

JEFFERSON COUNTY DEPARTMENT OF HEALTH

AIR POLLUTION PROGRAM

TITLE V OPERATING PERMIT

Permittee: ABC Coke
Location: 900 Huntsville Avenue
Tarrant, Alabama 35217-2957
Permit No: 4-07-0001-04
Issuance Date: April 17, 2019
Expiration Date: April 16, 2024
Nature of Business: Manufacturing of Coke and Coke By-Products

Emissions Unit No.	Emissions Unit Description
001	Boiler 9
002	Coke Battery 6
003	Coke Battery 5
004	Coke Battery 1
005	Coke By-Products Plant
007	Underfire Stack 4, Associated with Batteries 5 & 6
008	Underfire Stack 1, Associated with Battery 1
018	South Coke Quenching Tower
019	Boiler 8
020	Boiler 7
024	North Coke Quenching Tower
031	Excess Coke Oven Gas Flare
032	Coke Pushing Emissions Control Baghouses
034	Ammonium Sulfate Manufacture
035	Generator #1
036	Generator #2

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 1 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



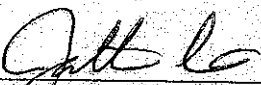
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under any of its applicable requirements, are considered to be Jefferson County provisions and are not federally enforceable by EPA and citizens in general. Those provisions are contained in separate Sections of this Operating Permit and are specifically 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

No.	Federally Enforceable General Permit Conditions	Regulations
	Definitions	
1.	<p>For the purposes of this Major Source Operating Permit, the following terms will have the meanings ascribed to in this permit:</p> <p>"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.</p> <p>"40 CFR 51" is an acronym for Part 51 of Title 40 of the Code of Federal Regulations.</p> <p>"40 CFR 52" is an acronym for Part 52 of Title 40 of the Code of Federal Regulations.</p> <p>"40 CFR 59" is an acronym for Part 59 of Title 40 of the Code of Federal Regulations.</p> <p>"40 CFR 60" is an acronym for Part 60 of Title 40 of the Code of Federal Regulations.</p> <p>"40 CFR 61" is an acronym for Part 61 of Title 40 of the Code of Federal Regulations.</p> <p>"40 CFR 63" is an acronym for Part 63 of Title 40 of the Code of Federal Regulations.</p> <p>"40 CFR 64" is an acronym for Part 64 of Title 40 of the Code of Federal Regulations.</p> <p>"40 CFR 68" is an acronym for Part 68 of Title 40 of the Code of Federal Regulations.</p> <p>"40 CFR 82" is an acronym for Part 82 of Title 40 of the Code of Federal Regulations.</p> <p>"40 CFR 98" is an acronym for Part 98 of Title 40 of the Code of Federal Regulations.</p> <p>"Act" means the Clean Air Act, as amended, 42 U.S.C. 7401, et seq.</p> <p>"Acceptable makeup water" means surface water from a river, lake, or stream; water meeting drinking water standards; storm water runoff and production area clean up water except for water from the by-product recovery plant area; process wastewater treated to meet effluent limitations guidelines in 40 CFR part 420; water from any of these sources that has been used only for non-contact cooling or in water seals; or water from scrubbers used to control pushing emissions. <i>40 CFR 63, Subpart CCCCC</i></p> <p>"ADEM" means the Alabama Department of Environmental Management.</p> <p>"Administrator" means the Administrator of the United States Environmental Protection Agency or his or her authorized representative <i>40 CFR 61, Subpart A</i> (e.g., a State that has been delegated the authority to implement the provisions of this subpart or its designated agent). <i>40 CFR 63, Subpart L</i></p> <p>"Air Permit" shall mean any permit issued pursuant to Chapter 2 of the Rules and Regulations.</p> <p>"Ammonium sulfate dryer" means a unit or vessel into which ammonium sulfate is charged for the purpose of reducing the moisture content of the product using a heated</p>	<p>1.3 8.26.1 8.27.1 18.7.1 60.2 60.41b 60.421 61.02 61.131 61.241 61.341 63.1 63.301 63.7352 63.6674</p>

No.	Federally Enforceable General Permit Conditions	Regulations
	<p>gas stream. The unit includes foundations, superstructure, material charger systems, exhaust systems, and integral control systems and instrumentation. <i>40 CFR 60, Subpart PP</i></p> <p>“Annual capacity factor” means the ratio between the actual heat input to a steam generating unit from the fuels listed in 40 CFR §§ 60.42b(a), 60.43b(a), or 60.44b(a), as applicable, during a calendar year and the potential heat input to the steam generating unit had it been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity. <i>40 CFR 60, Subpart Db</i></p> <p>“Annual coke production” means the coke produced in the batteries connected to the coke by-product recovery plant over a 12-month period. <i>40 CFR 61, Subpart L</i></p> <p>“Annual Rolling Total” shall be an equivalent phrase for “12-Month Rolling Total.”</p> <p>“Baffles” means an apparatus comprised of obstructions for checking or deflecting the flow of gases. Baffles are installed in a quench tower to remove droplets of water and particles from the rising vapors by providing a point of impact. Baffles may be installed either inside or on top of quench towers and are typically constructed of treated wood, steel, or plastic. <i>40 CFR 63, Subpart CCCCC</i></p> <p>“Battery stack” means the stack that is the point of discharge to the atmosphere of the combustion gases from a battery’s underfiring system. <i>40 CFR 63, Subpart CCCCC</i></p> <p>“Batterywide extended coking” means increasing the average coking time for all ovens in the coke oven battery by 25 percent or more over the manufacturer’s specified design rate. <i>40 CFR 63, Subpart CCCCC</i></p> <p>“Benzene concentration” means the fraction by weight of benzene in a waste as determined in accordance with the procedures specified in § 61.355 of Subpart FF. <i>40 CFR 61, Subpart FF</i></p> <p>“Benzene storage tank” means any tank, reservoir, or container used to collect or store refined benzene. <i>40 CFR 61, Subpart L</i></p> <p>“BTX” shall mean benzene, toluene, and xylene.</p> <p>“BTX storage tank” means any tank, reservoir, or container used to collect or store benzene-toluene-xylene or other light-oil fractions. <i>40 CFR 61, Subpart L</i></p> <p>“Bypass/bleeder stack” means a stack, duct, or offtake system that is opened to the atmosphere and used to relieve excess pressure by venting raw coke oven gas from the collecting main to the atmosphere from a by-product coke oven battery, usually during emergency conditions. <i>40 CFR 63, Subpart L</i></p> <p>“By-product coke oven battery” means a group of ovens connected by common walls, where coal undergoes destructive distillation under positive pressure to produce coke and coke oven gas from which by-products are recovered. <i>40 CFR 63, Subpart CCCCC</i></p> <p>“By-product coke oven battery” means a source consisting of a group of ovens connected by common walls, where coal undergoes destructive distillation under positive pressure to produce coke and coke oven gas, from which by-products are recovered. Coke oven batteries in operation as of April 1, 1992, are identified in appendix A to this subpart. <i>40 CFR 63, Subpart L</i></p> <p>“By-product recovery plant area” means that area of the coke plant where process units subject to 40 CFR 61, Subpart L are located. <i>40 CFR 63, Subpart CCCCC</i></p> <p>“CAM” is an acronym for compliance assurance monitoring.</p> <p>“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.</p>	

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	<p>“Carbon dioxide equivalent or CO₂e” means the number of metric tons of CO₂ 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.</p> <p>“Car seal” means a seal that is placed on the device used to change the position of a valve (e.g., from open to closed) such that the position of the valve cannot be changed without breaking the seal and requiring the replacement of the old seal, once broken, with a new seal. <i>40 CFR 61, Subpart L</i></p> <p>“Car-seal” means a seal that is placed on a device that is used to change the position of a valve (e.g., from opened to closed) in such a way that the position of the valve cannot be changed without breaking the seal. <i>40 CFR 61, Subpart FF</i></p> <p>“Certified observer” means a visual emission observer, certified under (if applicable) Method 303 and Method 9 (if applicable), which includes a delegated enforcement agency or its designated agent. For the purpose of notifying an owner or operator of the results obtained by a certified observer, the person does not have to be certified. <i>40 CFR 63, Subpart L</i></p> <p>“Charge or charging period” means, for a by-product coke oven battery, the period of time that commences when coal begins to flow into an oven through a topside port and ends when the last charging port is recapped. <i>40 CFR 63, Subpart L</i></p> <p>“Closed-vent system” means a system that is not open to atmosphere and that is composed of hard-piping, ductwork, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device or back to a process. <i>40 CFR 61, Subpart V</i></p> <p>“Closed-vent system” means a system that is not open to the atmosphere and is composed of piping, ductwork, connections, and, if necessary, flow inducing devices that transport gas or vapor from an emission source to a control device. <i>40 CFR 61, Subpart FF, 8.26.1(a)</i></p> <p>“CO” is an acronym for carbon monoxide.</p> <p>“Coal” means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see 40 CFR § 60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels, including but not limited to solvent refined coal, gasified coal not meeting the definition of natural gas, coal-oil mixtures, coke oven gas, and coal-water mixtures, are also included in this definition for the purposes of 40 CFR 60, Subpart Db. <i>40 CFR 60, Subpart Db</i></p> <p>“COG” is an acronym for coke oven gas.</p> <p>“Coke by-product recovery plant” means any plant designed and operated for the separation and recovery of coal tar derivatives (by-products) evolved from coal during the coking process of a coke oven battery. <i>40 CFR 61, Subpart L</i></p> <p>“Coke by-product recovery plant” means any facility designed and operated for the separation and recovery of coal tar derivatives (by-products) evolved from coal during the coking process of a coke oven battery. <i>40 CFR 61, Subpart FF</i></p> <p>“Coke by-product recovery plant” means any facility engaged in the separation and recovery of various fractions from coke oven gas, including tar, pitch, ammonium sulfate, naphthalene, and light oil. <i>8.26.1(b)</i></p> <p>“Coke oven battery” means a group of ovens connected by common walls, where coal undergoes destructive distillation to produce coke. A coke oven battery includes by-product and nonrecovery processes. <i>40 CFR 63, Subpart CCCCC</i></p>	

