



Missouri Department of dnr.mo.gov

NATURAL RESOURCES

Michael L. Parson, Governor

Carol S. Comer, Director

JAN 28 2020

Mr. Rob Mondy
O'Fallon Casting, LLC
600 Cannonball Lane
O'Fallon, MO 63366

Re: O'Fallon Casting, LLC, 183-0077
Permit Number: OP2020-001

Dear Mr. Mondy

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.

This permit may include requirements with which you may not be familiar. If you would like the department to meet with you to discuss how to understand and satisfy the requirements contained in this permit, an appointment referred to as a Compliance Assistance Visit (CAV) can be set up with you. To request a CAV, please contact your local regional office or fill out an online request. The regional office contact information can be found at <http://dnr.mo.gov/regions/>. The online CAV request can be found at <http://dnr.mo.gov/cav/compliance.htm>.

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 contact the Air Pollution Control Program (APCP) at (573) 751-4817, or you may write to the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

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

MJS/JJA

Enclosures

c: PAMS File: 2017-10-047





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 herein.

Intermediate Operating Permit Number: OP2020-001
Expiration Date: JAN 28 2025
Installation ID: 183-0077
Project Number: 2017-10-047

Installation Name and Address

O'Fallon Casting, LLC
600 Cannonball Lane
O'Fallon, MO 63366
St. Charles County

Parent Company's Name and Address

N/A

Installation Description:

O'Fallon Casting, LLC is a nonferrous investment aluminum and copper casting manufacturing plant. The installation is a synthetic minor source of Volatile Organic Compounds (VOCs).

As part of the process, the installation forms ceramic shells from wax patterns with a coated slurry, sand, and various flours. As the volatile components of the slurry evaporate, a ceramic shell is formed. These shells are used to cast molten aluminum and copper alloys into the casting products.

JAN 28 2020

Effective Date

Director or Designee
Department of Natural Resources



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Effective Date

Director or Designee
Department of Natural Resources

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I. Installation Equipment Listing

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.

<u>Emission Unit #</u>	<u>Description of Emission Unit</u>
EP-02	Wax Assembly (Natural Gas)
EP-03	Wax Assembly (Natural Gas)
EP-04	Shell Building
EP-05	Autoclave/Boiler (Natural Gas)
EP-06	Wax Burnout Furnace 1 (Natural Gas)
EP-07	Wax Burnout Furnace 2 (Natural Gas)
EP-08	Wax Burnout Furnace 3 (Natural Gas)
EP-12	Aluminum Electric Melting Furnace/Crucible
EP-12a	Thermtronix Electric Aluminum Melter
EP-13	Pouring/Casting Aluminum
EP-14	Copper Alloy Melting
EP-15	Copper Alloy Casting
EP-16	Acid Bath Line
EP-17	Hand Sanding
EP-19	Horizontal Air Flow Cabinet Oven #1 (Natural Gas)
EP-20	Comfort Heating Units (Natural Gas)
EP-21	Horizontal Air Flow Cabinet Oven #2 (Natural Gas)
EP-23	Preheat/Burnout Furnace (Natural Gas)
EP-24	Natural Gas Emergency Lights Generator
EP-25	Natural Gas Critical Equipment Emergency Generator
EP-26	(4) Sand Rain Makers
EU0002	(2) Hand Sanders
EU0001	Gate Grinding

EMISSION UNITS WITHOUT SPECIFIC LIMITATIONS

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

<u>Emission Unit #</u>	<u>Description of Emission Unit</u>
EP04	Shell Building
EP16	Acid Bath Line

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. The plant wide conditions apply to all emission units at this installation. All emission units are listed in Section I under Emission Units with Limitations and Emission Units without Limitations.

<p style="text-align: center;">PERMIT CONDITION PW062011-001 10 CSR 10-6.060 Construction Permits Required 10 CSR 10-6.065 Voluntary Permit Conditions Construction Permit #062011-001, Issued June 7th, 2011</p>

Emission Limitation

- 1) Annual Emission Limit of Volatile Organic Compounds (VOC)
 - a) The permittee shall emit into the atmosphere less than 100 tons of Volatile Organic Compounds (VOC) from the entire installation in any 12-month period. [Special Condition 1.A.]
 - b) The permittee shall use Attachment A or equivalent forms, such as electronic forms, which contain the same calculation method as Attachment A to demonstrate compliance. [Special Condition 1.B.]

