



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: OP2011-031
Expiration Date: JUL 12 2016
Installation ID: 510-1556
Project Number: 2008-06-005

Installation Name and Address

Connector Castings, Inc.
1600 North 22nd Street
St. Louis, MO 63106
City of St. Louis

Parent Company's Name and Address

Connector Castings, Inc.
1600 North 22nd Street
St. Louis, MO 63106
City of St. Louis

Installation Description:

Connector Castings, Inc. supplies manufacturers in the electrical, telecommunications and construction industries with a wide variety of connectors and clamps made from a variety of Copper and Aluminum based alloys. Utilizing state of the art sand casting machinery, Connector Castings manufactures raw castings which are then cleaned, machined, assembled and packaged, all to customer specifications.

Connector Castings is a major source of particulate matter with an aerodynamic diameter of less than or equal to ten microns (PM₁₀). The installation has accepted voluntary, federally enforceable emission limitations limiting PM₁₀ emissions to less than major source level to qualify for this permit.

JUL 13 2011

Effective Date

Director or Designee
Department of Natural Resources

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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

Connector Castings, Inc. supplies manufacturers in the electrical, telecommunications and construction industries with a wide variety of connectors and clamps made from a variety of Copper and Aluminum based alloys. Utilizing state of the art sand casting machinery, Connector Castings manufactures raw castings which are then cleaned, machined, assembled and packaged, all to customer specifications.

Connector Castings was incorporated under current ownership in 1987, although the business has operated continuously, in the same location, since the 1940s. Connector Castings operates with several automatic molding machines in their foundry to maximize flexibility and efficiency. The installation has its own pattern shop to allow rapid product development and in-house maintenance of tooling. They also have a spectrometer which allows them to ensure that all alloys created in the foundry meet or exceed customer expectations.

Connector Castings is a major source of PM₁₀ and was issued a Part 70 operating permit (OP2004-001). The installation has accepted voluntary, federally enforceable emission limitations limiting PM₁₀ emissions to less than major source level to qualify for this permit.

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

Reported Air Pollutant Emissions, tons per year					
Pollutants	2009	2008	2007	2006	2005
Particulate Matter ≤ Ten Microns (PM ₁₀)	3.01	3.48	3.71	0.80	9.88
Particulate Matter ≤ 2.5 Microns (PM _{2.5})	0.48	0.58	0.49	0.22	5.28
Sulfur Oxides (SO _x)	0.01	0.01	0.02	0.04	0.07
Nitrogen Oxides (NO _x)	0.09	0.12	0.15	0.62	0.77
Volatile Organic Compounds (VOC)	0.78	0.91	0.74	0.16	1.98
Carbon Monoxide (CO)	0.00	0.00	0.00	0.46	0.58
Lead (Pb)	0.88	0.88	0.31	0.00	0.03
Hazardous Air Pollutants (HAPs)	0.00	0.00	0.00	0.00	0.00
Ammonia (NH ₃)	0.01	0.01	0.01	0.00	0.06

EMISSION UNITS WITH LIMITATIONS

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

Emission Unit #	EIQ Reference #	Description of Emission Unit
EU0010	EP-12	Furnace #1 – Electric Powered Induction Furnace
EU0020	EP-12	Furnace #2 – Electric Powered Induction Furnace
EU0030	EP-12	Furnace #3 – Electric Powered Induction Furnace
EU0040	EP-12	Furnace #4 – Electric Powered Induction Furnace
EU0050	EP-12	Furnace #5 – Electric Powered Induction Furnace
EU0060	EP-3	Aluminum Melting Thermtronix Furnace
EU0070	EP-38	Loading New Sand into Hopper

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-1	One shell Core Machine
EP-11A	Brass & Aluminum Muller and Sand Handling Conveyor
EP-13A	Brass & Aluminum Pouring
EP-14A	Brass & Aluminum Shakeout
EP-18	2.75 MMBtu/hr Heating Boiler
EP-19	Three 0.35 MMBtu/hr each Ladle Preheats
EP-22	Metal Grinder
EP-30	Make Up Air Systems
EP-31	Aluminum Casting Cooling
EP-32	Brass Casting Cooling
EP-33	Aluminum Degassing
EP-35A	Brass & Aluminum Cutoff
EP-36	0.676 MMBtu/ hr Natural Gas Fired Furnaces – Building Heat
EP-37	Permanent Mold

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 on the date of permit issuance.

<p style="text-align: center;">Permit Condition PW001</p>
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<p style="text-align: center;">10 CSR 10-6.065 Operating Permits</p>

<p style="text-align: center;">10 CSR 10-6.065(2)(C) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s)</p>

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 ten microns (PM₁₀) in any consecutive 12-month period.