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	<p>"Coke oven by-product ammonium sulfate manufacturing plant" means any plant which produces ammonium sulfate by reacting sulfuric acid with ammonia recovered as a by-product from the manufacture of coke. <i>40 CFR 60, Subpart PP</i></p> <p>"Coke oven door" means each end enclosure on the pusher side and the coking side of an oven. The chuck, or levelerbar, door is part of the pusher side door. A coke oven door includes the entire area on the vertical face of a coke oven between the bench and the top of the battery between two adjacent buckstays. <i>40 CFR 63, Subpart L</i></p> <p>"Coke oven gas" means the volatile constituents generated in the gaseous exhaust during the carbonization of bituminous coal to form coke. <i>40 CFR 60, Subpart Db</i></p> <p>"Coke Oven Gas Bleeder" means that piece of equipment which vents surplus coke oven gas (gas not consumed in the process or supplied to other sources) directly to the atmosphere. <i>8.27.1(a)</i></p> <p>"Coke plant" means a facility that produces coke from coal in either a by-product coke oven battery or a non-recovery coke oven battery. <i>40 CFR 63, Subpart CCCCC</i></p> <p>"Coking time" means the time interval that starts when an oven is charged with coal and ends when the oven is pushed. <i>40 CFR 63, Subpart CCCCC</i></p> <p>"Collecting main" means any apparatus that is connected to one or more offtake systems and that provides a passage for conveying gases under positive pressure from the by-product coke oven battery to the by-product recovery system. <i>40 CFR 63, Subpart L</i></p> <p>"Collecting main repair" means any measure to stop a collecting main leak on a long-term basis. A repair measure in general is intended to restore the integrity of the collecting main by returning the main to approximately its design specifications or its condition before the leak occurred. A repair measure may include, but is not limited to, replacing a section of the collecting main or welding the source of the leak. <i>40 CFR 63, Subpart L</i></p> <p>"Connector" means flanged, screwed, welded, or other joined fittings used to connect two pipe lines or a pipe line and a piece of equipment. For the purpose of reporting and recordkeeping, connector means flanged fittings that are not covered by insulation or other materials that prevent location of the fittings. <i>40 CFR 61, Subpart V, 8.26.1(c)</i></p> <p>"Consecutive charges" means charges observed successively, excluding any charge during which the observer's view of the charging system or topside ports is obscured. <i>40 CFR 63, Subpart L</i></p> <p>"Conservation Vent" means a pressure-vacuum valve installed on a naphthalene separation unit cover that prevents the release of vapors during small changes in temperatures, barometric pressure, or liquid level. <i>8.26.1(d)</i></p> <p>"Container" means any portable waste management unit in which a material is stored, transported, treated, or otherwise handled. Examples of containers are drums, barrels, tank trucks, barges, dumpsters, tank cars, dump trucks, and ships. <i>40 CFR 61, Subpart FF</i></p> <p>"Continuous opacity monitoring system (COMS)" means a continuous monitoring system that measures the opacity of emissions. <i>40 CFR 63, Subpart A</i></p> <p>"Control device" means an enclosed combustion device, vapor recovery system, or flare. <i>40 CFR 61, Subpart V, 40 CFR 61, Subpart FF, 8.26.1(e)</i></p> <p>"Cover" means a device or system which is placed on or over a waste placed in a waste management unit so that the entire waste surface area is enclosed and sealed to minimize air emissions. A cover may have openings necessary for operation, inspection, and maintenance of the waste management unit such as access hatches, sampling ports, and</p>	

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	<p>gauge wells provided that each opening is closed and sealed when not in use. Example of covers include a fixed roof installed on a tank, a lid installed on a container, and an air-supported enclosure installed over a waste management unit. <i>40 CFR 61, Subpart FF</i></p> <p>"Day" or "calendar day" means a 24-hour period beginning at midnight.</p> <p>"Department" means the Jefferson County Department of Health.</p> <p>"Design capacity" means the original design capacity of a coke oven battery, expressed in megagrams per year of furnace coke. <i>40 CFR 63, Subpart L</i></p> <p>"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. The determination of whether a deviation is a violation is at the discretion of the enforcement authority.</p> <p>"Deviation" means, for 40 CFR 63, Subpart CCCCC, any instance in which an affected source subject to this subpart, or an owner or operator of such a source:</p> <ol style="list-style-type: none"> 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; 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 3. 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. <i>40 CFR 63, Subpart CCCCC</i> <p>"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 of 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). <i>40 CFR 63, Subpart ZZZZ</i></p> <p>"Double block and bleed system" means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves. <i>40 CFR 61, Subpart V</i></p> <p>"Duct work" means a conveyance system such as those commonly used for heating and ventilation systems. It is often made of sheet metal and often has sections connected by screws or crimping. Hard-piping is not ductwork. <i>40 CFR 61, Subpart V</i></p> <p>"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.</p>	

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	<p>"Emission limitation" means any emission limit, opacity limit, or operating limit. <i>40 CFR 63, Subpart CCCCC</i></p> <p>"Emission limitation or standard" means any applicable requirement that constitutes an emission limitation, emission standard, standard of performance or means of emission limitation as defined under the Act. An emission limitation or standard may be expressed in terms of the pollutant, expressed either as a specific quantity, rate or concentration of emissions (e.g., pounds of SO₂ per hour, pounds of SO₂ per million British thermal units of fuel input, kilograms of VOC per liter of applied coating solids, or parts per million by volume of SO₂) or as the relationship of uncontrolled to controlled emissions (e.g., percentage capture and destruction efficiency of VOC or percentage reduction of SO₂). An emission limitation or standard may also be expressed either as a work practice, process or control device parameter, or other form of specific design, equipment, operational, or operation and maintenance requirement. For purposes of this part, an emission limitation or standard shall not include general operation requirements that an owner or operator may be required to meet, such as requirements to obtain a permit, to operate and maintain sources in accordance with good air pollution control practices, to develop and maintain a malfunction abatement plan, to keep records, submit reports, or conduct monitoring. <i>40 CFR §64.1</i></p> <p>"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.</p> <p>"EPA" means the U.S. Environmental Protection Agency.</p> <p>"Equipment" means each pump, valve, exhauster, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector in benzene service. <i>40 CFR 61, Subpart L</i></p> <p>"Equipment" means each pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, surge control vessel, bottoms receiver in VHAP service, and any control devices or systems required by 40 CFR 61, Subpart V. <i>40 CFR 61, Subpart V</i></p> <p>"Equipment" means each pump, valve, pressure relief valve, sampling connection, open-ended valve, and flange or connector in VOC service. <i>8.26.1(f)</i></p> <p>"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.</p> <p>"Excess ammonia-liquor storage tank" means any tank, reservoir, or container used to collect or store a flushing liquor solution prior to ammonia or phenol recovery. <i>40 CFR 61, Subpart L</i></p> <p>"Exhauster" means a fan located between the inlet gas flange and outlet gas flange of the coke oven gas line that provides motive power for coke oven gases. <i>40 CFR 61, Subpart L</i></p> <p>"External floating roof" means a pontoon-type or double-deck type cover with certain rim sealing mechanisms that rests on the liquid surface in a waste management unit with no fixed roof. <i>40 CFR 61, Subpart FF</i></p> <p>"Facility" means all process units and product tanks that generate waste within a stationary source, and all waste management units that are used for waste treatment, storage, or disposal within a stationary source. <i>40 CFR 61, Subpart FF</i></p>	

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	<p>"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. <i>40 CFR 60, Subpart Db</i></p> <p>"First attempt at repair" means to take rapid action for the purpose of stopping or reducing leakage of organic material to atmosphere using best practices. <i>40 CFR 61, Subpart V, 8.26.1(g)</i></p> <p>"Fixed roof" means a cover that is mounted on a waste management unit in a stationary manner and that does not move with fluctuations in liquid level. <i>40 CFR 61, Subpart FF</i></p> <p>"Floating roof" means a cover with certain rim sealing mechanisms consisting of a double deck, pontoon single deck, internal floating cover or covered floating roof, which rests upon and is supported by the liquid being contained, and is equipped with a closure seal or seals to close the space between the roof edge and unit wall. <i>40 CFR 61, Subpart FF</i></p> <p>"Flow indicator" means a device which indicates whether gas flow is present in a line or vent system. <i>40 CFR 61, Subpart FF</i></p> <p>"Foundry coke" means coke that is produced from raw materials with less than 26 percent volatile material by weight and that is subject to a coking period of 24 hours or more. Percent volatile material of the raw materials (by weight) is the weighted average percent volatile material of all raw materials (by weight) charged to the coke oven per coking cycle. <i>40 CFR 61, Subpart L</i></p> <p>"Foundry coke by-product recovery plant" means a coke by-product recovery plant connected to coke batteries whose annual coke production is at least 75 percent foundry coke. <i>40 CFR 61, Subpart L</i></p> <p>"Foundry coke producer" means a coke producer that is not and was not on January 1, 1992, owned or operated by an integrated steel producer and had on January 1, 1992, an annual design capacity of less than 1.25 million megagrams per year (1.38 million tons per year) (not including any capacity satisfying the requirements of §63.300(d)(2) or §63.304(b)(6)). <i>40 CFR 63, Subpart L</i></p> <p>"Four consecutive" pushes means four pushes observed successively. <i>40 CFR 63, Subpart CCCCC</i></p> <p>"Flushing-liquor circulation tank" means any vessel that functions to store or contain flushing liquor that is separated from the tar in the tar decanter and is recirculated as the cooled liquor to the gas collection system. <i>40 CFR 61, Subpart L</i></p> <p>"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.</p> <p>"Fuel gas" means gases that are combusted to derive useful work or heat. <i>40 CFR 61, Subpart V</i></p> <p>"Fuel gas system" means the offsite and onsite piping and flow and pressure control system that gathers gaseous stream(s) generated by onsite operations, may blend them with other sources of gas, and transports the gaseous stream for use as fuel gas in combustion devices or in-process combustion equipment, such as furnaces and gas turbines, either singly or in combination. <i>40 CFR 61, Subpart V</i></p>	

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	<p>"Fuel gas system" means the offsite and onsite piping and control system that gathers gaseous streams generated by facility operations, may blend them with sources of gas, if available, and transports the blended gaseous fuel at suitable pressures for use as fuel in heaters, furnaces, boilers, incinerators, gas turbines, and other combustion devices located within or outside the facility. The fuel is piped directly to each individual combustion device, and the system typically operates at pressures over atmospheric. <i>40 CFR 61, Subpart FF</i></p> <p>"Fuel pretreatment" means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit. <i>40 CFR 60, Subpart Db</i></p> <p>"Fugitive Dust" shall mean solid air-borne particulate matter emitted from any source other than a flue or stack.</p> <p>"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. <i>40 CFR 63, Subpart A</i></p> <p>"Fugitive pushing emissions" means emissions from pushing that are not collected by a capture system. <i>40 CFR 63, Subpart CCCCC</i></p> <p>"Full capacity" means operation of the steam generating unit at 90 percent or more of the maximum steady-state design heat input capacity. <i>40 CFR 60, Subpart Db</i></p> <p>"Furnace coke" means coke produced in by-product ovens that is not foundry coke. <i>40 CFR 61, Subpart L</i></p> <p>"Furnace coke by-product recovery plant" means a coke by-product recovery plant that is not a foundry coke byproduct recovery plant. <i>40 CFR 61, Subpart L</i></p> <p>"Gas blanketing system" means a closed system operated at positive pressure and is generally composed of piping, connections, and flow-inducing devices (if necessary) that transport emissions from the enclosed source back to the coke-oven battery gas holder, the collecting main, or another point in the by-product recovery process. Depending on the source being controlled, dirty or clean coke-oven gas, nitrogen or natural gas can be used as a gas blanket. <i>49 FR 23522-23523, preamble to proposed 40 CFR 61, Subpart L</i></p> <p>"Gaseous fuel" means any fuel that is a gas at ISO conditions. This includes, but is not limited to, natural gas and gasified coal (including coke oven gas). <i>40 CFR 60, Subpart Db</i></p> <p>"GHG" is an acronym for greenhouse gas.</p> <p>"Gross output" means the gross useful work performed by the steam generated. For units generating only electricity, the gross useful work performed is the gross electrical output from the turbine/generator set. For cogeneration units, the gross useful work performed is the gross electrical or mechanical output plus 75 percent of the useful thermal output measured relative to ISO conditions that is not used to generate additional electrical or mechanical output or to enhance the performance of the unit (<i>i.e.</i>, steam delivered to an industrial process). <i>40 CFR 60, Subpart Db</i></p> <p>"HAP" is an acronym for Hazardous Air Pollutant.</p> <p>"Hard-piping" means pipe or tubing that is manufactured and properly installed using good engineering judgement and standards such as ASME B31.3, Process Piping (available from the American Society of Mechanical Engineers, PO Box 2900, Fairfield, NJ 07007-2900). <i>40 CFR 61, Subpart V</i></p>	