Recordkeeping and Reporting

- 1) The permittee shall maintain all records required by this permit for not less than five (5) years and shall make them available to any Missouri Department of Natural Resources' personnel upon request.
- 2) The permittee shall report to the Air Pollution Control Program's Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after any exceedances of the limitations imposed by this permit.
- 3) The permittee shall report any deviations from the requirements of this permit condition in the annual compliance certification required by Section V of this permit.

PERMIT CONDITION MACT ZZZZZZ

10 CSR 10-6.075 Maximum Achievable Control Technology and
40 CFR Part 63, Subpart A General Provisions and Subpart ZZZZZZ—National Emission Standards
for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous
Foundries

Management Practices

- 1) The permittee shall comply with the requirements in §63.11550(a)(1) through (3).
 - a) 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)]
 - b) 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)]
 - c) Prepare and operate pursuant to a written management practices plan. The management practices plan must include the required management practices in §63.11550(a)(1) and (2) of this section 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 this section. [§63.11550(a)(3)]
- 2) These standards apply at all times. [§63.11550(d)]

Monitoring, Recordkeeping, and Reporting

- 1) The permittee shall 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) The permittee shall keep the records specified in §63.11553(c)(1) through (5). [§63.11553(c)]
 - a) As required in §63.10(b)(2)(xiv), the permittee shall keep a copy of each notification that the permittee submitted to comply with MACT ZZZZZZ and all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted. [§63.11553(c)(1)]
 - b) The permittee shall 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 the permittee purchased only metal scrap that has been depleted of HAP metals (to the extent practicable) charged to the melting furnace. If the permittee purchases scrap metal specifically for the HAP metal content for use in alloying or to meet specifications for the casting, the permittee 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)]

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- c) The permittee shall 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 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) The permittee shall maintain records to document that the 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)]
- 3) The permittee shall keep each record for 5 years following the date of each recorded action. 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). For records of annual metal melt production, the permittee shall keep the records for 5 years from the end of the calendar year. The permittee shall keep each record onsite for at least 2 years after the date of each recorded action according to §63.10(b)(1). The permittee may keep the records offsite for the remaining 3 years. [§63.11553(d)]
 - 4) If a deviation occurs during a semiannual reporting period, the permittee shall submit a compliance report to the Director according to the requirements in §63.11553(e)(1) and (2). [§63.11553(e)]
 - a) The reporting period covers the semiannual period from January 1 through June 30 or from July 1 through December 31. The compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after the end of the semiannual 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)]
 - 5) The permittee shall report any deviations from the requirements of this permit condition in the annual compliance certification required by Section V of this permit.

III. Emission Unit Specific Emission Limitations

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

PERMIT CONDITION MACT ZZZZ	
10 CSR 10-6.075 Maximum Achievable Control Technology and 40 CFR Part 63, Subpart A General Provisions and Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	
Emission Point	Description
EP-24	Natural Gas Emergency Lights Generator
Construction Date	01/01/2003
Power Rating	10 kW

Operational Limitation

- 1) The permittee shall comply with the operating limitations in Table 2b of MACT ZZZZ. [§63.6603(a)]

Table 2d of MACT ZZZZ

For each	The permittee shall meet the following requirement, except during periods of startup
Emergency stationary SI RICE ¹	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; ² b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

- 2) The permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions: [§63.6625(e)]
- 3) The permittee shall install a non-resettable hour meter if one is not already installed. [§63.6625(f)]

¹ If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table MACT ZZZZ, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

² The permittee has the option to utilize an oil analysis program as described in §63.6625(j) in order to extend the specified oil change requirement.

- 4) The permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [§63.6625(h)]
- 5) The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Table 2d of MACT ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2d of MACT ZZZZ. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the permittee is not required to change the oil. If any of the limits are exceeded, the permittee must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee must change the oil within 2 business days or before commencing operation, whichever is later. The permittee shall keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [§63.6625(j)]
- 6) The permittee shall operate the emergency stationary RICE according to the requirements in §63.6640(f)(1) through (4). In order for the engine to be considered an emergency stationary RICE under MACT ZZZZ, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in §63.6640(f)(1) through (4), is prohibited. If the permittee does not operate the engine according to the requirements in §63.6640(f)(1) through (4), the engine will not be considered an emergency engine under and must meet all requirements for non-emergency engines. [§63.6640(f)]
 - a) There is no time limit on the use of emergency stationary RICE in emergency situations. [§63.6640(f)(1)]
 - b) The permittee may operate the emergency stationary RICE for any combination of the purposes specified in §63.6640(f)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by §63.6640(f)(4) counts as part of the 100 hours per calendar year allowed by §63.6640(f)(2). [§63.6640(f)(2)]
 - i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. [§63.6640(f)(2)(i)]
 - c) Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in §63.6640(f)(2). Except as provided in §63.6640(f)(4)(i), the 50 hours per year for non-emergency situations cannot be used for peak shaving, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [§63.6640(f)(4)]