Monitoring/Record Keeping:

The permittee shall maintain an accurate record of emissions of PM₁₀ emitted into the atmosphere from this installation. The permittee shall record the monthly and running 12-month totals of the PM₁₀ emissions from this installation. Example form is attached as Attachment A (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 PM₁₀ emission limitation (less than 100 tons per consecutive 12-month period of PM₁₀).

Reporting:

The permittee shall report to the City of St. Louis Air Pollution Control Program, 1520 Market Street, Room 4058, St. Louis, MO 63103, and the Air Pollution Control Program's 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.

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 on the date of permit issuance.

EU0010 through EU0060 – Melting Furnaces			
The Five Brass Melting Furnaces (#1 through #5) have Common Control			
Emission Unit	Description	Manufacturer/ Model #	2009 EIQ Reference #
EU0010	Brass Melting Furnace #1 – Electric Powered Induction Furnace with Fabric Filter. Installed 1978 Capacity – 508 pounds per hour (lbs/hr)	Inductotherm Corp./ VIP 200-10	EP-12
EU0020	Brass Melting Furnace #2 – Electric Powered Induction Furnace Fabric Filter. Installed 1978 Capacity – 326 pounds per hour (lbs/hr)	Inductotherm Corp./ VIP 200-10	
EU0030	Brass Melting Furnace #3 – Electric Powered Induction Furnace. Installed 1978 Capacity – 326 pounds per hour (lbs/hr)	Inductotherm Corp./ VIP 200-10	
EU0040	Brass Melting Furnace #4 – Electric Powered Induction Furnace Fabric Filter. Installed 1978 Capacity – 508 pounds per hour (lbs/hr)	Inductotherm Corp./ VIP 450-10 CSR/00F-124735- 246-11	
EU0050	Brass Melting Furnace #5 – Electric Powered Induction Furnace Fabric Filter. Installed 2000 Capacity – 1108 pounds per hour (lbs/hr)	Inductotherm Corp./ VIP 200-10	
EU0060	Aluminum Melting Thermtronix Furnace- Aluminum Reveratory Furnace. Installed 2007 Capacity – 3000 pounds per hour (lbs/hr) melting rate	Thermtrnix Corp./ CG3000/061887R	EP-3

Permit Condition EU0010-001 through EU0060-001

40 CFR Part 63, Subpart ZZZZZZ

National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries

You must comply with the applicable provisions of this subpart no later than June 27, 2011.
[§63.11545(a)]

Emission Limitation/Standards:

For existing affected sources located at a large foundry, you must achieve a particulate matter (PM) control efficiency of at least 95.0 percent or emit no more than an outlet PM concentration limit of 0.034 grams per dry standard cubic meter (g/dscm) (0.015 grains per dry standard cubic feet (gr/dscf)).
[§63.11550(b)(1)]

Management Practices:

- 1) Cover or enclose each melting furnace that is equipped with a cover or enclosure during the melting operation to the extent practicable (e.g., except when access is needed; including, but not limited to charging, alloy addition, and tapping). [§63.11550(a)(1)]
- 2) Purchase only metal scrap that has been depleted (to the extent practicable) of aluminum foundry HAP, copper foundry HAP, or other nonferrous foundry HAP (as applicable) in the materials charged to the melting furnace, except metal scrap that is purchased specifically for its HAP metal content for use in alloying or to meet specifications for the casting. This requirement does not apply to material that is not scrap (e.g., ingots, alloys, sows) or to materials that are not purchased (e.g., internal scrap, customer returns). [§63.11550(a)(2)]
- 3) Prepare and operate pursuant to a written management practices plan. The management practices plan must include the required management practices in Paragraphs (a)(1) and (2) of §63.11550 and may include any other management practices that are implemented at the facility to minimize emissions from melting furnaces. You must inform your appropriate employees of the management practices that they must follow. You may use your standard operating procedures as the management practices plan provided the standard operating procedures include the required management practices in Paragraphs (a)(1) and (2) of §63.11550. [§63.11550(a)(3)]

Initial Compliance Requirements: [§63.11551]

