# JEFFERSON COUNTY DEPARTMENT OF HEALTH

## AIR POLLUTION PROGRAM

### TITLE V MAJOR SOURCE OPERATING PERMIT

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| Permittee: | **AMERICAN Cast Iron Pipe Company** |
| Location: | **1501 31st Avenue North**<br>**Birmingham, Alabama 35207** |
| Permit No: | **4-07-0030-04** |
| Issuance Date: | **December 3, 2020** |
| Expiration Date: | **December 2, 2025** |
| Nature of Business: | **Manufacturer of Cast Iron Pipes** |

| Emissions Unit No. | Emissions Unit Description |
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| 001 | Facility-Wide Surface Coating Subject to 40 CFR 63, Subpart MMMM |
| 005 | Automatic Zinc Coating of Small Diameter Pipe with 16,800 SCFM Baghouse |
| 007 | 6 Ductile Iron Annealing Ovens Subject to 40 CFR 63, Subpart DDDDD |
| 010 | (1) 12,000-Gallon Gasoline Tank and Stage 1 Controlled Gasoline Dispensing Facility |
| 011 | #2 & #3 Delavaud Pipe Mold Shot Blast Process with 24,000 SCFM Baghouse |
| 023 | Zinc Coating Process with 6,000 SCFM Baghouse |
| 025 | Core Sand Handling, Transfer and Storage in Silos with Dust Collectors |
| 026 | Cement & Sand Silos for Lining Operations With Dust Collectors |
| 027 | Woodworking Machines at Carpenter Shop with 7,000 SCFM Cyclone |
| 028 | Woodworking Machines at Pattern Shop with 17,200 SCFM Cyclone |
| 034 | #1 Delavaud Pipe Mold Shot Blast Process with 14,000 SCFM Baghouse |
| 037 | 150 Inch Diameter Gray Iron Cupola with Afterburners, Heat Exchanger, and Pulse Jet Baghouse Subject to 40 CFR 63, Subpart EEEEE |
| 038 | 3 Ductile Iron Treating Stations |
| 051 | Zinc Coating of O.D. of Ductile Iron Pipes with 35,000 SCFM Baghouse |
| 066 | Contiarc Electric Arc Furnace with Spray Dryer Absorber and a 159,731 SCFM Pulse-Jet Baghouse Subject to 40 CFR 63, Subpart EEEEE |
| 073 | 3 Boilers Subject to 40 CFR 63, Subpart DDDDD and 2 Hot Water Heaters |
| 074 | Plasma Cutting Machine at Steel Pipe North Processing with 3,531 SCFM Baghouse |
| 075 | 24" Mill Plasma Cutter with 20,000 SCFM Baghouse |
| 076 | 20" Mill Plasma Cutter with Double End Cropper with 10,000 SCFM Baghouse |
| 077 | (19) Emergency Generators |
| 078 | Mold Shop Grinder & Peener with 7,300 SCFM Baghouse |
| 079 | Mold Shop Weld Flux Recovery with 2,500 SCFM Baghouse |

*This Permit is issued pursuant to and is conditioned upon the compliance with the provisions of the Jefferson County Board of Health Air Pollution Control Rules and Regulations, the applicable requirements of the Clean Air Act implementation plan for Alabama approved or promulgated by the United States Environmental Protection Agency (EPA) through rulemaking under title I of the Clean Air Act (identified in 40 CFR 52, Subpart B) and other*

*applicable requirements as defined in section 18.1.1(e) of the Jefferson County Board of Health Rules and Regulations, Section 18 of the Alabama Air Pollution Control Act of 1971, Act No. 769 (Regular Session, 1971), Section 22-28-16 of the Alabama Air Pollution Control Act as amended, Orders of the Jefferson County Board of Health, Orders of the Director of the Alabama Department of Environmental Management (ADEM), and any applicable local, state or federal Court Order. This Permit is subject to the accuracy of all information submitted relating to the permit application and to the conditions appended hereto. It is valid from the date of issuance until the expiration date and shall be posted or kept under file at the source location described above and shall be made readily available for inspection at any reasonable time to any and all persons who may request to see it. This Permit is not transferable.*

*Pursuant to the Clean Air Act, conditions of this permit are federally enforceable by EPA, The Jefferson County Board of Health, ADEM and citizens in general. However, provisions that are not required by the Clean Air Act or under any of its applicable requirements, are considered to be Jefferson County provisions and are not federally enforceable by EPA and citizens in general. Those provisions are contained in separate Sections of this Operating Permit and are specifically identified as not being federally enforceable.*

Jonathan Stanton, Director
Environmental Health Services
Approved: Mark Wilson, M.D.
Health Officer

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*In addition to compliance with Alabama Air Pollution Control Act Number 769 (Regular Session, 1971) and Act Number 612 (Regular Session, 1982) and with all applicable Air Pollution Control Rules and Regulations, the conditions which are listed below are hereby contained in and made a part of this permit. For each citation to a Jefferson County Board of Health regulation provided in connection with a permit condition (other than for those permit conditions that are specifically identified in the permit as not being federally enforceable), Appendix A to this permit identifies the corresponding ADEM regulation that has been approved by EPA as part of the Clean Air Act implementation plan for Alabama (identified in 40 CFR 52, Subpart B). The corresponding ADEM regulations, together with the cited Jefferson County Board of Health regulations, serve as the origin and authority for the associated permit term or condition.*

## GENERAL PERMIT CONDITIONS

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| | **Definitions** | |
| 1. | For the purposes of this Major Source Operating Permit, the following terms will have the meanings ascribed to in this permit:<br>"12-Month Rolling Total" shall mean the total of monthly emissions calculations summed for a consecutive 12 month period and then compared to an annual emission or throughput limit to determine compliance.<br>"40 CFR 51" is an acronym for Part 51 of Title 40 of the Code of Federal Regulations.<br>"40 CFR 52" is an acronym for Part 52 of Title 40 of the Code of Federal Regulations.<br>"40 CFR 59" is an acronym for Part 59 of Title 40 of the Code of Federal Regulations.<br>"40 CFR 60" is an acronym for Part 60 of Title 40 of the Code of Federal Regulations.<br>"40 CFR 61" is an acronym for Part 61 of Title 40 of the Code of Federal Regulations.<br>"40 CFR 63" is an acronym for Part 63 of Title 40 of the Code of Federal Regulations.<br>"40 CFR 64" is an acronym for Part 64 of Title 40 of the Code of Federal Regulations.<br>"40 CFR 68" is an acronym for Part 68 of Title 40 of the Code of Federal Regulations.<br>"40 CFR 82" is an acronym for Part 82 of Title 40 of the Code of Federal Regulations.<br>"40 CFR 98" is an acronym for Part 98 of Title 40 of the Code of Federal Regulations.<br>"Act" means the Clean Air Act, as amended, 42 U.S.C. 7401, et seq.<br>"Additive" means a material that is added to a coating after purchase from a supplier (e.g., catalysts, activators, accelerators). *40 CFR 63, Subpart MMMM*<br>"ADEM" means the Alabama Department of Environmental Management.<br>"Administrator" means the Administrator of the United States Environmental Protection Agency or his or her authorized representative (e.g., a State that has been delegated the authority to implement the provisions of this part). *40 CFR 63, Subpart A*<br>"Air Permit" shall mean any permit issued pursuant to Chapter 2 of the Rules and Regulations.<br>"Air Pollution Emergency" shall mean a situation in which metrological conditions and/or contaminant levels in the ambient air reach or exceed the levels which may cause imminent and substantial endangerment to health.<br>"Annual Rolling Total" shall be an equivalent phrase for "12-Month Rolling Total."<br>"Bag leak detection system" means a system that is capable of continuously monitoring relative particulate matter (dust) loadings in the exhaust of a baghouse to detect bag | 1.3<br>18.7.1<br>60.2<br>60.4219<br>60.4248<br>63.2<br>63.3981<br>63.6675<br>63.7575<br>63.7765 |

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| | leaks and other upset conditions. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, electrodynamic, light scattering, light transmittance, or other effect to continuously monitor relative particulate matter loadings. *40 CFR 63, Subpart EEEEE*<br><br>"Binder chemical" means a component of a system of chemicals used to bind sand together into molds, mold sections, and cores through chemical reaction as opposed to pressure. *40 CFR 63, Subpart EEEEE*<br><br>"Boiler" means an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water. Controlled flame combustion refers to a steady-state, or near steady-state, process wherein fuel and/or oxidizer feed rates are controlled. A device combusting solid waste, as defined in §241.3 of this chapter, is not a boiler unless the device is exempt from the definition of a solid waste incineration unit as provided in section 129(g)(1) of the Clean Air Act. Waste heat boilers are excluded from this definition. *40 CFR 63, Subpart DDDDD*<br><br>"CAM" is an acronym for compliance assurance monitoring.<br><br>"Capture system" means the equipment (including hoods, ducts, fans, etc.) used to contain, capture or transport a pollutant to a control device or an exhaust system.<br><br>"Capture system" means the collection of components used to capture gases and fumes released from one or more emissions points and then convey the captured gas stream to a control device or to the atmosphere. A capture system may include, but is not limited to, the following components as applicable to a given capture system design: duct intake devices, hoods, enclosures, ductwork, dampers, manifolds, plenums, and fans. *40 CFR 63, Subpart EEEEE*<br><br>"Carbon dioxide equivalent or $CO_2e$" means the number of metric tons of $CO_2$ emissions with the same global warming potential as one metric ton of another greenhouse gas, and is calculated using Equation A-1 of 40 CFR 98.<br><br>"Cleaning material" means a solvent used to remove contaminants and other materials, such as dirt, grease, oil, and dried or wet coating (*e.g.*, depainting or paint stripping), from a substrate before or after coating application or from equipment associated with a coating operation, such as spray booths, spray guns, racks, tanks, and hangers. Thus, it includes any cleaning material used on substrates or equipment or both. *40 CFR 63, Subpart MMMM*<br><br>"CO" is an acronym for carbon monoxide.<br><br>"Coating" means a material applied to a substrate for decorative, protective, or functional purposes. Such materials include, but are not limited to, paints, sealants, liquid plastic coatings, caulks, inks, adhesives, and maskants. Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances, or paper film or plastic film which may be pre-coated with an adhesive by the film manufacturer, are not considered coatings for the purposes of this subpart. A liquid plastic coating means a coating made from fine particle-size polyvinyl chloride (PVC) in solution (also referred to as a plastisol). *40 CFR 63, Subpart MMMM*<br><br>"Coating operation" means equipment used to apply cleaning materials to a substrate to prepare it for coating application (surface preparation) or to remove dried coating; to apply coating to a substrate (coating application) and to dry or cure the coating after application; or to clean coating operation equipment (equipment cleaning). A single coating operation may include any combination of these types of equipment, but always includes at least the point at which a given quantity of coating or cleaning material is | |

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| | applied to a given part and all subsequent points in the affected source where organic HAP are emitted from the specific quantity of coating or cleaning material on the specific part. There may be multiple coating operations in an affected source. Coating application with handheld, non-refillable aerosol containers, touch-up markers, or marking pens is not a coating operation for the purposes of this subpart. *40 CFR 63, Subpart MMMM*<br><br>"Coatings solids" means the nonvolatile portion of the coating that makes up the dry film. *40 CFR 63, Subpart MMMM*<br><br>"Cold box mold or core making line" means a mold or core making line in which the formed aggregate is hardened by catalysis with a gas. *40 CFR 63, Subpart EEEEE*<br><br>"Continuous opacity monitoring system (COMS)" means a continuous monitoring system that measures the opacity of emissions. *40 CFR 63, Subpart A*<br><br>"Conveyance" means the system of equipment that is designed to capture pollutants at the source, convey them through ductwork, and exhaust them using forced ventilation. A conveyance may, but does not necessarily include, control equipment designed to reduce emissions of the pollutants. Emissions that are released through windows, vents, or other general building ventilation or exhaust systems are not considered to be discharged through a conveyance. *40 CFR 63, Subpart EEEEE*<br><br>"Cupola" means a vertical cylindrical shaft furnace that uses coke and forms of iron and steel such as scrap and foundry returns as the primary charge components and melts the iron and steel through combustion of the coke by a forced upward flow of heated air. *40 CFR 63, Subpart EEEEE*<br><br>"Cupola shutdown" means the period beginning when the last of the molten metal is tapped from the cupola's primary tap hole and ending when the cupola is cooled and the cupola is either banked or the bottom contents are removed (''bottom drop''). Cupola shutdown includes the following steps: slag and residual metal removal from secondary tap; cupola cooling; and cupola banking or bottom drop. *40 CFR 63, Subpart EEEEE*<br><br>"Cupola startup" means the commencement of activities needed to take a banked cupola or a cupola that has had the bottom dropped back into melt production. Cupola startup includes the following steps: refractory curing, if needed; cupola bed preparation (during which the sand bed is preheated), if needed; coke bed preparation (during which coke is added to the cupola and lit); and initial metallics charging. *40 CFR 63, Subpart EEEEE*<br><br>"Day" or "calendar day" means a 24-hour period beginning at midnight.<br><br>"Department" means the Jefferson County Department of Health.<br><br>"Deviation" means any instance in which the permittee fails to meet any requirement or obligation established by regulation, including but not limited to any emission limitation, operating limit, work practice standard, or any permit term or condition, or fails to meet any term or condition adopted to implement an applicable requirement, including but not limited to emission limitations during periods of startup, shutdown or malfunction. A deviation is not always a violation.<br><br>"Deviation" means, for 40 CFR 63, Subpart MMMM, any instance in which an affected source subject to this subpart, or an owner or operator of such a source:<br>1. Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limitation (including operating limits) or work practice standard;<br>2. Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or | |

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| | 3. (Before January 5, 2021, fails to meet any emission limitation or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart. *40 CFR 63, Subpart MMMM*<br><br>Deviation" means, for 40 CFR 63, Subpart EEEEE, any instance in which an affected source subject to this subpart, or an owner or operator of such a source:<br>1. Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limitation (including operating limits), work practice standard, or operation and maintenance requirement; or<br>2. Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any iron and steel foundry required to obtain such a permit.<br>3. A deviation is not always a violation. The determination of whether a deviation constitutes a violation of the standard is up to the discretion of the entity responsible for enforcement of the standards. *40 CFR 63, Subpart EEEEE*<br><br>"Deviation" means any instance in which an affected source subject to 40 CFR 63, Subpart ZZZZ, or an owner or operator of such a source: (1) Fails to meet any requirement or obligation established by Subpart ZZZZ, including but not limited to any emission limitation or operating limitation; (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in Subpart ZZZZ and that is included in the operating permit for any affected source required to obtain such a permit; or (3) Fails to meet any emission limitation or operating limitation in Subpart ZZZZ during malfunction, regardless or whether or not such failure is permitted by Subpart ZZZZ. (4) Fails to satisfy the general duty to minimize emissions established by § 63.6(e)(1)(i). *40 CFR 63, Subpart ZZZZ*<br><br>"Electric arc furnace" or "EAF" means a vessel in which forms of iron and steel such as scrap and foundry returns are melted through resistance heating by an electric current flowing through the arcs formed between the electrodes and the surface of the metal and also flowing through the metal between the arc paths. *40 CFR 63, Subpart EEEEE*<br><br>"Emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God. These are situations that require immediate corrective actions(s) to restore normal operation, and that cause the facility to exceed a technology based emission limitation set by the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.<br><br>"Emergency stationary internal combustion engine" means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary ICE must comply with the requirements specified in §60.4211(f)/ §60.4243(d)/ §63.6640(f) in order to be considered emergency stationary ICE. If the engine does not comply with the requirements specified in §60.4211(f)/ §60.4243(d)/ §63.6640(f), then it is not considered to be an emergency stationary ICE under this subpart.<br><br>1. The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc. | |

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| | 2. The stationary ICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in §60.4211(f)/ §60.4243(d)/ §63.6640(f).<br>3. The stationary ICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in §60.4211(f)(3)(i)/ §60.4243(d)(3)(i)/ §63.6640(f)(4)(i) or (ii).<br>*40 CFR 60, Subpart IIII, 40 CFR 60, Subpart JJJJ, 40 CFR 63, Subpart ZZZZ & D.C. Circuit Court Mandate for the Vacatur entered May 4, 2016*<br>"Emission limitation" means the aggregate of all requirements associated with a compliance option including emission limit, operating limit, work practice standard, etc. *40 CFR 63, Subpart MMMM*<br>"Emissions limitation" means any emissions limit or operating limit. *40 CFR 63, Subpart EEEEE*<br>"Emissions unit" means any part or activity of a stationary source that emits or has the potential to emit any regulated air pollutant or any pollutant listed under §112(b) of the Act.<br>"EPA" means the U.S. Environmental Protection Agency.<br>"Exceedance" shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard (or less than the applicable standard in the case of a percent reduction requirement) consistent with any averaging period specified for averaging the results of the monitoring.<br>"Federally enforceable" means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State Implementation Plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 51.24. *40 CFR 63, Subpart DDDDD*<br>"Free organic liquids" means material that fails the paint filter test by EPA Method 9095A (incorporated by reference—see §63.14). That is, if any portion of the material passes through and drops from the filter within the 5-minute test period, the material contains free liquids. *40 CFR 63, Subpart EEEEE*<br>"Fuel-Burning Equipment" shall mean any equipment, device or contrivance and all appurtenances thereto, including ducts, breechings, fuel-feeding equipment, ash removal equipment, combustion controls, stacks and chimneys, used primarily, but not exclusively, to burn any type fuel for the purpose of indirect heating in which the material being heated is not contacted by and adds no substance to the products of combustion.<br>"Fugitive Dust" shall mean solid air-borne particulate matter emitted from any source other than a flue or stack.<br>"Fugitive emissions" means any pollutant released to the atmosphere that is not discharged through a conveyance as defined in this subpart. *40 CFR 63, Subpart EEEEE*<br>"Fugitive emissions" means those emissions from a stationary source that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. Under §112 of the Clean Air Act, all fugitive emissions are to be considered in determining whether a stationary source is a major source. *40 CFR 63, Subpart A* | |

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| | "Furan warm box mold or core making line" means a mold or core making line in which the binder chemical system used is that system commonly designated as a furan warm box system by the foundry industry. *40 CFR 63, Subpart EEEEE*<br><br>"General use coating" means any material that meets the definition of coating but does not meet the definition of high performance coating, rubber-to-metal coating, magnet wire coating, or extreme performance fluoropolymer coating as defined in this section. *40 CFR 63, Subpart MMMM*<br><br>"GHG" is an acronym for greenhouse gas.<br><br>"HAP" is an acronym for Hazardous Air Pollutant.<br><br>"Hazardous Air Pollutant" means any of the substances listed in Appendix D of the Rules and Regulations or §112(b) of the Clean Air Act. *1.3, 40 CFR 63, Subpart A*<br><br>"High performance architectural coating" means any coating applied to architectural subsections which is required to meet the specifications of Architectural Aluminum Manufacturer's Association's publication number AAMA 605.2-2000. *40 CFR 63, Subpart MMMM*<br><br>"High performance coating" means any coating that meets the definition of high performance architectural coating or high temperature coating in this section. *40 CFR 63, Subpart MMMM*<br><br>"High temperature coating" means any coating applied to a substrate which during normal use must withstand temperatures of at least 538 degrees Celsius (1000 degrees Fahrenheit). *40 CFR 63, Subpart MMMM*<br><br>"Hot water heater" means a closed vessel with a capacity of no more than 120 U.S. gallons in which water is heated by combustion of gaseous, liquid, or biomass/bio-based solid fuel and is withdrawn for use external to the vessel. Hot water boilers (i.e., not generating steam) combusting gaseous, liquid, or biomass fuel with a heat input capacity of less than 1.6 million Btu per hour are included in this definition. The 120 U.S. gallon capacity threshold to be considered a hot water heater is independent of the 1.6 MMBtu/hr heat input capacity threshold for hot water boilers. Hot water heater also means a tankless unit that provides on demand hot water. *40 CFR 63, Subpart DDDDD*<br><br>"Malfunction" means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions. *40 CFR 63, Subpart A*<br><br>"Manufacturer's formulation data" means data on a material (such as a coating) that are supplied by the material manufacturer based on knowledge of the ingredients used to manufacture that material, rather than based on testing of the material with the test methods specified in §63.3941. Manufacturer's formulation data may include, but are not limited to, information on density, organic HAP content, volatile organic matter content, and coating solids content. *40 CFR 63, Subpart MMMM*<br><br>"Mass fraction of organic HAP" means the ratio of the mass of organic HAP to the mass of a material in which it is contained, expressed as kg of organic HAP per kg of material. *40 CFR 63, Subpart MMMM*<br><br>"Mass fraction of organic HAP" means the ratio of the mass of organic HAP to the mass of a material in which it is contained, expressed as kg of organic HAP per kg of material. *40 CFR 63, Subpart MMMM* | |

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| | "Metal melting furnace" means a cupola, electric arc furnace, or electric induction furnace that converts scrap, foundry returns, and/or other solid forms of iron and/or steel to a liquid state. This definition does not include a holding furnace, an argon oxygen decarburization vessel, or ladle that receives molten metal from a metal melting furnace, to which metal ingots or other material may be added to adjust the metal chemistry. *40 CFR 63, Subpart EEEEE*<br><br>"Metal process furnaces" are a subcategory of process heaters, as defined in this subpart, which include natural gas-fired annealing furnaces, preheat furnaces, reheat furnaces, aging furnaces, heat treat furnaces, and homogenizing furnaces. *40 CFR 63, Subpart DDDDD*<br><br>"Modification" shall mean any physical change in, or change in the method of operation of, an affected source which increases the amount of any air contaminant (to which a rule or regulation applies) emitted by such source or which results in the emission of any air contaminant (to which a rule or regulation applies) not previously emitted, except that: (a) Routine maintenance, repair, and replacement shall not be considered physical changes, and (b) The following shall not be considered a change in the method of operation: (1) An increase in the production rate; (2) An increase in hours of operation; (3) Use of an alternate fuel or raw material.<br><br>"Mold or core making line" means the collection of equipment that is used to mix an aggregate of sand and binder chemicals, form the aggregate into final shape, and harden the formed aggregate. This definition does not include a line for making green sand molds or cores. *40 CFR 63, Subpart EEEEE*<br><br>"Mold vent" means an intentional opening in a mold through which gases containing pyrolysis products of organic mold and core constituents produced by contact with or proximity to molten metal normally escape the mold during and after metal pouring. *40 CFR 63, Subpart EEEEE*<br><br>"Monitoring" means the collection and use of measurement data or other information to control the operation of a process or pollution control device or to verify a work practice standard relative to assuring compliance with applicable requirements. Monitoring is composed of four elements: (1) Indicator(s) of performance—the parameter or parameters you measure or observe for demonstrating proper operation of the pollution control measures or compliance with the applicable emissions limitation or standard. Indicators of performance may include direct or predicted emissions measurements (including opacity), operational parametric values that correspond to process or control device (and capture system) efficiencies or emissions rates, and recorded findings of inspection of work practice activities, materials tracking, or design characteristics. Indicators may be expressed as a single maximum or minimum value, a function of process variables (for example, within a range of pressure drops), a particular operational or work practice status (for example, a damper position, completion of a waste recovery task, materials tracking), or an interdependency between two or among more than two variables. (2) Measurement techniques—the means by which you gather and record information of or about the indicators of performance. The components of the measurement technique include the detector type, location and installation specifications, inspection procedures, and quality assurance and quality control measures. Examples of measurement techniques include continuous emission monitoring systems, continuous opacity monitoring systems, continuous parametric monitoring systems, and manual inspections that include making records of process conditions or work practices. (3) Monitoring frequency—the number of times you obtain and record monitoring data over a specified time interval. Examples of monitoring frequencies include at least four points equally spaced for each hour for continuous emissions or parametric monitoring systems, at least every 10 seconds for | |

