



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: OP2007-045
Expiration Date: SEP 18 2012
Installation ID: 099-0111
Project Number: 2006-09-055

Installation Name and Address

MetalTek International Carondelet Division
8600 Commercial Boulevard
Pevely, MO 63070-1528
Jefferson County

Parent Company's Name and Address

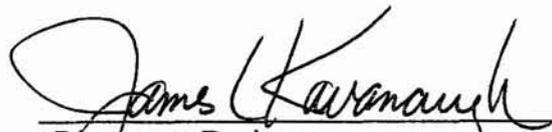
MetalTek International
905 East St. Paul Avenue
Waukesha, WI 53188

Installation Description:

The MetalTek International Carondelet Division is a high alloy steel foundry installation in Pevely, Missouri.

SEP 19 2007

Effective Date



Director or Designee
Department of Natural Resources

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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

The MetalTek International Carondelet Division is a high alloy steel foundry installation in Pevely, Missouri. The processes included in the foundry operations include mold and core manufacturing with sand and binders, high alloy steel melting in induction furnaces, pouring of the molten steel, shake-out to remove the sand from around the cooled steel parts, sand recycling and reuse, steel finishing including grinding and cleaning. The sand recycling process includes mechanical and magnetic separations, followed by thermal reclamation.

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 _x)	Nitrogen Oxides (NO _x)	Volatile Organic Compounds (VOC)	Carbon Monoxide (CO)	Lead (Pb)	Hazardous Air Pollutants (HAPs)
2006	36.80	0.29	7.06	65.03	4.67		
2005	38.28	0.31	7.60	65.72	4.99		
2004	32.12	0.25	6.30	56.08	4.10		
2003	44.76	0.33	7.69	66.43	3.50		0.01
2002	38.38	0.29	7.052	53.40	3.19		

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-02	Charging Deck: Rotoblast of charging material
EU0020	EP-04	Vehicle Unloading: Transporter on Sand Tanker Truck & Silo 34
EU0030	EP-05	Sand Silo (1): Reclaimed sand to Silo
EU0040	EP-06	Sand Conveyor
EU0050	EP-07	Magnetic Separator, Screen & Hopper
EU0060	EP-08(A)	Thermal Reclamation/Cooler/Classifier Unit
EU0070	EP-09	Sand Blender
EU0080	EP-10	Blended Sand Receiver – Silo 36 & Silo 37
EU0090	EP-11	Sand Day Silo Transfer Unit
EU0100	EP-22(A)	Casting Cooling - Molds
EU0110	EP-23(A)	Casting Shakeout
EU0120	EP-24	Riser Cutting/Arc-off
EU0130	EP-25	Shot Blasters (3) in Rough Cleaning Area
EU0140	EP-26	Grinders/Chippers in Rough Grinding Area
EU0150	EP-27	Grinders in Fine Cleaning Area
EU0160	EP-30	Sand Blaster in Fine Cleaning Area

Emission Unit #	EIQ Reference #	Description of Emission Unit
EU0170	EP-33	AOD Vessel
EU0180	EP-34	Sand Silo - Mech. Reclaimed Sand
EU0190	EP-36	Parts Cleaner

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.

EIQ Reference #	Description of Emission Unit
EP-01	Metal Handling Storage (Fugitive)
EP-03	Pepset and Isocure Binder Tanks (Fugitive VOC)
EP-08(B)	Gas Fired Thermal Reclamation - 2 MMBtu/hr
EP-12	Pepset and Isocure Binder Day Tanks (Fugitive VOC)
EP-13(A)	Mold Core Mixers (7)
EP-13(B)	Mold Core Mixers (VOC Source)
EP-14	Mold/Core Releasing Agent (Fugitive VOC)
EP-15	Moldbox/Corebox Filling (Fugitive VOC)
EP-16	Mold/Core Curing ((Fugitive VOC)
EP-17	Mold/Core Curing (Isocure Catalyst – VOC Source)
EP-18	Mold/Core Painting (Mixing, Painting, Burn-off - Fugitive VOC)
EP-19	Ladle/Furnace Preheat (NG Combustion)
EP-20	Electric Induction Furnace ((Fugitive)
EP-21(A)	Metal Pouring (Fugitive)
EP-21(B)	Metal Pouring ((Fugitive VOC)
EP-22(B)	Casting Cooling (Fugitive VOC)
EP-28	Developer for Liquid Penetrant (Fugitive VOC)
EP-29	Heat Treat Furnace (Natural Gas) Drying Oven (Natural Gas)
EP-31	Heat Treat Cooling (Oil Bath)
EP-32	Eleven (11) Air Make-Up Units and Nine (9) Misc. Space Heaters - All Units less than 10 MMBtu/hr (NG)
EP-39	Wood Working Boxes and Cores ((Fugitive)
EP-40	Vacuum Discharge ((Fugitive VOC, CO)
EP-41	Lost Foam Replicant Drying Oven (NG Combustion)
EP-44	Drying Burner for Water Based Paints (NG Combustion)

DOCUMENTS INCORPORATED BY REFERENCE

These documents have been incorporated by reference into this permit.