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	<p>"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. <i>40 CFR 63, Subpart A</i></p> <p>"Heat input" means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc. <i>40 CFR 60, Subpart Db</i></p> <p>"Heat release rate" means the steam generating unit design heat input capacity (in MW or Btu/hr) divided by the furnace volume (in cubic meters or cubic feet); the furnace volume is that volume bounded by the front furnace wall where the burner is located, the furnace side waterwall, and extending to the level just below or in front of the first row of convection pass tubes. High heat release rate means a heat release rate greater than 730,000 J/sec-m³ (70,000 Btu/hr-ft³). Low heat release rate means a heat release rate of 730,000 J/sec-m³ (70,000 Btu/hr-ft³) or less. <i>40 CFR 60, Subpart Db</i></p> <p>"Heat transfer medium" means any material that is used to transfer heat from one point to another point. <i>40 CFR 60, Subpart Db</i></p> <p>"In benzene service" means a piece of equipment, other than an exhauster, that either contains or contacts a fluid (liquid or gas) that is at least 10 percent benzene by weight or any exhauster that either contains or contacts a fluid (liquid or gas) at least 1 percent benzene by weight as determined by the provisions of § 61.137(b). The provisions of §61.137(b) also specify how to determine that a piece of equipment is not in benzene service. <i>40 CFR 61, Subpart L</i></p> <p>"Increased coking time" means increasing the charge-to-push time for an individual oven. <i>40 CFR 63, Subpart CCCCC</i></p> <p>"Individual drain system" means the system used to convey waste from a process unit, product storage tank, or waste management unit to a waste management unit. The term includes all process drains and common junction boxes, together with their associated sewer lines and other junction boxes, down to the receiving waste management unit. <i>40 CFR 61, Subpart FF</i></p> <p>"In gas service" means that the piece of equipment contains process fluid that is in the gaseous state at operating conditions. <i>8.26.1(h)</i></p> <p>"In gas/vapor service" means that a piece of equipment contains process fluid that is in the gaseous state at operating conditions. <i>40 CFR 61, Subpart V</i></p> <p>"In light liquid service" means that the piece of equipment contains or contacts a process fluid that is a liquid at operating conditions, one or more components having a vapor pressure greater than 2.1 mmHg at 20 °C (0.04 psia at 68 °F), and the total concentration of the pure components, having a vapor pressure greater than 2.1 mmHg (0.04 psia at 68 °F) at 20 °C, is equal to or greater than 20 percent by weight. <i>8.26.1(i)</i></p> <p>"In liquid service" means that a piece of equipment is not in gas/vapor service. <i>40 CFR 61, Subpart V</i></p> <p>"In-situ" sampling systems means nonextractive samplers or in-line samplers. <i>40 CFR 61, Subpart V</i></p> <p>"Integrated steel producer" means a company or corporation that produces coke, uses the coke in a blast furnace to make iron, and uses the iron to produce steel. These operations may be performed at different plant sites within the corporation. <i>40 CFR 63, Subpart L</i></p> <p>"Internal floating roof" means a cover that rests or floats on the liquid surface inside a waste management unit that has a fixed roof. <i>40 CFR 61, Subpart FF</i></p>	

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	<p>"In vacuum service" means that equipment is operating at an internal pressure which is at least 5 kilopascals (kPa) (0.7 psia) below ambient pressure. <i>40 CFR 61, Subpart V</i></p> <p>"In vacuum service" means that equipment is operating at an internal pressure which is at least 38 mmHg (0.73 psia) below ambient pressure. <i>8.26.1(j)</i></p> <p>"In VHAP service" means that a piece of equipment either contains or contacts a fluid (liquid or gas) that is at least 10 percent by weight a volatile hazardous air pollutant (VHAP) as determined according to the provisions of §61.245(d). The provisions of §61.245(d) also specify how to determine that a piece of equipment is not in VHAP service. <i>40 CFR 61, Subpart V</i></p> <p>"In VOC service" means that the piece of equipment contains or contacts VOC. <i>8.26.1(k)</i></p> <p>"In VOC service" means, for the purposes of this subpart, that (a) the piece of equipment contains or contacts a process fluid that is at least 10 percent VOC by weight (see 40 CFR 60.2 for the definition of volatile organic compound or VOC and 40 CFR 60.485(d) to determine whether a piece of equipment is not in VOC service) and (b) the piece of equipment is not in heavy liquid service as defined in 40 CFR 60.481. <i>40 CFR 61, Subpart V</i></p> <p>"ISO Conditions" means a temperature of 288 Kelvin, a relative humidity of 60 percent, and a pressure of 101.3 kilopascals. <i>40 CFR 60, Subpart Db</i></p> <p>"LDAR" shall be an acronym for Leak Detection and Repair.</p> <p>"Light-oil condenser" means any unit in the light-oil recovery operation that functions to condense benzene-containing vapors. <i>40 CFR 61, Subpart L</i></p> <p>"Light-oil decanter" means any vessel, tank, or other type of device in the light-oil recovery operation that functions to separate light oil from water downstream of the light-oil condenser. A light-oil decanter also may be known as a light-oil separator. <i>40 CFR 61, Subpart L</i></p> <p>"Light-oil storage tank" means any tank, reservoir, or container used to collect or store crude or refined light-oil. <i>40 CFR 61, Subpart L</i></p> <p>"Light-oil sump" means any tank, pit, enclosure, or slop tank in light-oil recovery operations that functions as a wastewater separation device for hydrocarbon liquids on the surface of the water. <i>40 CFR 61, Subpart L</i></p> <p>"Limited use stationary RICE" means any stationary RICE that operates less than 100 hours per year. <i>40 CFR 63, Subpart ZZZZ</i></p> <p>"Liquid-mounted seal" means a foam or liquid-filled primary seal mounted in contact with the liquid between the waste management unit wall and the floating roof continuously around the circumference. <i>40 CFR 61, Subpart FF</i></p> <p>"Loading" means the introduction of waste into a waste management unit but not necessarily to complete capacity (also referred to as filling). <i>40 CFR 61, Subpart FF</i></p> <p>"Malfunction" means any sudden, infrequent, and not reasonably preventable failure of air pollution control 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 caused in part by poor maintenance or careless operation are not malfunctions. <i>40 CFR 63, Subpart L</i></p> <p>"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</p>	

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	<p>emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions. <i>40 CFR 63, Subpart A</i></p> <p>“Maximum heat input capacity” means the ability of a steam generating unit to combust a stated maximum amount of fuel on a steady state basis, as determined by the physical design and characteristics of the steam generating unit. <i>40 CFR 60, Subpart Db</i></p> <p>“Maximum organic vapor pressure” means the equilibrium partial pressure exerted by the waste at the temperature equal to the highest calendar month average of the waste storage temperature for waste stored above or below the ambient temperature or at the local maximum monthly average temperature as reported by the National Weather Service for waste stored at the ambient temperature, as determined: (1) In accordance with § 60.17(c); or (2) As obtained from standard reference texts; or (3) In accordance with § 60.17(a)(37); or (4) Any other method approved by the Administrator. <i>40 CFR 61, Subpart FF</i></p> <p>“Maximum true vapor pressure” means the equilibrium partial pressure exerted by the total VHAP in the stored or transferred liquid at the temperature equal to the highest calendar month average of the liquid storage or transfer temperature for liquids stored or transferred above or below the ambient temperature or at the local maximum monthly average temperature as reported by the National Weather Service for liquids stored or transferred at the ambient temperature, as determined: (1) In accordance with methods described in American Petroleum Institute Publication 2517, Evaporative Loss From External Floating-Roof Tanks (incorporated by reference as specified in § 61.18); or (2) As obtained from standard reference texts; or (3) As determined by the American Society for Testing and Materials Method D2879–83, Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope (incorporated by reference as specified in § 61.18); or (4) Any other method approved by the Administrator. <i>40 CFR 61, Subpart V</i></p> <p>“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.</p> <p>“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</p>	

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	<p>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 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. <i>40 CFR 63, Subpart A</i></p> <p>“NAAQS” is an acronym for “National Ambient Air Quality Standards.”</p> <p>“Naphthalene processing” means any operations required to recover naphthalene including the separation, refining, and drying of crude or refined naphthalene. <i>40 CFR 61, Subpart L</i></p> <p>“Naphthalene Separation Unit” means the settling tank and associated equipment used in the recovery of naphthalene from the final cooler aqueous effluent. <i>8.26.1(l)</i></p> <p>“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). <i>40 CFR 60, Subpart Db</i></p> <p>“NESHAP” is an acronym for “National Emission Standards for Hazardous Air Pollutants.”</p> <p>“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.</p> <p>“No detectable emissions” means less than 500 parts per million by volume (ppmv) above background levels, as measured by a detection instrument reading in accordance with the procedures specified in § 61.355(h) of Subpart FF. <i>40 CFR 61, Subpart FF</i></p> <p>“Non-regenerative carbon adsorber” means a series, over time, of non-regenerative carbon beds applied to a single source or group of sources, where non-regenerative carbon beds are carbon beds that are either never regenerated or are moved from their location for regeneration. <i>40 CFR 61, Subpart L</i></p> <p>“NO_x” is an acronym for nitrogen oxides.</p> <p>“NSPS” is an acronym for “New Source Performance Standards.”</p> <p>“Offtake system” means any individual oven apparatus that is stationary and provides a passage for gases from an oven to a coke oven battery collecting main or to another oven. Offtake system components include the standpipe and standpipe caps, goosenecks,</p>	