- 1) Except as specified in §63.11551(b), you must conduct a performance test for existing and new sources at a large copper or other nonferrous foundry that is subject to §63.11550(b). You must conduct the test within 180 days of your compliance date and report the results in your Notification of Compliance Status according to §63.9(h). [§63.11551(a)]
- 2) You must conduct each performance test according to the requirements in §63.7 and the requirements in §63.11550 c)(1) and (2). [§63.11551(c)]
 - a) You must determine the concentration of PM (for the concentration standard) or the mass rate of PM in pounds per hour at the inlet and outlet of the control device (for the percent reduction standard) according to the following test methods: [§63.11551(c)(1)]
 - i) Method 1 or 1A (40 CFR Part 60, Appendix A–1) to select sampling port locations and the number of traverse points in each stack or duct. If you are complying with the concentration provision in §63.11550(b), sampling sites must be located at the outlet of the control device and prior to any releases to the atmosphere. If you are complying with the percent reduction provision in §63.11550(b), sampling sites must be located at the inlet and outlet of the control device and prior to any releases to the atmosphere. [§63.11551(c)(1)(i)]
 - ii) Method 2, 2A, 2C, 2D, 2F (40 CFR Part 60, Appendix A–1), or Method 2G (40 CFR Part 60, Appendix A–2) to determine the volumetric flow rate of the stack gas. [§63.11551(c)(1)(ii)]
 - iii) Method 3, 3A, or 3B (40 CFR Part 60, Appendix A–2) to determine the dry molecular weight of the stack gas. You may use ANSI/ASME PTC 19.10–1981, “Flue and Exhaust Gas Analyses” (incorporated by reference—see §63.14) as an alternative to EPA Method 3B. [§63.11551(c)(1)(iii)]
 - iv) Method 4 (40 CFR Part 60, Appendix A–3) to determine the moisture content of the stack gas. [§63.11551(c)(1)(iv)]
 - v) Method 5 or 5D (40 CFR Part 60, Appendix A–3) or Method 17 (40 CFR Part 60, Appendix A–6) to determine the concentration of PM or mass rate of PM (front half filterable catch only). If you choose to comply with the percent reduction PM standard, you must determine the mass rate of PM at the inlet and outlet in pounds per hour and calculate the percent reduction in PM. [§63.11551(c)(1)(v)]

- b) Three valid test runs are needed to comprise a performance test. Each run must cover at least one production cycle (charging, melting, and tapping). [§63.11551(c)(2)]
- c) For a source with a single control device exhausted through multiple stacks, you must ensure that three runs are performed by a representative sampling of the stacks satisfactory to the Administrator or his or her delegated representative. You must provide data or an adequate explanation why the stack(s) chosen for testing are representative. [§63.11551(c)(3)]

Monitoring: [§63.11552]

- 1) Except as specified in §63.11552(b)(3), if you own or operate an existing affected source at a large foundry, you must conduct visible emissions monitoring according to the requirements in §63.11552(b)(1) and (2). [§63.11552(b)]
 - a) You must conduct visual monitoring of the fabric filter discharge point(s) (outlets) for any visible emissions (VE) according to the schedule specified in §63.11552(b)(1)(i) and (ii). [§63.11552(b)(1)]
 - i) You must perform a visual determination of emissions once per day, on each day the process is in operation, during melting operations. [§63.11552(b)(1)(i)]
 - ii) If no VE are detected in consecutive daily visual monitoring performed in accordance with Paragraph (b)(1)(i) of this section for 30 consecutive days or more of operation of the process, you may decrease the frequency of visual monitoring to once per calendar week of time the process is in operation, during melting operations. If VE are detected during these inspections, you must resume daily visual monitoring of that operation during each day that the process is in operation, in accordance with §63.11552(b)(1)(i) until you satisfy the criteria of §63.11552 to resume conducting weekly visual monitoring. [§63.11552(b)(1)(ii)]
 - b) If the visual monitoring reveals the presence of any VE, you must initiate procedures to determine the cause of the emissions within one hour of the initial observation and alleviate the cause of the emissions within three hours of initial observation by taking whatever corrective action(s) are necessary. You may take more than three hours to alleviate a specific condition that causes VE if you identify in the monitoring plan this specific condition as one that could lead to VE in advance, you adequately explain why it is not feasible to alleviate this condition within three hours of the time the VE occurs, and you demonstrate that the requested time will ensure alleviation of this condition as expeditiously as practicable. [§63.11552(b)(2)]
- 2) As an alternative to the monitoring requirements for an existing affected source in §63.11552(b)(1) and (2), you may install, operate, and maintain a bag leak detection system for each fabric filter according to the requirements in §63.11552(c). [§63.11552(b)(3)]
 - a) Each bag leak detection system must meet the specifications and requirements in §63.11552(c)(1)(i) through (viii). [§63.11552(c)(1)]
 - i) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of one milligram per actual cubic meter (0.00044 grains per actual cubic foot) or less. [§63.11552(c)(1)(i)]
 - ii) The bag leak detection system sensor must provide output of relative PM loadings. You must continuously record the output from the bag leak detection system using electronic or other means (e.g., using a strip chart recorder or a data logger). [§63.11552(c)(1)(ii)]
 - iii) The bag leak detection system must be equipped with an alarm system that will sound when the system detects an increase in relative particulate loading over the alarm set point established according §63.11552(c)(1)(iv), and the alarm must be located such that it can be heard by the appropriate plant personnel. [§63.11552(c)(1)(iii)]