- 1) Permit to Construct, Permit No. 1096-009, Issued October 3, 1996

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 and Code of State Regulations 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 1096-009, Issued October 3, 1996
10 CSR 10-6.065(2)(C) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s)

Emission Limitation:

The permittee shall not discharge into the atmosphere from this installation VOC in excess of 99.99 tons in any consecutive 12-month period.

[Construction Permit 1096-009: Special Condition 1.a.]

Monitoring/Recordkeeping:

- 1) The Permittee shall maintain an accurate record of production from each emission point and calculate emissions of VOC emitted into the atmosphere from each emission source at this installation. The Permittee shall record the monthly and running 12-month totals of VOC emissions from this installation. The permittee shall use Attachment A or an equivalent form to demonstrate compliance with the VOC emission limitation (99.99 tons of VOCs in any consecutive 12-month period). [Construction Permit 1096-009: Special Condition 2.a.]
- 2) The Permittee shall maintain records on-site for not less than five years on all records required by Construction Permit 1096-009 and shall immediately make such records available to any Missouri Department of Natural Resources personnel upon request.
[Construction Permit 1096-009: Special Condition 2.b.]

Reporting:

The Permittee shall report to the Missouri Department of Natural Resources' Air Pollution Control Program (APCP), 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 limitation of 99.99 tons of VOCs in any consecutive 12-month period. [Construction Permit 1096-009: Special Condition 3.a.]

Permit Condition PW002

10 CSR 10-6.060
Construction Permits Required
Construction Permit 1096-009, Issued October 3, 1996
10 CSR 10-6.065(2)(C) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s)

Emission Limitation:

The permittee shall not discharge into the atmosphere from this installation particulate matter less than ten microns (PM₁₀) in excess of 49.99 tons in any consecutive 12-month period.

[Construction Permit 1096-009: Special Condition 1.b.]

Monitoring/Recordkeeping:

- 1) The Permittee shall maintain an accurate record of production from each emission point and calculate emissions of PM₁₀ emitted into the atmosphere from each emission source at this installation. The Permittee shall record the monthly and running 12-month totals of PM₁₀ emissions from this installation. The permittee shall use Attachment A or an equivalent form to demonstrate compliance with the PM₁₀ emission limitation (49.99 tons of PM₁₀ in any consecutive 12-month period). [Construction Permit 1096-009: Special Condition 2.a.]
- 2) The Permittee shall maintain records on-site for not less than five years on all records required by Construction Permit 1096-009 and shall immediately make such records available to any Missouri Department of Natural Resources personnel upon request.
[Construction Permit 1096-009: Special Condition 2.b.]

Reporting:

The Permittee shall report to the department's Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten days after the end of each month, if the 12-month cumulative total records show the source exceeded the emission limitation of 49.99 tons of PM₁₀ in any consecutive 12-month period. [Construction Permit 1096-009: Special Condition 3.a.]

Permit Condition PW003

10 CSR 10-6.060
Construction Permits Required
Construction Permit 1096-009, Issued October 3, 1996
10 CSR 10-6.065(2)(C) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s)

Emission Limitation:

- 1) The permittee shall emit less than 10 tons of any individual HAP in any consecutive 12-month period except benzene which is limited to less than 9.33 in any consecutive 12-month period; and
- 2) The permittee shall emit less than 24.99 tons of any combination of HAPs in any consecutive 12-month period.

[Construction Permit 1096-009: Special Condition 1.c.]

Monitoring/Recordkeeping:

- 1) The Permittee shall maintain an accurate record of production from each emission point and calculate emissions of Hazardous Air Pollutants (HAPs) emitted into the atmosphere from each emission source at this installation. The permittee shall record the monthly and running 12-month totals of HAPs emissions from this installation. The permittee shall use Attachments B-1 and B-2 or equivalent forms to demonstrate compliance with the HAPs emissions limitations ((less than 10 tons in any consecutive 12-month period of any individual HAP except Benzene which is limited to 9.33

tons or less than 24.99 tons in any consecutive 12- month period of any combination of HAPs).).
[Construction Permit 1096-009: Special Condition 2.a.]