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| | continuous opacity monitoring systems, and at least once per operating day (or week, month, etc.) for work practice or design inspections. (4) Averaging time—the period over which you average and use data to verify proper operation of the pollution control approach or compliance with the emissions limitation or standard. Examples of averaging time include a 3-hour average in units of the emissions limitation, a 30-day rolling average emissions value, a daily average of a control device operational parametric range, and an instantaneous alarm. *40 CFR 63, Subpart A*<br><br>"Month" means a calendar month or a pre-specified period of 28 days to 35 days to allow for flexibility in recordkeeping when data are based on a business accounting period. *40 CFR 63, Subpart MMMM*<br><br>"NAAQS" is an acronym for "National Ambient Air Quality Standards."<br><br>"Natural gas" means: (1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or (2) Liquefied petroleum gas, as defined by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see § 60.17); or (3) A mixture of hydrocarbons that maintains a gaseous state at ISO conditions. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 34 and 43 megajoules (MJ) per dry standard cubic meter (910 and 1,150 Btu per dry standard cubic foot).; or Propane or propane derived synthetic natural gas. Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure $C_3H_8$.*40 CFR 63, Subpart DDDDD*<br><br>"NESHAP" is an acronym for "National Emission Standards for Hazardous Air Pollutants."<br><br>"New Source Review" (NSR) permitting means a system of evaluating the impact of any significant modification made at a major source and establishing permitting conditions to prevent the modification from causing or contributing to a violation of the NAAQS or consuming more than the allowed increment. These permitting provisions are located in Parts 2.4 and 2.5 of the Rules and Regulations.<br><br>"Non-HAP coating" means, for the purposes of Subpart MMMM, a coating that contains no more than 0.1 percent by mass of any individual organic HAP that is an OSHA-defined carcinogen as specified in 29 CFR 1910.1200(d)(4) and no more than 1.0 percent by mass for any other individual HAP. *40 CFR 63, Subpart MMMM*<br><br>"$NO_X$" is an acronym for nitrogen oxides.<br><br>"NSPS" is any acronym for "New Source Performance Standards."<br><br>"Off blast" means those periods of cupola operation when the cupola is not actively being used to produce molten metal. Off blast conditions include cupola startup and cupola shutdown. Off blast conditions also include idling conditions when the blast air is turned off or down to the point that the cupola does not produce additional molten metal. *40 CFR 63, Subpart EEEEE*<br><br>"On blast" means those periods of cupola operation when combustion (blast) air is introduced to the cupola furnace and the furnace is capable of producing molten metal. On blast conditions are characterized by both blast air introduction and molten metal production. *40 CFR 63, Subpart EEEEE*<br><br>"Opacity" shall mean the degree to which emissions reduce the transmission of light and obscure the view of the background. For continuous opacity monitoring systems, opacity means the fraction of incident light that is attenuated by an optical medium. *40 CFR 63, Subpart A* | |

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| | "Operating Permit" shall mean any permit issued pursuant to Chapter 18 of the Rules and Regulations.<br><br>"Organic HAP content" means the mass of organic HAP emitted per volume of coating solids used for a coating calculated using Equation 2 of §63.3941. The organic HAP content is determined for the coating in the condition it is in when received from its manufacturer or supplier and does not account for any alteration after receipt. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, organic HAP content is the mass of organic HAP that is emitted, rather than the organic HAP content of the coating as it is received. *40 CFR 63, Subpart MMMM*<br><br>"Permittee" means the holder of an operating permit issued by the Department.<br><br>"Performance audit" means a procedure to analyze blind samples, the content of which is known by the Administrator, simultaneously with the analysis of performance test samples in order to provide a measure of test data quality. *40 CFR 63, Subpart A*<br><br>"Performance evaluation" means the conduct of relative accuracy testing, calibration error testing, and other measurements used in validating the continuous monitoring system data. *40 CFR 63, Subpart A*<br><br>"Performance test" means the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission standard as specified in the performance test section of the relevant standard. *40 CFR 63, Subpart A*<br><br>"$PM_{10}$" is an acronym for particulate matter of less than 10 microns.<br><br>"$PM_{2.5}$" is an acronym for particulate matter of less than 2.5 microns.<br><br>"Pouring station" means the fixed location to which molds are brought in a continuous or semi-continuous manner to receive molten metal, after which the molds are moved to a cooling area. *40 CFR 63, Subpart EEEEE*<br><br>"Process heater" means an enclosed device using controlled flame, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to a heat transfer material (e.g., glycol or a mixture of glycol and water) for use in a process unit, instead of generating steam. Process heaters are devices in which the combustion gases do not come into direct contact with process materials. A device combusting solid waste, as defined in §241.3 of this chapter, is not a process heater unless the device is exempt from the definition of a solid waste incineration unit as provided in section 129(g)(1) of the Clean Air Act. Process heaters do not include units used for comfort heat or space heat, food preparation for on-site consumption, or autoclaves. Waste heat process heaters are excluded from this definition. *40 CFR 63, Subpart DDDDD*<br><br>"Process" shall mean any action, operation, or treatment of materials, including handling and storage thereof, which may cause discharge of an air contaminant, or contaminants, into the atmosphere, but excluding fuel burning and refuse burning.<br><br>"Process Weight" shall mean the total weight in pounds of all materials introduced into any specific process which may cause any discharge into the atmosphere.<br><br>"Process Weight per Hour" shall mean the total weight of all materials introduced into any specific process that may cause any discharge of particulate matter. Solid fuels charged will be considered as part of the process weight, but liquid and gaseous fuels and combustion air will not. For a cyclic or batch operation, the process weight per hour will be derived by dividing the total process weight by the number of hours in one | |

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| | complete operation from the beginning of any given process to the completion thereof, excluding any time during which the equipment is idle. For a continuous operation, the process weight per hour will be derived by dividing the process weight for a typical period of time by that time period.<br><br>"PSD" is an acronym for "Prevention of Significant Deterioration" permitting under Chapter 2.4 of the Rules and Regulations.<br><br>"Responsible official" means responsible official as defined in § 70.2. *40 CFR 63, Subpart MMMM*<br><br>"Responsible official" means responsible official as defined in § 63.2. *40 CFR 63, Subpart ZZZZ*<br><br>"Responsible official" means a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and the delegation of authority to such representatives is approved in advance by the Department.<br><br>"RICE" is an acronym for reciprocating internal combustion engine.<br><br>"Rules and Regulations" means the Jefferson County Board of Health Air Pollution Control Rules and Regulations.<br><br>"Run" means one of a series of emission or other measurements needed to determine emissions for a representative operating period or cycle as specified in 40 CFR 63.<br><br>"Shutdown" means the cessation of operation of an affected source or portion of an affected source for any purpose. *40 CFR 63, Subpart A, 1.3*<br><br>"SIP" is an acronym for "State Implementation Plan" pursuant to 40 CFR 52.<br><br>"Six-Minute Average" shall be determined by calculating the arithmetic mean of twenty-four (24) consecutive opacity observations, taken at intervals of fifteen (15) seconds.<br><br>"$SO_2$" is an acronym for sulfur dioxide.<br><br>"Source" means any building, structure, facility, installation, article, machine, equipment, device, or other contrivance which emits or may emit any air contaminant. Any activity which utilizes abrasives or chemicals for cleaning or any other purpose (such as cleaning the exterior of buildings) which emits air contaminants shall be considered a source. *1.3*<br><br>"Standard conditions" means a temperature of 293 K (68 °F) and a pressure of 101.3 kilopascals (29.92 in. Hg). *40 CFR 63, Subpart A, 1.3*<br><br>"Startup" shall mean the setting in operation of an affected source for any purpose. *1.3 40 CFR 63, Subpart A*<br><br>"Stationary Source" means any building, structure, facility or installation that emits or may emit any regulated pollutant as defined in Part 18.1 of the Rules and Regulations or any pollutant listed in Appendix D of the Rules and Regulations.<br><br>"Stationary source" means any building, structure, facility, or installation which emits or may emit any air pollutant which has been designated as hazardous by the Administrator. *40 CFR 63, Subpart A* | |

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| | "Surface preparation" means use of a cleaning material on a portion of or all of a substrate. This includes use of a cleaning material to remove dried coating, which is sometimes called depainting. *40 CFR 63, Subpart MMMM*<br><br>"Thinner" means an organic solvent that is added to a coating after the coating is received from the supplier. *40 CFR 63, Subpart MMMM*<br><br>"Total metal HAP" means, for the purposes of this subpart, the sum of the concentrations of antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium as measured by EPA Method 29 (40 CFR part 60, appendix A). Only the measured concentration of the listed analytes that are present at concentrations exceeding one-half the quantitation limit of the analytical method are to be used in the sum. If any of the analytes are not detected or are detected at concentrations less than one-half the quantitation limit of the analytical method, the concentration of those analytes will be assumed to be zero for the purposes of calculating the total metal HAP for this subpart. *40 CFR 63, Subpart EEEEE*<br><br>"Total volatile hydrocarbon (TVH)" means the total amount of nonaqueous volatile organic matter determined according to Methods 204 and 204A through 204F of appendix M to 40 CFR part 51 and substituting the term TVH each place in the methods where the term VOC is used. The TVH includes both VOC and non-VOC. *40 CFR 63, Subpart MMMM*<br><br>"True Vapor Pressure" shall mean the equilibrium partial pressure exerted by a stored petroleum liquid at the temperature equal to the highest calendar-month average of the liquid storage temperature as determined in accordance with methods described in American Petroleum Institute Bulletin 2517, "Evaporation Loss from External Floating Roof Tanks," 1962 Second Edition, February 1980.<br><br>"TSP" is an acronym for total suspended particulate matter.<br><br>"Unit designed to burn gas 1 subcategory" includes any boiler or process heater that burns only natural gas, refinery gas, and/or other gas 1 fuels. Gaseous fuel boilers and process heaters that burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year, are included in this definition. Gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply interruptions of any duration are also included in this definition. *40 CFR 63, Subpart DDDDD*<br><br>"VHAP" is an acronym for volatile hazardous air pollutant.<br><br>"Vapor collection system" shall mean a vapor transport system which uses direct displacement by the liquid loaded to force vapors from the tank into a vapor control system.<br><br>"Visible emission" means the observation of an emission of opacity or optical density above the threshold of vision. *40 CFR 63, Subpart A*<br><br>"VOC" is an acronym for volatile organic compound.<br><br>"Volatile Organic Compound" means any compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. This includes any such organic compound other than those listed under Part 1.3 of the Rules and Regulations and/or under 40 CFR §51.100(s)(1).<br><br>"Volume fraction of coating solids" means the ratio of the volume of coating solids (also known as the volume of nonvolatiles) to the volume of a coating in which it is | |

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| | contained; liters (gal) of coating solids per liter (gal) of coating. *40 CFR 63,Subpart MMMM*<br><br>"Work practice standard" means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA. *40 CFR 63, Subpart EEEEE*<br><br>In addition, the individual definitions as specified in each applicable rule, regulation, or standard shall be utilized where applicable. | |
| | **General Conditions** | |
| 2. | **Basis for Permit**<br>This Operating Permit is issued based on provisions contained in all existing Jefferson County Board of Health Air Pollution Control Rules and Regulations (hereinafter called Rules and Regulations in this permit). In the event amendments, revisions or additions are made to these Rules and Regulations, it shall be the responsibility of the permit holder (hereinafter called the permittee in this permit) to comply with such new Rules and Regulations. Additions and revisions to the conditions in this Operating Permit will be made by the Jefferson County Department of Health (hereinafter called the Department), if necessary, to assure that the Rules and Regulations are not violated. | AL Act 769 |
| 3. | **Authority**<br>Nothing in this Operating Permit or conditions appended thereto shall negate any authority granted to this Department or the Health Officer pursuant to Alabama Air Pollution Control Act No. 769 (Regular Session, 1971) and Act No. 612 (Regular Session, 1982) or any regulations promulgated thereunder. | AL Act 769 |
| 4. | **Acceptance of Permit**<br>The permittee is required to bring the operation of a source within the standards of Paragraph 18.2.8(a) of the Rules and Regulations. Commencing construction or operation of the source shall be deemed acceptance of all conditions specified. A Title V Operating Permit with revised conditions may be issued upon receipt of a new application if the permittee demonstrates that the source can operate within the standard of Paragraph 18.2.8(a) of the Rules and Regulations under the revised conditions. | 18.2.4 |
| 5. | **Compliance With Existing and Future Regulations**<br>A. The permittee shall comply with all conditions of the Rules and Regulations.<br>B. The permittee shall continue to comply with the applicable requirements with which the company has certified that it is already in compliance.<br>C. The permittee shall comply in a timely manner with applicable requirements that become effective during the term of this permit, and shall follow any more detailed schedule of compliance set forth in the applicable requirement or unit specific permit requirements.<br>D. The permittee shall be subject to any future MACT standards from the effective date as published by EPA and shall comply with the rule by the compliance date. | 18.5.6<br>18.4.8(h)<br>18.7.3<br>18.7.6 |
| 6. | **Noncompliance**<br>The permittee shall comply with all conditions of the permit. Noncompliance with any term or condition of a permit will constitute a violation of the Act and the Rules and Regulations and may result in enforcement action; including but not limited to, permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. | 70.6(a)(6)(i)<br>18.5.6 |
| 7. | **Compliance Defense**<br>The permittee shall not use as a defense in an enforcement action, that maintaining compliance with permit conditions would have required halting or reducing the permitted activity. | 18.5.7 |

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| 8. | **Credible Evidence**<br>Any credible evidence or information relevant to whether a source may have been in compliance with applicable requirements can be used to establish whether or a not an owner or operator has violated or is in violation of any rule or standard in the Rules and Regulations and/or any applicable provisions of 40 CFR 60 or 40 CFR 61. | 1.18<br>60.11(g) |
| 9. | **Circumvention**<br>No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes any emission of air contaminants which would otherwise violate the Rules and Regulations. | 1.15<br>60.12<br>63.4(b) |
| 10. | **Bypass of Control Equipment Prohibited**<br>Except as otherwise provided in this permit, the permittee shall not bypass, without prior approval from this Department, any air pollution control device. The permittee shall not shut down any air pollution control device unless such shutdown is accompanied by the corresponding shutdown of the respective source which the device is intended to control. | 18.2.4 |
| 11. | **Shutdown of Control Equipment**<br>In the case of shutdown of air pollution control equipment for scheduled maintenance, the intent shall be reported to this Department at least 24 hours prior to the planned shutdown unless the scheduled shutdown is accompanied with the shutdown of the source being controlled. The report shall contain the information listed in Section 1.12.1. | 1.12.1 |
| 12. | **Maintenance of Controls**<br>A. The permittee shall equip each fabric filter particulate matter control device with a pressure differential measuring device to measure the pressure drop across the filter media in the control device. The device shall be installed in a location which is easily accessible for inspection by Department personnel.<br>B. All air pollution control devices and capture systems for which this permit is issued shall be maintained and operated at all times in accordance with the manufacturer's specifications or alternative procedures approved by the Department so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emissions of air contaminants shall be maintained near the source and provided to the Department upon request.<br>C. The permittee shall conduct routine inspections on all required control equipment. All inspection results and repair work performed on the pollution control device shall be recorded. These records shall be kept in a permanent form suitable for inspection and shall be retained for 5 years. | 18.2.4<br>18.5.3(a)(2)<br>18.5.3(b)(2) |
| 13. | **Nothing in this Operating Permit shall alter or affect the following:**<br>A. The provisions of §303 of the Act (emergency orders), including the authority of the Administrator under that section;<br>B. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;<br>C. The applicable requirements of the acid rain program, consistent with §408(a) of the Act; or<br>D. The ability of EPA to obtain information from a source pursuant to §114 of the Act. | 18.10.3 |
| 14. | **Additional Information and Corrected Information**<br>The permittee shall submit any additional information to the Department to supplement or correct an application promptly after becoming aware of the need for additional or corrected information. Also, the permittee shall submit additional information concerning any new requirements which have become applicable after a complete application has been filed but before a draft permit is released. Any change in the information already provided pursuant to 40 CFR 63 shall be provided in writing within 15 calendar days after the change. | 18.4.7<br>63.9(j) |

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| 15. | **Display and Availability of Permit**<br>The permittee shall keep this Operating Permit under file or on display at all times at the site where the source is located and shall make the permit available for inspection by any and all persons who may request to see it. | 18.2.2 |
| 16. | **Payment of Fees**<br>The permittee must have paid all fees required by the Rules and Regulations or the Operating Permit is not valid. Payment of operating permit fees required under Chapter 16 of the Rules and Regulations shall be made on or before the date specified under Section 16.5.1 of the Rules and Regulations of each year. Failure to make payment of fees within 30 days of the specified date shall cause the assessment of a late fee of 3% (of the original fee) per month or fraction thereof. | 18.5.11<br>16.1<br>16.4<br>16.5 |
| 17. | **Transfer**<br>This permit is not transferable, whether by operation of law or otherwise, either from one location to another, from one piece of equipment to another or from one person to another except as provided in Subparagraph 18.13.1(a)(5) of the Rules and Regulations. | 18.2.6 |
| 18. | **New Air Pollution Sources and Changes to Existing Units**<br>A new permit application must be made for new sources, replacements, alterations or design changes which may result in the issuance of, or an increase in the issuance of, air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants. For any new source or modification of an existing source subject to 40 CFR 63, the permittee shall submit an application as required by 63.5. | 1.5.15<br>60.7(a)(4)<br>63.5 |
| 19. | **Construction Not In Accordance with Applications**<br>If the source permitted herein has not been constructed in accordance with the Operating Permit application and if the changes noted are of a substantial nature in that the amount of air contaminants emitted by the source may be increased or in that the effect is unknown, then the Operating Permit shall be revoked. No further application for an Operating Permit shall be accepted until the source has been reconstructed in accordance with the Operating Permit or until the permittee has proven to the Department that the change will not cause an increase in the emission of air contaminants. | 18.2.8(e) |
| 20. | **Expiration**<br>A source's right to operate shall terminate upon the expiration of this Operating Permit unless a timely complete renewal application has been submitted at least 6 months, but not more than 18 months before the date of expiration or the Department has taken final action approving the source's application for renewal by the expiration date. The expiration date of this Operating Permit is printed on the first page of this permit. | 18.4.3<br>18.5.2<br>18.12.2(b) |
| 21. | **Revocation**<br>This Operating Permit may be revoked for any of the following reasons:<br>A. Failure to comply with any conditions of the permit;<br>B. Failure to establish and maintain such records, make such reports, install, use and maintain such monitoring equipment or methods; and sample such emissions in accordance with such methods at such locations, intervals and procedures as may be prescribed in accordance with Section 1.9.2 of the Rules and Regulations;<br>C. Failure to comply with any provisions of any Department administrative order issued concerning the permitted facility;<br>D. Failure to allow entry and inspections by properly identified Department personnel;<br>E. Failure to comply with the Rules and Regulations; or<br>F. For any other cause, after a hearing which establishes, in the judgment of the Department, that continuance of the permit is not consistent with the purpose of the Act or Rules and Regulations. | 18.2.9 |
| 22. | **Severability**<br>In case of legal challenge to any portion of this Operating Permit, the remainder of the permit conditions shall continue in force. | 18.5.5 |

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| 23. | **Reopening for Cause**<br>Under any of the following circumstances, this Operating Permit will be reopened and revised prior to the expiration of the permit:<br>A. Additional applicable requirements under the Clean Air Act become applicable to the permittee with a remaining permit term of 3 or more years. Such a reopening shall be completed no later than 18 months after promulgation of the applicable requirements. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire.<br>B. Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into this permit.<br>C. The Department, ADEM or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.<br>D. The Administrator, ADEM or the Department determines that this permit must be revised or revoked to assure compliance with the applicable requirements. | 18.13.5 |
| 24. | **Changes or Termination for Cause – No Stay of Permit Conditions**<br>This permit may be modified, revoked, reopened and reissued or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance or termination, or of a notification of a planned change or anticipated noncompliance will not stay any permit condition. | 18.5.8 |
| 25. | **Furnishing Requested Information**<br>The permittee shall furnish to the Department within 30 days, or for such other reasonable time as the Department may set, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon receiving a specific request, the permittee shall also furnish to the Department copies of records required to be kept by the permit. For information claimed to be confidential, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality. | 18.5.10<br>70.6(a)(6)(v) |
| 26. | **Entry and Inspections**<br>The permittee shall allow the Department, ADEM, EPA or authorized representative, upon presentation of credentials and other documents that may be required by law, to conduct the following:<br>A. Enter upon the permittee's premises where a source is located or emissions related activity is conducted or where records are kept pursuant to the permit conditions;<br>B. Review and/or copy at reasonable times any records kept pursuant to the permit conditions;<br>C. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices or operations required by the permit; and<br>D. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements.<br>Denial of access upon proper identification is grounds for permit revocation. | 1.8<br>18.7.2<br>18.2.9(d) |
| 27. | **Flexibility Changes**<br>Certain changes (per §502 (b)(10) of the Act) can be made to this Operating Permit without a revision if no modification as defined in the Rules and Regulations would occur and the changes do not exceed the emissions allowed under this permit provided that written notification is sent to the Department and EPA at least 7 days before the change is made. The written notification shall describe the proposed change, the date of the change, any change in emissions, and any term or condition of the permit which is no longer valid due to the change. | 18.13.2 |