- iv) In the initial adjustment of the bag leak detection system, you must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time. [§63.11552(c)(1)(iv)]
- v) Following initial adjustment, you must not adjust the averaging period, alarm set point, or alarm delay time without approval from the Administrator or delegated authority, except as provided in §63.11552(c)(1)(vi). [§63.11552(c)(1)(v)]
- vi) Once per quarter, you may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required by §63.11552(c)(2). [§63.11552(c)(1)(vi)]
- vii) You must install the bag leak detection sensor downstream of the fabric filter. [§63.11552(c)(1)(vii)]
- viii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors. [§63.11552(c)(1)(viii)]
- b) You must prepare a site-specific monitoring plan for each bag leak detection system. You must operate and maintain each bag leak detection system according to the plan at all times. Each monitoring plan must describe the items in §63.11552(c)(2)(i) through (vi). [§63.11552(c)(2)]
 - i) Installation of the bag leak detection system; [§63.11552(c)(2)(i)]
 - ii) Initial and periodic adjustment of the bag leak detection system, including how the alarm set-point and alarm delay time will be established; [§63.11552(c)(2)(ii)]
 - iii) Operation of the bag leak detection system, including quality assurance procedures; [§63.11552(c)(2)(iii)]
 - iv) How the bag leak detection system will be maintained, including a routine maintenance schedule and spare parts inventory list; [§63.11552(c)(2)(iv)]
 - v) How the bag leak detection system output will be recorded and stored; and [§63.11552(c)(2)(v)]
 - vi) Corrective action procedures as specified in §63.11552(c)(3). [§63.11552(c)(2)(vii)]
- c) Except as provided in §63.11552(c)(4), you must initiate procedures to determine the cause of every alarm from a bag leak detection system within one hour of the alarm and alleviate the cause of the alarm within three hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to, the following: [§63.11552(c)(3)]
 - i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions; [§63.11552(c)(3)(i)]
 - ii) Sealing off defective bags or filter media; [§63.11552(c)(3)(ii)]
 - iii) Replacing defective bags or filter media, or otherwise repairing the control device; [§63.11552(c)(3)(iii)]
 - iv) Sealing off a defective fabric filter compartment; [§63.11552(c)(3)(iv)]
 - v) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system; or [§63.11552(c)(3)(v)]
- d) You may take more than three hours to alleviate a specific condition that causes an alarm if you identify in the monitoring plan this specific condition as one that could lead to an alarm, adequately explain why it is not feasible to alleviate this condition within three hours of the time the alarm occurs, and demonstrate that the requested time will ensure alleviation of this condition as expeditiously as practicable. [§63.11552(c)(4)]

- 3) If you use a control device other than a fabric filter for new or existing affected sources subject to §63.11550(b), you must submit a request to use an alternative monitoring procedure as required in §63.8(f)(4). [§63.11552(d)]

Record Keeping:

- 1) You must record the information specified in §63.11553(c)(2) to document conformance with the management practices plan required in §63.11550(a). [§63.11552(a)]
- 2) You must keep the records specified in §63.11553(c)(1) through (5). [§63.11553(c)]
 - a) As required in §63.10(b)(2)(xiv), you must keep a copy of each notification that you submitted to comply with this subpart and all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted. [§63.11553(c)(1)]
 - b) You must keep records to document conformance with the management practices plan required by §63.11550 as specified in §63.11553(c)(2)(i) and (ii). [§63.11553(c)(2)]
 - i) For melting furnaces equipped with a cover or enclosure, records must identify each melting furnace equipped with a cover or enclosure and document that the procedures in the management practices plan were followed during the monthly inspections. These records may be in the form of a checklist. [§63.11553(c)(2)(i)]
 - ii) Records documenting that you purchased only metal scrap that has been depleted of HAP metals (to the extent practicable) charged to the melting furnace. If you purchase scrap metal specifically for the HAP metal content for use in alloying or to meet specifications for the casting, you must keep records to document that the HAP metal is included in the material specifications for the cast metal product. [§63.11553(c)(2)(ii)]
 - c) You must keep the records of all performance tests, inspections and monitoring data required by §§63.11551 and 63.11552, and the information identified in §63.11553(c)(3)(i) through (vi) for each required inspection or monitoring. [§63.11553(c)(3)]
 - i) The date, place, and time of the monitoring event; [§63.11553(c)(3)(i)]
 - ii) Person conducting the monitoring; [§63.11553(c)(3)(ii)]
 - iii) Technique or method used; [§63.11553(c)(3)(iii)]
 - iv) Operating conditions during the activity; [§63.11553(c)(3)(iv)]
 - v) Results, including the date, time, and duration of the period from the time the monitoring indicated a problem (e.g., VE) to the time that monitoring indicated proper operation; and [§63.11553(c)(3)(v)]
 - vi) Maintenance or corrective action taken (if applicable). [§63.11553(c)(3)(vi)]
 - d) If you own or operate a new or existing affected source at a small foundry that is not subject to §63.11550(b), you must maintain records to document that your facility melts less than 6,000 tpy total of copper, other nonferrous metal, and all associated alloys (excluding aluminum) in each calendar year. [§63.11553(c)(4)]
 - e) If you use a bag leak detection system, you must keep the records specified in §63.11553(c)(5)(i) through (iii). [§63.11553(c)(5)]
 - i) Records of the bag leak detection system output. [§63.11553(c)(5)(i)]
 - ii) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings. [§63.11553(c)(5)(ii)]
 - iii) The date and time of all bag leak detection system alarms, and for each valid alarm, the time you initiated corrective action, the corrective action taken, and the date on which corrective action was completed. [§63.11553(c)(5)(iii)]
- 3) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1). As specified in §63.10(b)(1), you must keep each record for five years following the

