	Natural Gas	0.01993	7.6	0.007	
		Distillate Oil	0.14943	2.00	0.014	

<sup>1</sup>Natural Gas heating value: 1050 MMBtu/MMcf  
 Units: MMcf/hr

Fuel Oil heating value: 140 MMBtu/10<sup>3</sup> gallons  
 Units: 10<sup>3</sup> gallons/hr

$$\text{Maximum Hourly Designn Rate (MHDR)} = \left[ \frac{\text{Boiler Heat Capacity}}{\text{Fuel Heating Value}} \right]$$

<sup>2</sup>Natural Gas: Emission Factor Source = AP42 Sec 1.4 (7/98)  
 Units: lb PM/MMcf

Fuel Oil: Emission Factor Source = AP42 Sec. 1.3 (9/78)  
 Units: lb PM/10<sup>3</sup> gallons

$$^3 \text{ Emission Rate (lb/MMBtu)} = \left[ \frac{\text{MHDR} \times \text{Emission Factor}}{\text{Heat Capacity}} \right]$$









# STATEMENT OF BASIS

## **Voluntary Limitations**

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

## **Permit Reference Documents**

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

- 1) Intermediate Operating Permit Application, received July 19, 2002;
- 2) 2005 Emissions Inventory Questionnaire, received March 3, 2006;
- 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 No. 0694-004, Issued June 6, 1994, Amended August 19, 1994
- 5) Construction Permit No. 1195-016, Issued October 31, 1995;
- 6) Construction Permit No. 1195-016A, Issued February 21, 1996; and
- 7) Permit Applicability Determination – Project Number: 2003-02-128, dated March 27, 2003.

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

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

None

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

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

### **10 CSR 10-5.443, *Control of Gasoline Reid Vapor Pressure***

This rule was listed as applicable in the permit application, however, it has been rescinded on January 30, 2003 and is no longer applicable.

### **10 CSR 10-5.180, *Emissions of Visible Air Contaminants from Internal Combustion Engine***

This rule was listed as applicable in the permit application, however, it has been rescinded on November 30, 2002 and is no longer applicable.

10 CSR 10-5.220, *Control of Petroleum Liquid Storage, Loading and Transfer*

This regulation specifies in 10 CSR 10-5.220(3)(A) and (5)(A) that this rule does not apply to petroleum storage tanks of less than 40,000 gallons capacity and gasoline tanks of less than 500 gallons capacity. All the petroleum tanks are less than 40,000 gallons and a gasoline tank less than 500 gallons, therefore, this rule is not applicable to this installation.

10 CSR 10-5.310, *Liquefied Cutback Asphalt Paving Restricted*

This rule applies to producers and suppliers which use or apply liquefied cutback asphalt (LCA) in paving and maintenance operations on highways, roads, parking lots and driveways. Since construction, maintenance, or repairs of facility pavement using liquefied cutback asphalt will be performed by outside contractors, this rule is not applicable to MEMC.

### Construction Permit Revisions

Construction Permit #1195-016 and Construction Permit #1195-016A

- 1) Permit number 1195-016 was issued to MEMC for the construction of emergency generators and to increase boiler capacity of boilers permitted in permit number 0694-004. In permit number 1195-016, a 40 ton per year NO<sub>x</sub> limit was issued due to the emissions of the emergency generators. Permit number 1195-016A was issued as an amendment to 1195-016, superseding the NO<sub>x</sub> limit in 1195-016. Construction permits 1195-016 is not incorporated by reference into this permit.
- 2) Construction permit 1195-016A does not include any special conditions, therefore it is not incorporated by reference into this permit.
- 3) Construction permit No. 0694-004: All conditions of this permit superseded by permit number 0694-004C.
- 4) Construction Permit 092001-018: The manufacturing equipment referenced in the construction permit was not installed. The permit and its associated language were allowed to lapse after two years, on September 21, 2003.

### New Source Performance Standards (NSPS) Applicability

40 CFR Part 60, Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*

Subpart Dc applies to each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million Btu/hr) or less, but greater than or equal to 2.9 MW (10 million Btu/hr).

Boilers #1 (EU0070), #2 (EU0080), #3 (EU0090) and #6 (EU0120) have heat input capacities of less than 100 MMBtu/hr but greater than 10 MMBtu/hr and constructed after June 9, 1989, therefore these boilers are subject to the provisions of this subpart.

Heating Boiler #5 rated at 20.922 MMBtu/hr was constructed in 1974, therefore is not subject to this subpart.

Heating Boiler #4 rated at 6.277 MMBtu/hr is not subject to this subpart.

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

40 CFR Part 60, Subpart K, *Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978*

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

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

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

Description	Capacity
Above Ground Horizontal Tank for No. 2 Distillate	12,000 gallons
Fire Water Diesel Fuel Tank #1	300 gallons
Fire Water Diesel Fuel Tank #2	300 gallons
Diesel Tank for 350 kW Emergency Diesel Generator	185 gallons
Diesel Tank for 750 kW Emergency Diesel Generator	1,360 gallons
Diesel Tank for 1250 kW Emergency Diesel Generator	2,000 gallons
Diesel Tank for 250 kW Emergency Diesel Generator	450 gallons
Diesel Tank for R&S Services	100 gallons
Gasoline Tank for R&S Services	100 gallons
Maintenance Shop Aqueous Cleaner #107243	45 gallons

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

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

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

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

The installation operates five cold parts cleaners (EU0130) leased from Heritage Crystal clean that use petroleum naphtha as the cleaning solvent and one aqueous cleaner. Therefore, the installation is not subject to 40 CFR Part 63, Subpart T.

40 CFR Part 63, Subpart BBBBB, *National Emission Standards for Hazardous Air Pollutants:*

*Semiconductor Manufacturing*

The provisions of Subpart BBBBB apply to semiconductor crystal growing facilities, semiconductor wafer fabrication facilities, and semiconductor test and assembly facilities (NAICS 334413, SIC 3674) that are major sources of HAPs.

This permit imposes plantwide conditions for limiting the plantwide HAP emission to less than 10

tons per year of individual HAPs and 25 tons per year of combined HAPs. Therefore, MEMC is not a major source of HAP emissions. Since MEMC voluntarily applied for a plantwide restriction on HAPs emissions to less than 10 tons per year in the initial intermediate permit application, submitted on May 5, 1997 (received by the APCP on May 15, 1997), and subsequently in the renewal application, submitted on July 15, 2002 (received by the APCP on July 19, 2002), and has been operating according to all conditions, and requirements stated in their applications. Therefore, the provisions of 40 CFR Part 63, Subpart BBBBBB will not be applicable to this installation..

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

40 CFR Part 61 Subpart M, *National Emission Standard for Asbestos*, §61.145(a), Standard for demolition and renovation, applies to the installation.

### **Other Regulatory Determinations**

10 CSR 10-5.450, *Control of VOC Emissions from Traffic Coatings*

This rule applies to any person who supplies, sells, offers for sale, applies, solicits the application of, or manufactures for use any coating intended for use in traffic marking in the area defined in 10 CSR 10-5.450(2)(A). MEMC will use outside contractors to perform application of traffic coatings and technically will be subject to this rule. MEMC will be responsible hiring contractors who comply with this rule. Since the contractors will be responsible for compliance with this rule, the rule is not cited in the applicable requirements section of the operating permit.

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

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

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

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

Prepared by:

---

Berhanu A. Getahun  
Environmental Engineer