General Compliance

- 1) The permittee shall be in compliance with the emission limitations, operating limitations, and other requirements that apply at all times. [§63.6605(a)]
- 2) At all times the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [§63.6605(b)]

Continuous Compliance

The permittee shall demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Table 2d of MACT ZZZZ that apply according to methods specified in Table 6 of MACT ZZZZ. [§63.6640(a)]

Table 6 of MACT ZZZZ

For each	Complying with the requirement to	The permittee shall demonstrate continuous compliance by
existing emergency and black start stationary RICE located at an area source of HAP,	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow the permittee's maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

Recordkeeping and Reporting

- 1) The permittee shall also report each instance in which the permittee did not meet the requirements in Table 8 to MACT ZZZZ that apply. [§63.6640(e)]
- 2) The permittee shall keep the records required in Table 6 of MACT ZZZZ to show continuous compliance with each emission or operating limitation that applies. [§63.6655(d)]
- 3) The permittee shall keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to the maintenance plan; [§63.6655(e)]
- 4) The permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. The permittee shall keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [§63.6655(f)]
- 5) Records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1). [§63.6660(a)]

- 6) As specified in §63.10(b)(1), the permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [§63.6660(b)]
- 7) The permittee shall keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). [§63.6660(c)]
- 8) The permittee shall report any deviations from the requirements of this permit condition in the annual compliance certification required by Section V of this permit.

PERMIT CONDITION 6.220	
10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants	
Emission Point	Description
EP-12	Aluminum Electric Melting Furnace/Crucible
EP-12a	Thermtronix Aluminum Melter
EP-13	Pouring/Casting Aluminum
EP-14	Copper Alloy Melting
EP-15	Copper Alloy Casting
EP-17	Hand Sanding
EP-26	(4) Sand Rain Makers
EU0002	(2) Hand Sanders
EU0001	Gate Grinding

Emission Limitation:

- 1) The permittee shall not cause or permit to be discharged into the atmosphere from these emission units any visible emissions with an opacity greater than 20 percent for any continuous six-minute period. [10 CSR 10-6.220(3)(A)1]
- 2) Exception: The permittee may discharge into the atmosphere from any emission unit visible emissions with an opacity up to 40 percent for one continuous six-minute period in any 60 minutes. [10 CSR 10-6.220(3)(A)2]
- 3) Failure to demonstrate compliance with 10 CSR 10-6.220(3)(A) solely because of the presences of uncombined water shall not be a violation. [10 CSR 10-6.220(3)(B)]

Monitoring:

- 1) Monitoring schedule:
 - a) The permittee shall conduct weekly observations for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then:
 - i) The permittee shall conduct observations once every two weeks for a period of eight weeks. If a violation is noted, the permittee shall revert to weekly monitoring. Should no violation of this regulation be observed during this period then:
 - ii) The permittee shall conduct observations once per month. If a violation is noted, the permittee shall revert to weekly monitoring.
- 2) If the permittee reverts to weekly monitoring at any time, the monitoring schedule shall progress in an identical manner from the initial monitoring schedule.
- 3) Observations are only required when the emission units are operating and when the weather conditions allow.
- 4) Issuance of a new, amended, or modified operating permit does not restart the monitoring schedule.
- 5) The permittee shall conduct visible emissions observation on these emission units using the procedures contained in U.S. EPA Test Method 22. Each Method 22 observation shall be conducted

for a minimum of six-minutes. If no visible emissions are observed from the emission unit using Method 22, then no Method 9 is required for the emission unit.

- 6) For emission units with visible emissions, the permittee shall have a certified Method 9 observer conduct a U.S. EPA Test Method 9 opacity observation. The permittee may choose to forego Method 22 observations and instead begin with a Method 9 opacity observation. The certified Method 9 observer shall conduct each Method 9 opacity observation for a minimum of 30-minutes.

Record Keeping:

- 1) The permittee shall maintain records of all observation results for each emission unit using Attachments C and D or equivalent forms.
- 2) The permittee shall make these records available within a reasonable period of time for inspection to the Department of Natural Resources' personnel upon request.
- 3) The permittee shall retain all records for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program's Compliance/Enforcement Section at P.O. Box 176, Jefferson City, MO 65102 or AirComplianceReporting@dnr.mo.gov, no later than ten days after an exceedance of the emission limitation.
- 2) The permittee shall report any deviations from the requirements of this permit condition in the annual compliance certification required by Section V of this permit.