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| 28. | **Minor Permit Modifications**<br>Minor permit modification procedures may be used only for those permit modifications that:<br>A. Do not violate any applicable requirement;<br>B. Do not involve significant changes to existing monitoring, reporting, or record keeping requirements in the permit;<br>C. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;<br>D. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:<br>1. A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the Act; and<br>2. An alternative emissions limit approved pursuant to regulations promulgated under §112(i)(5) of the Act;<br>E. Are not modifications under any provision of title I of the Act; and<br>F. Are not required by Part 18.12 of this Chapter to be processed as a significant modification.<br>An application requesting the use of minor permit modification procedures shall meet the requirements of Section 18.4.8 relative to the modification and shall include the information listed at Paragraph 18.13.3(b). If the Department notifies the source that the modification does not qualify as a minor modification within 10 days after receiving the application, then the source shall apply for the change as a significant modification. Ten days after the application has been submitted to the Department, the source may make the change for which they applied unless the change does not qualify as a minor modification. After the source makes the change and until the Department takes final action on the permit application, the source must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time period, the source need not comply with the existing permit terms and conditions it seeks to modify. However, if the source fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against it. A permit shield granted under Part 18.10 shall not extend to minor permit modifications. The Department may not issue a final permit modification until after EPA's 45-day review period or until EPA has notified the Department that EPA will not object to issuance of the permit modification, whichever is first. | 18.13.3 |
| 29. | **Significant Modifications**<br>Modifications that are significant modifications under the new source review permitting provisions of Part 2.4 (Prevention of Significant Deterioration) or Part 2.5 (Nonattainment Areas) regulations, are modifications under the NSPS or NESHAPS regulations, or otherwise do not meet the requirements for minor permit modifications from Section 18.13.3 of the Rules and Regulations must be incorporated in the Operating Permit using the requirements for sources initially applying for an Operating Permit, including those for applications, public participation, review by affected States, review by ADEM, and review by EPA, as described in Parts 18.4 and 18.15 of the Rules and Regulations. | 18.13.4 |
| 30. | **Off-Permit Changes**<br>Any change which is not addressed or prohibited in the federally enforceable terms and conditions of the permit may be designated by the owner or operator as an off-permit change, and may be made without revision to the federally enforceable terms and conditions of the operating permit, provided that the change: | 18.14 |

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| | A. Meets all applicable requirements;<br>B. Does not violate any federally enforceable permit term or condition;<br>C. Is not subject to any requirement or standard under title IV of the Clean Air Act; and<br>D. Is not a modification under title I.<br>The permittee must comply with all applicable state permitting and preconstruction review requirements. Any application pertaining to a change designated by the applicant as an off-permit change shall be submitted by the applicant to EPA in fulfillment of the obligation to provide written notice, provided, that no change meeting the criteria for an insignificant activity or trivial activity is subject to the procedures set forth in this condition. | |
| 31. | **Property Rights and Privileges**<br>No property rights of any sort or any exclusive privilege are conveyed through the issuance of this Operating Permit. | 18.5.9 |
| 32. | **Economic Incentives**<br>No permit revision shall be required under any approved economic incentives, marketable permit emissions trading and other similar programs or processes for changes that are provided for in the Operating Permit. | 18.5.12 |
| 33. | **Emission Reduction Plan**<br>Upon notification by this Department, the permittee shall submit an Air Pollution Emission Reduction Plan in a format approved by this Department concerning air contaminant emissions reductions to be taken during declared air pollution episodes. | 18.2.8(b) |
| 34. | **Emergency Provision**<br>A. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emissions limitation under the Operating Permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.<br>B. Exceedances of emission limits during emergencies (as defined above) at a facility may be exempted from being violations provided that:<br>1. The permittee demonstrates that the event qualifies as an emergency as defined above;<br>2. The permittee can identify the cause(s) of the emergency;<br>3. At the time of the emergency, the permitted facility was being properly operated;<br>4. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit;<br>5. The permittee submitted notice of the emergency to the Health Department within 2 working days of the time when emission limitations were exceeded due to the emergency, including those deviations attributable to upset conditions as defined in the permit, the probable cause of said deviations, and any corrective actions or preventive measures that were taken;<br>6. The permittee submitted a written documentation of what was reported in the notice of the emergency to the Department within 5 working days of the emergency with a certification by a responsible official consistent with Section 18.4.9 of the Rules and Regulations; and<br>7. The permittee immediately documented the emergency exceedance in an "Emergency Log", which shall be maintained for 5 years in a form suitable for inspection upon request by a representative of the Department. | 18.11.2<br>18.7.1 |

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| | C. The permittee has the burden of proof to assert and establish that excess emissions were attributable to an emergency in any enforcement proceeding.<br>D. This provision is in addition to any emergency or upset provision contained in any applicable requirement. | |
| 35. | **Obnoxious Odors**<br>This Operating Permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Department inspectors, measures to abate the odorous emissions shall be taken upon determination by this Department that these measures are technically and economically feasible. | 6.2.3 |
| 36. | **Title IV Requirements (Acid Rain Program)**<br>Where an applicable requirement of the Rules and Regulations is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act (the acid rain program), both provisions shall be incorporated into the permit and shall be enforceable by the Administrator. Emissions exceeding any allowances that the permittee lawfully holds under title IV of the Act or the regulations promulgated thereunder are prohibited. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid rain program, provided that such increases do not require a permit revision under any other applicable requirement. No limit shall be placed on the number of allowances held by the permittee, however, allowances may not be used as a defense to noncompliance with any other applicable requirement. Any such allowance shall be accounted for according to the procedures established in the regulations promulgated pursuant to Title IV of the Act. | 18.5.1(b)<br>18.5.4 |
| 37. | **Title VI Requirements (Refrigerants)**<br>Any facility having appliances or refrigeration equipment, including air conditioning equipment, which use Class I or Class II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR 82, Subpart A, Appendices A and B, shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR 82, Subpart F.<br>A. No person shall knowingly vent or otherwise release any Class I or Class II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR 82, Subpart F.<br>B. The responsible official shall comply with all reporting and recordkeeping requirements of 40 CFR §82.166. Reports shall be submitted to the U.S. EPA and the Department as required. | 40 CFR 82<br>18.1.1(e)(10)<br>18.1.1(w)(4) |
| 38. | **Asbestos Demolition and Renovation**<br>Demolition and renovation activities at this facility are subject to the National Emission Standard for Asbestos, 40 CFR 61, Subpart M. To determine the applicable requirements of the Standard, the permittee must thoroughly inspect the affected part of the facility where the demolition or renovation operation will occur for the presence of asbestos, including Category I and Category II nonfriable asbestos-containing materials, prior to the commencement of the demolition or renovation operation. The permittee shall comply with all applicable sections of the Standard, including notification requirements, emission control and waste disposal procedures. The permittee shall also ensure that anyone performing asbestos-related work at the facility is trained and certified according to the Alabama Department of Environmental Management's regulations for Asbestos Contractor Certification. | 40 CFR 61<br>14.2.12 |
| 39. | **Prevention of Accidental Releases**<br>The permittee shall comply with the requirements of §112(r) of the Act and 40 CFR 68 to prevent accidental releases of any substance listed pursuant to §112(r) or any other extremely hazardous substance. | 112(r)<br>40 CFR 68 |

| No. | Federally Enforceable General Permit Conditions | Regulations |
|---|---|---|
| 40. | **Testing**<br>A source emissions test may be required by this Department at any time. The permittee shall provide each point of emission with sampling ports, ladders, stationary platforms, and other safety equipment to facilitate testing. The permittee shall notify the Department in writing at least 60 days prior to conducting any required emissions test on any source, including but not limited to opacity and visible emission observations. This notice shall state the source to be tested, the proposed time and date(s) of the test, the purpose of the test, and the methods to be used. A site-specific test plan and quality assurance program shall be included for sources subject to NESHAP. The methods for such testing shall be in accordance with methods and procedures established by 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63 and any emissions unit specific permit requirements. Performance testing to demonstrate compliance with an NSPS or NESHAP shall include a test method performance audit as required by §60.8(g), §61.13(e), or §63.7(c)(2)(iii)(A), respectively, if audit samples are commercially available. The permittee shall submit the results of all emissions tests in written form to this Department within a time period specified by this Department; however, not to exceed 30 days from the test completion date unless a longer period is specified in the applicable subpart. | 1.9.1<br>1.10<br>18.2.5<br>18.2.8(c)<br>60.8(d)<br>60.8(e)<br>60.8(g)<br>61.05(d)<br>61.13<br>63.7(a)(3)<br>63.7(b)-(d)<br>63.9(e)<br>63.9(f)<br>63.10(d) |
| 41. | **Retention of Records**<br>Records of all required monitoring data, fuel consumption, analyses, reports, safety data sheet (SDS), and other support information shall be retained for a minimum of 5 years from the date when the record was generated. Records must be readily accessible and suitable for inspection. Each record must be kept onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, but may be maintained offsite for the remaining 3 years. Records may be kept in hard copy or electronically. Specific records to be made and retained are listed in the emission unit conditions. | 18.5.3(b)<br>63.10(b)(1)<br>63.3931<br>63.7753 |
| | **Facility-Specific General Conditions** | |
| 42. | **Fugitive Dust**<br>A. The permittee shall take reasonable precautions to prevent dust from any operation, process, materials handling and storage, transportation activity (including dust from paved and unpaved roads), or construction activity (including but not limited to the use, repair, alteration, and demolition of buildings) at the facility from becoming airborne.<br>B. The permittee shall not cause or allow the discharge of visible emissions which travel beyond the property line of the facility.<br>C. When dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from a building or equipment in such a manner and amount as to cause a nuisance or to violate any rule or regulation, the Health Officer may order that the building or equipment in which processing, handling and storage are done be tightly closed and ventilated in such a way that all air and gases and air or gas-borne material leaving the building or equipment are treated by removal or destruction of air contaminants before discharge to the open air.<br>Airborne fugitive dust emissions shall be prevented and addressed as needed and as appropriate to weather conditions using any or all of the following pre-approved control measures specific to the following sources of fugitive dust:<br>1. Follow a work practice plan detailing how the wet suppression system will be operated, general practices for variation in weather, and how the system will be maintained to minimize emissions from charge make-up, the cupola, process areas and plant grounds (including but not limited to roadways);<br>2. Use of a water truck on plant roads anytime the surface is sufficiently dry to allow the creation of dust emissions by the action of wind or vehicle traffic; | 6.2.1<br>6.2.2<br>6.2.3<br>6.9.2<br>18.2.4 |

| No. | Federally Enforceable General Permit Conditions | Regulations |
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| | 3. Use of wet suppression or water washing when conditions are dry and fugitive dust could become airborne and leave property lines;<br>4. Paving plant roadways;<br>5. Reducing vehicle speed to a point below which dust emissions are created;<br>6. Application of surfactants or binders in conjunction with the wet suppression system where feasible and needed; and<br>7. Dust-forming materials deposited on the paved roads shall be removed at the earliest opportunity subject to safety.<br>Wet suppression may be accomplished by the application of water with or without the addition of surfactants, wetting agents or other additives to increase the effectiveness of wet suppression. Manufacturer's documentation of the contents of any chemical, surfactant, wetting agent, or other additive used for dust suppression shall be maintained and readily made available upon request by the Department. Other dust control methods not listed above may be used subject to Department approval. | |
| | **Recordkeeping, Reports and Notifications for Entire Facility** | |
| 43. | **General Recordkeeping Requirements**<br>The permittee shall keep records of facility-wide operations, activities and materials which have the potential to release pollutants into the atmosphere in sufficient detail to show compliance with permit conditions and to allow the annual calculation of emissions of regulated pollutants and HAP from each point and fugitive source and activity at the facility. In addition to the records required in the conditions specific to each emission unit, the permittee shall maintain records of the following:<br>A. All reports and notifications submitted to comply with this permit;<br>B. Results of all required performance testing, monitoring and sampling;<br>C. Available SDS, EDS and/or other manufacturer supplied contents information relating to the VOC and HAP contents of materials used at the facility;<br>D. For air filtration devices listed in this permit, the date of filter replacement and the characteristics of the replacement filter materials; and<br>E. All spills or other mishaps of VOC/HAP materials. The record shall include the date, time, and quantity (gallons or pounds) of VOC/HAP materials involved in the spill or mishap. The permittee shall document the amount of VOC/HAP materials recovered and the amount that evaporated to the atmosphere, and<br>F. Records of required monitoring, including (as a minimum):<br>1. The date, place as defined in the permit, and time of sampling or measurements;<br>2. The date(s) analyses were performed;<br>3. The company or entity that performed the analyses;<br>4. The analytical techniques or methods used;<br>5. The results of such analyses; and<br>6. The operating conditions as existing at the time of sampling or measurement. | 1.9.1<br>18.7.1<br>70.6(a)(3)(C) |
| 44. | **Submission of Reports and Notifications**<br>The permittee shall submit all reports and notifications required by any permit condition and by any applicable NESHAP and/or NSPS to the Department. The reports may be sent by U. S. mail, or common courier (i.e. UPS or FedEx). Reports submitted by US mail shall be postmarked on or before the due date. Reports submitted by electronic mail shall be received on or before the due date. **Any application form, report or compliance certification required to be submitted pursuant to the Title V program regulations shall contain a certification by a responsible official that meets the requirements of Section 18.4.9 of the Rules and Regulations.** The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete. Each report shall identify the company name and address, the beginning and ending dates of the reporting period, and the date of report completion. The records required for each | 18.7.1<br>18.4.9<br>18.7.5(d)<br>63.7751(b)(2) |

| No. | Federally Enforceable General Permit Conditions | Regulations |
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| | emissions unit shall be used in preparing these reports and notifications. The annual compliance certification shall be submitted to the following 2 agencies:<br><br>Jefferson County Department of Health<br>Air Pollution Control Program<br>P.O. Box 2648<br>Birmingham, Alabama 35202-2648<br><br>and to<br><br>EPA Region IV<br>Atlanta Federal Center<br>61 Forsyth Street<br>Atlanta, GA 30303 | |
| | The following reports and notifications are required to be submitted:<br>A. **Annual Emissions Calculation**, due February 10 of each year. The permittee shall maintain the records required in the emission unit conditions. The permittee shall make calculations of the previous year's actual emissions (point and fugitive) of all regulated air pollutants, as defined in Paragraph 18.1.1(w) of the Rules and Regulations, which emanate from the facility. The calculations shall include, but may not be limited to, the following pollutants: TSP, $PM_{10}$, $PM_{2.5}$, $SO_2$, $NO_X$, CO, VOCs and HAPs. These calculations shall indicate the emissions from each emissions unit permitted, the fugitive emissions from on-site vehicular traffic and the combustion of motor fuels (diesel, gasoline and natural gas), and emissions from spills, mishaps and other activities not elsewhere included. Documentation of the basis for the calculations, including but not necessarily limited to emission factors and relevant production data. Concurrence with the calculations by the Department shall be the basis for annual emission fees in accordance with Chapter 16 of the Rules and Regulations. Specific reporting requirements are located in:<br>1. Condition 24for the Iron Foundry;<br>2. Condition 14 for Surface Coating;<br>3. Condition 5 for Zinc Coating;<br>4. Condition 8 for Equipment Combusting Natural Gas;<br>5. Condition 5 for Controlled PM Sources;<br>6. Condition 6 for Gasoline Dispensing; and<br>7. Condition 9 for Emergency Generators.<br>B. **Annual Title V Compliance Certification** certifying compliance with terms and conditions contained in the permit, including emissions limitations, standards and work practices, covering the period from July 31 to July 30 of the following year, shall be submitted by August 30 each calendar year. The permittee shall provide a means for monitoring the compliance of its air pollution sources with the emissions limitation, standards and work practices listed or referenced within this permit. The compliance certification shall include the following information:<br>1. The identification of each term or condition of the permit that is the basis of the certification;<br>2. The emissions unit or units to which the term or condition applies;<br>3. The compliance status;<br>4. Whether compliance has been continuous or intermittent;<br>5. The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with the permit's monitoring and recordkeeping requirements; and<br>6. Such other facts as the Department may require to determine the compliance status of the source. | 1.9.2<br>1.5.15<br>18.7.1<br><br>18.7.5 |

| No. | Federally Enforceable General Permit Conditions | Regulations |
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| | C. **Semi-Annual Title V Certification, Monitoring and Compliance Report**, due July 30 (covering January, February, March, April, May and June) and January 30 (covering July, August, September, October, November and December of the previous year). Each report must identify the company name, the date of the report, and the beginning and end dates of the reporting period. The report must include, as a minimum, the information and/or reports listed in the emission unit conditions at the following locations:<br>1. Condition 23 for the Iron Foundry;<br>2. Condition 13 for Surface Coating; and<br>3. Condition 7 for Fuel Burning Equipment (may be submitted for each unit subject to 40 CFR 63, Subpart DDDDD at the interval required for a tune-up). | 1.9.2<br>1.5.15<br>18.5.3(c)(1)<br>18.2.4<br>18.7.1<br>63.7751(a)<br>63.7751(b) |
| | Beginning on March 9, 2021, you must submit all subsequent semiannual compliance reports for 40 CFR 53, Subpart EEEEE to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's Central Data Exchange (CDX) (*https://cdx.epa.gov/*). The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as confidential business information (CBI). Anything submitted using CEDRI cannot later be claimed to be CBI. You must use the appropriate electronic report template on the CEDRI website (*https://www.epa.gov/electronic-reporting-air-emissions/cedri*) for this subpart. The date report templates become available will be listed on the CEDRI website. The report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted. If you claim some of the information required to be submitted via CEDRI is CBI, submit a complete report, including information claimed to be CBI, to the EPA. The report must be generated using the appropriate form on the CEDRI website or an alternate electronic file consistent with the extensible markup language (XML) schema listed on the CEDRI website. Although we do not expect persons to assert a claim of CBI, if persons wish to assert a CBI, submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404–02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described above. All CBI claims must be asserted at the time of submission. Furthermore, under CAA section 114(c) emissions data is not entitled to confidential treatment and requires EPA to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. | 63.7751(e) |
| | D. **Compliance Schedule Progress Reports** shall be submitted in accordance with any compliance schedule the permittee is subject to or becomes subject to during the permit term. | 18.4.8(h) |
| | E. **Results of performance testing and CMS performance evaluations** to the Department within 30 days after completion. | 1.9.2<br>18.7.1 |
| | F. **Results of performance testing and CMS performance evaluations for 40 CFR 63, Subpart EEEEE** shall be submitted within 60 days after the date of completing each performance test and each continuous monitoring system (CMS) performance evaluation (as defined in § 63.2), using the following procedures:<br>1. *Data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (https://www.epa.gov/electronic-reporting-airemissions/electronic-reporting-tool-ert) at the time of the test, and performance evaluations of CMS measuring relative accuracy test audit (RATA) pollutants that are supported by the EPA's ERT as listed on the EPA's ERT website at the time of the evaluation.* Submit the results of the performance test to the EPA via the CEDRI, which can be accessed through the EPA's CDX (*https://cdx.epa.gov/*). The data must be | 63.7751(f)<br>63.7751(g) |

| No. | Federally Enforceable General Permit Conditions | Regulations |
|---|---|---|
| | submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit an electronic file consistent with the XML schema listed on the EPA's ERT website.<br>2. *Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test and performance evaluations of CMS measuring RATA pollutants that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the evaluation.* The results of the performance test or performance evaluation must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the ERT generated package or alternative file to the EPA via CEDRI.<br>3. *Confidential business information.* The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as CBI. Anything submitted using CEDRI cannot later be claimed to be CBI. Although we do not expect persons to assert a claim of CBI, if you claim some of the information submitted under paragraph (f)(1) or (2) of this section is CBI, you must submit a complete file, including information claimed to be CBI, to the EPA. The file must be generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described in paragraph (f)(1) of this section. All CBI claims must be asserted at the time of submission. Furthermore, under CAA section 114(c) emissions data is not entitled to confidential treatment and requires EPA to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available.<br>Failure to timely submit a report due to an EPA system outage or force majeure will be handled by EPA as described in 40 CFR §63.7751(h) and (i). The permittee has the burden of proof to demonstrate that the requirements for such a claim have been met. | |
| | G. **Episodic prompt reporting of malfunctions, deviations, emergencies and violations** of any permit condition, including but not limited to emission limitations, within 2 working days of the malfunction, deviation, emergency or discovery of a violation at any source of air pollution. The report shall include the probable cause of any deviation and any corrective actions or preventative measures that were taken. Specific reporting requirements include, but are not limited to:<br>1. Immediate startup, shutdown, and malfunction report for the iron foundry required by Subpart EEEEE. If you had a startup, shutdown, or malfunction during the semiannual reporting period that was not consistent with your startup, shutdown, and malfunction plan and the source exceeds any applicable emissions limitation in §63.7690, you must submit an immediate startup, shutdown, and malfunction report according to the requirements of §63.10(d)(5)(ii). | 1.12.2<br>18.5.3(c)(2)<br>63.10(d)(5)(ii)<br><br>63.7751(c) |

| No. | Federally Enforceable General Permit Conditions | Regulations |
|---|---|---|
| | 2. Report deviations from the emissions limitations, work practice standards, and operation and maintenance requirements of 40 CFR 63, Subpart EEEEE according to the requirements in §63.7341. A deviation includes:<br>a. Each instance in which you did not meet each applicable emissions limitation in §63.7690 (including each operating limit). This requirement includes periods of startup, shutdown, and malfunction.<br>b. Each instance in which you did not meet each work practice standard in §63.7700 and each applicable operation and maintenance requirement of §63.7710. | 63.7746(a) |
| | H. **Notifications** as follows: | |
| | 1. Notification of performance testing for each baghouse, at least 60 days prior to scheduled testing per §63.7750(d). | 63.7(b)(1) |
| | 2. Any change in information already provided under 40 CFR 63 shall be submitted in writing within 30 calendar days after the change per §63.9(j). | 63.9(j) |
| | 3. Notify the Department in writing within 2 working days of becoming subject to a federal Maximum Achievable Control Technology (MACT) standard pursuant to §112 of the Act (local requirement). | 18.2.4<br>18.7.1 |
| | I. **Mandatory Greenhouse Gas Reporting (for informational purposes only)**:The permittee shall be aware that the facility may be required to report emissions of greenhouse gases directly to EPA under the Mandatory Greenhouse Gas Reporting rules. The reporting threshold is annual greenhouse gas emissions equal to 25,000 metric tons $CO_2e$, calculated using the methods presented in 40 CFR 98. Mandatory greenhouse gas reporting is made directly to EPA and is not an enforceable requirement of this Title V Major Source Operating Permit. It is the permittee's responsibility to determine whether reporting is required each calendar year. | 40 CFR 98 |