- 2) The Permittee shall maintain records on-site for not less than five years on all records required by Construction Permit 1096-009 and shall immediately make such records available to any Missouri Department of Natural Resources personnel upon request.
[Construction Permit 1096-009: Special Condition 2.b.]

Reporting:

The permittee shall report to the APCP's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 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 limitation of ten tons of individual HAP except benzene which is limited to 9.33 tons and 24.99 tons of any combination of HAPs in any consecutive 12-month period.
[Construction Permit 1096-009: Special Condition 3.a.]

Permit Condition PW004

10 CSR 10-6.060
Construction Permits Required
Construction Permit 1096-009, Issued October 3, 1996

Emission/Operational Limitation:

- 1) Odor Conditions:
If a continuing situation of demonstrated nuisance odors exists in violation of 10 CSR 10-5.160, the Director may require MetalTek International Carondelet Division to submit a corrective action plan within ten (10) days adequate to timely and significantly mitigate the odors. MetalTek International Carondelet Division shall implement any such plan immediately upon its approval by the Director. Failure to either submit or implement such a plan shall be a violation of the permit.
[Construction Permit 1096-009: Special Condition 4.a.]
- 2) PM₁₀ Nuisance Conditions:
If the presence of PM₁₀ in the ambient air exists in quantities and durations that directly or proximately cause or contribute 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, the Director may require the Permittee to submit a corrective action plan adequate to timely and significantly mitigate the emissions of PM₁₀. The permittee shall implement any such plan immediately upon its approval by the Director. Failure to either submit or implement such a plan shall be a violation of the permit.
[Construction Permit 1096-009: Special Condition 5.a.]
- 3) Shutdowns and Breakdowns:
 - a) Shutdown — The permittee shall notify the Director at least 24 hours in advance of the shutdown of any control equipment and, if the shutdown would cause an increase in the emission of air contaminants, of a shutdown of any process equipment. At the time of notification, the permittee shall also notify the Director of the cause of the shutdown and the estimated duration. The permittee shall notify the Director when the shutdown is over.
[Construction Permit 1096-009: Special Condition 6.a.]
 - b) Breakdown — The permittee shall notify the director immediately of a breakdown of more than one hour duration of any control equipment and, if the breakdown causes an increase in the emission of air contaminants, of a breakdown on any process equipment. At the time of notification or as soon thereafter as possible, the permittee shall also notify the Director of the cause of the breakdown and the estimated duration. The permittee shall notify the Director when the breakdown is over. [Construction Permit 1096-009: Special Condition 6.b.]

4) Operating Changes:

In any shutdown or breakdown, the permittee shall immediately take all practical steps to modify operations to reduce the emission of air contaminants. The Director may require feasible and practical modifications in the operation to reduce emissions of air contaminants.

[Construction Permit 1096-009: Special Condition 7.a.]

Reporting:

The permittee shall report promptly any deviations from permit requirements, including those attributable to upsets, and the report shall include the cause of such deviations and any corrective actions or preventive measures taken. Corrective actions may include a requirement for stack testing, or more frequent monitoring, or could trigger implementation of a corrective action plan.

[Construction Permit 1096-009: Special Condition 3.b.]

Permit Condition PW005

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

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any source in the St. Louis metropolitan area any visible emissions with an opacity greater than 20%.
- 2) Exception:
 - a) Existing sources¹ in the St. Louis metropolitan area that are not incinerators and emit less than twenty-five (25) pounds per hour (lbs/hr) of particulate matter shall be limited to 40% opacity.
 - b) A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six minutes in any 60 minutes air contaminants with an opacity up to 40%.

Monitoring:

- 1) 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) 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-

¹ Existing source - any equipment, machine, device, article, contrivance or installation in being, installed or in construction in the St. Louis metropolitan area on March 24, 1967 (Franklin County, January 18, 1972), except that 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..

- 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.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachments C-1), 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-2)
- 4) Attachments C-1 and C-2 contain logs including these recordkeeping 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 ACP 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, recordkeeping and reporting requirements of this permit condition shall be submitted annually in the annual compliance certification and monitoring report, as required by Section V of this permit.