PERMIT CONDITION 6.261	
10 CSR 10-6.261 Control of Sulfur Dioxide Emissions	
Emission Point	Description
EP-02	Wax Assembly (Natural Gas)
EP-03	Wax Assembly (Natural Gas)
EP-05	Autoclave/Boiler (Natural Gas)
EP-06	Wax Burnout Furnace 1 (Natural Gas)
EP-07	Wax Burnout Furnace 2 (Natural Gas)
EP-08	Wax Burnout Furnace 3 (Natural Gas)
EP-19	Horizontal Air Flow Cabinet Oven #1 (Natural Gas)
EP-20	Comfort Heating Units (Natural Gas)
EP-21	Horizontal Air Flow Cabinet Oven #2 (Natural Gas)
EP-23	Preheat/Burnout Furnace (Natural Gas)
EP-24	Natural Gas Emergency Lights Generator
EP-25	Natural Gas Critical Equipment Emergency Generator

Operational Limitation:

The permittee shall combust exclusively natural gas as defined in 40 CFR 72.2

Recordkeeping:

- 1) The permittee shall determine compliance using fuel delivery records.
- 2) The permittee must maintain a record of fuel deliveries.
- 3) The permittee must maintain the fuel supplier information to certify all fuel deliveries. Bills of lading and/or other fuel deliver documentation containing the following information for all fuel purchases or deliveries are deemed acceptable to comply with the requirements of this rule:
 - a) The name, address, and contact information of the fuel supplier;
 - b) The type of fuel;
 - c) The sulfur content or maximum sulfur content expressed in percent sulfur by weight or in ppm sulfur; and
 - d) The heating value of the fuel.
- 4) The permittee must furnish the director all data necessary to determine compliance status.
- 5) Records may be kept electronically using database or workbook systems, as long as all required information is readily available for compliance determinations.
- 6) All records must be kept for a minimum of 5 years and be made available to Department of Natural Resources' personnel upon request.

Reporting:

- 1) The permittee shall report any deviations from the monitoring, recordkeeping, and reporting requirements of this permit condition in the annual compliance certification, as required by Section V of this permit.
- 2) All reports and certifications shall be submitted to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or AirComplianceReporting@dnr.mo.gov.

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 are only excerpts from the regulation or code, and are provided for summary purposes only.

10 CSR 10-6.045 Open Burning Requirements

- 1) General Provisions. The open burning of tires, petroleum-based products, asbestos containing materials, and trade waste is prohibited, except as allowed below. Nothing in this rule may be construed as to allow open burning which causes or constitutes a public health hazard, nuisance, a hazard to vehicular or air traffic, nor which violates any other rule or statute.
- 2) Certain types of materials may be open burned provided an open burning permit is obtained from the director. The permit will specify the conditions and provisions of all open burning. The permit may be revoked if the owner or operator fails to comply with the conditions or any provisions of the permit.

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

- 1) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the director within two business days, in writing, the following information:
 - a) Name and location of installation;
 - b) Name and telephone number of person responsible for the installation;
 - c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
 - d) Identity of the equipment causing the excess emissions;
 - e) Time and duration of the period of excess emissions;
 - f) Cause of the excess emissions;
 - g) Air pollutants involved;
 - h) 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 to the director in writing at least ten days prior to any maintenance, start-up or shutdown activity 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, notice shall be given as soon as practicable prior to the activity.
- 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. The permittee shall retain the most current operating permit issued to this installation on-site. The permittee shall make such permit available within a reasonable period of time to any Missouri Department of Natural Resources personnel upon request.

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

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.

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

- 1) The permittee shall submit a 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) 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.
- 3) The permittee shall submit full EIQ's per the schedule in the rule. In the interim years the installation may submit a Reduced Reporting Form; however, if the installation's emissions increase or decrease by more than five tons when compared to their last submitted full EIQ, the installation shall submit a full EIQ rather than a Reduced Reporting Form.
- 4) In addition to the EIQ submittal schedule outlined above, any permit issued under 10 CSR 10-6.060 section (5) triggers a requirement that a full EIQ be submitted in the first full calendar year after the permitted equipment initially operates.

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 10-6.165 Restriction of Emission of Odors

This is a State Only permit requirement.

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

Emission Limitation:

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

Monitoring:

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

The permittee shall maintain the following monitoring schedule:

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

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

Recordkeeping:

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

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

10 CSR 10-6.180 Measurement of Emissions of Air Contaminants

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

10 CSR 10-6.250 Asbestos Abatement Projects

Certification, Accreditation, and Business Exemption Requirements

This is a State Only permit requirement.