## SUMMARY TABLES FOR IRON FOUNDRY

| Emission Unit | Emission Limits | Citation |
|---|---|---|
| 037 Cupola | 0.006 gr/dscf of PM<br>*or*<br>0.10 lb of PM per ton of metal charged<br>*or*<br>0.0005 gr/dscf of total metal HAP<br>*or*<br>0.008 lb of total metal HAP per ton of metal charged | §63.7690(a)(2) |
| | 20 ppmv of VOHAP, corrected to 10% oxygen while on blast | §63.7690(a)(8) |
| 066 Contiarc | 0.005 gr/dscf of PM<br>*or*<br>0.0004 gr/dscf of total metal HAP | §63.7690(a)(1) |
| 037 Cupola & 066 Contiarc | 20% opacity as a 6-minute average, except as allowed by 6.1.1(b) | 6.1.1 |
| Foundry Buildings | 20% opacity as a 6-minute average, except as allowed by §63.7690(a)(7) | §63.7690(a)(7) |

| Emission Unit | Operating Limits | Citation |
|---|---|---|
| 037 Cupola | operate the capture system at or above the lowest value or settings established as operating limits in your operation and maintenance plan | §63.7690(b)(1) |
| | operate the afterburner such that the 15-minute average combustion zone temperature does not fall below 1,300 °F | §63.7690(b)(3) |

| Emission Unit | Operation and Maintenance Requirements | Citation |
|---|---|---|
| 037 Cupola & 066 Contiarc | Operate at all times according to your written Operation and Maintenance Plan for each capture and collection system and control device according to §63.7710(b), including but not limited to preventive maintenance and corrective actions for bag leak detection system alarms | §63.7710(b) & §63.7743(b)(1) |

| Affected Equipment | Monitoring | Citation |
|---|---|---|
| Cupola & Contiarc Baghouses | Baghouse cleaning cycles | §63.7740(c)(4) |
| | Bag Leak Detection System per §63.7741(b)&(f) | §63.7740(b) |
| Cupola Afterburner | CPMS to monitor the 15-minute average combustion zone temperature per §63.7741(d)&(f) | §63.7740(e) & §63.7743(b)(2) |
| Cupola & Contiarc Capture Systems | CPMS to monitor operating parameters per §63.7740(a) and §63.7741(a)&(f) | §63.7740(a) |

| Emission Unit | Work Practice Standards | Citation |
|---|---|---|
| 037 Cupola | On and before March 9, 2021, comply with the requirements in §63.7710 and the requirements specified in the startup, shutdown, and malfunction plan required at § 63.7720(c). A written startup and shutdown plan according to §63.6(e)(3) is required. | §63.7700(g)(1) & §63.7720(a) |
| | After March 9, 2021, operate an afterburner or other thermal combustion control device with a flame present at all times while the cupola is off blast, except as allowed by §63.7700(g)(2). The startup and shutdown plan is no longer required. | §63.7700(g)(2) & §63.7720(c) |
| Scrap Compliance Methods | Written certification that the foundry purchases and uses only metal ingots, pig iron, slitter, or other materials that do not include post-consumer automotive body scrap, post-consumer engine blocks[1], post-consumer oil filters[1], oily turnings[1], lead components, mercury switches, plastics, or free organic liquids. | §63.7700(b) |
| | Prepare and operate according to a written plan for the selection and inspection of scrap to minimize, to the extent practicable, the amount of organics and HAP metals in the charge materials used. The scrap selection and inspection plan must be approved by the Administrator. | §63.7700(c) |
| | Separate scrap storage areas may use either compliance method provided that the scrap not using the same compliance method remains segregated until charge make-up. | §63.7700(a) |
| Furan Warm Box Mold Making Lines | Binder chemical formulation shall not contain methanol | §63.7700(d) |

| Frequency | Inspection, Observation or Testing | Citation |
|---|---|---|
| Daily | Monitor the pressure drop across each baghouse cell | §63.7740(c)(1) |
| | Check the compressed air supply for pulse-jet baghouses | §63.7740(c)(3) |
| Weekly | Dust hoppers for proper functioning of removal mechanisms | §63.7740(c)(2) |
| Monthly | Visual inspection of equipment important to the performance of the capture system (sensors, dampers, ductwork, etc.) | §63.7710(b)(1) |
| | Visual inspection of bag cleaning mechanisms | §63.7740(c)(5) |
| | Visual inspection of all components of each CPMS | §63.7741(a) |
| Quarterly | Visual inspection of the baghouse interior | §63.7740(c)(7) |
| | Visual inspection of fans for wear, material buildup, and corrosion | §63.7740(c)(8) |
| Every 6 Months | Visual Observation of All Buildings Containing Foundry Observations to Demonstrate Compliance with Opacity Limits (per §63.7732(d)) | §63.7731(b) & §63.7743(a)(12) |
| Every 5 Years | Performance Testing to Demonstrate Compliance With PM or total metal HAP (per §63.7732(b) or (c)) and VOHAP (per §63.7732(e)) Emission Limits & to establish or change operating limits for the capture systems (per §63.7733(a)) | §63.7731(a) & §63.7743(a)(12) |

[1] Post-consumer engine blocks, post-consumer oil filters, oily turnings *that are processed and/or cleaned to the extent practicable* such that the materials do not include lead components, mercury switches, chlorinated plastics, or free organic liquids can be included in this certification.

# FEDERALLY ENFORCEABLE CONDITIONS FOR THE IRON FOUNDRY, SUBJECT TO SIP & 40 CFR 63, SUBPART EEEEE

| Emissions Unit No. | Emissions Unit Description |
|---|---|
| 037 | 150" Grey Iron Cupola |
| 066 | Contiarc Electric Arc Iron Melting Furnace |
| No EU | Iron Desulfurization and Slag Skimming |
| 038 | 3 Ductile Iron Treating Stations |
| No EU | Sand Core Making |

| No. | Federally Enforceable Conditions for the Iron Foundry | Regulations |
|---|---|---|
| | **New Source Review Conditions** | |
| 1. | A. The permittee shall not charge more than 100 tons of scrap metal per hour into the cupola as a 12-month rolling total.<br>B. The permittee shall not charge more than 80 tons of scrap metal per hour into the Contiarc as a 12-month rolling total.<br>C. The permittee shall not operate the Contiarc more than 5,688 hours per year as a 12-month rolling total.<br>D. The combined $SO_2$ emissions from the cupola and the Contiarc shall not exceed 276.85 tons per year as a 12-month rolling total.<br>1. The cupola $SO_2$ emissions rate shall not exceed 6.00 lb/hr (measured by Method 6c of 40 CFR 60, Appendix A if required).<br>2. The Contiarc $SO_2$ emissions rate shall not exceed 88.10 lb/hr (measured by Method 6c of 40 CFR 60, Appendix A if required). | 18.2.4 |
| | **Applicable Regulations** | |
| 2. | **JCBH Air Pollution Control Rules and Regulations/ State Implementation Plan (SIP)**<br>The foundry operations are subject to the following requirements of the Rules and Regulations:<br>A. Part 6.1, "Visible Emissions"<br>B. Part 6.2, "Fugitive Emissions"<br>C. Part 6.4, "Process Industries – General"<br>Additionally, Part 9.1, "Cupolas, Blast Furnaces and Basic Oxygen Steel Furnaces," applies to the cupola.<br>The more stringent requirement(s) of the SIP or the NESHAP regulations will prevail for each piece of equipment which is subject to non-identical applicable requirements. | 6.1<br>6.2<br>6.4<br>9.1 |
| 3. | **40 CFR 63, Subpart EEEEE**<br>The affected source under 40 CFR 63, Subpart EEEEE, "National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries" (NESHAP) consists of the metal melting furnaces (Cupola and Contiarc), the sand core making lines and visible fugitive emissions from buildings which contain foundry operations. The affected source is existing (construction was commenced before December 23, 2002).<br>The more stringent requirement(s) of the SIP or the NESHAP regulations will prevail for each piece of equipment which is subject to non-identical applicable requirements. | 63.7681<br>63.7682 |

| No. | Federally Enforceable Conditions for the Iron Foundry | Regulations |
|---|---|---|
| 4. | **NESHAP General Compliance Requirements**<br>The permittee shall maintain and operate the iron foundry, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practice for minimizing emissions at least to the levels required by 40 CFR 63, Subpart EEEEE.<br>A. On and before March 9, 2021, you must be in compliance with the emissions limitations, work practice standards, and operation and maintenance requirements in Subpart EEEEE at all times, except during periods of startup and shutdown. Develop a written startup, shutdown, and malfunction plan according to the provisions in §63.6(e)(3). The startup, shutdown, and malfunction plan also must specify what constitutes a shutdown of a cupola and how to determine that operating conditions are normal following startup of a cupola.<br>B. After March 9, 2021, you must be in compliance with the emissions limitations, work practice standards, and operation and maintenance requirements in Subpart EEEEE at all times. After March 9, 2021, the startup, shutdown, and malfunction plan requirements no longer apply. | 63.7710(a)<br>63.7720(a)<br>63.7720(c) |
| | **Subpart EEEEE Work Practice Standards** | |
| 5. | **Cupola Afterburner Operation**<br>Reduce VOHAP emissions to the extent practicable during periods of off blast, as defined in § 63.7765, by meeting the following applicable requirements:<br>A. On and before March 9, 2021, comply with the requirements in § 63.7710 and the requirements specified in the startup, shutdown, and malfunction plan required at §63.7720(c).<br>B. After March 9, 2021, you must comply with the applicable requirements below:<br>1. Except as provided in Items 2 and 3 below, operate an afterburner or other thermal combustion control device with a flame present at all times while the cupola is off blast. This includes the latter portion of coke bed preparation step and the initial metallics charging step during cupola startup, the slag and residual metal removal step during cupola shutdown, and idling conditions when the blast air is turned off or down to the point that the cupola does not produce additional molten metal.<br>2. During cupola startup steps of refractory curing and cupola bed preparation and during the cupola shutdown steps of cupola cooling and banking or bottom drop, comply with the requirements in §63.7710 and the opacity limit in §63.7690(a)(7).<br>3. Light the cupola afterburner or other thermal combustion control device as soon as practicable during the cupola startup step of coke bed preparation following the procedures included in the operation and maintenance plan required at §63.7710(b), but no later than 30 minutes after the blast air is started to begin the coke bed burn-in. | 63.7700(g) |
| 6. | **Scrap Management**<br>For each segregated scrap storage area, bin or pile, the permittee shall follow the requirements of §63.7700(b) (Item A) and/or §63.7700(c) (Item B) for all scrap which is charged to a furnace at the iron foundry. You may have certain scrap subject to 63.7700(b) and other scrap subject to 63.7700(c) at your facility provided the scrap remains segregated until charge make-up. Continuous compliance is demonstrated be maintaining records that document continuous compliance with the certification requirements in §63.7700(b) or with the procedures in your scrap selection and inspection plan required in §63.7700(c). Records documenting compliance with the scrap selection and inspection plan must include a copy (kept onsite) of the procedures used by the scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable. | 63.7700(a)<br>63.7735(a)<br>63.7735(b)<br>63.7744(a) |

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| | A. Prepare and operate at all times according to a written certification that the foundry purchases and uses only materials that comply with 63.7700(b):<br>1. Purchase and use only metal ingots, pig iron, slitter, or other materials that do not include post-consumer automotive body scrap, post-consumer engine blocks, post-consumer oil filters, oily turnings, lead components, mercury switches, plastics, or free organic liquids.<br>2. "Free organic liquids" is defined as material that fails the paint filter test by EPA Method 9095A, "Paint Filter Liquids Test" (Revision 1, December 1996), as published in EPA Publication SW-846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (incorporated by reference—see §63.14).<br>3. Any post-consumer engine blocks, post-consumer oil filters, or oily turnings that are processed and/or cleaned to the extent practicable such that the materials do not include lead components, mercury switches, chlorinated plastics, or free organic liquids can be included in this certification. | 63.7700(b) |
| | B. Prepare and implement a written plan for the selection and inspection of scrap according to the requirements in 63.7700(c):<br>1. Select and inspect iron and steel scrap to minimize, to the extent practicable, the amount of organics and HAP metals in the charge materials used by the iron and steel foundry.<br>2. This plan is subject to approval by the Administrator or delegated authority.<br>3. Keep a copy of the plan onsite and readily available to all plant personnel with materials acquisition or inspection duties.<br>4. Provide a copy of the material specifications to each of your scrap vendors.<br>5. Required plan contents:<br>a. A materials acquisition program to limit organic contaminants:<br>i. For scrap charged to the Contiarc, specifications for scrap materials to be depleted (to the extent practicable) of the presence of used oil filters, chlorinated plastic parts, organic liquids, and a program to ensure the scrap materials are drained of free liquids.<br>ii. For scrap charged to the Cupola, specifications for scrap materials to be depleted (to the extent practicable) of the presence of chlorinated plastic, and a program to ensure the scrap materials are drained of free liquids.<br>b. A materials acquisition program specifying that the scrap supplier remove accessible mercury switches from the trunks and hoods of any automotive bodies contained in the scrap and remove accessible lead components such as batteries and wheel weights. You must either:<br>i. Obtain and maintain onsite a copy of the procedures used by the scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable; or<br>ii. Document your attempts to obtain a copy of these procedures from the scrap suppliers servicing your area.<br>c. Procedures for visual inspection of a representative portion, but not less than 10 percent, of all incoming scrap shipments to ensure the materials meet the specifications.<br>i. The inspection procedures must identify the location(s) where inspections are to be performed for each type of shipment. Inspections may be performed at the scrap supplier's facility. The selected location(s) must provide a reasonable vantage point, considering worker safety, for visual inspection.<br>ii. The inspection procedures must include recordkeeping requirements that document each visual inspection and the results. | 63.7700(c) |

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| | iii. The inspection procedures must include provisions for rejecting or returning entire or partial scrap shipments that do not meet specifications and limiting purchases from vendors whose shipments fail to meet specifications for more than three inspections in one calendar year.<br>d. If the inspections are performed at the scrap supplier's facility, the inspection procedures must include an explanation of how the periodic inspections ensure that not less than 10 percent of scrap purchased from each supplier is subject to inspection. | |
| | | |
| | **Subpart EEEEE Operation and Maintenance Plan Requirements** | |
| 7. | **Written Operation and Maintenance Plan**<br>The permittee shall prepare and operate at all times according to a written operation and maintenance plan, subject to Department approval, for each capture and collection system and each control device for each emissions source subject to a PM, metal HAP or VOHAP emissions limit in §63.7690(a) or work practice standard in §63.7700(g) of 40 CFR 63, Subpart EEEEE. A copy of the current plan must be maintained on-site and available for inspection on request for as long as the foundry is subject to Subpart EEEEE. Compliance is demonstrated by performance of the procedure(s). Any instance where the procedure is not followed is a deviation that must be included in the semiannual compliance report. Plan requirements include:<br>A. Monthly inspections of the equipment that is important to the performance of the total capture system (*i.e.*, pressure sensors, dampers, and damper switches). This inspection must include observations of the physical appearance of the equipment (*e.g.*, presence of holes in the ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). The operation and maintenance plan must also include requirements to repair the defect or deficiency as soon as practicable.<br>B. Operating limits for each capture system for an emissions source subject to an emissions limit or standard for VOHAP or TEA in §63.7690(a)(8) through (11). You must establish the operating according to the requirements in paragraphs §63.7710(b)(2)(i) through (iii).<br>1. Select operating limit parameters appropriate for the capture system design that are representative and reliable indicators of the performance of the capture system. At a minimum, you must use appropriate operating limit parameters that indicate the level of the ventilation draft and damper position settings for the capture system when operating to collect emissions, including revised settings for seasonal variations. Appropriate operating limit parameters for ventilation draft include, but are not limited to: volumetric flow rate through each separately ducted hood, total volumetric flow rate at the inlet to the control device to which the capture system is vented, fan motor amperage, or static pressure. Any parameter for damper position setting may be used that indicates the duct damper position related to the fully open setting. | 63.7710(b)<br>63.7745(b)<br>63.7746(a)<br><br>63.7710(b)(1)<br><br>63.7710(b)(2) |

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| | 2. For each operating limit parameter selected in paragraph §63.7710(b)(2)(i) , designate the value or setting for the parameter at which the capture system operates during the process operation. If your operation allows for more than one process to be operating simultaneously, designate the value or setting for the parameter at which the capture system operates during each possible configuration that you may operate (*i.e.*, the operating limits with one furnace melting, two melting, as applicable to your plant).<br>3. Include documentation in your plan to support your selection of the operating limits established for your capture system. This documentation must include a description of the capture system design, a description of the capture system operating during production, a description of each selected operating limit parameter, a rationale for why you chose the parameter, a description of the method used to monitor the parameter according to the requirements of §63.7740(a), and the data used to set the value or setting for the parameter for each of your process configurations. | |
| | C. Preventative maintenance plan for each control device, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance. | 63.7710(b)(3) |
| | D. A site-specific monitoring plan for each bag leak detection system. For each bag leak detection system that operates on the triboelectric effect, the monitoring plan must be consistent with the recommendations contained in the U.S. Environmental Protection Agency guidance document "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015). This baghouse monitoring plan is subject to approval by the Administrator. The owner or operator shall operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. The plan must address all of the items identified in paragraphs §63.7710(b)(4)(i) through (v).<br>1. Installation of the bag leak detection system.<br>2. Initial and periodic adjustment of the bag leak detection system including how the alarm set-point will be established.<br>3. Operation of the bag leak detection system including quality assurance procedures.<br>4. How the bag leak detection system will be maintained including a routine maintenance schedule and spare parts inventory list.<br>5. How the bag leak detection system output will be recorded and stored. | 63.7710(b)(4) |
| | E. Corrective action plan for each baghouse. The plan must include the requirement that, in the event a bag leak detection system alarm is triggered, you must initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete the corrective action as soon as practicable. Corrective actions taken may include, but are not limited to:<br>1. Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.<br>2. Sealing off defective bags or filter media.<br>3. Replacing defective bags or filter media or otherwise repairing the control device.<br>4. Sealing off a defective baghouse compartment.<br>5. Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system.<br>6. Making process changes.<br>7. Shutting down the process producing the PM emissions. | 63.7710(b)(5) |