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	<p>stationary jumper pipes, mini-standpipes, and standpipe and gooseneck connections. <i>40 CFR 63, Subpart L</i></p> <p>"Oil-water separator" means a waste management unit, generally a tank or surface impoundment, used to separate oil from water. An oil-water separator consists of not only the separation unit but also the forebay and other separator basins, skimmers, weirs, grit chambers, sludge hoppers, and bar screens that are located directly after the individual drain system and prior to additional treatment units such as an air flotation unit, clarifier, or biological treatment unit. Examples of an oil-water separator include an API separator, parallel-plate interceptor, and corrugated-plate interceptor with the associated ancillary equipment. <i>40 CFR 61, Subpart FF</i></p> <p>"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. <i>40 CFR 63, Subpart A</i></p> <p>"Open-ended valve or line" means any valve, except pressure relief valves, having one side of the valve seat in contact with process fluid and one side open to atmosphere, either directly or through open piping. <i>40 CFR 61, Subpart V, 8.26.1(m) except no line</i></p> <p>"Operating Permit" shall mean any permit issued pursuant to Chapter 18 of the Rules and Regulations.</p> <p>"Oven" means a chamber in the coke oven battery in which coal undergoes destructive distillation to produce coke. <i>40 CFR 63, Subpart CCCCC, 40 CFR 63, Subpart L</i></p> <p>"Permittee" means the holder of an operating permit issued by the Department.</p> <p>"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. <i>40 CFR 63, Subpart A</i></p> <p>"Performance evaluation" means the conduct of relative accuracy testing, calibration error testing, and other measurements used in validating the continuous monitoring system data. <i>40 CFR 63, Subpart A</i></p> <p>"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. <i>40 CFR 63, Subpart A</i></p> <p>"Petroleum" means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal. <i>40 CFR 61, Subpart FF</i></p> <p>"PM₁₀" is an acronym for particulate matter of less than 10 microns.</p> <p>"PM_{2.5}" is an acronym for particulate matter of less than 2.5 microns.</p> <p>"Point of waste generation" means the location where the waste stream exits the process unit component or storage tank prior to handling or treatment in an operation that is not an integral part of the production process, or in the case of waste management units that generate new wastes after treatment, the location where the waste stream exits the waste management unit component. <i>40 CFR 61, Subpart FF</i></p> <p>"Potential sulfur dioxide emission rate" means the theoretical SO₂ emissions (nanograms per joule (ng/J) or lb/ MMBtu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems. For gasified coal or oil that is desulfurized prior to combustion, the Potential sulfur dioxide emission rate is the theoretical SO₂ emissions (ng/J or lb/MMBtu heat input) that would</p>	

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	<p>result from combusting fuel in a cleaned state without using any post combustion emission control systems. <i>40 CFR 60, Subpart Db</i></p> <p>"Pressure release" means the emission of materials resulting from the system pressure being greater than the set pressure of the pressure relief device. <i>40 CFR 61, Subpart V, 8.26.1(n)</i></p> <p>"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.</p> <p>"Process unit" means equipment assembled to produce a VHAP or its derivatives as intermediates or final products, or equipment assembled to use a VHAP in the production of a product. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient product storage facilities. <i>40 CFR 61, Subpart V</i></p> <p>"Process unit" means equipment assembled and connected by pipes or ducts to produce intermediate or final products. A process unit can be operated independently if supplied with sufficient fuel or raw materials and sufficient product storage facilities. <i>40 CFR 61, Subpart FF</i></p> <p>"Process unit shutdown" means a work practice or operational procedure that stops production from a process unit or part of a process unit. An unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours is not a process unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping production are not process unit shutdowns. <i>40 CFR 61, Subpart V</i></p> <p>"Process unit turnaround" means the shutting down of the operations of a process unit, the purging of the contents of the process unit, the maintenance or repair work, followed by restarting of the process. <i>40 CFR 61, Subpart FF</i></p> <p>"Process unit turnaround waste" means a waste that is generated as a result of a process unit turnaround. <i>40 CFR 61, Subpart FF</i></p> <p>"Process vessel" means each tar decanter, flushing-liquor circulation tank, light-oil condenser, light-oil decanter, wash-oil decanter, or wash-oil circulation tank. <i>40 CFR 61, Subpart L</i></p> <p>"Process wastewater" means water which comes in contact with benzene during manufacturing or processing operations conducted within a process unit. Process wastewater is not organic wastes, process fluids, product tank drawdown, cooling tower blowdown, steam trap condensate, or landfill leachate. <i>40 CFR 61, Subpart FF</i></p> <p>"Process wastewater stream" means a waste stream that contains only process wastewater. <i>40 CFR 61, Subpart FF</i></p> <p>"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.</p> <p>"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 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.</p>	

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	<p>“Product tank” means a stationary unit that is designed to contain an accumulation of materials that are fed to or produced by a process unit, and is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic) which provide structural support. <i>40 CFR 61, Subpart FF</i></p> <p>“Product tank drawdown” means any material or mixture of materials discharged from a product tank for the purpose of removing water or other contaminants from the product tank. <i>40 CFR 61, Subpart FF</i></p> <p>“PSD” is an acronym for “Prevention of Significant Deterioration” permitting under Chapter 2.4 of the Rules and Regulations.</p> <p>“Pushing” means the process of removing the coke from the oven. Pushing begins with the first detectable movement of the coke mass and ends when the quench car enters the quench tower. <i>40 CFR 63, Subpart CCCCC</i></p> <p>“Pushing,” for the purposes of § 63.305, means that coke oven operation that commences when the pushing ram starts into the oven to push out coke that has completed the coking cycle and ends when the quench car is clear of the coke side shed. <i>40 CFR 63, Subpart L</i></p> <p>“Quarter” means the following 3-month periods: January through March, April through June, July through September, and October through December. <i>8.26.1(o)</i></p> <p>“Quenching” means the wet process of cooling (wet quenching) the hot incandescent coke by direct contact with water that begins when the quench car enters the quench tower and ends when the quench car exits the quench tower. <i>40 CFR 63, Subpart CCCCC</i></p> <p>“Quench tower” means the structure in which hot incandescent coke in the quench car is deluged or quenched with water. <i>40 CFR 63, Subpart CCCCC</i></p> <p>“Remove from service” means that an oven is not charged with coal and is not used for coking. When removed from service, the oven may remain at the operating temperature or it may be cooled down for repairs. <i>40 CFR 63, Subpart CCCCC</i></p> <p>“Regenerative carbon adsorber” means a carbon adsorber applied to a single source or group of sources, in which the carbon beds are regenerated without being moved from their location. <i>40 CFR 61, Subpart L</i></p> <p>“Repaired” means that equipment is adjusted, or otherwise altered, to eliminate a leak. <i>40 CFR 61, Subpart V</i></p> <p>“Repaired” means that equipment is adjusted, or otherwise altered, in order to eliminate a leak as indicated by one of the following: an instrument reading 10,000 ppm or greater, indication of liquids dripping, or indication by a sensor that a seal or barrier fluid system has failed. <i>8.26.1(q)</i></p> <p>“Responsible official” means responsible official as defined in § 63.2. <i>40 CFR 63, Subpart CCCCC 40 CFR 63, Subpart ZZZZ</i></p> <p>“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.</p> <p>“RICE” is an acronym for reciprocating internal combustion engine.</p>	

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	<p>“Rules and Regulations” means the Jefferson County Board of Health Air Pollution Control Rules and Regulations.</p> <p>“Run” means the observation of visible emissions from topside port lids, offtake systems, coke oven doors, or the charging of a coke oven that is made in accordance with and is valid under Methods 303 in 40 CFR 63, Appendix A. <i>40 CFR 63, Subpart L</i></p> <p>“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.</p> <p>“Safety device” means a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device which functions exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an unplanned, accidental, or emergency event. For the purpose of this subpart, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in this vapor headspace in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the air emission control equipment as determined by the owner or operator based on manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. <i>40 CFR 61, Subpart FF</i></p> <p>“Sampling connection system” means an assembly of equipment within a process unit used during periods of representative operation to take samples of the process fluid. Equipment used to take non-routine grab samples is not considered a sampling connection system. <i>40 CFR 61, Subpart V</i></p> <p>“Segregated stormwater sewer system” means a drain and collection system designed and operated for the sole purpose of collecting rainfall runoff at a facility, and which is segregated from all other individual drain systems. <i>40 CFR 61, Subpart FF</i></p> <p>“Semiannual” means a 6-month period; the first semiannual period concludes on the last day of the last full month during the 180 days following initial startup for new sources; the first semiannual period concludes on the last day of the last full month during the 180 days after the effective date of the regulation for existing sources. <i>40 CFR 61, Subpart L</i></p> <p>“Semiannual” means a 6-month period; the first semiannual period concludes on the last day of the last month during the 180 days following initial startup for new sources; and the first semiannual period concludes on the last day of the last full month during the 180 days after the effective date of a specific subpart that references 40 CFR 61, Subpart V for existing sources. <i>40 CFR 61, Subpart L, 40 CFR 61, Subpart V</i></p> <p>“Sensor” means a device that measures a physical quantity or the change in a physical quantity, such as temperature, pressure, flow rate, pH, or liquid level. <i>40 CFR 61, Subpart V</i></p> <p>“Sewer line” means a lateral, trunk line, branch line, or other enclosed conduit used to convey waste to a downstream waste management unit. <i>40 CFR 61, Subpart FF</i></p> <p>“Short battery” means a by-product coke oven battery with ovens less than five meters in height, for 40 CFR 63, Subpart CCCCC. <i>40 CFR 63, Subpart CCCCC</i></p> <p>“Short coke oven battery” means a coke oven battery with ovens less than 6 meters (20 feet) in height. <i>40 CFR 63, Subpart L</i></p>	

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	<p>“Shutdown” means the operation that commences when pushing has occurred on the first oven with the intent of pushing the coke out of all of the ovens in a coke oven battery without adding coal, and ends when all of the ovens of a coke oven battery are empty of coal or coke. <i>40 CFR 63, Subpart L</i></p> <p>“Shutdown” means the cessation of operation of an affected source or portion of an affected source for any purpose. <i>40 CFR 63, Subpart A</i></p> <p>“SIP” is an acronym for “State Implementation Plan” pursuant to 40 CFR 52.</p> <p>“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.</p> <p>“Slop oil” means the floating oil and solids that accumulate on the surface of an oil-water separator. <i>40 CFR 61, Subpart FF</i></p> <p>“SO₂” is an acronym for sulfur dioxide.</p> <p>“Soaking” means that period in the coking cycle that starts when an oven is dampered off the collecting main and vented to the atmosphere through an open standpipe prior to pushing and ends when the coke begins to be pushed from the oven. <i>40 CFR 63, Subpart CCCCC</i></p> <p>“Soaking emissions” means the discharge from an open standpipe during soaking of visible emissions due to either incomplete coking or leakage into the standpipe from the collecting main. <i>40 CFR 63, Subpart CCCCC</i></p> <p>“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. <i>1.3</i></p> <p>“Sour water stream” means a stream that: (1) Contains ammonia or sulfur compounds (usually hydrogen sulfide) at concentrations of 10 ppm by weight or more; (2) Is generated from separation of water from a feed stock, intermediate, or product that contained ammonia or sulfur compounds; and (3) Requires treatment to remove the ammonia or sulfur compounds. <i>40 CFR 61, Subpart FF</i></p> <p>“Sour water stripper” means a unit that: (1) Is designed and operated to remove ammonia or sulfur compounds (usually hydrogen sulfide) from sour water streams; (2) Has the sour water streams transferred to the stripper through hard piping or other enclosed system; and (3) Is operated in such a manner that the offgases are sent to a sulfur recovery unit, processing unit, incinerator, flare, or other combustion device. <i>40 CFR 61, Subpart FF</i></p> <p>“Standard conditions” means a temperature of 293 K (68 °F) and a pressure of 101.3 kilopascals (29.92 in. Hg). <i>40 CFR 63, Subpart A</i></p> <p>“Standpipe” means an apparatus on the oven that provides a passage for gases from an oven to the atmosphere when the oven is dampered off the collecting main and the standpipe cap is opened. This includes mini-standpipes that are not connected to the collecting main. <i>40 CFR 63, Subpart CCCCC</i></p> <p>“Standpipe cap” means an apparatus used to cover the opening in the gooseneck of an offtake system. <i>40 CFR 63, Subpart L</i></p> <p>“Startup” means that operation that commences when the coal begins to be added to the first oven of a coke oven battery that either is being started for the first time or that is being restarted and ends when the doors have been adjusted for maximum leak reduction and the collecting main pressure control has been stabilized. Except for the</p>	