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.

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 at an installation:
 - 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.

40 CFR Part 82 Protection of Stratospheric Ozone (Title VI)

- 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 40 CFR §82.106.
 - b) The placement of the required warning statement must comply with the requirements of 40 CFR §82.108.
 - c) The form of the label bearing the required warning statement must comply with the requirements of 40 CFR §82.110.
 - d) No person may modify, remove, or interfere with the required warning statement except as described in 40 CFR §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 of 40 CFR Part 82:
- a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices described in 40 CFR §82.156.
 - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment described in 40 CFR §82.158.
 - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR §82.161.
 - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with the record keeping requirements of 40 CFR §82.166. ("MVAC-like" appliance as defined at 40 CFR §82.152).
 - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR §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 40 CFR §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 contained 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.*

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.

Permit Duration

10 CSR 10-6.065, §(4)(C)1, §(5)(C)1.B, §(4)(E)2.C

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. If a timely and complete application for a permit renewal is submitted, but the Air Pollution Control Program fails to take final action to issue or deny the renewal permit before the end of the term of this permit, this permit shall not expire until the renewal permit is issued or denied.

General Record Keeping and Reporting Requirements

10 CSR 10-6.065, §(4)(C)1 and §(5)(C)1.C

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 available within a reasonable period of time to any Missouri Department of Natural Resources' personnel upon request.

2) Reporting

- a) All reports shall be submitted to the Air Pollution Control Program, Compliance and Enforcement Section, P. O. Box 176, Jefferson City, MO 65102 or AirComplianceReporting@dnr.mo.gov.
- 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. 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 (5)(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.
- 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.

Risk Management Plan Under Section 112(r)

10 CSR 10-6.065 §(4)(C)1 and §(5)(C)1.D

If the installation is required to develop and register a risk management plan pursuant to Section 112(R) of the Act, the permittee will verify that it has complied with the requirement to register the plan.

General Requirements

10 CSR 10-6.065(4)(C)1.A

- 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(5) and enforcement action for operating without a valid part 70 operating permit.

Reasonably Anticipated Operating Scenarios

10 CSR 10-6.065(4)(C)1.C

There are no reasonably anticipated operating scenarios.

Compliance Requirements

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

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

Emergency Provisions

10 CSR 10-6.065, §(4)(C)1 and §(5)(C)7

- 1) An emergency or upset as defined in 10 CSR 10-6.065(5)(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.

Off-Permit Changes

10 CSR 10-6.065(4)(C)5

- 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 contemporaneous written notice of the change to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or AirComplianceReporting@dnr.mo.gov., as well as Missouri Compliance Coordinator, Air Branch Enforcement and Compliance Assurance Division U. S. EPA Region 7, 11201 Renner Blvd., Lenexa, Kansas 66219.. 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.

Responsible Official

10 CSR 10-6.020(2)(R)34

The application utilized in the preparation of this permit was signed by Vince Gimeno, General Manager. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting

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

Reopening-Permit for Cause

10 CSR 10-6.065 §(4)(E)4 and §(5)(E)6.A(III)(a)-(c)

This permit may be reopened for cause if:

- 1) The Missouri Department of Natural Resources (MoDNR) 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) MoDNR or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

Statement of Basis

10 CSR 10-6.065 §(4)(E)1.A and §(5)(E)1.C

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 A
VOC Tracking Sheet

Emission Unit(s)	Description	Amount Used this Month		VOC Emission Factor		VOC Emissions ¹ (ton/month)
EP-02, EP-03, EP-05, EP-06, EP-07, EP-08, EP-19, EP-20, EP-21, EP-23, EP-24, and EP-25	Natural Gas Combustion		MMscf	5.5 ²	lb/MMscf	
EP-04	Isopropanol		tons	1788 ³	lb/ton	
	3C		tons	1779 ⁴	lb/ton	
	Silabond 40		tons	608 ⁵	lb/ton	
EP-12	Aluminum Melting Pots		tons	0.2	lb/ton	
EP-13	Pouring/Casting Aluminum		tons	0.14	lb/ton	
Installation-wide VOC Emissions⁶ (ton/month):						

¹VOC Emissions (ton/month) = Amount Used this Month x VOC Emission Factor x 0.0005 ton/lb.

²AP-42 Table 1.4-2

³SDS indicates 100% VOC, the emission factor was reduced as stack testing indicates 10.6% retention of VOC in the ceramic shell.

⁴SDS indicates 99.5% VOC, the emission factor was reduced as stack testing indicates 10.6% retention of VOC in the ceramic shell.