III. Emission Unit Specific Emission Limitations

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

EU0010 through EUEU0180 - Units Equipped with Fabric Filters (Baghouses)			
Emission Unit	Description	Manufacturer/Model #	2006 EIQ Reference #
EU0010	Charging Deck: Rotoblast of charging material	Pangborn/156N34644	EP-02
EU0020	Vehicle Unloading: Transporter on Sand Tanker Truck & Silo 34	Peabody Tech Tank	EP-04
EU0030	Sand Silo (1): Reclaimed sand to Silo	Belga Tech/NAT BD 778	EP-05
EU0040	Sand Conveyor	Carondelet	EP-06
EU0050	Magnetic Separator, Screen & Hopper	Simplicity	EP-07
EU0060	Thermal Reclamation/Cooler/Classifier Unit	Simplicity	EP-08(A)
EU0070	Sand Blender	Simplicity/PX4000	EP-09
EU0080	Blended Sand Receiver – Silo 36 & Silo 37	Peabody/Tech Tank	EP-10
EU0090	Sand Day Silo Transfer Unit	Not Available	EP-11
EU0100	Casting Cooling - Molds	Not Applicable	EP-22(A)
EU0110	Casting Shakeout	Various Mfg and Models	EP-23(A)
EU0120	Riser Cutting/Arc-off	Various Mfg and Models	EP-24
EU0130	Shot Blasters (3) in Rough Cleaning Area	Pangborn & American Wheelabrator	EP-25
EU0140	Grinders/Chippers in Rough Grinding Area	Various Mfg and Models	EP-26
EU0150	Grinders in Fine Cleaning Area	Various Mfg and Models	EP-27
EU0160	Sand Blaster in Fine Cleaning Area	Not Available	EP-30
EU0170	AOD Vessel – Argon-Oxygen Decarborization Vessel	Praxair Inc./3T	EP-33
EU0180	Sand Silo - Mech. Reclaimed Sand	Not Available	EP-34

Permit Condition EU0010-001 through EU0180-001

10 CSR 10-6.400
 Restriction of Emission of Particulate Matter from Industrial Processes
 10 CSR 10-6.060
 Construction Permits Required
 Construction Permit 1096-009, Issued October 3, 1996

Emission Limitation:

- 1) The permittee shall not emit particulate matter in any (1) one hour in excess of the emission rates specified below: [10 CSR 10-6.400]

Emission Unit	PM Limit lbs/hr	Emission Unit	PM Limit lbs/hr
EU0010	5.38	EU0100	8.56
EU0020	22.86	EU0110	8.56
EU0030	16.51	EU0120	8.56
EU0040	16.51	EU0130	8.56
EU0050	16.51	EU0140	8.56
EU0060	12.05	EU0150	8.56
EU0070	12.69	EU0160	0.37
EU0080	12.69	EU0170	12.05
EU0090	20.19	EU0180	6.52

- 2) No person shall cause, allow or permit the emission of particulate matter from any source in a concentration in excess of 0.30 grain per standard cubic foot of exhaust gases.

Monitoring/Recordkeeping:

- 1) The baghouses associated with stack #1-- EP-23A (EU0110 – Casting Shakeout), EP-33 (EU0170 – AOD Vessel) Note: The AOD vessel can be vented through either stack #1 or #2, EP-05 (EU0030 – Sand Silo), and EP-02 (EU0010 - Rotoblast of Charging Metal); stack #2 = EP-26 (EU0150 – Grinders/Chippers-rough), EP-25 (EU0130 - Shot Blasters rough cleaning), EP-24 (EU0130 - Riser Cutting/Arc-off), EP-27 (EU0160 - Grinders in fine cleaning), and EP-33 (EU0170 - AOD vessel) Note: same as above, EP-10 (EU0080 - Blended Sand Receiver), EP-11 (EU0090 – Sand Day Silo Transfer Unit), EP-08A (EU0060 - Thermal Reclamation Unit), EP-09 (Sand Blender), EP-34 (EU0190 - Sand Silo), EP-04 (Vehicle Unloading) and EP-06 (Sand Conveyor) must be in use at all times when the above process operations associated with these respective baghouses are in operation. The baghouses shall be operated and maintained in accordance with the manufacturer's specifications. These baghouses shall be equipped with a gauge or meter which indicates the pressure drop across the baghouse. These gauges or meters shall be located such that they can be easily observed by the Department of Natural Resources' employees. Replacement bags shall be of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance). [Construction Permit 1096-009: Special Condition 8.1.a.]
- 2) The permittee corporation shall monitor and record the operating pressure drop across the baghouse at least once every twenty-four hours. The operating pressure drop shall be maintained within the

design conditions specified by the manufacturer's performance warranty.

[Construction Permit 1096-009: Special Condition 8.1.b.]

- 3) The permittee shall maintain an operating and maintenance log for the baghouses which shall include the following: [Construction Permit 1096-009: Special Condition 8.1.c.]
- 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.