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	<p>first startup of a coke oven battery, a startup cannot occur unless a shutdown has occurred. <i>40 CFR 63, Subpart L</i></p> <p>"Startup" shall mean the setting in operation of an affected source for any purpose. <i>SIP 40 CFR 61, Subpart A, 61.2, 40 CFR 63, Subpart A</i></p> <p>"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.</p> <p>"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. <i>40 CFR 61, Subpart A, 61.2 40 CFR 63, Subpart A</i></p> <p>"Steam generating unit" means a device that combusts any fuel or byproduct/waste and produces steam or heats water or heats any heat transfer medium. This term includes any municipal-type solid waste incinerator with a heat recovery steam generating unit or any steam generating unit that combusts fuel and is part of a cogeneration system or a combined cycle system. This term does not include process heaters as they are defined in this subpart. <i>40 CFR 60, Subpart Db</i></p> <p>"Steam generating unit operating day" means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period. <i>40 CFR 60, Subpart Db</i></p> <p>"Stuffing box pressure" means the fluid (liquid or gas) pressure inside the casing or housing of a piece of equipment, on the process side of the inboard seal. <i>40 CFR 61, Subpart V</i></p> <p>"Surface impoundment" means a waste management unit which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold an accumulation of liquid wastes or waste containing free liquids, and which is not an injection well. Examples of surface impoundments are holding, storage, settling, and aeration pits, ponds, and lagoons. <i>40 CFR 61, Subpart FF</i></p> <p>"Surge control vessel" means feed drums, recycle drums, and intermediate vessels. Surge control vessels are used within a process unit when in-process storage, mixing, or management of flow rates of volumes is needed on a recurring or ongoing basis to assist in production of a product. <i>40 CFR 61, Subpart V</i></p> <p>"Tall battery" means a by-product coke oven battery with ovens five meters or more in height. <i>40 CFR 63, Subpart CCCCC</i></p> <p>"Tall coke oven battery" means a coke oven battery with ovens 6 meters (20 feet) or more in height. <i>40 CFR 63, Subpart L</i></p> <p>"Tank" means a stationary waste management unit that is designed to contain an accumulation of waste and is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic) which provide structural support. <i>40 CFR 61, Subpart FF</i></p> <p>"Tar decanter" means any vessel, tank, or container that functions to separate heavy tar and sludge from flushing liquor by means of gravity, heat, or chemical emulsion breakers. A tar decanter also may be known as a flushing-liquor decanter. <i>40 CFR 61, Subpart L</i></p> <p>"Tar storage tank" means any vessel, tank, reservoir, or other type of container used to collect or store crude tar or tar-entrained naphthalene, except for tar products obtained by distillation, such as coal tar pitch, creosotes, or carbolic oil. This definition also includes any vessel, tank, reservoir, or container used to reduce the water content of the</p>	

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	<p>tar by means of heat, residence time, chemical emulsion breakers, or centrifugal separation. A tar storage tank also may be known as a tar-dewatering tank. <i>40 CFR 61, Subpart L</i></p> <p>"Tar-intercepting sump" means any tank, pit, or enclosure that serves to receive or separate tars and aqueous condensate discharged from the primary cooler. A tar-intercepting sump also may be known as a primary-cooler decanter. <i>40 CFR 61, Subpart L</i></p> <p>"TDS" is an acronym for total dissolved solids.</p> <p>"Temporary seal" means any measure, including but not limited to, application of luting or packing material, to stop a collecting main leak until the leak is repaired. <i>40 CFR 63, Subpart L</i></p> <p>"Topside port lid" means a cover, removed during charging or decarbonizing, that is placed over the opening through which coal can be charged into the oven of a by-product coke oven battery. <i>40 CFR 63, Subpart L</i></p> <p>"Treatment process" means a stream stripping unit, thin-film evaporation unit, waste incinerator, or any other process used to comply with § 61.348 of this subpart. <i>40 CFR 61, Subpart FF</i></p> <p>"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.</p> <p>"TSP" is an acronym for total suspended particulate matter.</p> <p>"VHAP" is an acronym for volatile hazardous air pollutant.</p> <p>"Vapor incinerator" means any enclosed combustion device that is used for destroying organic compounds and does not necessarily extract energy in the form of steam or process heat. <i>40 CFR 61, Subpart L</i></p> <p>"Vapor-mounted seal" means a foam-filled primary seal mounted continuously around the perimeter of a waste management unit so there is an annular vapor space underneath the seal. The annular vapor space is bounded by the bottom of the primary seal, the unit wall, the liquid surface, and the floating roof. <i>40 CFR 61, Subpart FF</i></p> <p>"Vertical flue" means a type of coke oven heating system in which the heating flues run vertically from the bottom to the top of the oven, and flues are shared between adjacent ovens. <i>40 CFR 63, Subpart CCCCC</i></p> <p>"Visible emission" means the observation of an emission of opacity or optical density above the threshold of vision. <i>40 CFR 63, Subpart A</i></p> <p>"VOC" is an acronym for volatile organic compound.</p> <p>"Volatile hazardous air pollutant" or "VHAP" means a substance regulated under this part for which a standard for equipment leaks of the substance has been proposed and promulgated. Benzene is a VHAP. Vinyl chloride is a VHAP. <i>40 CFR 61, Subpart V</i></p> <p>"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).</p>	

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	<p>“Wash-oil circulation tank” means any vessel that functions to hold the wash oil used in light-oil recovery operations or the wash oil used in the washoil final cooler. <i>40 CFR 61, Subpart L</i></p> <p>“Wash-oil decanter” means any vessel that functions to separate, by gravity, the condensed water from the wash oil received from a wash-oil final cooler or from a light-oil scrubber. <i>40 CFR 61, Subpart L</i></p> <p>“Waste” means any material resulting from industrial, commercial, mining or agricultural operations, or from community activities that is discarded or is being accumulated, stored, or physically, chemically, thermally, or biologically treated prior to being discarded, recycled, or discharged. <i>40 CFR 61, Subpart FF</i></p> <p>“Waste management unit” means a piece of equipment, structure, or transport mechanism used in handling, storage, treatment, or disposal of waste. Examples of a waste management unit include a tank, surface impoundment, container, oil-water separator, individual drain system, steam stripping unit, thin-film evaporation unit, waste incinerator, and landfill. <i>40 CFR 61, Subpart FF</i></p> <p>“Waste stream” means the waste generated by a particular process unit, product tank, or waste management unit. The characteristics of the waste stream (e.g., flow rate, benzene concentration, water content) are determined at the point of waste generation. Examples of a waste stream include process wastewater, product tank drawdown, sludge and slop oil removed from waste management units, and landfill leachate. <i>40 CFR 61, Subpart FF</i></p> <p>“Wastewater treatment system” means any component, piece of equipment, or installation that receives, manages, or treats process wastewater, product tank drawdown, or landfill leachate prior to direct or indirect discharge in accordance with the National Pollutant Discharge Elimination System permit regulations under 40 CFR part 122. These systems typically include individual drain systems, oil-water separators, air flotation units, equalization tanks, and biological treatment units. <i>40 CFR 61, Subpart FF</i></p> <p>“Water seal controls” means a seal pot, p-leg trap, or other type of trap filled with water (e.g., flooded sewers that maintain water levels adequate to prevent air flow through the system) that creates a water barrier between the sewer line and the atmosphere. The water level of the seal must be maintained in the vertical leg of a drain in order to be considered a water seal. <i>40 CFR 61, Subpart FF</i></p> <p>“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. <i>40 CFR 63, Subpart CCCCC</i></p> <p>In addition, the individual definitions as specified in each applicable rule, regulation, or standard shall be utilized where applicable.</p>	
	General Conditions	
2.	<p><u>Basis for Permit</u></p> <p>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.</p>	AL Act 769

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3.	<p><u>Authority</u> 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.</p>	AL Act 769
4.	<p><u>Acceptance of Permit</u> 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.</p>	18.2.4
5.	<p><u>Compliance With Existing and Future Regulations</u> A. The permittee shall comply with all conditions of the Rules and Regulations. B. The permittee shall continue to comply with the applicable requirements with which the company has certified that it is already in compliance. 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. 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.</p>	18.5.6 18.4.8(h) 18.7.3 18.7.6
6.	<p><u>Noncompliance</u> Noncompliance with 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.</p>	18.5.6
7.	<p><u>Compliance Defense</u> 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.</p>	18.5.7
8.	<p><u>Credible Evidence</u> 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.</p>	1.18 60.11(g) 61.12(e)
9.	<p><u>Circumvention</u> 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.</p>	1.15 60.12 61.19 63.4(b)
10.	<p><u>Bypass of Control Equipment Prohibited</u> 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.</p>	18.2.4
11.	<p><u>Shutdown of Control Equipment</u> 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.</p>	1.12.1

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12.	<p><u>Maintenance of Controls</u></p> <p>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.</p> <p>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.</p> <p>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.</p>	<p>18.2.4 18.5.3(a)(2)</p>
13.	<p><u>Nothing in this Operating Permit shall alter or affect the following:</u></p> <p>A. The provisions of §303 of the Act (emergency orders), including the authority of the Administrator under that section;</p> <p>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;</p> <p>C. The applicable requirements of the acid rain program, consistent with §408(a) of the Act; or</p> <p>D. The ability of EPA to obtain information from a source pursuant to §114 of the Act.</p>	<p>18.10.3</p>
14.	<p><u>Additional Information and Corrected Information</u></p> <p>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.</p>	<p>18.4.7 63.9(j)</p>
15.	<p><u>Display and Availability of Permit</u></p> <p>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.</p>	<p>18.2.2</p>
16.	<p><u>Payment of Fees</u></p> <p>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.</p>	<p>18.5.11 16.1 16.4 16.5</p>
17.	<p><u>Transfer</u></p> <p>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.</p>	<p>18.2.6</p>
18.	<p><u>New Air Pollution Sources and Changes to Existing Units</u></p> <p>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 61, the permittee shall submit an application as required by 61.06, 61.07 and 61.15, except as provided in 61.138(i) and 61.247(e). For any new source or modification of an</p>	<p>1.5.15 60.7(a)(4) 61.05(a) 61.07 61.15 63.5</p>