⁵SDS indicates 34% VOC, the emission factor was reduced as stack testing indicates 10.6% retention of VOC in the ceramic shell.

⁶Installation-wide VOC Emissions (ton/month) = the sum of VOC Emissions for each Emission Unit(s). Include Startup, Shutdown, and Malfunction VOC Emissions.

Date		Installation-wide 12-Month Rolling Total VOC Emissions ⁷ (ton/year)
Month	Year	
January		
February		
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		

⁷Installation-wide 12-Month Rolling Total VOC Emissions (ton/year) = This month's Installation-wide VOC Emissions (ton/month) + the previous 11 month's VOC Emissions (ton/month). Total must be in compliance with Plant Wide Permit Condition 062011-001.

Attachment D

Method 9 Opacity Observations		
Installation Name:	Sketch of the observer's position relative to the emission unit	
Emission Point:		
Emission Unit:		
Observer Name and Affiliation:		
Observer Certification Date:		
Method 9 Observation Date:		
Height of Emission Point:		
Time:	Start of observations	End of observations
Distance of Observer from Emission Point:		
Observer Direction from Emission Point:		
Approximate Wind Direction:		
Estimated Wind Speed:		
Ambient Temperature:		
Description of Sky Conditions (Presence and color of clouds):		
Plume Color:		
Approximate Distance Plume is Visible from Emission Point:		

Attachment D (continued) Method 9 Opacity Observations

Minute	Seconds				1- minute Avg. % Opacity ³	6- minute Avg. % Opacity ⁴	Steam Plume (check if applicable)		Comments
	0	15	30	45			Attached	Detached	
	Opacity Readings (% Opacity) ⁵								
0						N/A			
1						N/A			
2						N/A			
3						N/A			
4						N/A			
5									
6									
7									
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The emission unit is in compliance if each six-minute average opacity is less than or equal to 20 %.
 Exception: The emission unit is in compliance if one six-minute average opacity is greater than 20 %, but less than 40 %.

Was the emission unit in compliance at the time of evaluation (yes or no)?

 Signature of Observer

³ 1-minute avg. % opacity is the average of the four 15 second opacity readings during the minute.

⁴ 6-minute avg. % opacity is the average of the six most recent 1-minute avg. % opacities.

⁵ Each 15 second opacity reading shall be recorded to the nearest 5% opacity as stated within Method 9.

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(4)(C)1.A.(VI), if these limitations are exceeded, the installation becomes subject to 10 CSR 10-6.065(5) 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.

INSTALLATION DESCRIPTION

O'Fallon Casting, LLC is a nonferrous investment aluminum and copper casting manufacturing plant. The installation is a synthetic minor source of Volatile Organic Compounds (VOCs).

As part of the process, the installation forms ceramic shells from wax patterns with a coated slurry, sand, and various flours. As the volatile components of the slurry evaporate, a ceramic shell is formed. These shells are used to cast molten aluminum and copper alloys into the casting products.

The installation is a named source under 6.020(3)(B)19. Fugitives are counted towards the Potential to Emit (PTE), and the NSR major threshold is 100 tpy for any given criteria pollutant.

Potential Emissions are calculated with emission factors sourced from AP-42, Webfire, and the installation's construction permits. 8760 hours of annual operation is used to obtain yearly PTE, with the exception of the emergency generators; EP-24 and EP-25. Emergency generators were calculated at 500 hours of annual operation.

VOCs are calculated to be above the major threshold at 173.70 tpy. Because the installation has chosen to take a 100 tpy limit, the installation is a synthetic minor source for VOCs.

Updated Potential to Emit for the Installation and Reported Air Pollutant Emissions, in tons per year

Pollutants	Potential Emissions	Reported Emissions				
		2018	2017	2016	2015	2014
Particulate Matter ≤ Ten Microns (PM ₁₀)	4.56	0.57	0.56	0.46	0.00	0.47
Particulate Matter ≤ 2.5 Microns (PM _{2.5})	4.28	0.48	0.47	0.38	0.00	0.39
Sulfur Oxides (SO _x)	0.04	0.00	0.00	0.00	0.00	0.00
Nitrogen Oxides (NO _x)	7.18	0.00	0.00	0.00	0.00	0.00
Volatile Organic Compounds (VOC)	< 100	31.51	33.83	29.08	25.60	35.49
Carbon Monoxide (CO)	2.35	0.00	0.00	0.00	0.00	0.00
Hazardous Air Pollutants (HAPs)	3.23	0.00	0.00	0.00	0.00	0.00

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 October 24th, 2017;
- 2) 2018 Emissions Inventory Questionnaire, received March 4th, 2019; and
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition.