date of each recorded action. For records of annual metal melt production, you must keep the records for five years from the end of the calendar year. You must keep each record onsite for at least two years after the date of each recorded action according to §63.10(b)(1). You may keep the records offsite for the remaining three years. [§63.11553(d)]

- 4) If a deviation occurs during a semi-annual reporting period, you must submit a compliance report to your permitting authority according to the requirements in §63.11553(e)(1) and (2). [§63.11553(e)]
 - a) The first reporting period covers the period beginning on the compliance date specified in §63.11545 and ending on June 30 or December 31, whichever date comes first after your compliance date. Each subsequent reporting period covers the semi-annual period from January 1 through June 30 or from July 1 through December 31. Your compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after the end of the semi-annual reporting period. [§63.11553(e)(1)]
 - b) A compliance report must include the information in §63.11553(e)(2)(i) through (iv). [§63.11553(e)(2)]
 - i) Company name and address. [§63.11553(e)(2)(i)]
 - ii) Statement by a responsible official, with the official's name, title, and signature, certifying the truth, accuracy and completeness of the content of the report. [§63.11553(e)(2)(ii)]
 - iii) Date of the report and beginning and ending dates of the reporting period. [§63.11553(e)(2)(iii)]
 - iv) Identification of the affected source, the pollutant being monitored, applicable requirement, description of deviation, and corrective action taken. [§63.11553(e)(2)(iv)]

Reporting:

- 1) You must submit the Initial Notification required by §63.9(b)(2) no later than 120 calendar days after June 25, 2009, or within 120 days after the source becomes subject to the standard. The Initial Notification must include the information specified in §63.11553(a)(1) through (3) and may be combined with the Notification of Compliance Status required in §63.11553(b). [§63.11553(a)]
 - a) The name and address of the owner or operator; [§63.11553(a)(1)]
 - b) The address (i.e., physical location) of the affected source; and [§63.11553(a)(2)]
 - c) An identification of the relevant standard, or other requirement, that is the basis of the notification and source's compliance date. [§63.11553(a)(3)]
- 2) You must submit the Notification of Compliance Status required by §63.9(h) no later than 120 days after the applicable compliance date specified in §63.11545 unless you must conduct a performance test. If you must conduct a performance test, you must submit the Notification of Compliance Status within 60 days of completing the performance test. Your Notification of Compliance Status must indicate if you are a small or large foundry as defined in §63.11556, the production amounts as the basis for the determination, and if you are a large foundry, whether you elect to comply with the control efficiency requirement or PM concentration limit in §63.11550(b). In addition to the information required in §63.9(h)(2) and §63.11551, your notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official: [§63.11553(b)]
 - a) “This facility will operate in a manner that minimizes HAP emissions from the melting operations to the extent possible. This includes at a minimum that the owners and/or operators of the affected source will cover or enclose each melting furnace that is equipped with a cover or enclosure during melting operations to the extent practicable as required in 63.11550(a)(1).” [§63.11553(b)(1)]
 - b) “This facility agrees to purchase only metal scrap that has been depleted (to the extent practicable) of aluminum foundry HAP, copper foundry HAP, or other nonferrous foundries HAP (as applicable) in the materials charged to the melting furnace, except for metal scrap that

is purchased specifically for its HAP metal content for use in alloying or to meet specifications for the casting as required by 63.11550(a)(2).” [§63.11553(b)(2)]

- c) “This facility has prepared and will operate by a written management practices plan according to §63.11550(a)(3).” [§63.11553(b)(3)]
- d) If the owner or operator of an existing affected source at a large foundry is certifying compliance based on the results of a previous performance test: “This facility complies with §63.11550(b) based on a previous performance test in accordance with §63.11551(b).” [§63.11553(b)(4)]
- e) This certification of compliance is required by the owner or operator that installs bag leak detection systems: “This facility has installed a bag leak detection system in accordance with §63.11552(b)(3) or (c), has prepared a bag leak detection system monitoring plan in accordance with §63.11552(c), and will operate each bag leak detection system according to the plan.” [§63.11553(b)(5)]