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	existing source subject to 40 CFR 63, the permittee shall submit an application as required by 63.5.	
19.	<p><u>Construction Not In Accordance with Applications</u></p> <p>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.</p>	18.2.8(e)
20.	<p><u>Expiration</u></p> <p>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.</p>	18.4.3 18.5.2 18.12.2(b)
21.	<p><u>Revocation</u></p> <p>This Operating Permit may be revoked for any of the following reasons:</p> <ul style="list-style-type: none"> A. Failure to comply with any conditions of the permit; 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; C. Failure to comply with any provisions of any Department administrative order issued concerning the permitted facility; D. Failure to allow entry and inspections by properly identified Department personnel; E. Failure to comply with the Rules and Regulations; or 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.	<p><u>Severability</u></p> <p>In case of legal challenge to any portion of this Operating Permit, the remainder of the permit conditions shall continue in force.</p>	18.5.5
23.	<p><u>Reopening for Cause</u></p> <p>Under any of the following circumstances, this Operating Permit will be reopened and revised prior to the expiration of the permit:</p> <ul style="list-style-type: none"> 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. 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. 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. 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.	<p><u>Changes or Termination for Cause – No Stay of Permit Conditions</u></p> <p>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</p>	18.5.8

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	reissuance or termination, or of a notification of a planned change or anticipated noncompliance will not stay any permit condition.	
25.	<p><u>Requests for Information</u></p> <p>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. 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.</p>	18.5.10 70.6(a)(6)(v)
26.	<p><u>Entry and Inspections</u></p> <p>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:</p> <ul style="list-style-type: none"> 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; B. Review and/or copy at reasonable times any records kept pursuant to the permit conditions; C. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices or operations required by the permit; and D. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements. <p>Denial of access upon proper identification is grounds for permit revocation.</p>	1.8 18.7.2 18.2.9(d)
27.	<p><u>Flexibility Changes</u></p> <p>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.</p>	18.13.2
28.	<p><u>Minor Permit Modifications</u></p> <p>Minor permit modification procedures may be used only for those permit modifications that:</p> <ul style="list-style-type: none"> A. Do not violate any applicable requirement; B. Do not involve significant changes to existing monitoring, reporting, or record keeping requirements in the permit; 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; 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: <ul style="list-style-type: none"> 1. A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the Act; and 2. An alternative emissions limit approved pursuant to regulations promulgated under §112(i)(5) of the Act; E. Are not modifications under any provision of title I of the Act; and F. Are not required by Part 18.12 of this Chapter to be processed as a significant modification. <p>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</p>	18.13.3

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	<p>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.</p>	
29.	<p><u>Significant Modifications</u> 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.</p>	18.13.4
30.	<p><u>Off-Permit Changes</u> 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:</p> <ul style="list-style-type: none"> A. Meets all applicable requirements; B. Does not violate any federally enforceable permit term or condition; C. Is not subject to any requirement or standard under title IV of the Clean Air Act; and D. Is not a modification under title I. <p>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.</p>	18.14
31.	<p><u>Property Rights and Privileges</u> No property rights of any sort or any exclusive privilege are conveyed through the issuance of this Operating Permit.</p>	18.5.9
32.	<p><u>Economic Incentives</u> 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.</p>	18.5.12
33.	<p><u>Emission Reduction Plan</u> 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.</p>	18.2.8(b)

No.	Federally Enforceable General Permit Conditions	Regulations
34.	<p><u>Emergency Provision</u></p> <p>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.</p> <p>B. Exceedances of emission limits during emergencies (as defined above) at a facility may be exempted from being violations provided that:</p> <ol style="list-style-type: none"> 1. The permittee can identify the cause(s) of the emergency; 2. At the time of the emergency, the permitted facility was being properly operated; 3. 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; 4. 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; 5. 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; and 6. 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. <p>This provision is in addition to any emergency or upset provision contained in any applicable requirement. The Health Officer shall be the sole determiner of whether an emergency has occurred. An emergency constitutes an affirmative defense.</p>	18.11.2
35.	<p><u>Obnoxious Odors</u></p> <p>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.</p>	6.2.3
36.	<p><u>Title IV Requirements (Acid Rain Program)</u></p> <p>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.</p>	18.5.1(b) 18.5.4
37.	<p><u>Title VI Requirements (Refrigerants)</u></p> <p>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,</p>	40 CFR 82 18.1.1(e)(10) 18.1.1(w)(4)

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	<p>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.</p> <p>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.</p> <p>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.</p>	
38.	<p><u>Asbestos Demolition and Renovation</u></p> <p>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.</p>	40 CFR 61 14.2.12
39.	<p><u>Prevention of Accidental Releases</u></p> <p>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.</p>	112(r) 40 CFR 68
40.	<p><u>Testing</u></p> <p>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. 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.</p>	19.1 1.10 18.2.5 18.2.8(c) 60.8(d) 60.8(e) 60.8(g) 61.05(d) 61.13 63.7(a)(3) 63.7(b)-(d) 63.9(e) 63.9(f) 63.10(d) 63.7340(d) 63.7515(f)
41.	<p><u>Retention of Records</u></p> <p>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.</p>	18.5.3(b) 63.10(b)(1) 63.7343

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	Facility-Specific General Conditions	
42.	<p><u>Fugitive Dust</u></p> <p>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.</p> <p>B. The permittee shall not cause or allow the discharge of visible emissions which travel beyond the property line of the facility.</p> <p>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.</p> <p>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:</p> <ol style="list-style-type: none"> 1. Use of vacuum truck or street sweeper on paved surfaces; 2. Use of wet suppression system on unpaved surfaces and storage piles when conditions are dry and fugitive dust could become airborne and leave property lines; 3. Application of surfactants in conjunction with the wet suppression system; 4. Maintain roof/cover over coal and coke conveyors; 5. Use of water truck as needed on surfaces; 6. Use of wet sprays on all coke loading points; 7. Use of water sprays, injected with surfactant, on rotary dump; 8. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land; 9. Application of asphalt, oil, water, or suitable chemicals on dirt roads, material stock piles, and other surfaces which create airborne dust problems; and 10. Installation and use of hoods, fans, and fabric filters (or other suitable control devices) to enclose and vent the handling of dust materials. Adequate containment methods shall be employed during sandblasting or similar operations. <p>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.</p>	<p>6.2.1</p> <p>6.2.2</p> <p>6.2.3</p> <p>6.9.2</p> <p>18.2.4</p>
	Recordkeeping, Reports and Notifications for Entire Facility	
43.	<p><u>General Recordkeeping Requirements</u></p> <p>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:</p> <ol style="list-style-type: none"> A. All reports and notifications submitted to comply with this permit; B. Results of all required performance testing, monitoring and sampling; C. Available SDS and/or other manufacturer supplied contents information relating to the VOC and HAP contents of materials used at the facility; 	<p>1.9.1</p> <p>18.7.1</p>

[illegible]

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	<p>4. 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</p> <p>5. Such other facts as the Department may require to determine the compliance status of the source.</p>	
	<p>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:</p> <ol style="list-style-type: none"> 1. Condition 41 for the By-Products Plant; 2. Condition 12 for the Boilers & Excess COG Flare; and 3. Condition 31 for Coke Production. <p>D. Quarterly Compliance Reports for the previous calendar quarter (January – March, April – June, July – September, and October – December) shall be submitted no later than 30 days after the end of the reporting period. The information may be included with the semiannual compliance report due in July and/or January.</p> <ol style="list-style-type: none"> 1. Condition 40 for the By-Products Plant; and 2. Condition 30 for Coke Production. <p>E. 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.</p> <p>F. Results of performance testing and CMS performance evaluations within 30 days after completion.</p> <p>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:</p> <ol style="list-style-type: none"> 1. Operation of a generator for more than 100 hours per year is a deviation from 40 CFR 63, Subpart ZZZZ that must be reported according to 40 CFR §63.6650. 2. Reporting of malfunctions which may affect compliance calculations for any battery under 40 CFR 63, Subpart L must be made according to §63.610. 3. Report deviations from any applicable requirement of 40 CFR 63, Subpart CCCCC according to the requirements in §63.7341. 4. An immediate startup, shutdown, and malfunction report shall be submitted for any startup, shutdown, or malfunction that was not consistent with your startup, shutdown, and malfunction plan for 40 CFR 63, Subpart CCCCC according to the requirements in § 63.10(d)(5)(ii). 5. Report as a deviation the second and any subsequent unsuccessful attempt for the same oven at corrective action and/or increased coking time under §63.7291(a)(6)(ii). 6. Report as a deviation the second and any subsequent consecutive attempts on the same oven to qualify for decreased coking time under §63.7291(a)(7)(iii). 	<p>1.9.2 1.5.15 18.5.3(c)(1) 18.2.4 18.7.1 61.138(f) 61.138(i) 61.138(e)(4) 61.247(b) 61.247(e) 63.311(d) 63.7335(c) 63.7341(c) 63.7336 18.7.1 8.26.11 63.7341 18.4.8(h) 1.9.2 18.7.1 1.12.2 18.5.3(c)(2) 63.10(d)(5)(ii) 63.6640(b) 63.310 63.7336(a) 63.7341(d) 63.7291(a) 63.7291(a)</p>

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	<p>7. Report any venting of coke oven gas that was not vented through the bypass/bleeder stack flare system to the Department as soon as practicable but no later than 24 hours after the beginning of the event. A written report shall be submitted within 30 days of the event and shall include a description of the event and, if applicable, a copy of the notification for a hazardous substance release required pursuant to 40 CFR §302.6.9</p>	63.311(e)
	<p>H. Notifications as follows:</p> <ol style="list-style-type: none"> 1. Notification of performance testing for the pushing emission control baghouse, at least 60 days prior to scheduled testing per §63.7340(d), and §63.7(b)(1). 2. Notify the Department in writing of the intention to construct a new coke oven battery (greenfield or brownfield), to reconstruct an existing coke oven battery, or a padup rebuild coke oven battery, including the anticipated date of startup. 3. 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). 4. Any physical or operational change which may increase the emission rate of any air pollutant regulated by NSPS submitted 60 days or as soon as practicable before the change is made per §60.7(a)(4). 5. Any change in information already provided under 40 CFR 61 shall be submitted in writing within 30 calendar days after the change per §61.10(c). 6. For equipment subject to 40 CFR 61, Subpart FF, submit a report that updates the information listed in 61.357(a)(1) through (a)(3) whenever there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to 1 Mg/yr (1.1 ton/yr) or more. 7. Notify the Department of the startup of any new or modified source subject to 40 CFR 61 as required by 61.09. 8. 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). 9. Notify the Department in writing 2 weeks prior to the annual audit(s) for the underfire stack COMS. <p>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 CO₂e, 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.</p>	<p>63.7340(d)</p> <p>63.311(c)(1)</p> <p>63.9(j)</p> <p>60.7 60.14(e)</p> <p>61.05 61.10(c) 61.357</p> <p>61.09</p> <p>18.2.4 18.7.1</p> <p>18.2.4 18.7.1 40 CFR 98</p>