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

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

None.

Other Air Regulations Determined Not to Apply to the Operating Permit

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

10 CSR 10-5.500—*Control of Emissions From Volatile Organic Liquid Storage*

This regulation does not apply because the installation does not have VOC storage containers greater than 40,000 gallons.

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

The installation is exempt from this regulation because all sulfur emitting units are natural gas fired, 6.260(1)(A)2.

10 CSR 10-6.400—*Restriction of Emission of Particulate Matter From Industrial Processes*

This installation is exempt from this regulation because all emission units have a potential to emit of less than 0.5 lbs/hr of PM. [6.400(1)(B)12.]

EU ID	Description	MHDR (Unit)	Emission Factor (lb/Unit)	Uncontrolled PM Rate (lb/hr)
EP-05	Autoclave/Boiler (Natural Gas)	0.0010	7.6	0.01
EP-06	Wax Burnout Furnace 1 (Natural Gas)	0.0017	8.7	0.01
EP-07	Wax Burnout Furnace 2 (Natural Gas)	0.0017	8.7	0.01
EP-08	Wax Burnout Furnace 3 (Natural Gas)	0.0017	8.7	0.01
EP-12	Aluminum Electric Melting Furnace/Crucible	0.082	2.6	0.21
EP-12a	Thermtronix Electric Aluminum Melter	0.13	1.7	0.23
EP-14	Copper Alloy Melting	0.008	20	0.16
EP-15	Copper Alloy Casting	0.008	0.015	0.00
EP-17	Hand Sanding	0.0012	0.54	0.00
EP-19	Horizontal Air Flow Cabinet Oven #1 (Natural Gas)	0.00008	7.6	0.00
EP-20	Comfort Heating Units (Natural Gas)	0.0041	8.7	0.04
EP-21	Horizontal Air Flow Cabinet Oven #2 (Natural Gas)	0.00033	7.6	0.00
EP-23	Preheat/Burnout Furnace (Natural Gas)	0.0024	7.6	0.02
EP-24	Natural Gas Emergency Lights Generator	0.093	0.01339	0.00
EP-25	Natural Gas Critical Equipment Emergency Generator	0.93	.013	0.01
EP-26	(4) Sand Rain Makers	0.027	3.6	0.10
EU0002	(2) Hand Sanders	0.22	0.54	0.12
EU0001	Gate Grinding	0.22	0.54	0.12

10 CSR 10-6.405—*Restriction of Particulate Matter Emissions from Fuel Burning Equipment Used For Indirect Heating*

The installation is exempt because all indirect heating units are fueled using natural gas, 6.405(1)(E).

Construction Permit History

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

Construction Permit Project #2011-03-035; Permit #062011-001

- 1) This permit was issued for the installation of a new Unitherm Electric Shell Pre-Heat Furnace. The furnace debottlenecked aluminum casting operations increasing production to 3500 pounds of aluminum per eight hour shift.
- 2) This permit contains special conditions limiting VOC emissions to below 100 tons per year. The special conditions are cited in Permit Condition PW062011-001.
- 3) The construction permit limits only equipment operated at the installation at the date of issuance of the construction permit. This condition is expanded to plant wide using a voluntary operating permit condition, so the installation can remain an intermediate source. The plant wide condition is more stringent than the construction permit, thus there is no conflict.
- 4) The operating permit maintains the construction permit's citations.

Construction Permit Project #2012-12-015; No Permit Required

This project allowed the construction of a new Robotic Mechanical Manipulator and new Drumsand rainmaker.

- 1) The Robotic Mechanical Manipulator added no new emissions and had no effect on the MHDR of the shell building process.
- 2) The emissions of all four sand rainmakers at the facility were determined to be 0.29 lbs/hr of PM. Sourced from AP-42 and included a 20 percent safety factor.

Construction Permit Project #2013-05-023; No Permit Required

This project was a like kind replacement, of a 1978 4.62 MMBtu boiler with a new 1.08 MMBtu natural gas boiler. Because it was a like kind replacement, no permit is required. Emission factors were taken from AP-42 Section 1.4.

Construction Permit Project #2013-09-052; No Permit Required

This project removed two natural gas fired pre-heat furnaces (EP-9 and EP-10) and replaced them with an electrically heated pre-heat furnace (EP-9 and EP-10).

Construction Permit Project #2014-04-040; No Permit Required

This project permitted the construction of a new Unitherm Natural Gas Shell Burnout/ Pre-Heat Furnace (EP-23)

Construction Permit Project #2014-07-049; No Permit Required

This project permitted the construction of a new Thermtronix aluminum melter (EP-12a).