Permit Condition EU0010-002 through EU0060-002

40 CFR Part 63, Subpart ZZZZZZ

National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries

– §63.111555 - General Provisions

40 CFR Part 63, Subpart A, General Provisions

Table 1 to 40 CFR Part 63, Subpart ZZZZZZ shows which parts of the General Provisions in §§63.1 through 63.16 (40 CFR Part 63, Subpart A) apply to you.

Permit Condition EU0010-003 through EU0060-003

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 percent.
- 2) Exception:
 - a) Existing sources 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 percent opacity.
 - b) 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 40 percent.

Monitoring:

- 1) The permittee shall conduct opacity readings on the emission unit(s) using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit(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) Observations must be made once per month. If a violation is noted, then
 - b) Weekly observations shall be conducted for a minimum of eight (8) consecutive weeks. Should no violation of this regulation be observed during this period then monitoring reverts to monthly monitoring.

Record Keeping:

- 1) The permittee shall maintain records of all observation results (see Attachment B), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (See Attachment C)

Reporting:

- 1) The permittee shall report to the City of St. Louis Air Pollution Control Program, 1520 Market Street, Room 4058, St. Louis, MO 63103, and the Air Pollution Control Program's 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 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 (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 on the date of permit issuance. The following is only an excerpt from the regulation or code, and is provided for summary purposes only

City of St. Louis Ordinance 68657, §16 Open Burning Restrictions

- 1) No person shall cause, suffer, allow or permit the open burning of refuse.
- 2) No person shall conduct, cause or permit the conduct of a salvage operation by open burning.
- 3) No person shall conduct, cause or permit the disposal of trade waste by open burning.
- 4) No person shall cause or permit the open burning of leaves, trees or the byproducts therefrom, grass, or other vegetation.
- 5) It shall be prima-facie evidence that the person who owns or controls property on which open burning occurs, has caused or permitted said open burning.

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 City of St. Louis Air Pollution Control Program 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 City of St. Louis Air Pollution Control Program 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 City of St. Louis Air Pollution Control Program 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 City of St. Louis Air Pollution Control Program, the Director or commission to take appropriate action, under Sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.
- 5) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

10 CSR 10-6.060 Construction Permits Required

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

10 CSR 10-6.065 Operating Permits

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

10 CSR 10-6.080 Emission Standards for Hazardous Air Pollutants and 40 CFR Part 61

Subpart M National Emission Standard for Asbestos

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

10 CSR 10-6.100 Alternate Emission Limits

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

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

- 1) The permittee shall submit full emissions report either electronically via MoEIS, which requires Form 1.0 signed by an authorized company representative, or on Emission Inventory Questionnaire (EIQ) paper forms on the frequency specified in this rule and in accordance with the requirements outlined in this rule. Alternate methods of reporting the emissions, such as spreadsheet file, can be submitted for approval by the Director.
- 2) The permittee may be required by the Director to file additional reports.

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

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

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

10 CSR 10-6.150 Circumvention

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

10 CSR 10-6.170

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

Emission Limitation:

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

- d) Application of water; and
- e) Planting and maintenance of vegetative ground cover.

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, MO 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 10-6.165 Restriction of Emission of Odors This requirement is not federally enforceable.

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

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

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

Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone

- 1) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - a) All containers in which a Class I or Class II substance is stored or transported, all products containing a Class I substance, and all products directly manufactured with a Class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
 - b) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
 - c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
 - d) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
- 2) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
 - a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
 - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).
 - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
 - f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

- 3) If the permittee manufactures, transforms, imports, or exports a Class I or Class II substance, the permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A, Production and Consumption Controls.
- 4) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.
- 5) The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR Part 82*

10 CSR 10-6.280 Compliance Monitoring Usage

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

V. General Permit Requirements

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

10 CSR 10-6.065, §(5)(E)2 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 City of St. Louis Air Pollution Control Program, 1520 Market Street, Room 4058, St. Louis, MO 63103, and the Air Pollution Control Program's 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 semi-annually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following:
 - a) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and
 - b) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
- 4) The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards, or work practices. These certifications shall be submitted annually by April 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as the City of St. Louis Air Pollution Control Program, 1520 Market Street, Room 4058, St. Louis, MO 63103. 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's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, KS 66101, and the City of St. Louis Air Pollution Control Program, 1520 Market Street, Room 4058, St. Louis, MO 63103, 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 Robert Fuerst, President. 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) The 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 - Method 9 Opacity Emissions Observation
 10 CSR 10-6.220 Compliance Demonstration**

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

Hour	Minute	Seconds				Steam Plume (check if applicable)		Comments
		0	15	30	45	Attached	Detached	
	0							
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							

SUMMARY OF AVERAGE OPACITY				
Set Number	Time		Opacity	
	Start	End	Sum	Average

Readings ranged from _____ to _____ % opacity.