<table>
<tr><th>No.</th><th>Federally Enforceable Conditions for the Iron Foundry</th><th>Regulations</th></tr>
<tr><td></td><td>Opacity Limitation from Buildings Housing Foundry Operations</td><td></td></tr>
<tr><td>8.</td><td><u>Visible Emissions</u><br>The permittee shall not discharge any emissions to the atmosphere from any building or structure housing foundry operations that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity. Continuous compliance with this requirement shall be demonstrated by maintaining the opacity of any fugitive emissions below this limit. Compliance with this limit will also demonstrate compliance with Section 6.1.1 of the Rules and Regulations.</td><td>63.7690(a)(7)<br>63.7743(a)(7)<br>6.1.1</td></tr>
<tr><td>9.</td><td><u>Visible Emissions Testing</u><br>The permittee shall conduct performance tests to demonstrate compliance with the opacity limit above no less frequently than once every 6 months. Using a certified observer, conduct each opacity test on buildings or structures housing any iron and steel foundry emissions source according to the requirements in EPA Method 9 of 40 CFR 60, Appendix A and 40 CFR §63.6(h)(5) and §63.7(e)(1). The certified observer may identify a limited number of openings or vents that appear to have the highest opacities and perform opacity observations on the identified openings or vents in lieu of performing observations for each opening or vent from the building or structure. Alternatively, a single opacity observation for the entire building or structure may be performed, if the fugitive release points afford such an observation. Each performance test must be conducted under conditions representative of normal operations. Normal operating conditions exclude periods of startup and shutdown. Performance tests shall not be conducted during periods of malfunction. Record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, make available to the Administrator such records as may be necessary to determine the conditions of performance tests. During testing intervals when PM performance tests are being conducted, conduct the opacity test such the opacity observations are recorded during the PM performance tests. The permittee shall notify the Department in writing of the anticipated date for conducting opacity or visible emission observations in accordance with §63.9(f).</td><td>63.7731(b)<br>63.7732(a)<br>63.7732(d)<br>63.7743(a)(12)<br>63.7750(a)</td></tr>
<tr><td></td><td>Emissions Limits for Metal Melting Furnaces</td><td></td></tr>
<tr><td>10.</td><td><u>Emission Limitations for the Cupola</u><br>The permittee shall not cause or allow emissions in excess of the emission limits below:
<table>
<tr><th>Pollutant</th><th>Limit</th><th>Authority</th></tr>
<tr><td>PM or Metal HAP</td><td>0.006 gr/dscf of PM<br>or<br>0.10 lb of PM per ton of metal charged<br>or<br>0.0005 gr/dscf of total metal HAP<br>or<br>0.008 lb of total metal HAP per ton of metal charged</td><td>§63.7690(a)(2)</td></tr>
<tr><td>VOHAP</td><td>20 ppmv of VOHAP, corrected to 10% oxygen</td><td>§63.7690(a)(8)</td></tr>
</table>
Continuous compliance with this requirement shall be demonstrated by maintaining the emissions below these limits. Performance testing is required at 5 year intervals.</td><td>63.7690<br>63.7743(a)(2)<br>63.7743(a)(8)<br>63.7743(a)(12)</td></tr>
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<tr><th>No.</th><th>Federally Enforceable Conditions for the Iron Foundry</th><th>Regulations</th></tr>
<tr><td>11.</td><td><u>Emission Limitations for the Contiarc EAF</u><br>The permittee shall not cause or allow emissions in excess of the emission limits below:<br><br><table><tr><th>Pollutant</th><th>Limit</th><th>Authority</th></tr><tr><td>PM or Metal HAP</td><td>0.005 gr/dscf of PM<br>or<br>0.0004 gr/dscf of total metal HAP</td><td>§63.7690(a)(1)</td></tr></table><br>Continuous compliance with this requirement shall be demonstrated by maintaining the emissions below this limit. Performance testing is required at 5 year intervals.</td><td>63.7690<br>63..7743(a)(1)<br>63.7743(a)(12)</td></tr>
<tr><td>12.</td><td><u>Emission Limitations from the State Implementation Plan (SIP)</u><br>The permittee shall not cause or allow emissions in excess of the emission limits below:<br><br><table><tr><th>Pollutant</th><th>Limit</th><th>Authority</th></tr><tr><td>Particulate Matter (PM)</td><td>$E = 3.59p^{0.64}$, where $E$ is emission rate (lb/hr) and $p$ is the process weight rate (tons/hr), where $p < 30$ tons/hr<br>or<br>$E = 17.31p^{0.16}$, where $E$ is emission rate (lb/hr) and $p$ is the process weight rate (lb/hr), where $p \geq 30$ tons/hr</td><td>6.4.1</td></tr><tr><td>Opacity</td><td>20 % opacity (6-minute average), except for one 6-minute period per hour of not more than 40 % opacity</td><td>6.1.1</td></tr></table></td><td>6.4.1<br>6.1.1</td></tr>
<tr><td></td><td>Control Device and Monitoring Requirements for Metal Melting Furnaces</td><td></td></tr>
<tr><td>13.</td><td><u>Operation of Control Devices for Cupola</u><br>The permittee shall immediately stop charging the cupola at any time when the afterburner and/or the baghouse are not operating for any reason until such time as both control devices are placed back into service. A record of all times when one or both control devices are not operating shall be maintained.</td><td>18.2.4</td></tr>
<tr><td>14.</td><td><u>General Monitoring Requirements</u><br>A. Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) any time a source of emissions is operating.<br>B. You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emissions or operating levels or to fulfill a minimum data availability requirement, if applicable. You must use all the data collected during all other periods in assessing compliance.<br>C. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.</td><td>63.7742</td></tr>
<tr><td>15.</td><td><u>Baghouse Requirements (Cupola & Contiarc)</u><br>At all times, the permittee shall operate each baghouse according to the written operation and maintenance plan required by §63.7710(b). Monitor and inspect the baghouse as follows:</td><td>63.7710(b)</td></tr>
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| | A. At all times monitor the relative change in PM loadings using a bag leak detection system according to the requirements in §63.7741(b): | 63.7740(b) |
| | 1. The system must be certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less. | 63.7741(b) |
| | 2. The bag leak detection system sensor must provide output of relative particulate matter loadings and the owner or operator shall 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). | |
| | 3. The system must be equipped with an alarm that will sound when an increase in relative particulate loadings is detected over the alarm set point established in the operation and maintenance plan, and the alarm must be located such that it can be heard by the appropriate plant personnel. | |
| | 4. The initial adjustment of the system must, at minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time (if applicable). | |
| | 5. Following the initial adjustment, do not adjust the sensitivity or range, averaging period, alarm set point, or alarm delay time without approval from the Administrator. Except, once per quarter, you may adjust the sensitivity of the bag leak detection system to account for seasonable effects including temperature and humidity according to the procedures in the operation and maintenance plan required by §63.7710(b). | |
| | 6. For negative pressure, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector sensor must be installed downstream of the baghouse and upstream of any wet scrubber. | |
| | 7. Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors. | |
| | B. Maintain records of the times the bag leak detection system sounded, and for each valid alarm, the time you initiated corrective action, the corrective action taken, and the date on which corrective action was completed. | 63.7743(c) |
| | C. Conduct inspections and maintain equipment at these specified frequencies: | 63.7743(c) |
| | 1. Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual. | 63.7740(c) |
| | 2. Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms. | |
| | 3. Check the compressed air supply for pulse-jet baghouses each day. | |
| | 4. Monitor cleaning cycles to ensure proper operation using an appropriate methodology. | |
| | 5. Check bag cleaning mechanisms for proper functioning through monthly visual inspections or equivalent means. | |
| | 6. Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks. | |
| | 7. Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means. | |
| | 8. Perform monthly inspections of capture systems and initiating corrective action according to §63.7710(b)(1) and recording all information needed to document conformance with these requirements | 63.7745(a)(1) |
| | D. Perform preventative maintenance for each control device according to the preventive maintenance plan required by §63.7710(b)(3) and recording all information needed to document conformance with these requirements. | 63.7745(a)(2) |

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| | E. Operate and maintain each bag leak detection system according to the site-specific monitoring plan required by §63.7710(b)(4) and recording all information needed to demonstrate conformance with these requirements. | 63.7745(a)(3) |
| | F. Initiate and complete corrective action for a bag leak detection system alarm according to the corrective action plan required by §63.7710(b)(5) and recording all information needed to document conformance with these requirements. | 63.7745(a)(4) |
| | G. Monitor the lime injection rate for the Contiarc baghouse as an operating parameter to assure that the NSR requirements for $SO_2$ are met. | 40 CFR 64 |
| 16. | **Afterburner Requirements for Cupola (Control of CO and VOHAP)** | |
| | A. The permittee shall combust the exhaust gases from the cupola at 1300 °F for 0.3 seconds or greater in a direct flame afterburner (or equivalent device) equipped with an indicating pyrometer which is positioned in the working area at the operator's eye level. | 9.1 |
| | B. The permittee shall operate the combustion device such that the 15-minute average combustion zone temperature does not fall below 1,300 degrees Fahrenheit (°F). Periods when the cupola is off blast and for 15 minutes after going on blast from an off blast condition are not included in the 15-minute average. | 63.7690(b)(3) |
| | C. At all times, monitor the 15-minute average combustion zone temperature using a CPMS according to the requirements of §63.7741(d).<br>1. Locate the temperature sensor in a position that provides a representative temperature.<br>2. Use a temperature sensor with a minimum tolerance of 2.2 °C or 0.75 percent of the temperature value, whichever is larger.<br>3. Shield the temperature sensor system from electromagnetic interference and chemical contaminants. | 63.7740(e)<br>63.7741(d) |
| | D. Demonstrate continuous compliance by:<br>1. Maintaining the 15-minute average combustion zone temperature at a level no lower than 1,300 °F;<br>2. Inspecting and maintaining each CPMS according to the requirements of §63.7741(d) and recording all information needed to document conformance with these requirements.<br>3. Collecting and reducing monitoring data for combustion zone temperature according to the requirements of §63.7741(f) and recording all information needed to document conformance with these requirements. | 63.7743(e)(1) |
| | E. Perform an electronic calibration at least semiannually according to the procedures in the manufacturer's owner's manual. Following the electronic calibration, conduct a temperature sensor validation check, in which a second or redundant temperature sensor placed nearby the process temperature sensor must yield a reading within 16.7 °C of the process temperature sensor's reading. | 63.7741(d)(6) |
| | F. Conduct calibration and validation checks any time the sensor exceeds the manufacturer's specified maximum operating temperature range, or install a new temperature sensor. | 63.7741(d)(7) |
| | G. At least monthly, visually inspect all components, including all electrical and mechanical connections, for proper functioning. | 63.7741(d)(8) |
| | H. Perform preventative maintenance for each control device according to the preventive maintenance plan required by §63.7710(b)(3) and record all information needed to document conformance with these requirements. | 63.7745(a)(2) |

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| | I. Data Requirements:<br>1. Each CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. A minimum of three of the required four data points to constitute a valid hour of data.<br>2. Each CPMS must have valid hourly data for 100 percent of every averaging period.<br>3. Each CPMS must determine and record the hourly average of all recorded readings and the 3-hour average of all recorded readings.<br>4. Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), monitor continuously (or collect data at all required intervals) any time a source of emissions is operating.<br>5. Do not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emissions or operating levels or to fulfill a minimum data availability requirement, if applicable. Use all the data collected during all other periods in assessing compliance.<br>6. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. | 63.7741(f)<br><br>63.7742 |
| 17. | **CPMS for the Cupola's Capture System**<br>Operate the capture system at or above the lowest values or settings established for the operating limits in the operation and maintenance plan. Monitor the capture system according to the requirements in §63.7740(a) and collect, reduce, and record the monitoring data for each of the operating limit parameters according to the following requirements in Subpart EEEEE, as applicable.<br>A. Keep daily records to document the relevant times of off blast, in conjunction with the requirements to monitor and record the combustion zone temperature for the cupola's thermal combustion control device to demonstrate continuous compliance with the work practice standard in §63.7700(g). The relevant times of off blast include: The time blast air is started to begin the coke bed burn-in, the time the cupola afterburner or other thermal combustion device is lit, and the time metal production starts during cupola startup; the time when metal production ends, the time slag removal is completed, and the time the afterburner or other thermal combustion device is turned off during cupola shutdown; and the times idling starts and stops.<br>B. Flow Rate: At all times use a flow measurement device meeting the requirements of §63.7741(a)(1) to determine the hourly average actual volumetric flow rate through each separately ducted hood or the average hourly total volumetric flow rate at the inlet to the control device.<br>1. Locate the flow sensor and other necessary equipment such as straightening vanes in a position that provides a representative flow and that reduces swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.<br>2. Use a flow sensor with a minimum measurement sensitivity of 2 percent of the flow rate.<br>3. Conduct a flow sensor calibration check at least semiannually.<br>4. At least monthly, visually inspect all components, including all electrical and mechanical connections, for proper functioning.<br>5. Record the results of each inspection, calibration, and validation check. | 63.7743(b)<br>63.7745(a)(1)<br><br>63.7744(e)<br><br>63.7740(a)(1)<br>63.7741(a)(1)<br>63.7741(a)(3) |

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| | C. Static Pressure: A pressure measuring device meeting the requirements of §63.7741(a)(2).<br>1. Locate the pressure sensor(s) in or as close as possible to a position that provides a representative measurement of the pressure and that minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion.<br>2. Use a gauge with a minimum measurement sensitivity of 0.5 inch of water or a transducer with a minimum measurement sensitivity of 1 percent of the pressure range.<br>3. Check the pressure tap for pluggage daily. If a "non-clogging" pressure tap is used, check for pluggage monthly.<br>4. Using a manometer or equivalent device such as a magnahelic or other pressure indicating transmitter, check gauge and transducer calibration quarterly.<br>5. Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range, or install a new pressure sensor.<br>6. At least monthly, visually inspect all components, including all electrical and mechanical connections, for proper functioning.<br>7. Record the results of each inspection, calibration, and validation check. | 63.7741(a)(2)<br>63.7741(a)(3) |
| | D. Damper position:<br>1. Dampers that are manually set and remain in the same position are exempt from the requirement to install and operate a CPMS.<br>2. If dampers are not manually set and remain in the same position, make a visual check at least once every 24 hours to verify that each damper for the capture system is in the same position as during the initial performance test. | 63.7740(a)(2) |
| | E. Data Requirements:<br>1. Each CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. A minimum of three of the required four data points to constitute a valid hour of data.<br>2. Each CPMS must have valid hourly data for 100 percent of every averaging period.<br>3. Each CPMS must determine and record the hourly average of all recorded readings and the 3-hour average of all recorded readings. | 63.7741(f) |
| | 4. Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), monitor continuously (or collect data at all required intervals) any time a source of emissions is operating.<br>5. Do not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emissions or operating levels or to fulfill a minimum data availability requirement, if applicable. Use all the data collected during all other periods in assessing compliance.<br>6. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. | 63.7742 |
| | F. Perform monthly inspections of capture systems and initiating corrective action according to §63.7710(b)(1) and recording all information needed to document conformance with these requirements. | 63.7745(a)(1) |
| | 1. Monthly inspections of the equipment that is important to the performance of the total capture system (*i.e.*, pressure sensors, dampers, and damper switches). | 63.7710(b)(1) |

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| | 2. This inspection must include observations of the physical appearance of the equipment (*e.g.*, presence of holes in the ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion).<br>3. The operation and maintenance plan must also include requirements to repair the defect or deficiency as soon as practicable. | |
| 18. | **Operating Limits for the Cupola's Capture System (VOHAP)**<br>The permittee shall operate the cupola's capture and collection system, which must meet accepted engineering standards, such as those published by the American Conference of Governmental Industrial Hygienists, at or above the lowest value or settings established as operating limits in the written operation and maintenance plan. The capture and collection system must meet accepted engineering standards, such as those published by the American Conference of Governmental Industrial Hygienists. Establish the site-specific operating parameters in the plan as follows: | 63.7690(b)(1) |
| | A. Concurrent with applicable emissions and opacity tests, measure and record values for each of the operating limit parameters in your capture system operation and maintenance plan according to the monitoring requirements in §63.7740(a).<br>B. For any dampers that are manually set and remain at the same position at all times the capture system is operating, the damper position must be visually checked and recorded at the beginning and end of each run.<br>C. Review and record the monitoring data. Identify and explain any times the capture system operated outside the applicable operating limits. | 63.7733(a) |
| | Operating limits for the capture system may be changed by submitting a written request to the Department that a performance test will be performed to revise the operating limit, the test is conducted according to the applicable requirements of Subpart EEEEE, and the revised operating limits are established as above. | 63.7733(e) |
| 19. | **Performance Testing Requirements for PM and VOHAP**<br>Compliance with emission limits for PM and VOHAP shall be demonstrated by performance testing conducted at 5 year intervals. Additionally, performance testing is required each time an operating limit is changed and to comply with an alternative emission limit (for example, total metal HAP instead of PM). | 63.7731(a) |
| | A. Each performance test must be conducted under conditions representative of normal operations. Normal operating conditions exclude periods of startup and shutdown. Performance tests shall not be conducted during periods of malfunction. Record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, make available to the Administrator such records as may be necessary to determine the conditions of performance tests. | 63.7732(a) |
| | B. Performance tests shall be conducted accord to the requirements of §63.7(e)(1) using the following methods from 40 CFR 60, Appendix A:<br>1. Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device.<br>2. Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.<br>3. Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.<br>4. Method 4 to determine the moisture content of the stack gas. | 63.7732(a)<br>63.7732(b)(1)<br>63.7732(c)(1))<br>63.7732(e)(1)) |

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| | 5. One or more of the methods below, depending on the pollutant(s) to be tested:<br>a. Method 5, 5B, 5D, 5F, or 5I, as applicable, to determine the PM concentration. The PM concentration is determined using only the front-half (probe rinse and filter) of the PM catch.<br>b. Method 29 to determine the total metal HAP concentration.<br>c. Method 18 to determine the VOHAP concentration.<br>d. Method 25 to determine the concentration of total gaseous nonmethane organics (TGNMO).<br>e. Method 25A to determine the concentration of total organic compounds (TOC), using hexane as the calibration gas. | |
| | C. A minimum of three valid test runs are needed to comprise a performance test. | 63.7732(b)(2)<br>63.7732(c)(2))<br>63.7732(e)(2)) |
| | D. Collect a minimum sample volume of 60 dscf of gas during each PM sampling run. | 63.7732(b)(2) |
| | E. Each test run for VOHAP, TGNMO, or TOC must include a minimum of 60 continuous operating minutes. Correct the measured concentration for oxygen content in the gas stream using the following equation:<br>$$C_{VOHAP,10\%O_2} = C_{VOHAP}\left(\frac{10.9\%}{20.9\% - \%O_2}\right)$$<br>where $C_{VOHAP}$ = Concentration of VOHAP in ppmv as measured by Method 18 in 40 CFR part 60, appendix A or the concentration of TGNMO or TOC in ppmv as hexane as measured by Method 25 or 25A in 40 CFR part 60, appendix A;<br>and:<br>$\%O_2$ = Oxygen concentration in gas stream, percent by volume (dry basis). | 63.7732(e)(2)<br>63.7732(e)(3) |
| | F. For the Cupola, sample only during times when the cupola is on blast. | 63.7732(b)(3) |
| | G. During VOHAP testing, measure and record each 15-minute average combustion zone temperature measured by the CPMS required in §63.7740(d). Determine and record the 15-minute average of the three runs. | 63.7732(e)(4) |
| | H. Record the operating parameter data during the performance test and establish the site-specific operating limits required by the written operation and maintenance plan according to the monitoring requirements in §63.7740(a). | 63.7733(a) |
| | I. For the Contiarc, sample only during normal production conditions, which may include, but are not limited to the following cycles: Charging, melting, alloying, refining, slagging, and tapping. | 63.7732(b)(4)<br>63.7732(c)(4) |
| | J. Record the total mass of metal charged to the furnace for each run. Use the appropriate equation below to convert the measured concentration in gr/dscf to the emissions rate in lb/ ton metal charged basis.<br>$$EF_{PM} = C_{PM} \times \left(\frac{Q}{M_{charge}}\right) \times \left(\frac{t_{test}}{7{,}000}\right)$$<br>where $EF_{PM}$ = Mass emissions rate of PM, pounds of PM per ton (lb/ton) of metal charged; and<br>$C_{PM}$ = Concentration of PM measured during performance test run, gr/dscf;<br>*or:* | 63.7732(b)(6)<br>63.7732(c)(6) |
| | *Continued on next page* | |

| No. | Federally Enforceable Conditions for the Iron Foundry | Regulations |
|---|---|---|
| | $$EF_{TMHAP} = C_{TMHAP} \times \left(\frac{Q}{M_{charge}}\right) \times \left(\frac{t_{test}}{7{,}000}\right)$$<br>where $EF_{TMHAP}$ = Emissions rate of total metal HAP, pounds of total metal HAP per ton (lb/ton) of metal charged;<br>$C_{TMHAP}$ = Concentration of total metal HAP measured during performance test run, gr/dscf;<br>Q = Volumetric flow rate of exhaust gas, dscfm;<br>$M_{charge}$ = Mass of metal charged during performance test run, tons;<br>$t_{test}$ = Duration of performance test run, minutes; and<br>7,000 = Unit conversion factor, gr/lb. | |
| | K. During testing intervals when PM performance tests are being conducted, conduct the opacity test for foundry buildings such the opacity observations are recorded during the PM performance tests. | 63.7732(d)(2) |
| | Submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required by §63.7(b)(1). Performance test results, any redetermination of operating parameters, and RATA shall be submitted according to §63.7751(f)&(g) within 60 days after test completion (see General Condition 44.F). | 63.7750(d)<br>63.7751(f)<br>63.7751(g) |
| | **Title V Monitoring** | |
| 20. | **Visible Emissions Monitoring**<br>The permittee shall observe the stack for each baghouse and for the ductile treating stations for at least once per day while the furnace controlled by the baghouse is operating in accordance with the procedures of Method 22 of 40 CFR 60, Appendix A while the source is operating at representative performance conditions. The duration shall be 6 minutes. The observer shall record the time and date of Method 22 observations, and the presence or absence of any visible emissions. If visible emissions are observed during any Method 22 visible emissions observation, the permittee shall initiate, within 1 hour, the corrective actions specified in the written operations and maintenance plan required for Subpart EEEEE. Conduct a follow-up observation within 24 hours. If visible emissions are observed during the follow up Method 22 test, a certified reader shall complete a visible emissions observation in accordance with Method 9 of 40 CFR 60, Appendix A for 30 minutes duration to establish compliance with the opacity limit. The date, time and description of corrective actions shall be recorded along with the results of all visible emission observations associated with the event. | 18.5.3<br>18.7.1<br>6.1.1 |
| | **Recordkeeping** | |
| 21. | In addition to the records of production to be kept (see Condition 23 below), for Subpart EEEEE, the permittee shall maintain: | |
| | A. A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any initial notification or notification of compliance status that you submitted, according to the requirements of §63.10(b)(2)(xiv).<br>B. Records of required maintenance performed on the air pollution control and monitoring equipment as required by § 63.10(b)(2)(iii).<br>C. Records of performance tests and performance evaluations as required by §63.10(b)(2)(viii). | 63.7752(a) |

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| | D. Records of the annual quantity of each chemical binder or coating material used to coat or make molds and cores, the Material Data Safety Sheet or other documentation that provides the chemical composition of each component, and the annual quantity of HAP used in these chemical binder or coating materials at the foundry as calculated from the recorded quantities and chemical compositions (from Material Data Safety Sheets or other documentation). | |
| | E. Keep the following records to show continuous compliance with each applicable emissions limitation, work practice standard, and operation and maintenance requirement. | 63.7752(c) |
| | 1. For each capture system, record: | |
| | a. All monitoring data for each of the operating limit parameters; and | 63.7743(b)(2) |
| | b. All information needed to document performance of monthly inspections and for initiating corrective actions as soon as practicable. | 63.7745(a)(1) |
| | 2. For each control device, record all information needed to document performance of preventative maintenance. | 63.7745(a)(2) |
| | 3. For each baghouse, record all information needed to document performance of inspection and maintenance requirements. | 63.7743(c)(1) |
| | 4. For each baghouse leak detection system, record: | |
| | a. Each time the bag leak detection system sounded, and for each valid alarm, the time corrective action was initiated and the time it was completed. Record all information needed to document conformance with the corrective action plan included in your written operating and maintenance plan. | 63.7743(c)(2)<br>63.7745(a)(4) |
| | b. All information needed to document conformance with the site-specific monitoring plan included in your written operating and maintenance plan. | 63.7745(a)(3) |
| | 5. For each CPMS, record all information needed to document performance of data collection, inspection and maintenance requirements. | 63.7743(e)(3)<br>63.7743(e)(2) |
| | 6. For scrap selection, maintain records that document continuous compliance with the certification requirements in §63.7700(b) or with the procedures in your scrap selection and inspection plan required in §63.7700(c). Your records documenting compliance with the scrap selection and inspection plan must include a copy (kept onsite) of the procedures used by the scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable. | 63.7744(a) |
| | 7. Records of the chemical composition of all catalyst binder formulations applied in each furan warm box mold or core making line at a new or existing iron and steel foundry to demonstrate continuous compliance with the requirements in §63.7700(d). | 63.7744(b) |
| | 8. A current copy of the operation and maintenance plans required by §63.7710(b) onsite and available for inspection upon request. You must keep the plans for the life of the foundry or until the foundry is no longer subject to the requirements of Subpart EEEEE. | 63.7745(b) |