Reporting:

The permittee shall report promptly any deviations from permit requirements, including those attributable to upsets, and the report shall include the cause of such deviations and any corrective actions or preventive measures taken. Corrective actions may include a requirement for stack testing, or more frequent monitoring, or could trigger implementation of a corrective action plan.

[Construction Permit 1096-009: Special Condition 3.b.]

Permit Condition EU0170-002

10 CSR 10-6.060
Construction Permits Required
Construction Permit 1096-009, Issued October 3, 1996

Operational Limitation:

The permittee shall be limited to no more than ten hours of operation of the Argon-Oxygen Decarburization (AOD) Vessel (EU0170) in any single day.

[Construction Permit 1096-009: Special Condition 3.c.]

Recordkeeping:

The Permittee shall record the daily hours of operation of the AOD Vessel.

[Construction Permit 1096-009: Special Condition 2.a.]

Reporting:

The permittee shall report to the APCP Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the day the records show that the permittee exceeded the hours of operation emission limitation.

[Construction Permit 1096-009: Special Condition 3.a.]

EU0180 – Parts Cleaner			
Emission Unit	Description	Manufacturer/ Model #	2006 EIQ Reference #
EU0010	Cold Solvent Parts Cleaner	Not Available	EP-38

<p align="center">Permit Condition EU0180-001</p> <p>10 CSR 10-5.300 Control of Emissions from Solvent Cleaning</p>
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Emission Limitation:

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

Operational Limitation/Equipment Specifications:

- 1) Each cold cleaner shall have a cover which will prevent the escape of solvent vapors from the solvent bath while in the closed position, or an enclosed reservoir which limits the escape of solvent vapors from the solvent bath whenever parts are not being processed in the cleaner.
- 2) When one or more of the following conditions exist, the cover shall be designed to operate easily such that minimal disturbing of the solvent vapors in the tank occurs. (For covers larger than ten square feet, this shall be accomplished by either mechanical assistance such as spring loading or counter weighing or by power systems):
 - a) The solvent vapor pressure is greater than 0.3 psi measured at 37.8 degrees Celsius (37.8°C) (100 degrees Fahrenheit (100°F));
 - b) The solvent is agitated; or
 - c) The solvent is heated.
- 3) Each cold cleaner shall have a internal drainage facility so that parts are enclosed under the cover while draining.
- 4) If an internal drainage facility cannot fit into the cleaning system and the solvent vapor pressure is less than 0.6 psi measured at 37.8°C (100°F), then the cold cleaner shall have an external drainage facility which provides for the solvent to drain back into the solvent bath.
- 5) Solvent sprays, if used, shall be a solid fluid stream (not a fine, atomized or shower-type spray) and at a pressure which does not cause splashing above or beyond the freeboard.
- 6) A permanent conspicuous label summarizing the operating procedures shall be affixed to the equipment or in a location readily visible during operation of the equipment.
- 7) Any cold cleaner which uses a solvent that has a solvent vapor pressure greater than 0.6 psi measured at 37.8°C (100°F) or is heated above 48.9°C (120°F), must use one of the following control devices:
 - a) A freeboard ratio of at least 0.75;
 - b) Water cover (solvent must be insoluble in and heavier than water); or
 - c) Other control systems with a mass balance demonstrated overall VOC emissions reduction efficiency greater than or equal to 65%. These control systems must receive approval from the director and EPA prior to their use.
- 8) Each cold cleaner shall be operated as follows:

- a) Cold cleaner covers shall be closed whenever parts are not being handled in the cleaners or the solvent must drain into an enclosed reservoir except when performing maintenance or collecting solvent samples.
 - b) Cleaned parts shall be drained in the freeboard area for at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining, the parts shall be positioned so that the solvent drains directly back to the cold cleaner.
 - c) Whenever a cold cleaner fails to perform within the rule operating requirements, the unit shall be shut down immediately and shall remain shut down until operation is restored to meet the rule operating requirements.
 - d) Solvent leaks shall be repaired immediately or the cleaner shall be shut down until the leaks are repaired.
 - e) Any waste material removed from a cold cleaner shall be disposed of by one of the following methods or an equivalent method approved by the director and EPA:
 - i) Reduction of the waste material to less than 20% VOC solvent by distillation and proper disposal of the still bottom waste; or
 - ii) Stored in closed containers for transfer to a contract reclamation service or disposal facility approved by the director and EPA.
 - f) Waste solvent shall be stored in covered containers only.
- 9) Operators must be trained as follows:
- a) Only persons trained in at least the operation and equipment requirements specified in this rule for their particular solvent metal cleaning process to operate this equipment;
 - b) The person who supervises any person who operates solvent cleaning equipment regulated by this rule shall receive equal or greater operational training than the operators; and
 - c) A procedural review shall be given to all solvent metal cleaning equipment operators at least once each 12 months.