Was the emission unit in compliance at the time of evaluation? _____
 YES NO _____ Signature of Observer

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 May 30, 2008;
- 2) 2009 Emissions Inventory Questionnaire, received May 25, 2010;
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition;
- 4) City of St. Louis Air Pollution Control Program Construction Permit No. 07-04-005 for the construction or modification of Thermatrix Model CG3000 Reverbatory Furnace;
- 5) City of St. Louis Air Pollution Control Program Source Registration Permit No. SR07.029 for the construction of Thermatrix Model CG3000 Reverbatory Furnace; and

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.

40 CFR Part 63, Subpart *ZZZZZZ*, *National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries*

The installation operates five brass melting furnaces and one aluminum furnace and is an area source of HAPs. The aluminum foundry and the other nonferrous foundries have an annual metal melt production of at least 600 tons per year of aluminum, copper, and other nonferrous metals, including all associated alloys. According to §63.11544 of this subpart, the installation is subject to 40 CFR Part 63, Subpart *ZZZZZZ*. Therefore Connector Castings will be required to comply with the provisions of 40 CFR Part 63, Subpart *ZZZZZZ*.

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.

- 1) 10 CSR 10-6.400, *Restriction of Emission of Particulate Matter From Industrial Processes*
There are six furnaces at the installation that are sources of particulate matter emissions and the

furnaces are equipped with fabric filters for particulate emissions control. The installation is required by 40 CFR Part 63, Subpart ZZZZZZ to route particulate emissions (PM) from the melting furnaces through PM control devices that achieve control efficiency of at least 95 percent. According to 10 CSR 10-6.400(1)(B)15, any particulate matter emission unit that is subject to a federally enforceable requirement to install, operate, and maintain a particulate matter control device system that controls at least 90 percent of particulate emissions is not subject to 10 CSR 10-6.400. Therefore, the installation is not subject to the provisions of this rule.

2) St. Louis City Ordinances Nos. 64749, 65108, 65488, 65442 and 65645

These ordinances were reviewed and considered at the time the application for this permit was submitted. Since that time, these ordinances have been repealed and replaced with St. Louis City Ordinance No. 68657. The only section of Ordinance 68657 that corresponds to a rescinded ordinance included in the State SIP and therefore federally enforceable is Section 16 - Open Burning Restrictions. This section of the new ordinance is the only section included in the operating permit at this time.

Construction Permit Revisions

There were no special conditions associated with the City of St. Louis Air Pollution Control Program Construction Permits.

New Source Performance Standards (NSPS) Applicability

There are no NSPS standards that are currently applicable to this installation.

Maximum Achievable Control Technology (MACT) Applicability

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

1) 40 CFR Part 63, Subpart RRR, *National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production*

Connector Castings, Inc. is a foundry casting only clean aluminum and therefore is not considered to be a secondary aluminum production operation per 40 CFR 63.1500, and as such is not subject to the Secondary Aluminum MACT.

2) 40 CFR Part 63, Subpart ZZZZZZ, *National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries*

The installation melts more than 600 tons per year of aluminum, copper, and other nonferrous metals, including all associated alloys. According to §63.11544, this subpart applies to foundries that include the casting of complex metal shapes and melt 600 or more tons per year of metal, and are either:

- a) An aluminum foundry that uses material containing beryllium, cadmium, lead, or nickel in amount $\geq 0.1\%$ (by weight or $\geq 1.0\%$ manganese (by weight));
- b) A copper foundry that uses material containing lead or nickel in amount $\geq 0.1\%$ (by weight or $\geq 1.0\%$ manganese (by weight));
or
- c) An other nonferrous foundry that uses material containing chromium, lead, or nickel in amount $\geq 0.1\%$ (by weight)
- d) As stated in “Applicable Requirements Included in the Operating Permit but not in the Application or Previous Operating Permits” section of the Statement of Basis, the installation is subject to this subpart. Connector Castings, Inc has opted to comply with the required fabric

filter control device of Subpart ZZZZZZ by employing at least one of the following monitoring methods:

- i) Visible emissions monitoring or less,
 - ii) Bag leak detection system: for future leak detection and chart recording, pending cost analysis and installation.
- 3) All requirements (i.e. emission standards and management practices; required control methods and monitoring requirements; notification, reporting, and record keeping requirements work and operational practices, monitoring, exceedance determination, record keeping and reporting) of Subpart ZZZZZZ have been incorporated into this permit.