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| | F. For each failure to meet an emissions limitation (including operating limit), work practice standard, or operation and maintenance requirement, record:<br>1. Date, start time, and duration of each failure.<br>2. List of the affected sources or equipment for each failure, an estimate of the quantity of each regulated pollutant emitted over any emission limit and a description of the method used to estimate the emissions.<br>3. Actions taken to minimize emissions in accordance with § 63.7710(a), and any corrective actions taken to return the affected unit to its normal or usual manner of operation. | 63.7752(d) |
| | G. Any records required to be maintained by this part that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation. | 63.7752(e) |
| | **Periodic Reporting for the Iron Foundry** | |
| 22. | **Semi-Annual NESHAP Reporting**<br>The following information for Subpart EEEEE shall be reported for each semiannual period: | |
| | A. Company name and address, the beginning and ending dates the reporting period, and a statement by a responsible official, with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. | 63.7751(b)(1)-(3) |
| | B. If there were no deviations from any emissions limitations (including operating limit), work practice standards, or operation and maintenance requirements, a statement that there were no deviations from the emissions limitations, work practice standards, or operation and maintenance requirements during the reporting period. | 63.7751(b)(5) |
| | C. If there were no periods during which a CPMS was inoperable or out-of-control as specified by §63.8(c)(7), a statement that there were no periods during which the CPMS was inoperable or out-of-control during the reporting period. | 63.7751(b)(6) |
| | D. Deviations are defined as:<br>1. Each instance in which you did not meet each emissions limitation in §63.7690 (including each operating limit) that applies to you, including deviations which occur during periods of startup, shutdown, and malfunction;<br>2. Each instance in which you did not meet each work practice standard in §63.7700; and<br>3. Each instance in which you did not meet each operation and maintenance requirement of §63.7710 that applies to you. | 63.7746(a) |
| | E. For each affected source or equipment for which there was a deviation from an emissions limitation (including an operating limit, work practice standard, or operation and maintenance requirement), report:<br>1. A list of the affected source or equipment and the total operating time of each emissions source during the reporting period.<br>2. For each deviation, report:<br>a. The date, start time, duration (in hours), and cause of each deviation (characterized as either startup, shutdown, control equipment problem, process problem, other known cause, or unknown cause, as applicable) and the corrective action taken; and<br>b. An estimate of the quantity of each regulated pollutant emitted over any emission limit and a description of the method used to estimate the emissions. | 63.7751(b)(7) |

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|---|---|---|
| | 3. A summary of the total duration (in hours) of the deviations that occurred during the reporting period by cause (characterized as startup, shutdown, control equipment problems, process problems, other known causes, and unknown causes) and the cumulative duration of deviations during the reporting period across all causes both in hours and as a percent of the total source operating time during the reporting period.<br>F. For each continuous monitoring system (including a CPMS or CEMS) used to comply with the emissions limitation or work practice standard Subpart EEEEE that was inoperable or out-of-control during any portion of the reporting period (including during periods of startup, shutdown, and malfunction), include the information specified below:<br>1. A brief description of the continuous monitoring system, including manufacturer and model number.<br>2. The date of the latest continuous monitoring system certification or audit.<br>3. A brief description and the total operating time of the affected source or equipment that is monitored by the continuous monitoring system during the reporting period.<br>4. A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period.<br>5. For each period for which the continuous monitoring system was inoperable or out-of-control during the reporting period, report:<br>a. The date, start time, and duration (in hours) of the deviation;<br>b. The type of deviation (inoperable or out-of-control); and<br>c. The cause of deviation (characterized as monitoring system malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and unknown causes, as applicable) and the corrective action taken.<br>6. A summary of the total duration (in hours) of the deviations that occurred during the reporting period by cause (characterized as monitoring system malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and unknown causes) and the cumulative duration of deviations during the reporting period across all causes both in hours and as a percent of the total source operating time during the reporting period.. | 63.7751(b)(8) |
| 23. | **Annual Emissions Reporting (JCDH Requirement)**<br>The permittee shall maintain records of the following production information to be used in the annual emissions report as the basis for emissions calculations:<br>A. For the cupola and separately for the Contiarc EAF:<br>1. The quantity of metal charged;<br>2. The quantity of coke, coal (or other carbon source) added;<br>3. The sulfur content of the coal added to the Contiarc<br>4. The quantity of limestone added;<br>5. The quantity of ferrosilicon added;<br>6. The quantity of dolomite added;<br>7. The quantity of natural gas and/or propane burned;<br>8. The total hours the cupola was operated;<br>9. The hours the cupola's baghouse operated;<br>10. The hours the afterburner operated;<br>11. The hours that the cupola operated without controls for VOHAP/CO only, without controls for PM only, and without controls for VOHAP/CO and PM;<br>12. The total hours the Contiarc EAF was operated;<br>13. The hours the Contiarc baghouse operated; and<br>14. The hours that the Contiarc was operated without controls. | 1.5.15<br>1.9.2<br>18.7.1<br>18.5.3 |

## SUMMARY TABLES OF REQUIREMENTS FOR SURFACE COATING

| Content Limitations for Coatings (SIP & Subpart MMMM) | Citation |
|---|---|
| The as-applied VOC content of surface coatings shall not exceed:<br>0.42 kilograms per liter (3.5 pounds per gallon) of coating on a calendar day basis,<br>Except that 55 gallons of all low-use coatings as a 12-month rolling total on a plant-wide basis may exceed the above limit.<br>*See Surface Coating Conditions 4, 6 & 7* | 8.11.11(e)(2)<br>8.1.2 |
| The organic HAP content (emissions) of surface coatings shall not exceed:<br>0.31 kg organic HAP per liter (2.6 lb organic HAP per gal) of coating solids used during each 12-month compliance period for general use coatings<br>3.3 kg organic HAP per liter (27.5 lb organic HAP per gal) of coating solids used during each 12-month compliance period for high performance coatings<br>*See Surface Coating Conditions 5, 8, 9 & 10* | 40 CFR §63.3890(b) |

| *Recordkeeping for Monitoring and Compliance Demonstration* |
|---|
| See Surface Coating Condition 12 |

| *Plant-wide VOC Emissions Limitation* |
|---|
| 1,045.32 tons of VOC per calendar year |

# FEDERALLY ENFORCEABLE CONDITIONS FOR SURFACE COATING, SUBJECT TO SIP & 40 CFR 63, SUBPART MMMM

| Emissions Unit No. | Emissions Unit Description |
|---|---|
| 001 | Facility-Wide Surface Coating Subject to 40 CFR 63, Subpart MMMM, including:<br>Unit 100 Coating and Lining<br>Unit 160 Coating and Lining<br>Unit 166 Coating and Lining<br>Unit 230 Special Coatings |

| No. | Federally Enforceable Conditions for Surface Coating | Regulations |
|---|---|---|
| | **Annual VOC Emission Limit** | |
| 1. | The permittee shall have a plant-wide annual VOC emissions limit not to exceed 1,045.32 tons/year. The compliance period shall be a calendar year with the annual total reported in the annual emission report (see Condition 14 below). | New Source Review |
| | **Applicable Regulations** | |
| 2. | **State Implementation Plan**<br>Section 8.11.11 of the Rules and Regulations, "Miscellaneous Metal Parts and Products," applies to facility-wide surface coating operations. Additionally, Sections 8.1.2 for low-use coating, 8.11.9 "Compliance Methods," 8.11.12 "Recordkeeping," and 8.16.1 "Determination of Volatile Organic Compound Content of Surface Coatings" apply. These regulations apply to all areas where coatings are applied and/or cured. | 8.11.11<br>8.11.9<br>8.11.12<br>8.16.1 |
| 3. | **40 CFR 63, Subpart MMMM**<br>The "existing" affected source under 40 CFR 63, Subpart MMMM includes the following equipment that is used for coating metal pipes and/or any other miscellaneous metal parts and products:<br>A. All coating operations from the point at which a coating or cleaning material containing HAP is applied to a metal part and all subsequent points in the operation where organic HAP is emitted, including equipment used to:<br>1. Apply cleaning materials to a substrate to prepare it for coating application (surface preparation) or to remove dried coating;<br>2. Apply coating to a substrate (coating application) and to dry or cure the coating after application; or<br>3. Clean coating operation equipment (equipment cleaning).<br>B. All storage containers and mixing vessels in which coatings, thinners and/or other additives, and cleaning materials are stored or mixed;<br>C. All manual and automated equipment and containers used for conveying coatings, thinners and/or other additives, and cleaning materials; and<br>D. All storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating operation.<br>Coating application with handheld, non-refillable aerosol containers, touch-up markers, or marking pens is not a coating operation for the purposes of Subpart MMMM. Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances, or paper film or plastic film which may be pre-coated with an adhesive by the film manufacturer, are not considered coatings for the purposes of Subpart MMMM. Subpart MMMM does not apply to coatings used in volumes of less than 189 liters (50 gal) per year, provided that the total volume of coatings exempt under this paragraph does not exceed 946 liters (250 gal) per year at the facility per 40 CFR §63.3881(c)(3). Table 2 of Subpart MMMM identifies which parts of the General Provisions in 40 CFR 63.1 through 63.15 apply. | 63.3882<br>63.3881<br>63.3981<br>63.3901 |

| No. | Federally Enforceable Conditions for Surface Coating | Regulations |
|---|---|---|
| | **Emission Limits** | |
| 4. | **VOC Contents-Based Limit (SIP)**<br>A. The permittee shall not cause or allow the coating systems to emit VOC in excess of 0.42 kilograms per liter (3.5 pounds per gallon) of coating, excluding water, as delivered to a coating applicator.<br>B. The permittee may exempt 55 gallons of all low-use coatings as a 12-month rolling total on a plant-wide basis, subject to the daily recordkeeping requirements of Condition 12 below. | 8.11.11(e)(2)<br>8.1.2<br>18.5.3<br>18.7.1 |
| 5. | **HAP Contents-Based Limit (NESHAP)**<br>A. The permittee shall limit organic HAP emissions from the affected source as follows:<br>1. For general use coatings as defined at 40 CFR §63.3981, no more than 0.31 kg organic HAP per liter (2.6 lb organic HAP per gal) coating solids used during each 12-month compliance period.<br>2. For high performance coatings as defined at 40 CFR §63.3981, no more than 3.3 kg organic HAP per liter (27.5 lb organic HAP gal) coating solids used during each 12-month compliance period.<br>B. Compliance with these emission limits is required at all times. | 63.3890(b)<br>63.3891(b)<br>63.3981<br>63.3900(a) |
| | **Compliance Demonstrations** | |
| 6. | **VOC Emission Limit Compliance Demonstration**<br>The compliance demonstration time frame for an individual coating line that applies coatings that are subject to the same regulated VOC emission rate under Part 8.11 shall be a 24-hour calendar day. The daily calculation shall include all coatings, diluents, thinners and additives. Compliance is based on the contents of the coating as delivered to the applicator and applied to the metal part or product. Test procedures used to determine the VOC and HAP contents of each product used shall be EPA Method 24 of 40 CFR 60, Appendix A. Alternatively, the permittee may rely upon certification of the contents by the manufacturer as allowed by paragraph 8.16.7(d) of the Rules and Regulations. Sufficient data to determine as-applied formulation must be provided if the as-applied formulation is different from the as-purchased coating. | 8.11.12(b)<br>8.11.12(d)<br>8.11.11(e)<br>8.16.7 |
| 7. | **Subpart MMMM Compliance Determination**<br>The permittee shall include all coatings, thinners and/or other additives, and cleaning materials used in the affected source when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit. The permittee shall use either the complaint materials option or the emission rate without add-on controls option according to the following rules:<br>A. The permittee may apply any of the compliance options to an individual coating operation, or to multiple coating operations as a group, or to the entire affected source.<br>B. The permittee may use different compliance options for different coating operations, or at different times on the same coating operation.<br>C. The permittee may employ different compliance options when different coatings are applied to the same part, or when the same coating is applied to different parts.<br>D. The permittee may not use different compliance options at the same time on the same coating operation.<br>E. If general use coatings and high performance coatings are used, the permittee shall comply with each limit separately or as otherwise specified in 40 CFR §63.3890(c).<br>F. The permittee must identify the compliance option used for each coating operation.<br>G. If the permittee switches between compliance options for any coating operation or group of coating operations, the permittee shall document this switch as required by 40 CFR §63.3930(c), and shall report it in the next semiannual compliance report.<br>H. A compliance period consists of 12 consecutive months. | 63.3891<br>63.3930<br>63.3942<br>63.3952 |

| No. | Federally Enforceable Conditions for Surface Coating | Regulations |
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| | I. Failure to collect and keep records required by Subpart MMMM is a deviation.<br>J. A deviation from emission limits is defined as follows:<br>1. For the compliant materials option, the use of any coating that exceeds the organic HAP emission unit and/or the use of any thinner and/or other additive, or cleaning material that contains organic HAP; and<br>2. For the emission rate without add-on controls option, if the organic HAP emission rate for any 12-month compliance period exceeds the applicable emission limit a deviation has occurred. | |
| 8. | **Subpart MMMM – Complaint Materials Option**<br>Demonstrate that the organic HAP content of each coating used in the coating operation(s) is less than or equal to the applicable emission limit, and that each thinner and/or other additive, and cleaning material contains no organic HAP. The compliance calculation shall use the equations and procedure at 40 CFR §63.3941 and is made on the basis of the condition in which the material is received from the manufacturer or supplier and prior to any alteration. The calculations must be performed each month and compliance is based on a 12-month rolling average. If coatings subject to different emission limits are applied, and the permittee demonstrates compliance using an alternative specified in 40 CFR §63.3890(c), the calculations must be performed each month. Records are required to demonstrate compliance. No operating limits or work practice standards are required. | 63.3891(a)<br>63.3892(a)<br>63.3893(a)<br>63.3941<br>63.3942 |
| 9. | **Subpart MMMM – Emission Rate Without Add-On Controls Option**<br>Demonstrate that, based on the coatings, thinners and/or other additives, and cleaning materials used in the coating operation(s), the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit, calculated each month as a rolling 12-month emission rate. Do not include any coatings, thinners and/or other additives used in coating operations for which compliance is demonstrated using the complaint materials option. The compliance calculation shall use the equations and the procedure at 40 CFR 63.3951. Records are required to demonstrate compliance. No operating limits or work practice standards are required. | 63.3891(b)<br>63.3892(a)<br>63.3893(a)<br>63.3951<br>63.3952 |
| | **Work Practices** | |
| 10. | **Waste Paint and Solvent Disposal**<br>The permittee shall collect and properly contain as much as possible of the waste solvent and paint that's not reusable. Records of the method of disposal shall be maintained. | 18.2.4<br>8.11.12(a)(4) |
| | **Recordkeeping** | |
| 11. | **Required Records**<br>The permittee shall maintain the following records in a manner that they can be readily accessed and are suitable for inspection for 5 years following the date of each occurrence, report or record: | 18.5.3(b)<br>63.10(b)<br>63.3931 |
| | A. Hours of operation and products used for surface coating operations; | 18.5.3 |
| | B. For any spill of VOC/HAP materials: the date and time of the spill, the substance spilled, the quantity spilled, and the quantity recovered and/or emitted to the atmosphere; | 18.5.3 |
| | C. The quantity in gallons of all organic liquid waste properly contained and shipped out for proper disposal and a certification of the waste density and percent VOC/HAP content by weight, if credit is to be applied to the annual emissions calculation; | 18.5.3 |

| No. | Federally Enforceable Conditions for Surface Coating | Regulations |
|---|---|---|
| | D. Current documentation of the VOC content in percent weight, the mass fraction of organic HAP, and density for each coating, thinner and/or other additive, and cleaning material, and the volume fraction of coating solids for each coating (manufacturer's formulation data, or for testing, the summary sheet of test results provided by the manufacturer or supplier or the complete test report if tested independently). | 8.11.12<br>63.3930(b)<br>63.3930(e) |
| | E. Daily dated records for each coating line necessary to verify compliance with the VOC emission limit and the 55-gallon low-use exemption:<br>1. The quantity in gallons of all surface coatings delivered to the application system;<br>2. The quantity in gallons of all organic liquid diluents (coating thinners and additives) added to the surface coatings;<br>3. The quantity in gallons of all organic liquid solvents used for wash or cleanup;<br>4. The regulation(s) applicable to the coating line for which the records are being maintained;<br>5. The application method and the substrate material type;<br>6. The surface coating curing temperature(s) in degrees Fahrenheit;<br>7. The daily VOC content compliance calculation(s); and<br>8. The amount of coating applied in excess of the applicable VOC content limit to be included in the 55-gallon low-use exemption calculation. | 8.11.12<br>8.1.2<br>18.5.3(b) |
| | F. The occurrence and duration of any malfunction of process and/or control equipment or any deviation or violation of permit conditions, including the probable cause of said malfunctions, deviations or violations, written documentation demonstrating that the event falls under the Department's emergency provision if appropriate, and any corrective actions or preventive measures that were taken. | 18.5.3(b) |
| | G. Each annual calculation of the plant-wide annual VOC emissions to demonstrate compliance with Condition 1 above. | 18.5.3(b) |
| | H. For Subpart MMMM compliance:<br>1. A copy of each notification and report submitted to comply with Subpart MMMM, and the documentation supporting each notification and report.<br>2. For each compliance period, records of the coating operations on which each compliance option was used and the time periods (beginning and ending dates and times) for each option;<br>3. The name and volume of each coating, thinner and/or other additive, and cleaning material used (purchase records may be used if the compliant materials option is used for all coatings);<br>4. A record of the volume fraction of coating solids and the mass fraction of organic HAP and density for all products used during the compliance period;<br>5. A record of all coating application exempted under 40 CFR §63.3881(c)(3).<br>6. The calculation of each 12-month organic HAP emission rate;<br>7. For the compliant material option, a record of the calculation of the organic HAP content for each coating, using Equation 2 of 40 CFR §63.3941;<br>8. If you apply more than one subcategory of coatings and use an alternative compliance demonstration under 40 CFR §63.3890(c), keep records of the data and calculations used for initial and subsequent compliance demonstrations; | 63.3930(a)<br>63.3930(c)(1)<br>63.3930(d)<br>63.3930(e)<br>63.3930(f)<br>63.3930(g)<br>18.5.3(b)<br><br><br><br><br>63.3930(c)(2)<br><br>63.3930(a) |

| No. | Federally Enforceable Conditions for Surface Coating | Regulations |
|---|---|---|
| | 9. For the emission rate without add-on controls option, a record of the following:<br>a. The density for each coating, thinner and/or other additive, and cleaning material used during each compliance period.<br>b. The calculations of total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1, 1A through 1C, and 2 of 40 CFR §63.3951;<br>c. If applicable, the calculation used to determine mass of organic HAP in waste materials according to 40 CFR §63.3951(e)(4);<br>d. The calculation of the total volume of coating solids used each month using Equation 2 of 40 CFR §63.3951; and<br>e. The calculation of each 12-month organic HAP emission rate using Equation 3 of 40 CFR §63.3951. | 63.3930(g)<br>63.3930(c)(3)<br>63.3930(h) |
| | 10. If using an allowance in Equation 1 of 40 CFR 63.3951(e)(4) for organic HAP contained in waste materials sent to or designated for shipment to a treatment, storage, and disposal facility (TSDF) as allowed by 40 CFR 63.3951:<br>a. The name and address of each TSDF to which you sent these waste materials; a statement of which subparts under 40 CFR 262, 264, 265, and 266 apply to the facility; and the date of each shipment;<br>b. Identification of the coating operations producing waste materials included in each shipment and the month or months in which you used the allowance for these materials; and<br>c. The methodology used to determine the total amount of waste materials sent to or the amount collected, stored, and designated for transport to a TSDF each month; and the methodology to determine the mass of organic HAP contained in these waste materials, including the sources for all data used in the determination, methods used to generate the data, frequency of testing or monitoring, and supporting calculations and documentation, including the waste manifest for each shipment. | 63.3930(h) |
| | 11. A record of the date, time and duration of each deviation from Subpart MMMM. | 63.3930(j) |
| | 12. A copy of each notification and report submitted to comply with Subpart MMMM. | 63.3930(a) |
| | **Periodic Reporting** | |
| 12. | **<u>Semi-Annual NESHAP Reporting</u>**<br>The following information shall be reported for each semiannual period:<br>A. Company name and address.<br>B. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.<br>C. Date of report and beginning and ending dates of the reporting period.<br>D. Identification, for each surface coating operation, of the compliance demonstration option, and, if more than one option is used for a single operation during a semi-annual period, report the beginning and ending dates for each option used.<br>E. For the emission rate without add-on controls option, the results for each rolling 12-month organic HAP emission rate calculated during the 6-month reporting period.<br>F. If coatings subject to different emission limits are applied, and the permittee demonstrates compliance using an alternative specified in 40 CFR §63.3890(c), calculations must be included.<br>G. If no deviations occurred, a statement that there were no deviations from the emission limitations during the reporting period.<br>1. For coating operations using the compliant material option, identify the operation(s) and include a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because no coatings for which the organic HAP content exceeded the applicable emission | 63.3920<br>63.3942<br>63.3952 |

| No. | Federally Enforceable Conditions for Surface Coating | Regulations |
|---|---|---|
| | limit in §63.3890, and no thinner and/or other additive, or cleaning material that contained organic HAP, determined according to §63.3941(a), were used during the compliance period.<br>2. For coating operation(s) using the emission rate without add-on controls option, submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in §63.3890, determined according to §63.3951(a) through (g).<br>H. Report all deviations, including (as applicable):<br>1. For deviations from the compliant material option:<br>a. Identification of each coating used that deviated from the applicable emission limit, and each thinner and/or other additive, and cleaning material used that contained organic HAP, and the dates and time periods each was used.<br>b. The calculation of the organic HAP content (using Equation 2 of §63.3941) for each coating identified.<br>c. The determination of mass fraction of organic HAP for each thinner and/or other additive, and cleaning material identified.<br>d. A statement of the cause of each deviation.<br>2. For deviations from the emission rate without add-on controls option:<br>a. The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit.<br>b. The calculations used to determine the 12-month organic HAP emission rate for the compliance period in which the deviation occurred (Equations 1, 1A through 1C, 2, and 3 of §63.3951; and if applicable, the calculation used to determine mass of organic HAP in waste materials according to §63.3951(e)(4)).<br>c. A statement of the cause of each deviation.<br>3. Failure to keep any of the records required by 40 CFR §63.3930. | |
| 13. | **Annual Emissions Reporting (JCDH Requirement)**<br>The permittee shall maintain the records required by Conditions 11 and 12 above and include the following information in the annual emissions report as the basis for emissions calculations:<br>A. The hours of operation for surface coating operations;<br>B. The total quantity in gallons of surface coatings, organic solvent thinners and cleanup solvents used;<br>C. For each surface coating, organic solvent thinner and cleanup solvent, the density, VOC/HAP content, solids content, exempt VOC content and water content;<br>D. The quantity in gallons of waste surface coatings, solvent thinners and cleanup solvents disposed of properly (i.e.: sent to a waste solvent recovery facility or incinerated); and<br>E. The quantity of VOC and/or HAP material emitted to the atmosphere as a result of spills and other mishaps. | 1.5.15<br>18.5.3<br>1.9.2<br>18.7.1 |