Construction Permit Project #2018-10-013; No Permit Required

This project permitted the replacement of two ovens with two horizontal air ovens (EP-19 and EP-21). PTE and MHDR are not affected by this project.

Construction Permit Project #2018-12-013; No Permit Required

This project permitted the construction of an electric furnace. PTE and MHDR are not affected by this project.

New Source Performance Standards (NSPS) Applicability

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

This regulation is not applicable to the installation. The Critical Equipment Emergency Generator (EP-25) engine was installed after June 12th, 2006 and manufactured prior to January 1st, 2009, [§60.4230(a)(4)(iv)] and thus there are no applicable requirements under Subpart JJJJ.

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

This regulation does not apply to the installation because the emergency generators are all spark ignition.

Maximum Achievable Control Technology (MACT) Applicability

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

This regulation is not applicable to the installation and has not been applied within this permit. The installation performs aluminum casting using only clean aluminum charge and is not subject to this regulation per §60.1500(f).

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

- 1) This regulation is applicable to Emergency Lights Generator (EP-24) and has been applied in the permit under Permit Condition MACT ZZZZ.
- 2) This regulation also applies to the Critical Equipment Emergency Generator (EP-25). However, the unit complies with MACT ZZZZ by complying with NSPS JJJJ. Thus, this unit is not included in MACT ZZZZ.

40 CFR Part 63, Subpart FFFFFFFF – *National Emission Standards for Hazardous Air Pollutants for Secondary Copper Smelting Area Sources*

This is not applicable to the installation and has not been applied within this permit. The installation perform copper casting using only clean copper charge and does not meet the definition of secondary copper smelter in §63.11158.

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

This regulation is applicable to the installation and has been applied within this permit as Permit Condition MACT ZZZZZZ. Previously the installation was not subject to this regulation per §63.11544(a)(4)(i) as they were an existing source with annual production below 600 tpy; however, Construction Permit 062011-001 allowed the installation to increase aluminum production capacity meeting the definition of reconstruction under the subpart. As a reconstructed source applicability is based upon annual capacity. The installation's annual capacity is 1,916.25 tpy which exceeds the 600 tpy applicability threshold in §63.11544(a)(4)(ii). Furthermore, the installation will remain subject to the regulation even if the annual capacity or production is decreased to below 600 tpy, §63.11544(a). Because the installation has a throughput less than 6,000 tpy, it is considered a small foundry.

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

None.

Other Regulatory Determinations

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

- 1) This regulation applies to sources of visible emissions at the installation and is cited in Permit Condition 6.220.
- 2) The following units are exempt because they only combust natural gas, 6.220(1)(L):

EU ID	Description
EP-02	Wax Assembly (Natural Gas)
EP-03	Wax Assembly (Natural Gas)
EP-05	Autoclave/Boiler (Natural Gas)
EP-06	Wax Burnout Furnace 1 (Natural Gas)
EP-07	Wax Burnout Furnace 2 (Natural Gas)
EP-08	Wax Burnout Furnace 3 (Natural Gas)
EP-19	Horizontal Air Flow Cabinet Oven #1 (Natural Gas)
EP-20	Comfort Heating Units (Natural Gas)
EP-21	Horizontal Air Flow Cabinet Oven #2 (Natural Gas)
EP-23	Preheat/Burnout Furnace (Natural Gas)
EP-24	Natural Gas Emergency Lights Generator
EP-25	Natural Gas Critical Equipment Emergency Generator

10 CSR 10-6.261—*Control of Sulfur Dioxide Emissions*

All sulfur emitting emission units combust solely natural gas. Thus, only the recordkeeping and reporting requirements of this regulation apply. This regulation is cited in Permit Condition 6.261 [6.261(1)(A)]

Approved Stack Testing for 10.6% VOC Reduction

When calculating VOC emissions, the installation utilizes a reduction factor of 10.6% for its VOC emissions from the Shell Building (EP-4). Tests conducted by the University of Missouri - Rolla of the shell formation process demonstrated a portion of the alcohol (VOC) remained in the completed shell and was not emitted. Documentation of this emissions reduction was provided to the MDNR - Air Pollution Control Program on April 29, 2005. In a letter dated October 12, 2005, the MDNR stated that using this emissions reduction was justified and allowed the installation to utilize this factor in calculating its VOC emissions from the Shell Building. As a result, the installation uses the 10.6% reduction factor when performing mass balance VOC calculations from shell building.

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

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

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

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

Response to Public Comments

No comments were received during the public notice period.