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.

This regulation has been included in the operating permit because it applies to any demolition or renovation (as outlined in 40 CFR 61.145) of buildings containing asbestos at the installation.

Other Regulatory Determinations

- 1) 10 CSR 10-6.400, *Restriction of Emission of Particulate Matter From Industrial Process*
10 CSR 10-6.400 restricts the emission of particulate matter in the source gas of an operation or activity except where 10 CSR 10-2.040, 10 CSR 10-3.060, 10 CSR 10-4.040, 10 CSR 10-5.030 and/or 10 CSR 10-6.070 would be applied (see “Other Air Regulations Determined Not to Apply to the Operating Permit” section of the Statement of Basis) and the provisions of this rule does not apply to the following:
 - a) According to 10 CSR 10-6.400(1)(B)15., the six furnaces with a federally enforceable PM control requirement of 90 percent or more are exempt from this rule.
 - i) EU0010 Furnace #1 – Electric Powered Induction Furnace; (EP-12)
 - ii) EU0020 Furnace #2 – Electric Powered Induction Furnace;
 - iii) EU0030 Furnace #3 – Electric Powered Induction Furnace;
 - iv) EU0040 Furnace #4 – Electric Powered Induction Furnace;
 - v) EU0050 Furnace #5 – Electric Powered Induction Furnace; and
 - vi) EU0060 Aluminum Melting Thermtronix Furnace
 - b) According to 10 CSR 10-6.400(1)(B)7., fugitive sources are not subject to this rule. The units listed in the table below, listed as units without limitation, are fugitive sources that do not emit regulated pollutants from a discrete stack or vent. Emissions from these are not contained in an enclosure with a forced-air vent or stack. These sources do not have any type of capture/control devices and are not covered or required to control their emissions based on any past or current regulations. These sources are not subject to any specific rule except the installation wide requirement of 10 CSR 10-6.170 and must comply with this requirement.

EQ Ref. No.	Description	EQ Ref. No.	Description
EP-1	One Shell Core Machine	EP-14	Brass Shakeout
EP-2	Aluminum Muller & Sand Handling Conveyor	EP-22	Metal Grinder
EP-3	Stahl 4500 Aluminum Melting Furnace	EP-30	Make Up Air System
EP-4	Aluminum Melting Tilt Furnace	EP-32	Brass Casting Cooling
EP-5	Aluminum Pouring	EP-33	Aluminum Degassing
EP-6	Aluminum Shakeout	EP-34	Aluminum Cutoff
EP-11	Brass Muller & Sand Handling Conveyor	EP-35	Brass Cutoff
EP-13	Brass Pouring	EP-37	Permanent Mold

2) 10 CSR 10-6.065(3)(D), Operating Permits

The installation operates combustion units of varying size listed in the table below as units without limitation. All of these combustion units emit only combustion products, produce less than one hundred fifty (150) pounds per day of any air contaminant and have a maximum rated capacity of less than ten (10) million British thermal units (BTUs) per hour heat input by using exclusively natural gas and/or propane. The Air Pollution Control Program has determined that units such as these are not necessary to include in the operating permit.

EQ Ref. No.	Description	Fuel Type	Maximum Heat Input
EP-18	Heating Boiler 4	Natural Gas	2.75 MMBtu/hr
EP-19	Three Ladle Preheats	Natural Gas	0.35 MMBtu/hr (each)
EP-30	Four Make Up Air System	Natural Gas	Two 3.25 MMBtu/hr (each) One 1.625 MMBtu/hr One 4.50 MMBtu/hr

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

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

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

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

Prepared by:

Berhanu A. Getahun
Environmental Engineer

CERTIFIED MAIL: 70093410000190189022
RETURN RECEIPT REQUESTED

Mr. Robert Fuerst
Connector Castings, Inc.
1600 North 22nd Street
St. Louis, MO 63106

Re: Connector Castings, Inc., 510-1556
Permit Number: **OP2011-031**

Dear Mr. Fuerst:

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

You may appeal this permit to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.078.16 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within thirty (30) days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If you send your appeal by registered or certified mail, we will deem it filed on the date you mailed it. If you send your appeal by a method other than registered or certified mail, we will deem it filed on the date the AHC receives it.

If you have any questions or need additional information regarding this permit, please do not hesitate to contact Berhanu Getahun at the St. Louis Regional Office, 7545 S. Lindbergh, Suite 210, St. Louis, MO 63125, or by telephone at (314) 416-2960. You may also contact me with the Department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by telephone at (573) 751-4817. Thank you for your time and attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

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

MJS/bgk

Enclosures

c: City of St. Louis Air Pollution Control Program
PAMS File: 2008-06-005