# FEDERALLY ENFORCEABLE CONDITIONS FOR ZINC COATING

| Emissions Unit No. | Emissions Unit Description | Subject to: |
|---|---|---|
| 005 | Automatic Zinc Coating of Small Diameter Pipes with a 16,800 SCFM Baghouse | 6.4.1 & 6.1.1 |
| 023 | Zinc Coating Process with a 6,000 SCFM Baghouse | 6.4.1 & 6.1.1 |
| 051 | Zinc Coating of O.D. of Ductile Iron Pipes with a 35,000 SCFM Baghouse | 6.4.1 & 6.1.1 |

| No. | Federally Enforceable Conditions for Zinc Coating | Regulations |
|---|---|---|
| 1. | **Particulate Matter Emission Limitations from the State Implementation Plan (SIP)**<br>The permittee shall not cause or allow emissions from any emissions unit listed above in excess of the following process rate-based limit:<br>$E = 3.59p^{0.64}$, where $p < 30$ tons/hr<br>*or*<br>$E = 17.31p^{0.16}$, where $p \geq 30$ tons/hr<br>where $E$ is emission rate (lb/hr); and $p$ is the process weight rate (tons/hr). | 6.4.1 |
| 2. | **Visible Emission Limitations from the State Implementation Plan (SIP)**<br>The permittee shall not cause or allow emissions from any emissions unit listed above in excess of 20 % opacity (6-minute average), except for one 6-minute period per hour of not more than 40 % opacity. | 6.1.1 |
| 3. | **Visible Emissions Monitoring**<br>The permittee shall observe the stack for each of these emission units at least once per week in accordance with the procedures of Method 22 of 40 CFR 60, Appendix A while the source is operating at representative performance conditions. The observer shall record the time and date of Method 22 observations, and the presence or absence of any visible emissions. If visible emissions are observed during any Method 22 visible emissions observation, the permittee shall initiate corrective actions within 1 hour and conduct a follow-up observation within 24 hours. If visible emissions are observed during the follow up Method 22 test, the certified reader shall complete a visible emissions observation in accordance with Method 9 of 40 CFR 60, Appendix A within 3 business days to establish compliance with the opacity limit. The date, time and description of corrective actions shall be recorded along with the results of all visible emission observations associated with the event. Document periods when the source not being operated and not thus observed. | 18.5.3<br>18.7.1<br>6.1.1 |
| 4. | **Recordkeeping**<br>The permittee shall maintain the following records for the emissions sources listed above:<br>A. The hours of operation of each unit;<br>B. The quantity of zinc used; and<br>C. Time, date and duration of any startup, shutdown or malfunction which causes excess emissions and any corrective actions taken. | 1.9.1<br>18.5.3<br>18.7.1 |
| 5. | **Annual Emissions Reporting (JCDH Requirement)**<br>The permittee shall maintain the records required by Condition 4 above and include the following information for each affected source in the annual emissions report as the basis for emissions calculations:<br>A. The actual hours of operation of each unit for the previous calendar year; and<br>B. The quantity of zinc used in each unit for the previous calendar year. | 1.5.15<br>18.5.3<br>1.9.2<br>18.7.1 |

# FEDERALLY ENFORCEABLE CONDITIONS FOR EQUIPMENT COMBUSTING NATURAL GAS

| Emissions Unit No. | Emissions Unit Description | Subject to: |
|---|---|---|
| 007 | 6 Ductile Iron Annealing Furnaces (Annual Tune-up)<br>#1 DeLavaud Process Heat Treating Oven, 112.8 MMBtu/hr<br>#2 DeLavaud Process Heat Treating Ovens, (4) 36.0 MMBtu/hr<br>#3 DeLavaud Process Heat Treating Oven, 134.044 MMBtu/hr | 40 CFR 63, Subpart DDDDD & SIP |
| 073 | 3 Boilers (5 Year Tune-up)<br>Central Boiler #1, 4.2 MMBtu/hr<br>Central Boiler #2, 4.2 MMBtu/hr<br>Pattern Shop Boiler, 3 MMBtu/hr | 40 CFR 63, Subpart DDDDD & SIP |
| | 2 Boilers (2 Year Tune-up)<br>Maintenance Fab Shop North, 7 MMBtu/hr<br>Maintenance Fab Shop South, 7 MMBtu/hr | 40 CFR 63, Subpart DDDDD & SIP |

| No. | Federally Enforceable Conditions for Equipment Combusting Natural Gas | Regulations |
|---|---|---|
| 1. | **Applicable NESHAP**<br>A. The 6 annealing ovens are existing metal process furnaces >10 MMBtu/hr under 40 CFR 63, Subpart DDDDD and belong to the designed to burn gas 1 subcategory.<br>B. The 2 Central Boilers are existing boilers <5 MMBtu/hr under 40 CFR 63, Subpart DDDDD and belong to the designed to burn gas 1 subcategory.<br>C. The pattern shop boiler is a new boiler <5 MMBtu/hr under 40 CFR 63, Subpart DDDDD and belong to the designed to burn gas 1 subcategory.<br>D. The hot water heaters are existing boilers <10 MMBtu/hr but >5 MMBtu/hr under 40 CFR 63, Subpart DDDDD and belong to the designed to burn gas 1 subcategory | 63.7485<br>63.7490<br>63.7499(l)<br>63.7499(n)<br>63.7500(e)<br>18.5.3 |
| 2. | **Fuel Restriction**<br>The permittee shall combust only natural gas as defined at 40 CFR §63.7575 in these emission units. Records of fuel combustion will demonstrate compliance with this condition and will assure compliance with the applicable SIP emission limits for particulate matter (Part 6.3 of the Rules and Regulations) and sulfur dioxide (Part 7.1 of the Rules and Regulations). Requirements for the use of other fuels during periods of curtailment, subject to Department approval, are located at 40 CFR §63.7545(f). | 18.5.3<br>6.3<br>7.1<br>63.7575 |
| 3. | **Visible Emission Limitations from the State Implementation Plan (SIP)**<br>The permittee shall not cause or allow emissions from any fuel combusting unit in excess of 20 % opacity (6-minute average), except for one 6-minute period per hour of not more than 40 % opacity. | 6.1.1 |
| 4. | **Visible Emissions Monitoring**<br>The permittee shall observe the stack for each affected source at least once per week in accordance with the procedures of Method 22 of 40 CFR 60, Appendix A while the source is operating at representative performance conditions. The observer shall record the time and date of Method 22 observations, and the presence or absence of any visible emissions. If visible emissions are observed during any Method 22 visible emissions observation, the permittee shall initiate corrective actions within 1 hour and conduct a follow-up observation within 24 hours. If visible emissions are observed during the follow up Method 22 test, the certified reader shall complete a visible emissions observation in accordance with Method 9 of 40 CFR 60, Appendix A within 3 business days to establish compliance with the opacity limit. The date, time and description of corrective actions shall be recorded along with the results of all visible emission observations associated with the event. | 18.5.3<br>18.7.1<br>6.1.1 |

| No. | Federally Enforceable Conditions for Equipment Combusting Natural Gas | Regulations |
|---|---|---|
| 5. | **Tune-Ups of Units Subject to Subpart DDDDD**<br>The permittee shall conduct a tune-up of each unit subject to Subpart according to the requirements of 40 CFR §63.7540(a)(10)(i) through (vi) at the intervals listed below:<br>A. Annually (no more than 13 months after the previous tune-up) for the 6 metal processing furnaces, unless the furnace is equipped with a continuous oxygen trim system that maintains an optimum air to fuel ratio.<br>B. For any metal processing furnace that is equipped with a continuous oxygen trim system that maintains an optimum air to fuel ratio, tune-ups are required every 5 years (not more than 61 months after the previous tune-up).<br>C. Every 5 years (not more than 61 months after the previous tune-up) for the 2 Central Boilers and the Pattern Shop Boiler<br>D. Every 2 years (not more than 25 months after the previous tune-up) for the 2 Maintenance Fab Shop Boilers.<br>If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. | 63.7500<br>63.7510(e)<br>63.7510(g)<br>63.7515(d)<br>63.7540(a)<br>Table 3 to Subpart DDDDD |
| 6. | **Recordkeeping**<br>The permittee shall maintain the following records for the emissions sources listed above:<br>A. Fuel records for each fuel burning unit and time operated for each unit;<br>B. Records of tune-ups performed on each unit as required by 40 CFR §63.7540(a)(10)(vi);<br>C. Records of the one-time energy assessment performed by a qualified energy assessor on all existing units subject to Subpart DDDDD as required by 40 CFR §63.7510(e) and Table 3 of Subpart DDDDD shall be maintained for 5 years; and<br>D. Time, date and duration of any startup, shutdown or malfunction, whether the event causes excess emissions and any corrective actions taken. | 1.9.1<br>18.5.3<br>18.7.1<br>63.7540(a) |
| 7. | **NESHAP Reporting**<br>Submit an annual or 5-year compliance report for each metal processing furnace and boiler, with each report covering the applicable period from January 1 to December 31. The report must be submitted or postmarked by January 31. The report must contain the following information:<br>A. Company and Facility name and address.<br>B. Process unit information, emissions limitations, and operating parameter limitations.<br>C. Date of report and beginning and ending dates of the reporting period.<br>D. The date of the most recent tune-up for each unit subject to only the requirement to conduct an annual or 5-year tune-up, including the date of the most recent burner inspection if it was not done annually or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.<br>Failure to conduct a tune-up at the required interval is a deviation that must be reported according to the requirements of 40 CFR §63.7550(e). | 63.7550(b)<br>63.7550(c)<br>Table 3 of Subpart DDDDD<br><br>63.7540(b) |
| 8. | **Annual Emissions Reporting (JCDH Requirement)**<br>The permittee shall maintain the records required by Condition 6 above and include the following information for each affected source in the annual emissions report as the basis for emissions calculations:<br>A. The actual hours of operation of each unit for the previous calendar year; and<br>B. The quantity of natural gas combusted in each unit (CF). | 1.5.15<br>18.5.3<br>1.9.2<br>18.7.1 |

## FEDERALLY ENFORCEABLE CONDITIONS FOR CONTROLLED PARTICULATE MATTER SOURCES

| Emissions Unit No. | Emissions Unit Description | Control Device |
|---|---|---|
| | **Mold Maintenance Operations** | |
| 011 | #2 & #3 Delavaud Pipe Mold Shot Blast Process | 24,000 SCFM Baghouse |
| 034 | #1 Delavaud Pipe Mold Shot Blast Process | 11,500 SCFM Baghouse |
| 078 | Mold Shop Grinder & Peener | 7,300 SCFM Baghouse |
| 079 | Mold Shop Weld Flux Recovery | 2,500 SCFM Baghouse |
| | **Woodworking Machines** | |
| 027 | Woodworking Machines at Carpenter Shop | 7,000 SCFM Cyclone |
| 028 | Woodworking Machines at Pattern Shop | 17,200 SCFM Cyclone |
| | **Core Sand Storage and Handling** | |
| 025 | Core Sand Handling, Transfer and Storage in Silos | 11,500 SCFM Baghouse |
| | **Cement and Sand (for Lining Operations) Storage and Handling** | |
| 026 | Cement Lining Operations at Coating Units 100, 160 & 166 | (3) 10,000 SCFM Baghouses |
| | **Steel Cutting Operations** | |
| 074 | Plasma Cutting Machine at Steel Pipe North Processing | 3,531 SCFM Baghouse |
| 075 | 24" Mill Plasma Cutter | 20,000 SCFM Baghouse |
| 076 | 20" Mill Plasma Cutter with Double End Cropper | 10,000 SCFM Baghouse |

| No. | Federally Enforceable Conditions for Controlled PM Sources | Regulations |
|---|---|---|
| 1. | **Particulate Matter Emission Limitations from the State Implementation Plan (SIP)**<br>The permittee shall not cause or allow emissions from any emissions unit listed above in excess of the following process rate-based limit:<br>$E = 3.59p^{0.64}$, where $p < 30$ tons/hr<br>*or*<br>$E = 17.31p^{0.16}$, where $p \geq 30$ tons/hr<br>where $E$ is emission rate (lb/hr); and $p$ is the process weight rate (tons/hr). | 6.4.1 |
| 2. | **Visible Emission Limitations from the State Implementation Plan (SIP)**<br>The permittee shall not cause or allow emissions from any emissions unit listed above in excess of 20 % opacity (6-minute average), except for one 6-minute period per hour of not more than 40 % opacity. | 6.1.1 |

| No. | Federally Enforceable Conditions for Controlled PM Sources | Regulations |
|---|---|---|
| 3. | **Visible Emissions Monitoring**<br>The permittee shall observe the stack for each of these emission units at least once per week in accordance with the procedures of Method 22 of 40 CFR 60, Appendix A while the source is operating at representative performance conditions. The observer shall record the time and date of Method 22 observations, and the presence or absence of any visible emissions. If visible emissions are observed during any Method 22 visible emissions observation, the permittee shall initiate corrective actions within 1 hour and conduct a follow-up observation within 24 hours. If visible emissions are observed during the follow up Method 22 test, the certified reader shall complete a visible emissions observation in accordance with Method 9 of 40 CFR 60, Appendix A within 3 business days to establish compliance with the opacity limit. The date, time and description of corrective actions shall be recorded along with the results of all visible emission observations associated with the event. Document periods when the source not being operated and not thus observed. | 18.5.3<br>18.7.1<br>6.1.1 |
| 4. | **Recordkeeping**<br>The permittee shall maintain the following records for the emissions sources listed above:<br>A. The hours of operation of each unit;<br>B. The quantity of material throughput for each unit; and<br>C. Time, date and duration of any startup, shutdown or malfunction which causes excess emissions and any corrective actions taken. | 1.9.1<br>18.5.3<br>18.7.1 |
| 5. | **Annual Emissions Reporting (JCDH Requirement)**<br>The permittee shall maintain the records required by Condition 4 above and include the following information for each affected source in the annual emissions report as the basis for emissions calculations:<br>A. The actual hours of operation of each unit for the previous calendar year; and<br>B. The quantity of material throughput for each unit for the previous calendar year. | 1.5.15<br>18.5.3<br>1.9.2<br>18.7.1 |

# FEDERALLY ENFORCEABLE CONDITIONS FOR GASOLINE DISPENSING

| Emissions Unit No. | Emissions Unit Description |
|---|---|
| 010 | (1) 12,000-Gallon Gasoline Tank and Stage 1 Controlled Gasoline Dispensing Facility |

| No. | Federally Enforceable Conditions for Gasoline Dispensing | Regulations |
|---|---|---|
| 1. | **Applicability**<br>The emissions unit "Gasoline Dispensing Facility" shall include the gasoline storage tank and all appurtenant equipment (i.e., pumps, piping, valves, vents, seals, instruments, hoses and couplings) used to fill the gasoline storage tank, to store gasoline and to pump gasoline into a motor vehicle or container. | 18.2.4<br>8.7.4(d) |
| 2. | **Required Equipment for Storage Tank**<br>Any stationary storage tank which contains a VOC with a true vapor pressure of 1.5 psia or greater under actual storage conditions shall be equipped with a permanent submerged fill pipe or a bottom fill pipe. | 8.3.1<br>8.3.2(a) |
| 3. | **Gasoline Loading and Transfer**<br>The permittee shall not transfer gasoline from any gasoline tank truck into a stationary storage tank unless the tank is equipped with a submerged fill pipe, the gasoline tank truck has a valid Air Sticker issued under Part 8.20, and the vapors displaced from the storage tank during filling are processed by a Stage I vapor balance system between the storage tank and the gasoline tank truck and a system that will ensure the vapor line is connected before gasoline can be transferred into the tank and operates properly during the transfer. | 8.7.3<br>8.7.4(a)<br>8.7.5(a) |
| 4. | **Housekeeping Requirements**<br>The permittee shall not cause or allow gasoline to be spilled, discarded in sewers, stored in open containers, or handled in any other manner that would result in evaporation of the gasoline to the atmosphere. | 8.7.6 |
| 5. | **Recordkeeping**<br>The permittee shall maintain the following written records for the emissions unit described above:<br>A. The monthly throughput quantities in gallons and types of petroleum distillates in all stationary storage tanks at the facility which store such materials;<br>B. The annual summary report of the information required in Item A above; and<br>C. The quantity in gallons of any VOC/HAP material lost (evaporated to the atmosphere) due to a spill, leak or other mishap.<br>The permittee shall make these records and reports available to the Department upon request and shall maintain these records for a minimum of 2 years.. | 1.9.1<br>18.5.3<br>8.7.5(b)<br>8.7.5(c)<br>8.7.5(d) |
| 6. | **Annual Emissions Reporting (JCDH Requirement)**<br>The permittee shall include the following information in the annual production report to the Department due on February 10 of the year:<br>A. The annual summary report of the monthly gasoline throughput for the previous calendar year; and<br>B. The amount of any spill which evaporates to the atmosphere. | 1.5.15<br>18.5.3<br>1.9.2<br>18.7.1 |

# FEDERALLY ENFORCEABLE CONDITIONS FOR EMERGENCY GENERATORS

| Emissions Unit No. | Emissions Unit Description |
|---|---|
| 077 | (19) Emergency Generators |

| No. | Federally Enforceable Conditions for Emergency Generators | Regulations |
|---|---|---|
| 1. | **Applicability**<br>The generators are subject to 40 CFR 63 (NESHAP) (all engines) and 40 CFR 60 (NSPS) (certain engines) as listed below. These generators are available to use during emergencies and for limited non-emergency use as allowed by the applicable subparts.<br><br>**Units subject ONLY to 40 CFR 63, Subpart ZZZZ:**<br>• **RS206** – Air Compressor<br>1992 Ingersoll Rand 710, 350 hp Diesel (CI)<br>• **RS245** – #3 DeLavaud Pipe Mill<br>1987 Kohler 100RH-0Z271, 134.1 hp Diesel (CI)<br>• **RS 437** – #1 DeLavaud Pipe Mill<br>2005 Olympian G60F3, 112.4 hp Natural Gas (SI)<br>• **RS486** – Sales Building<br>2002 Olympian G25F1, 33.5 hp Natural Gas (SI)<br>• **RS488** – KRD Building<br>1999 Caterpillar 3306, 345 hp Diesel (CI)<br>• **RS494** – Y Bldg.<br>2002 Olympian G80F3, 127 hp Propane (SI)<br>• **RS497** – Contiarc #1<br>2000 Caterpillar 3406, 449 hp Diesel (CI)<br>• **RS498** – Contiarc #2<br>2002 Caterpillar 3306B, 377 hp Diesel (CI)<br>• **RS499** – Shipping Scale House<br>2004 Generac 39680001000, 46.9 hp Diesel (CI)<br><br>**Units which are also subject to 40 CFR 60, Subpart JJJJ:**<br>• **RS757** – Central Stores Data Hub<br>2012 Generac 5888, 9.3 hp Natural Gas (SI)<br>• **RS758** – Pattern Shop Data Hub<br>2012 Generac 5888, 9.3 hp Natural Gas (SI)<br>• **RS759** – Large Mold Shop Data Hub<br>2012 Generac 5888, 9.3 hp Natural Gas (SI)<br>• **RS796** – 20" Pipe Mill Data Hub<br>2012 Generac 5837, 9.3 hp Natural Gas (SI)<br>• **RS797** – 24" Pipe Mill Data Hub<br>2012 Generac 5837, 9.3 hp Natural Gas (SI)<br>• **RS809** – Steel Pipe North Processing<br>2014 Olympian G35LG, 82 hp Natural Gas (SI)<br><br>**Units which are also subject to 40 CFR 60, Subpart IIII:**<br>• **RS456** – Wastewater Treatment System<br>2008 Caterpillar D50-4, 94.5 hp Diesel (CI)<br>• **RS487** – Powerhouse Telephone<br>2007 Olympian D40P1, 65.6 hp Diesel (CI)<br>• **RS493** – Cupola<br>2007 Caterpillar C15, 636 hp Diesel (CI)<br>• **RS803** – Shredder Fire Pump Engine<br>2010 Clarke JU4H-UF40, 94 hp Diesel (CI) | 63.6585<br>60.4200(a)<br>60.4230(a) |

| No. | Federally Enforceable Conditions for Emergency Generators | Regulations |
|---|---|---|
| 2. | **Visible Emissions**<br>The permittee shall not discharge into the atmosphere from any source of emission any air contaminant with an opacity greater than 20%, as determined by a 6-minute average using EPA Method 9 of 40 CFR 60, Appendix A, except that during (1) 6-minute period in any 60-minute period, particulate emissions from a source of emission may reach but not exceed 40% opacity. If the period of operation of an engine exceeds the time needed to startup the engine and achieve safe loading and normal operation (a maximum of 30 minutes) during a period of non-emergency operation, the exhaust shall be visually observed for the presence of visible emissions. It is not necessary to quantify the opacity of the visible emissions during normal operation if the cause of any amount of visible emissions is promptly investigated and corrected. The effectiveness of corrective actions shall be demonstrated by follow-up a visual observation at the completion of repairs and not later than the next operation of the engine. If visible emissions are not corrected, a certified observer shall complete a Visible Emissions Evaluation consistent with EPA Method 9 of 40 CFR 60, Appendix A, within 3 working days to establish compliance with Section 6.1. | 6.1.1<br>18.5.3 |
| 3. | **Fuel Restrictions**<br>The permittee shall combust only diesel fuel in compression ignition (CI) engines and only natural gas or propane in spark ignition (SI) engines. Compliance with this provision will serve as compliance with the applicable requirements for fuel combustion emissions at Sections 6.3 (particulate matter) and 7.1 (sulfur dioxide) of the Rules and Regulations. Compliance shall be demonstrated by fuel records. | 18.2.4 |
| 4. | **Restrictions on Non-Emergency Use**<br>There is no time limit on the use of emergency stationary RICE in emergency situations as specified in §63.6640(f)(1), §60.4211(f)(1) and/or §60.4243(d)(1). The permittee shall comply with the restrictions on non-emergency use from the applicable subpart for each emergency stationary RICE, including any amendments to or court decisions affecting these rules from the effective date. The permittee shall limit the non-emergency operations of the engine as follows:<br>A. Maintenance checks and readiness testing for a maximum of 100 hours per year as specified in §63.6640(f)(2)(i), §60.4211(f)(2)(i) and/or §60.4243(d)(2)(i); and<br>B. Certain non-emergency situations for up to 50 hours per year as specified in §63.6640(f)(3), §60.4211(f)(3) and/or §60.4243(d)(3). All hours of operation under this provision also count toward the maximum of 100 hours provided for maintenance checks and readiness testing.<br>Any engine that does not comply with the non-emergency use restrictions shall comply with the requirements for non-emergency engines under the applicable subpart(s) and the permittee shall notify the Department of any change in engine service. | 63.6675<br>63.6640(f)<br>60.4219<br>60.4211(f)<br>60.4248<br>60.4243(d) |
| 5. | **Recordkeeping for ALL RICE**<br>The permittee shall maintain the following records:<br>A. Hours of operation for each engine;<br>B. Records of the purpose of each operation of each engine to demonstrate compliance with the restrictions on use other than for emergency operation;<br>C. Records to document the type of fuel used and the sulfur content of fuel used by each engine;<br>D. Time, date and duration of malfunctions, including whether the equipment the control device is intended to control was operating and any corrective actions taken;<br>E. Time, date, total engine hours operated, and name of person(s) performing each inspection;<br>F. Time, date, name of observer for visible emissions observations; and<br>G. Time, date, total engine hours operated, and name of person(s) performing maintenance, corrective actions and repairs. | 1.9.1<br>18.5.3 |