Monitoring/Recordkeeping:

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

Reporting:

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

IV. Core Permit Requirements

The installation shall comply with each of the following requirements. Consult the appropriate sections in the Code of Federal Regulations, Code of State Regulations, 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 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, or to fires used for recreational purpose, or 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 MetalTek International Carondelet Division from the provisions of any other law, ordinance or regulation.
 - 5) The permittee shall maintain files with letters from the director approving the open burning operation and previous Department of Natural Resources inspection reports.

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

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

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

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

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

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

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

10 CSR 10-6.100 Alternate Emission Limits

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

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 recordkeeping 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 and Code of State Regulations 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 Recordkeeping and Reporting Requirements

1) Recordkeeping

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

2) Reporting

- a) All reports shall be submitted to the Air Pollution Control Program, Enforcement Section, P. O. Box 176, Jefferson City, Missouri 65102.
- b) The permittee shall submit a report of all required monitoring by:
 - i) June 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, recordkeeping, 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 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 APCP, upon receipt of a written request and within a reasonable time, any information that the APCP 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 APCP 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 APCP):
 - 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 June 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, Missouri 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 APCP 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 APCP 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 recordkeeping 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, Missouri 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, no later than the next annual emissions report. This 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 Don Duncan, Plant Engineering Manager. On July 2, 2007, the APCP was informed that Mr. William Yates, Plant Engineering Manager is now the responsible official. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Director of the APCP 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 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) Missouri Department of Natural Resources or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

10 CSR 10-6.065 §(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 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
 Method 9 Visual Determination of Opacity**

This attachment or an equivalent may be used to help meet the recordkeeping requirements of Permit Condition PW005.

Method 9 Opacity Emissions Observations	
Company	Observer
Location	Observer Certification Date
Date	Emission Unit
Time	Control Device

Hour	Minute	Seconds				Steam Plume (check if applicable)		Comments
		0	15	30	45	Attached	Detached	
	0							
	1							
	2							
	3							
	4							
	5							
	6							
	7							
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	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

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 Renewal Application, received September 18, 2006;
- 2) 2006 Emissions Inventory Questionnaire, received April 2, 2007;
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition; and
- 4) Construction Permit, Permit No. 032002-018, issued March 6, 2002.

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 APCP has determined that the following requirements are not applicable to this installation at this time for the reasons stated.

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

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

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.

10 CSR 10-5.030, “Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating.”

The following indirect heating sources listed in the table below are subject to the requirements of this rule. However, the APCP does not consider these units to be capable of exceeding the particulate matter (PM) emission limitation (0.24 pounds of particulate matter per million BTU’s of heat input) of this rule.

Therefore, as shown in the following calculations, these units are always expected to be in compliance with the PM limitation, this rule was not included in the applicable requirements section of this operating permit.

Indirect Heating Source	Number of Units	Heat Input (MMBtu/hr)	Total Heat Input (MMBtu/hr)
Air Make-Up (Duo-Air)	2	5.225	10.45
Air Make-Up (Duo-Air)	2	4.32	8.64
Air Make-Up (Aerovent)	3	5	15
Air Make-Up (Absolute Aire)	1	2.75	2.75
Air Make-Up (Absolute Aire)	3	5	15
Space Heater (Sterling)	3	0.35	1.05
Space Heater (Sterling)	3	0.15	0.45
Space Heater (Sterling)	1	0.1	0.1
Space Heater (Reverberay)	2	0.06	0.12
Total Heat Input			53.56

Regulatory PM Limit:

$$E = 0.80(Q)^{-0.301} \quad \text{Where: } E = \text{allowable PM emissions in lb/MMBtu/hr}$$

$$Q = \text{Total installation heat input in MMBtu/hr}$$

$$E = 0.80(53.56)^{-0.301} = 0.24 \text{ lb/MMBtu/hr}$$

Conservatively assuming 1050 Btu per standard cubic foot, the heating value of natural gas, and using the PM emission factor 7.6 lb/MMscf for natural gas combustion (AP-42, Sections 1.4, July 1998); the potential emission is 0.0072 lb/MMBtu.

10 CSR 10-6.260, “Restriction of Emission of Sulfur Compounds”

This rule exempts combustion equipment that uses exclusively pipeline grade natural gas as defined in 40 CFR 72.2 or liquefied petroleum gas as defined by American Society for Testing and Materials (ASTM), or any combination of these fuels.