SUMMARY TABLES OF LEAK DETECTION & REPAIR (LDAR) REQUIREMENTS
FOR COKE BY-PRODUCT RECOVERY PLANT

Repair of Leaks	Affected Equipment	Citation
Install A New Rupture Disk No Later Than 5 Days After Any Pressure Release	Pressure Relief Devices in Gas/Vapor Phase Benzene Service Equipped With A Rupture Disk	61.242-4(d)
Return to State of No Detectable Emissions No Later Than 5 Days After Any Pressure Release	Pressure Relief Devices in Gas/Vapor Phase Benzene Service	61.242-4
Repair As Soon As Practicable but Not Later than 15 Calendar Days After Any Leak Is Detected	Pumps in Light Liquid Service	8.26.4(d)
	Valves in Gas & Light Liquid Service	8.26.5(c)
	Pressure Relief Valves in Gas Service	8.26.6(c)
Repair With An Initial Attempt As Soon As Possible and Final Repair Within 15 Calendar Days	Any Component In VOC Service That Appears To Be Leaking On The Basis Of Sight, Smell, Or Sound	8.26.3(d)
Repair As Soon As Practicable but Not Later than 15 Calendar Days After Any Leak Is Detected + Make First Attempt At Repair No Later Than 5 Days After Any Leak Is Detected	All Equipment Subject to 40 CFR 61, Subparts L & V (except pressure relief devices in Gas/Vapor Service)	61.132(b), 61.132(c), 61.133(c), 61.135(d), 61.135(e), 61.242-2(c), 61.242-2(d)(6)(iii), 61.242-7(d), 61.242-8(c), 61.242-11(g)
Specific Best Practices for First Attempt at Repair listed at 61.242-7(e)	Valves in Benzene Service	61.242-7(e)
	Pressure Relief Devices in Liquid Phase Benzene Service	61.242-8(d)
	Connectors in Benzene Services	61.242-8(d)
Delay of Repair Until Process Restart If Repair Is Technically Infeasible Without Process Shutdown	Equipment in VOC Service	8.26.8(a)
	Equipment in Benzene Service	61.242-10(a)
	Closed-Vent Systems	61.242-11(h)
Delay of Repair	Equipment that Can Be Isolated from the Process and Removed from VOC Service	8.26.8(b)
	Equipment that Can Be Isolated from the Process and Removed from Benzene Service	61.242-10(b)
Delay of Repair To Allow Purged Material To Be Collected	Valves in VOC Service	8.26.8(c)
	Valves in Benzene Service	61.242-10(c)
Delay of Repair To Obtain Parts	Valves in Benzene Service	61.242-10(e)
Delay of Repair Up to 6 Months	Pumps in Benzene Service when the repair requires the use of a dual mechanical seal system that includes a barrier fluid system	61.242-10(d)

Tagging Requirements	Affected Equipment	Citation
Marked With Weatherproof Tag	Pumps & Valves In Light Liquid Service Valves & Pressure Relief Devices In Gas Service Open-Ended Valves, Sampling Connections, Flanges & Connectors In VOC Service	8.26.3(c)
Marked to Distinguish Equipment Subject to 40 CFR 61, Subparts L & V	Each Pump, Valve, Exhauster, Pressure Relief Device, Sampling Connection System, Open-Ended Valve or Line, Flange or Other Connector In Benzene Service & Any Control Devices Or Systems	61.135(c) 61.242-1(d)
Leaking Equipment: Marked with weatherproof and readily visible identification, including the equipment identification number	Each Exhauster, Pump, Valves, Pressure Relief Devices in Liquid Service & Connectors In Benzene Service	61.246(b)

Exceptions to Part 61 LDAR	Affected Equipment	Citation
Emissions routed to a process or fuel gas system	Pressure Relief Devices in Gas/Vapor Service	61.242-4(c)
Component is equipped with a closed-vent system capable of capturing and transporting leakage to a control device meeting 61.242-11	Exhausters (except those designated for no detectable emissions per 61.242(e))	61.135(f)
	Pumps in Benzene Service	61.242-2(f)
	Pressure Relief Devices in Gas/Vapor Service	61.242-4(c)
Equipment in vacuum service that is identified as required in 61.246(e)(5)	Equipment otherwise subject to Part 61	61.242-1(e)
	Exhausters	61.135(h)
Components that Have Only Equipment & Procedural Requirements	Sampling Connecting Systems & Open-Ended Valves or Lines	61.242-5 61.242-6 8.26.7

Visual Inspections	Affected Equipment	Citation
Daily Check of Sensors Not Equipped with an Audible Alarm	Exhausters equipped with a seal system meeting 61.135(e)	61.135(e)
Each Calendar Week for Liquid Drips	Pumps in Light Liquid Service	8.26.4(b)
	Pumps in Benzene Service (except those designated for no detectable emissions per 61.242(e))	61.242-2
Monthly for Visible Defects	Naphthalene Processing Equipment, Final Coolers and Final Cooler Cooling Towers	18.5.3 18.7.1
Semi-Annual for Evidence of Defects in Sources, Control Systems and Ductwork + Any Time A Gas-Blanketing System is Re-Pressurized	Gas Collection & Control Equipment for Process Vessels, Tar Storage Tanks ¹ & Tar Intercepting Sumps	61.132(b)
Semi-Annual for Evidence of Defects + Any Other Time A Cover Is Removed	Control Systems for Light Oil Sumps	61.133(c)
Annual for Evidence of System Abnormalities & Maintenance Defects	Control Systems for Process Vessels, Tar Storage Tanks ¹ , & Tar Intercepting Sumps	61.132(c)
Annual for Visible, Audible and Olfactory Leak Indications	Vapor Collection & Closed Vent Systems Constructed of Hard Piping in Benzene Service ²	61.242-11(f)

¹ Furnace Coke Plants: benzene storage tanks, BTX storage tanks light oil storage tanks & excess ammonia-liquor storage tanks are also subject to this requirement per 40 CFR §61.132(d).

² Except those operated under vacuum per 61.242-11(i) or as allowed by 61.242-11(j)&(k).

Instrumental Monitoring per 40 CFR 60, Appendix A, Method 21, and for NESHAP Sources, 61.245(b) or 61.245(c) See By-Product Recovery Plant Condition 25	Affected Equipment	Citation
No Later Than 5 Days After Any Pressure Release	Pressure Relief Devices in Gas/Vapor Phase Benzene Service	61.242-4(b)
No Later Than 5 Days After Any Visible, Audible or Olfactory Indication of a Potential Leak	Pressure Relief Devices in Liquid Phase Benzene Service	61.242-8(a)
	Connectors in Benzene Service	61.242-8(a)
Monthly	Pumps in Benzene Service (except as provided by 61.242-2(d) through 61.242-2(g))	61.242-2(a)
	Valves in Benzene Service (except as provided by 61.242-7(c), 61.242-7(f), 61.242-7(g) & 61.242-7(h))	61.242-7
	All connections, seals, and lines associated with naphthalene processing, final coolers and final cooler cooling towers	18.5.3 18.7.1
Each Calendar Quarter	Exhausters (except those subject to different requirements at 61.135(e), 61.135(f), 61.135(g) or 61.135(h))	61.135(d)
	Pumps in Light Liquid Service	8.26.4(a)
	Valves in Gas & Light Liquid Service	8.26.5(a)
	Pressure Relief Valves in Gas Service	8.26.6(a)
	Closed Vent Systems	8.27.4
Semi-Annual + Any Time A Gas-Blanketing System is Re-Pressurized	Connections and Seals on Control Systems for Process Vessels, Tar Storage Tanks ¹ , Tar Intercepting Sumps & Associated Gas Collection & Control Equipment	61.132(b)
Semi-Annual + Any Other Time A Cover Is Removed	Control Systems for Light Oil Sumps	61.133(c)
Annual	Vapor Collection & Closed Vent Systems Constructed of Ductwork in Benzene Service ²	61.242-11(f)
Annual + Any Other Time Requested by the Department	Exhausters designated for no detectable emissions per 61.246(e)	61.135(g)
	Pumps in Benzene Service designated for no detectable emissions per 61.246(e)	61.242-2(e)
	Valves in Benzene Service designated for no detectable emissions per 61.246(e)	61.242-7(f)

Monitoring frequency may be reduced for pumps, valves and closed vent system components that qualify as "unsafe-to-monitor" (monitoring personnel would be exposed to immediate danger) or "difficult-to-monitor" according to the provisions of 8.26.5(d), §61.242-2(g), §61.242-7(g), §§61.242-11(j)-(l), and §61.246(f).

¹ Furnace Coke Plants: benzene storage tanks, BTX storage tanks light oil storage tanks & excess ammonia-liquor storage tanks are also subject to this requirement per 40 CFR §61.132(d).

² Except those operated under vacuum per 61.242-11(i) or as allowed by 61.242-11(j)&(k).

Leak Thresholds	Affected Equipment	Citation
NO ("zero") Emissions	Naphthalene Processing, Final Coolers, & Final-Cooler Cooling Towers	61.134
If the sensor indicates failure of the seal system, the barrier system, or both, a leak is detected	Exhausters equipped with a seal system meeting 61.135(e)	61.135(e)
	Pumps equipped with a dual mechanical seal system meeting 61.242-2(d)	61.242-2(d)
Indication of liquids dripping from the pump seal	Pumps in Light Liquids Service	8.26.4
	Pumps in Benzene Service	61.242-2(b)
Visible Defects such as gaps in sealing materials	Gas Collection & Control Equipment for Process Vessels, Tar Storage Tanks ¹ , Tar Intercepting Sumps	61.132(b)
	Control Systems for Light Oil Sumps	61.133(c)
	Naphthalene Processing Equipment, Final Coolers and Final Cooler Cooling Towers	18.5.3 18.7.1
Visual, audible, olfactory (Sight, Sound or Smell) or other detection method	Pressure Relief Devices in Liquid Phase Benzene Service	61.242-8(a)
	Connectors in Benzene Service	61.242-8(a)
	Closed Vent Systems Constructed of Hard Piping in Benzene Service	61.242-11(f)
	Components in VOC Service	8.26.3(d)
"No Detectable Emissions:" an instrument reading indicating an organic chemical concentration more than 500 ppm above a background concentration, as measured by Method 21 of 40 CFR 60, Appendix A and, for NESHAP sources, the requirements of 61.245(b) or 61.245 (c)	Gas Collection & Control Equipment for Process Vessels, Tar Storage Tanks ¹ , Tar Intercepting Sumps	61.132(a) 61.132(b)
	Light Oil Sumps	61.133(c)
	Exhausters designated for no detectable emissions per 61.246(e)	61.135(g)
	Pumps in Benzene Service designated for no detectable emissions per 61.246(e)	61.242-2(e)
	Valves in Benzene Service designated for no detectable emissions per 61.246(e)	61.242-7(f)
	Pressure Relief Valves in Gas Service & Pressure Relief Devices in VOC Gas/Vapor Service	8.26.6(b) 18.2.4
	Pressure Relief Devices in Gas/Vapor Phase Benzene Service (except those equipped per 61.242-4(c) or 61.242-4(d))	61.242-4
	Closed Vent Systems	8.27.4
	Vapor Collection & Closed Vent Systems	61.242-11(g)
an instrument reading of 10,000 ppm or greater, as measured by Method 21 of 40 CFR 60, Appendix A and, for NESHAP sources the requirements of 61.245(b)	Exhausters (except those subject to different requirements at 61.135(e), 61.135(f), 61.135(g) or 61.135(h))	61.135(d)
	Pumps in Light Liquid Service	8.26.4(c)
	Pumps in Benzene Service (except those designated for no detectable emissions per 61.246(e))	61.242-2(b)
	Valves in Gas and Light Liquid Service	8.26.5(b)
	Valves in Benzene Service (except those designated for no detectable emissions per 61.246(e))	61.242-7(b)
	Pressure Relief Devices in Liquid Phase Benzene Service	61.242-8(b)
	Connectors in Benzene Service	61.242-8(b)

¹ Furnace Coke Plants: benzene storage tanks, BTX storage tanks light oil storage tanks & excess ammonia-liquor storage tanks are also subject to this requirement per 40 CFR §61.132(d).