| No. | Federally Enforceable Conditions for Emergency Generators | Regulations |
|---|---|---|
| 6. | **Additional Requirements Engines Subject ONLY to 40 CFR 63, Subpart ZZZZ**<br>The additional requirements of Subpart ZZZZ for the 9 "existing" (constructed before June 12, 2006) emergency SI and CI engines less than 500 hp located at a major source of emissions include: | 63.6590(a)(1)(ii) |
| | A. General Duty to Minimize Emissions: At all times, 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. | 63.6605 |
| | B. Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. | 63.6602<br>Subpart ZZZZ, Table 2c |
| | C. Comply with the following work practices or an alternative work practice plan approved by EPA pursuant to §63.6(g):<br>1. Change oil and filter every 500 hours of operation or annually, whichever comes first, or utilize an oil analysis program as described in 40 CFR §63.6625(j) or §63.6625(i), as applicable;<br>2. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;<br>3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. | 63.6670(c)(1) |
| | D. A non-resettable hour meter is required and shall be used to maintain records of the hours and purpose of operation of each engine to demonstrate compliance with the limitations on non-emergency operation. | 63.6625(f)<br>63.6655(f) |
| | E. Maintain records of all required maintenance and records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b). | 63.6655(a)<br>63.6655(e) |
| | F. Compliance with Subpart A of 40 CFR 63 is not required. | 63.6665 |
| 7. | **Additional Requirements for the Engines Subject to 40 CFR 60, Subpart JJJJ**<br>These 6 "new" engines meet the requirements of 40 CFR 63, Subpart ZZZZ fully by meeting the requirements of 40 CFR 60, Subpart JJJJ. The engines are certified emergency engines that have been installed and configured according to the manufacturer's emission-related written specifications. The applicable requirements of 40 CFR 60, Subpart JJJJ for these engines are as follows: | 63.6590(a)(2)(i)<br>63.6590(c)(6) |
| | A. Keep the engine's certificate of conformity as a record; | 60.4245(a)(3) |
| | B. Install a non-resettable hour meter prior to startup; for each instance of engine operation, and for each instance of engine operation, record the time (duration) of engine operation and the reason the engine was in operation at that time; | 60.4237(c)<br>60.4245(b)<br>18.5.3 |
| | C. Operate and maintain the stationary engine and control device according to the manufacturer's emission-related written instructions and keep records of conducted maintenance to demonstrate compliance, adjust engine settings according to and consistent with the manufacturer's instructions and do not circumvent or remove the control device or operate the control device without required materials; and | 60.4243(a)<br>60.4245(a)(2) |
| | D. If the engine is not operated and maintained according to the manufacturer's emission-related written instructions, the permittee shall meet the emission limits and other requirements of §60.4243(a)(2)(ii), including but not limited to initial performance testing per §§60.4244, 60.4245(d), Table 2 of Subpart JJJJ, and §60.8 to demonstrate compliance with the emissions limit from §60.4231(c) of Subpart JJJJ. | 60.4243(a)(2)<br>60.4243(f)<br>60.4233(c) |

| No. | Federally Enforceable Conditions for Emergency Generators | Regulations |
|---|---|---|
| 8. | **Additional Requirements for the Engines Subject to 40 CFR 60, Subpart IIII**<br>These 4 "new" engines meet the requirements of 40 CFR 63, Subpart ZZZZ fully by meeting the requirements of 40 CFR 60, Subpart IIII. The engines are certified emergency or fire pump engines that have been installed and configured according to the manufacturer's emission-related written specifications. The applicable requirements of Subpart IIII are as follows: | 60.4200(a)(2)<br>60.4211(c) |
| | A. Use diesel fuel that complies with 40 CFR §80.510(b) for nonroad diesel fuel; | 60.4207(b) |
| | B. Install a non-resettable hour meter prior to startup, and, for each instance of engine operation, record the time(duration) of engine operation and the reason the engine was in operation at that time; | 60.4209(a)<br>60.4214(b) |
| | C. Operate and maintain the stationary engine and control device (if present) according to the manufacturer's emission-related written instructions, change only those emission-related settings that are permitted by the manufacturer and do not circumvent or remove the control device or operate the control device without required materials, and meet the requirements of 40 CFR 89 as they apply to owners (diesel engines except the fire pump engine); and | 60.4211(a) |
| | D. If the engine and control device (if present) are not installed, configured, operated and maintained according to the manufacturer's emission-related written instructions or if emission-related settings are changed in a way not permitted by the manufacturer, the permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. | 60.4211(g)<br>60.4205(c)<br>60.4205(c) |
| | 1. For engines under 100 hp, an initial performance test per §60.4212 and §60.8 to demonstrate compliance with the emissions limits of Subpart IIII shall be conducted within 1 year of any action which triggers §60.4211(g). | 60.4211(g)(1) |
| | 2. For engines greater than 500 hp, an initial performance test per §60.4212 and §60.8 to demonstrate compliance with the emissions limits of Subpart IIII shall be conducted within 1 year of any action which triggers §60.4211(g). Subsequent performance testing must be performed every 8,760 hours of engine operation or 3 years, whichever comes first. | 60.4211(g)(3) |
| 9. | **Annual Emissions Reporting (JCDH Requirement)**<br>The permittee shall maintain the records required by Condition 5 above and include the following information for each generator in the annual emissions report as the basis for emissions calculations: | 1.5.15<br>18.5.3<br>1.9.2<br>18.7.1 |
| | A. The actual hours of operation of the engine for the previous calendar year; and | |
| | B. If the hours of operation for any engine exceed 50 hours for the previous calendar year, include the number of hours spent for non-emergency operation. | |

# APPENDIX A: CROSS-REFERENCE TABLE: JCDH AIR POLLUTION CONTROL RULES AND REGULATIONS TO STATE IMPLEMENTATION PLAN

The citations to Alabama regulations provided below refer to the version of the regulation that has been approved by the U.S. EPA as part of Alabama's Clean Air Act state implementation plan (SIP), as identified in 40 CFR 52, Subpart B. In the event that there is a discrepancy between the information provided in the table below and the federal regulatory table identifying the Alabama SIP at 40 CFR 52, Subpart B, the federal regulatory table governs.

| JCDH Citation | State Citation | Title/Subject |
|---|---|---|
| **Chapter 1** | **Chapter No. 335-3-1** | **General Provisions** |
| Part 1.1 | Section 335-3-1-.01 | Purpose |
| Part 1.3 | Section 335-3-1-.02[1] | Definitions |
| Part 1.7 | Section 335-3-1-.03 | Ambient Air Quality Standards |
| Part 1.9 | Section 335-3-1-.04 | Monitoring, Records, and Reporting |
| Part 1.10 | Section 335-3-1-.05 | Sampling and Test Methods |
| Part 1.11 | Section 335-3-1-.06 | Compliance Schedule |
| Part 1.12 | Section 335-3-1-.07 | Maintenance and Malfunctioning of Equipment; Reporting |
| Part 1.13 | Section 335-3-1-.08 | Prohibition of Air Pollution |
| Sections 3.2.1 – 3.2.4 & Part 3.4 | Section 335-3-1-.09 | Variances |
| Part 1.15 | Section 335-3-1-.10 | Circumvention |
| Part 1.16 | Section 335-3-1-.11 | Severability |
| Part 1.17 | Section 335-3-1-.12 | Bubble Provision |
| Part 1.18 | Section 335-3-1-.13 | Credible Evidence |
| Part 1.20 | Section 335-3-1-.15 | Emissions Inventory Reporting Requirements |
| **Chapter 2** | **Chapter No. 335-3-14** | **Air Permits** |
| Part 2.1 | Section 335-3-14-.01 | General Provisions |
| Part 2.2, except 2.2.4(h) | Section 335-3-14-.02 | Permit Procedures |
| Part 2.3 | Section 335-3-14-.03 | Standards for Granting Permits |
| Part 2.4 | Section 335-3-14-.04[2,3] | Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration (PSD)] |
| Part 2.5 | Section 335-3-14-.05[4] | Air Permits Authorizing Construction in or Near Nonattainment Areas |
| **Chapter 4** | **Chapter No. 335-3-2** | **Air Pollution Emergency** |
| Part 4.1 | Section 335-3-2-.01 | Air Pollution Emergency |
| Part 4.3 | Section 335-3-2-.02 | Episode Criteria |
| Part 4.4 | Section 335-3-2-.03 | Special Episode Criteria |
| Part 4.5 | Section 335-3-2-.04 | Emission Reduction Plans |

[1] Revisions of the definition of VOC to exclude *trans* 1-chloro-3,3,3-trifluoroprop-1-ene (Solstice™ 1233zs(E)), 2,3,3,3-tetrafluoropropene, and 2-amino-2-methyl-1-propanol (AMP) have not been approved into the SIP.

[2] Revisions to the following provisions have not been approved as SIP changes by EPA: the permitting applicability statement for greenhouse gases at ADEM 335-3-14-.04(1)(k) (JCDH 2.4.1(k)) and the definition of replacement unit at ADEM 335-3-14-.04(2)(bbb) (JCDH 2.4.2(bbb)).

[3] As of Sept. 26, 2012 Section 335-3-14-.04 does not include Alabama's revision to adopt the $PM_{2.5}$ SILs threshold and provisions (as promulgated in the October 20, 2010 $PM_{2.5}$ PSD Increment-SILs-SMC Rule at 40 CFR 1.166(k)(2) and the term "particulate matter emissions" (as promulgated in the May 16, 2008 NSR $PM_{2.5}$ Rule (as 40 CFR 51.166(b)(49)(vi))

[4] The following provisions are not part of the EPA-approved SIP: the portion of 335-3-14-.05(1)(k) (JCDH 2.5.1(k)) stating "excluding ethanol production facilities that produce ethanol by natural fermentation", 335-3-14-.05(2)(c)3. (JCDH 2.5.2(c)(3)) which addresses fugitive emission increases and decreases, 335-3-14-.05(1)(h) (JCDH 2.5.1(h)) stating the actual-to-potential test for projects that only involve existing emissions units; the last sentence at 335-3-14-.05(3)(g) (JCDH 2.5.3(g)), stating "Interpollutant offsets shall be determined based on the following ratios", and the NNSR interpollutant ratios at 335-3-14-.05(3)(g)1.-4. (JCDH 2.5.3(g)(1)-(4)).

| JCDH Citation | State Citation | Title/Subject |
|---|---|---|
| Part 4.6 | Section 335-3-2-.05 | Two Contaminant Episode |
| Part 4.7 | Section 335-3-2-.06 | General Episodes |
| Part 4.8 | Section 335-3-2-.07 | Local Episodes |
| Part 4.9 | Section 335-3-2-.08 | Other Sources |
| Section 4.2.3 | Section 335-3-2-.09 | Other Authority Not Affected |
| **Chapter 5** | **Chapter No. 335-3-3** | **Control of Open Burning and Incineration** |
| Sections 5.1.1 – 5.1.5[1] | Section 335-3-3-.01 | Open Burning |
| Part 5.2 | Section 335-3-3-.02 | Incinerators |
| Part 5.3[2], except 5.3.4 | Section 335-3-3-.03 | Incineration of Wood, Peanut, and Cotton Ginning Waste |
| **Chapter 6** | **Chapter No. 335-3-4** | **Control of Particulate Emissions** |
| Sections 6.1.1 & 6.1.2 | Section 335-3-4-.01[3] | Visible Emissions |
| Part 6.2 | Section 335-3-4-.02[4] | Fugitive Dust and Fugitive Emissions |
| Part 6.3 | Section 335-3-4-.03 | Fuel Burning Equipment |
| Part 6.4 | Section 335-3-4-.04 | Process Industries—General |
| Part 6.5[5] | Section 335-3-4-.05 | Small Foundry Cupola |
| Part 6.6[6] | Section 335-3-4-.06 | Cotton Gins |
| Part 6.7 | Section 335-3-4-.07 | Kraft Pulp Mills |
| Part 6.8 | Section 335-3-4-.08 | Wood Waste Boilers |
| Part 6.9 | Section 335-3-4-.09 | Coke Ovens |
| Part 6.10 | Section 335-3-4-.11 | Cement Plants |
| Part 6.12 | Section 335-3-4-.12 | Xylene Oxidation Process |
| No equivalent provision | Section 335-3-4-.14 | Grain Elevators |
| No equivalent provision | Section 335-3-4-.15 | Secondary Lead Smelters |
| **Chapter 7** | **Chapter No. 335-3-5** | **Control of Sulfur Compound Emissions** |
| Part 7.1 | Section 335-3-5-.01 | Fuel Combustions |
| Part 7.2 is not equivalent | Section 335-3-5-.02 | Sulfuric Acid Plants |
| No equivalent provision | Section 335-3-5-.03 | Petroleum Production |
| No equivalent provision | Section 335-3-5-.04 | Kraft Pulp Mills |
| No equivalent provision | Section 335-3-5-.05 | Process Industries—General |
| **Chapter 8** | **Chapter No. 335-3-6** | **Control of Volatile Organic Compound Emissions** |
| Part 8.1[7] | Section 335-3-6-.24 | Applicability |
| Part 8.2 | Section 335-3-6-.25 | VOC Water Separation |

[1] See also Guidelines & Standard Operating Procedures for Issuance of Open Burning Authorizations at the end of Chapter 5. ADEM 335-3-3-.01(2)(b)(6) also prohibits open burning during declared air stagnation advisories and drought emergencies.

[2] JCDH has no equivalent for ADEM 335-3-3-.03(5), which states "Each incinerator subject to this Rule shall be properly designed, equipped, and maintained for its maximum rated burning capacity and shall be equipped with an underfire forced air system, an over-fire air recirculation secondary construction system, and variable control damper, all of which shall be electronically controlled to insure the optimum temperature range for the complete combustion of the amount and type of material waste being charged into the incinerator. Each such incinerator shall be equipped with a temperature recorder which shall be operated continuously with the incinerator, and the temperature records shall be made available for inspection at the request of the Director."

[3] ADEM 335-3-4-.01(1) & (2) are included in the EPA-approved SIP, however, the remaining provisions are not SIP-approved.

[4] ADEM 335-3-4-.02(4) was removed effective July 15, 1999, however, the provision is still included in the EPA-approved SIP.

[5] All allowable emissions rates in Table 6-3 should be construed to have 2 significant figures, consistent with ADEM 335-3-4-.05, Table 4-3.

[6] All allowable emissions rates in Table 6-4 should be construed to have 1 significant figure, consistent with ADEM 335-3-4-.06, Table 4-4.

[7] The definition at ADEM 335-3-6-.24(2)(d) is located at JCDH Part 1.3.

| JCDH Citation | State Citation | Title/Subject |
|---|---|---|
| Part 8.3 | Section 335-3-6-.26[1],[2] | Loading and Storage of VOC |
| Part 8.4 | Section 335-3-6-.27 | Fixed-Roof Petroleum Liquid Storage Vessels |
| Part 8.5 | Section 335-3-6-.28 | Bulk Gasoline Plants |
| Part 8.6 | Section 335-3-6-.29 | Gasoline Terminals |
| Part 8.7, except 8.7.4(b) & 8.7.5(e) | Section 335-3-6-.30 | Gasoline Dispensing Facilities Stage 1 |
| Part 8.11 | Section 335-3-6-.32 | Surface Coating |
| Part 8.12 | Section 335-3-6-.33[3] | Solvent Metal Cleaning |
| Part 8.13 | Section 335-3-6-.34 | Cutback and Emulsified Asphalt |
| Part 8.15 | Section 335-3-6-.36 | Compliances Schedules |
| Part 8.16[4] | Section 335-3-6-.37 | Test Methods and Procedures |
| Part 8.18 | Section 335-3-6-.39 | Manufacture of Synthesized Pharmaceutical Products |
| Part 8.20, except 8.20.8 | Section 335-3-6-.41 | Leaks from Gasoline Tank Trucks and Vapor Collection Systems |
| Part 8.22 | Section 335-3-6-.43[5] | Graphic Arts |
| Part 8.23 | Section 335-3-6-.44 | Petroleum Liquid Storage in External Floating Roof Tanks |
| Part 8.24 | Section 335-3-6-.45 | Large Petroleum Dry Cleaners |
| Part 8.26 | Section 335-3-6-.47 | Leaks from Coke by-Product Recovery Plant Equipment |
| Part 8.27 | Section 335-3-6-.48 | Emissions from Coke by-Product Recovery Plant Coke Oven Gas Bleeder |
| Part 8.28 | Section 335-3-6-.49[6] | Manufacture of Laminated Countertops |
| Part 8.29 | Section 335-3-6-.50 | Paint Manufacture |
| Part 8.23[7] | Section 335-3-6-.53 | List of EPA Approved and Equivalent Test Methods and Procedures for the Purpose of Determining VOC Emissions |
| **Chapter 9** | **Chapter No. 335-3-7** | **Control of Carbon Monoxide Emissions** |
| Part 9.1 | Section 335-3-7-.01 | Metals Productions |
| Part 9.2 | Section 335-3-7-.02 | Petroleum Processes |
| **Chapter 10** | **Chapter No. 335-3-8** | **Control of Nitrogen Oxides Emissions** |
| Part 10.1 | Section 335-3-8-.01 | Standards for Portland Cement Kilns |
| Part 10.2 | Section 335-3-8-.02 | Nitric Acid Manufacturing |
| Part 10.3 | Section 335-3-8-.03 | $NO_X$ Emissions from Electric Utility Generating Units |
| Part 10.4 | Section 335-3-8-.04 | Standards for Stationary Reciprocating Internal Combustion Engines |

[1] The EPA-approved SIP excludes only 11 compounds from the definition of VOC at ADEM 335-3-6-.26(1) (JCDH 8.3.1). The SIP-approved exemptions are listed in ADEM 335-3-1-.02(1)(gggg)(JCDH Part 1.3) as numbered exemptions 1-10 and 20).

[2] The EPA-approved SIP requires a disposal system in conjunction with equipment required by ADEM 335-3-6-.26(2)(c)1.(i) (JCDH 8.3.2(c)(1)(i)).

[3] ADEM 335-3-6-.33(5)(n) (JCDH 8.12.5(n)) is not included in the approved SIP.

[4] Federally enforceable testing provisions for perchloroethylene dry cleaning systems are located at ADEM 335-3-6-.37(5) and federally enforceable testing provisions for capture efficiency are located at ADEM 335-3-6-.37(13).

[5] The following provisions are not included in the EPA-approved SIP: the last 4 sentences of ADEM 335-3-6-.43(1)(c) (JCDH 8.22.(c)), provision ADEM 335-3-6-.43(1)(f) (JCDH 8.22.1(f)) and all provisions of ADEM 335-3-6-.43(5) & (6) (JCDH 8.22.5 and 8.22.6).

[6] Current ADEM 335-6-.49(4) & (5) (JCDH 8.28.4 and 8.28.5) are not included in the EPA-approved SIP. The SIP-approved version of ADEM 335-6-.49(4) (JCDH 8.28.4) is "Compliance with this Rule shall be demonstrated via certification by the adhesive manufacturer as to the composition of the adhesive, if supported by actual batch formulation records. Sufficient data to determine as-applied formulation is different from the as-purchased adhesive."

[7] Test Methods 204, 204A-204F are not included in the APR-approved SIP.

| JCDH Citation | State Citation | Title/Subject |
|---|---|---|
| Part 10.5 | Section 335-3-8-.05[1] | New Combustion Sources |
| **Chapter 11** | **Chapter No. 335-3-9** | **Control of Emissions from Motor Vehicles** |
| Part 11.1 | Section 335-3-9-.01 | Visible Emission Restriction for Motor Vehicles |
| Part 11.2 | Section 335-3-9-.02 | Ignition System and Engine Speed |
| Part 11.3 | Section 335-3-9-.03 | Crankcase Ventilation Systems |
| Part 11.4 | Section 335-3-9-.04 | Exhaust Emission Control Systems |
| Part 11.5 | Section 335-3-9-.05 | Evaporative Loss Control Systems |
| Part 11.6 | Section 335-3-9-.06 | Other Prohibited Acts |
| Part 11.7 | Section 335-3-9-.07 | Effective Date |
| **Chapter 17** | **Chapter No. 335-3-15** | **Synthetic Minor Operating Permits** |
| Part 17.1 | Section 335-3-15-.01[2] | Definitions |
| Part 17.2, except 17.2.8(h)(7) | Section 335-3-15-.02[3] | General Provisions |
| Part 17.3 | Section 335-3-15-.03 | Applicability |
| Part 17.4[4] | Section 335-3-15-.04 | Synthetic Minor Operating Permit Requirements |
| Part 17.5, except 17.5.2 | Section 335-3-15-.05 | Public Participation |
| **Chapter 19** | **Chapter No. 335-3-17** | **Conformity of Federal Actions to State Implementation Plans** |
| Part 19.1 | Section 335-3-17.01[5] | Transportation Conformity |
| Part 19.2 | Section 335-3-17-.02 | General Conformity |

[1] ADEM 335-3-8-.05 was approved into the SIP as ADEM 335-3-8-.14 but was renumbered when CAIR provisions were removed.

[2] Only the first sentence of ADEM 335-3-15-.01(g) is approved into the SIP. JCDH does not include the unapproved language.

[3] ADEM 335-3-15-.02(10) is not included in the EPA-approved SIP. JCDH does not include the unapproved provision.

[4] JCDH Part 17.4 does not include the federally enforceable provisions of ADEM 335-3-15-.04(1)(g) and (3)(c).

[5] The reference to July 1, 2012 in ADEM 335-3-14-.01 and JCDH Part 19.1.1 has not been approved into the SIP.