All combustion equipment at the installation use pipeline grade natural gas and are exempt from the requirements of this rule.

Construction Permit Revisions

1) Construction Permit No. 1096-009

The following emission units were never installed or are no longer in use. Therefore, no construction permit requirements exist for the units.

- EP-21(C) – Metal Pouring -Lost Foam
- EP-35 – Sand Containment Fill
- EP-37 – Sand Recycling
- EP-43 – Boiler for Replicant Line
- EP-45 – Foam Blowing Process
- EP-46 – Rainfall Sand Loading Unit

2) Construction Permit No. 032002-018

This permit was issued to install a mold sealing process and various space heaters and air make-up units. This permit contained no special conditions.

New Source Performance Standards (NSPS) Applicability

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

40 CFR Part 60, Subpart AAa, “*Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 7, 1983*”

The provisions of this subpart apply to the following affected facilities in steel plants that produce carbon, alloy, or specialty steels: electric arc furnaces, argon-oxygen decarburization vessels, and dust-handling systems.

This subpart does not apply to this steel foundry operation because the applicability of this subpart AAa only applies to a steel plant whose AOD is used to cast molten steel into the shape of intermediate products. This foundry’s AOD casts molten iron or steel scrap into the shape of finished products.

40 CFR Part 60, Subpart UUU, “*Standards of Performance for Calciners and Dryers in Mineral Industries*”

The provisions of this subpart apply to each calciner and dryer at a mineral processing plant. Feed and product conveyors are not considered part of the affected facility. For the brick and related clay products industry, only the calcining and drying of raw materials prior to firing of the brick are covered.

The provisions of this subpart do not apply to this installation because it is not a mineral processing plant. The thermal reclamation unit used to reconstitute the used sand is only a minor part of the operation.

Maximum Available Control Technology (MACT) Applicability

40 CFR Part 63, Subpart EEEEE, “*National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries*”

This subpart applies to an iron and steel foundry that is (or is part of) a major source of hazardous air pollutant (HAP) emissions. The iron and steel foundry is a major source of HAP for purposes of this subpart if it emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year or if it is located at a facility that emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year.

Construction Permit No. 1096-009 imposes plant-wide conditions for limiting the plant-wide HAP emission to less than 10 tons per year of individual HAPs and 25 tons per year of combined HAPs. Therefore, this installation is not a major source of HAP emissions and the provisions of 40 CFR Part 63, Subpart EEEEE will not be applicable.

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

The provisions of this subpart apply to each individual batch vapor, in-line vapor, in-line cold, and batch cold solvent cleaning machine that uses any solvent 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. Wipe cleaning activities, such as using a rag containing halogenated solvent are not covered under the provisions of this subpart.

Halogenated solvents as defined in 40 CFR 63.460 are not used in the parts cleaning operation, therefore the parts cleaning operation is not subject to the MACT standards for halogenated solvent cleaning.

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

None

Other Regulatory Determinations

10 CSR 10-6.400, “Restriction of Emission of Particulate Matter From Industrial Processes”

10 CSR 10-6.400 limits the amount of particulate matter that is allowed from an emission unit, and is dependent on the process weight rate material processed. The emission units to which this rule applies are listed below. The following calculations provide the allowable particulate emission rate based on 10 CSR 10-6.400 and the potential (maximum) emission rate including particulate emission control equipment. Process information and data used in these calculations are from the Intermediate Operating Permit Renewal Application, 2006 EIQ, and AP-42 and FIRE factors.

Also, the following formula from 10 CSR 10-6.400 is used to calculate the PM allowable limit:

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

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

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

Emission Unit #	PM Control Device & Efficiency	Maximum Design Rate	PM Emission Factor	PM Uncontrolled Emissions	PM Controlled Emissions	PM Allowable Emission Rate
EU0010	Fabric Filter 85%	1.50 tons/hr	0.36 lbs/ton	0.54 lbs/hr	0.08 lbs/hr	5.38 lbs/hr
EU0020	Fabric Filter 85%	13.00 tons/hr	0.54 lbs/ton	7.02 lbs/hr	1.05 lbs/hr	22.86 lbs/hr
EU0030	Fabric Filter 85%	8.00 tons/hr	0.54 lbs/ton	4.32 lbs/hr	0.65 lbs/hr	16.51 lbs/hr
EU0040	Fabric Filter 85%	8.00 tons/hr	0.54 lbs/ton	4.32 lbs/hr	0.65 lbs/hr	16.51 lbs/hr

Emission Unit #	PM Control Device & Efficiency	Maximum Design Rate	PM Emission Factor	PM Uncontrolled Emissions	PM Controlled Emissions	PM Allowable Emission Rate
EU0050	None	8.00 tons/hr	0.54 lbs/ton	4.32 lbs/hr	N/A	16.51 lbs/hr
EU0060	Fabric Filter 85%	5.00 tons/hr	0.54 lbs/ton	2.70 lbs/hr	0.41 lbs/hr	12.05 lbs/hr
EU0070	Fabric Filter 85%	5.40 tons/hr	0.54 lbs/ton	2.92 lbs/hr	0.44 lbs/hr	12.69 lbs/hr
EU0080	Fabric Filter 85%	5.40 tons/hr	0.54 lbs/ton	2.92 lbs/hr	0.44 lbs/hr	12.69 lbs/hr
EU0090	Fabric Filter 85%	10.80 tons/hr	0.54 lbs/ton	5.83 lbs/hr	0.87 lbs/hr	20.19 lbs/hr
EU0100	Fabric Filter 85%	3.00 tons/hr	1.4 lbs/ton	4.20 lbs/hr	0.63 lbs/hr	8.56 lbs/hr
EU0110	Fabric Filter & Building Enclosure 84.38%	3.00 tons/hr	3.2 lbs/ton	9.60 lbs/hr	1.50 lbs/hr	8.56 lbs/hr
EU0120	Fabric Filter & Building Enclosure 45.30%	3.00 tons/hr	1.7 lbs/ton	5.10 lbs/hr	2.79 lbs/hr	8.56 lbs/hr
EU0130	Fabric Filter 89.5%	3.00 tons/hr	0.85 lbs/ton	2.55 lbs/hr	1.39 lbs/hr	8.56 lbs/hr
EU0140	Enclosure 37.5%	3.00 tons/hr	1.7 lbs/ton	5.10 lbs/hr	3.19 lbs/hr	8.56 lbs/hr
EU0150	Enclosure 37.5%	3.00 tons/hr	1.7 lbs/ton	5.10 lbs/hr	3.19 lbs/hr	8.56 lbs/hr
EU0160	Cartridge 85%	0.0277 tons/hr	27 lbs/ton	0.75 lbs/hr	0.11 lbs/hr	0.37 lbs/hr
EU0170	Fabric Filter 85%	5.00 tons/hr	5 lbs/ton	25.00 lbs/hr	5.88 lbs/hr	12.05 lbs/hr
EU0180	Fabric Filter 85%	2.00 tons/hr	0.54 lbs/ton	1.08 lbs/hr	0.16 lbs/hr	6.52 lbs/hr
EP-13(A)	Enclosure 37.5%	10.80 tons/hr	0.04 lbs/ton	0.43 lbs/hr	0.27 lbs/hr	20.19 lbs/hr

The installation is equipped with three baghouses for the purpose of removing particulate matter generated from the operation. These baghouses are equipped with photo-helic sensing devices to ensure that there is no bag failure. The entire foundry operations are also enclosed in a building to further reduce fugitive particulate emissions. Other less significant pollution control devices are also

present. It is highly unlikely that the allowable emission rate will be exceeded with the control device operating. Monitoring and recordkeeping will be required to ensure that the control devices are operating properly.

Below is a brief summary of the control devices encompassing the entire steel foundry operation

Air Pollution Control Device	Description
North Baghouse (Stack 1, CD1)	Provides pollution control for the metal pouring and metal preparation processes (EP-02, EP-05, EP-23 and EP-33).
South Baghouse (Stack 2, CD2)	Provides pollution control for casting, cleaning and finishing operations (EP-24, EP-25, EP-26, EP-27 and EP-33).
GMD Baghouse (Stack 3, CD3)	Provides pollution control for all of the sand handling operations and the sand thermal reclamation unit (EP-04, EP-08, EP-09, EP-10, EP-11 and EP-34).
CD-4 Building Enclosure	The entire foundry operation is enclosed by a building to reduce fugitive emissions from processes that do not have dedicated add-on control devices (EP-1, EP-13(A), EP-19, EP-20, EP-21, EP-22 and EP39).

Mold Core Mixers (EP-13(A)) – Particulate Emissions

At the maximum hourly design rate (10.80 tons/hr), the uncontrolled emission rate (0.43 lb/hr) is less than the allowed exemption level of 10 CSR 10-6.400(1)(B)11. (i.e., 0.5 lbs/hr), therefore this unit is not subject to the provisions of this rule.

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 APCA'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 APCA a schedule for achieving compliance for that regulation(s).

Prepared by:

Berhanu A. Getahun
Environmental Engineer