**FEDERALLY ENFORCEABLE CONDITIONS FOR THE COKE BY-PRODUCT
RECOVERY PLANT**

Emissions Unit No.	Emissions Unit Description
005	Coke By-Products Recovery Plant Sources
034	Ammonium Sulfate Manufacture

No.	Federally Enforceable Conditions for the By-Product Recovery Plant	Regulations												
	Benzene Waste Restriction													
1.	<p>The permittee shall maintain the total annual benzene ("TAB") quantity, determined per 40 CFR 61, Subpart FF, below 10 megagrams per year.</p> <p>A. The TAB quantity from facility waste is the sum of the annual benzene quantity for each waste stream at the facility that has a flow-weighted annual average water content greater than 10 percent or that is mixed with water, or other wastes, at any time and the mixture has an annual average water content greater than 10 percent, calculated according to §61.342(a) and §61.355(a) through (c).</p> <p>B. The purpose of this restriction is to limit the applicable requirements of Subpart FF to §61.342(a), §61.355(a), §61.355(b), §61.355(c), §61.356(a), §61.356(b)(1), §61.356(b)(5), §61.357(a), §61.357(b), and §61.357(c).</p> <p>C. Title V monitoring will be accomplished by measuring the flow rate, using the procedures of §61.355(b), and the benzene concentration of each waste stream entering the unit at least once per month by collecting and analyzing one or more samples using the procedures specified in §61.355(c)(3).</p> <p>D. The TAB quantity shall be determined for each calendar year, as a minimum.</p>	18.2.4 61.342(a)												
	State Implementation Plan, NESHAPs & NSPS													
2.	<p><u>State Implementation Plan (SIP)</u> Part 8.26 of the Rules and Regulations, "Leaks from Coke by-Product Recovery Plant Equipment," applies to the following equipment in VOC service (containing or contacting VOC) in a Coke By-Product Recovery Plant:</p> <table border="0"> <tr> <td>pumps</td><td>pressure relief valves</td><td>sampling connections</td></tr> <tr> <td>valves</td><td>open-ended valves</td><td>flanges and connectors</td></tr> </table> <p>Part 8.27, "Emissions from Coke By-Product Recovery Plant Coke Oven Gas Bleeder," applies to closed vent systems which vent surplus coke oven gas from the by-products plant to the excess COG flare. 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. The by-product recovery plant and the ammonium sulfate manufacturing operation is also subject to Part 6.1, "Visible Emissions," Part 6.2, "Fugitive Emissions," and Part 6.4, "Process Industries – General."</p>	pumps	pressure relief valves	sampling connections	valves	open-ended valves	flanges and connectors	8.26 8.27						
pumps	pressure relief valves	sampling connections												
valves	open-ended valves	flanges and connectors												
3.	<p><u>40 CFR 61, Subparts L & V</u> The affected facility under 40 CFR 61, Subpart L, "National Emission Standard for Benzene Emissions from Coke By-Product Recovery Plants," consists of the following process vessels:</p> <table border="0"> <tr> <td>tar decanters</td><td>light-oil decanters</td><td>wash-oil decanters</td></tr> <tr> <td>flushing-liquor circulation tanks</td><td>light-oil condensers</td><td>wash-oil circulation tanks</td></tr> </table> <p>these other sources:</p> <table border="0"> <tr> <td>tar storage tanks</td><td>naphthalene processing</td><td>final cooler cooling towers</td></tr> <tr> <td>tar-intercepting sumps</td><td>light-oil sumps</td><td>final coolers</td></tr> </table>	tar decanters	light-oil decanters	wash-oil decanters	flushing-liquor circulation tanks	light-oil condensers	wash-oil circulation tanks	tar storage tanks	naphthalene processing	final cooler cooling towers	tar-intercepting sumps	light-oil sumps	final coolers	61.130 61.131 61.132(d) 61.135(a) 61.135(b) 61.136(c) 61.137(a) 61.240(a) 61.01(c)
tar decanters	light-oil decanters	wash-oil decanters												
flushing-liquor circulation tanks	light-oil condensers	wash-oil circulation tanks												
tar storage tanks	naphthalene processing	final cooler cooling towers												
tar-intercepting sumps	light-oil sumps	final coolers												

No.	Federally Enforceable Conditions for the By-Product Recovery Plant	Regulations													
	<p>and the following equipment that are intended to operate in benzene service:</p> <table><tr><td>pumps</td><td>pressure relief devices</td><td>sampling connection systems</td></tr><tr><td>valves</td><td>flanges or other connectors</td><td>open-ended valves or lines</td></tr><tr><td>exhausters</td><td colspan="2">control devices or systems required by § 61.135</td></tr></table> <p>If the percentage of foundry coke (defined as coke that is produced from raw materials with less than 26% volatile material by weight and subject to a coking time of 24 hours or more) produced falls below 75% of the total coke production during a calendar year, then Subpart L, §61.132 will also apply to the following storage tanks from that point onward:</p> <table><tr><td>benzene storage tanks</td><td>light-oil storage tanks</td></tr><tr><td>BTX storage tanks</td><td>excess ammonia liquor storage tanks</td></tr></table> <p>For equipment in benzene service as defined in Subpart L, the permittee shall comply with the requirements of 40 CFR 61, Subpart V, "National Emission Standard for Equipment Leaks (Fugitive Emission Sources)," except for the provisions of §61.242-3 (compressors) and §61.242-9 (surge control vessels and bottoms receivers). The permittee is also subject to the General Provisions of 40 CFR 61, Subpart A. 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.</p>	pumps	pressure relief devices	sampling connection systems	valves	flanges or other connectors	open-ended valves or lines	exhausters	control devices or systems required by § 61.135		benzene storage tanks	light-oil storage tanks	BTX storage tanks	excess ammonia liquor storage tanks	
pumps	pressure relief devices	sampling connection systems													
valves	flanges or other connectors	open-ended valves or lines													
exhausters	control devices or systems required by § 61.135														
benzene storage tanks	light-oil storage tanks														
BTX storage tanks	excess ammonia liquor storage tanks														
4.	<p><u>40 CFR 61, Subpart FF</u> The coke by-product recovery plant is subject to 40 CFR 61, Subpart FF, "National Emission Standard for Benzene Waste Operations." The permittee is also subject to the General Provisions of 40 CFR 61, Subpart A.</p>	61.340(a) 61.01(c)													
5.	<p><u>40 CFR 60, Subpart PP</u> The ammonium sulfate dryer is subject to 40 CFR 60, Subpart PP, "Standards of Performance for Ammonium Sulfate Manufacture." The permittee is also subject to the General Provisions of 40 CFR 60, Subpart A.</p>	60.420 60.1													
6.	<p><u>NESHAP General Duty</u> The permittee shall maintain and operate the affected source, including associated equipment for air pollution control, in a manner consistent with good air pollution control practice for minimizing emissions.</p>	61.12(c)													
	<p>SIP & 40 CFR 61, Subparts L & V Requirements for Equipment & LDAR</p>														
7.	<p><u>Generalized SIP Requirements</u> The SIP requirements apply to each affected source described in Condition 2 above.</p> <p>A. Each component in VOC service shall be marked with weatherproof tags that will be readily obvious to both plant personnel and the Health Officer, and have an identification number.</p> <p>B. The permittee shall demonstrate compliance with the requirements of Sections 8.26.4 to 8.26.7, which include work practices, visual inspections and/or instrumental monitoring methods of leak detection for specific types of equipment.</p> <p>C. Equipment that is in vacuum service shall be controlled by means of a closed vent system, or determined to achieve emission limitation at least equivalent to the requirements of Sections 8.26.4 to 8.26.7.</p> <p>D. Any component in VOC service that appears to be leaking on the basis of sight, smell, or sound, shall be repaired with an initial attempt as soon as possible and final repair within 15 calendar days, except as allowed by 8.26.8.</p> <p>Specific SIP requirements for specific equipment types are presented below.</p>	8.26.2 8.26.3													
8.	<p><u>Generalized NESHAP Requirements</u> The NESHAP requirements apply to each affected source described in Condition 3 above. To determine whether or not a piece of equipment is in benzene (VHAP) service, the methods in §61.245(d) shall be used, except that, for exhausters, the percent benzene shall be 1 percent by weight, rather than the 10 percent by weight described in §61.245(d).</p>	61.137(b) 61.135 61.242-1(d) 61.242-1(e) 61.132(b)													

No.	Federally Enforceable Conditions for the By-Product Recovery Plant	Regulations
	<p>A. Each piece of equipment in benzene service to which Subparts L and/or V applies shall be marked in such a manner that it can be distinguished readily from other pieces of equipment in VOC service.</p> <p>B. For equipment in benzene service as defined in Subpart L, the permittee shall also comply with the requirements of 40 CFR 61, Subpart V, which include visual inspections and/or instrumental monitoring methods of leak detection for specific types of equipment.</p> <p>C. Equipment that is in vacuum service is excluded from the requirements of §61.242-2 to §61.242-11 if it is identified as required in §61.246(e)(5).</p> <p>D. Leaking equipment shall be tagged for repair according to §61.246(b).</p> <p>E. When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in §61.242-10. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.</p> <p>Specific NESHAP requirements for specific equipment types are presented below.</p>	<p>61.133(c)(4) 61-242-10 61.242-2(c)</p>
9.	<p><u>Process Vessels, Storage Tanks & Tar-Intercepting Sumps</u></p> <p>A. The permittee shall enclose and seal all openings from each process vessel, affected storage tank, and tar-intercepting sump and shall duct the gases from each of these sources to the gas collection system, gas distribution system, or other enclosed point in the by-product recovery process where the benzene in the gas will be recovered or destroyed.</p> <ol style="list-style-type: none"> 1. This control system shall be designed and operated for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined by the methods specified in §61.245(c). 2. This system can be designed as a closed, positive pressure, gas blanketing system. 3. The permittee may elect to install, operate, and maintain a pressure relief device, vacuum relief device, an access hatch, and a sampling port on each process vessel, tar storage tank, and tar-intercepting sump. Each access hatch and sampling port must be equipped with a gasket and a cover, seal, or lid that must be kept in a closed position at all times, unless in actual use. 4. The permittee may elect to leave open to the atmosphere the portion of the liquid surface in each tar decanter necessary to permit operation of a sludge conveyor, provided that a water leg seal on the tar decanter roof near the sludge discharge chute is installed, operated and maintained to ensure enclosure of the major portion of liquid surface not necessary for the operation of the sludge conveyor. <p>B. Semiannually and at any other time after the control system is re-pressurized with blanketing gas following removal of the cover or opening of the access hatch:</p> <ol style="list-style-type: none"> 1. Monitor the connections and seals on each control system to determine if it is operating with no detectable emissions, using Method 21 of 40 CFR 60, Appendix A and the procedures specified in § 61.245(c), and 2. Visually inspect each source (including sealing materials) and the ductwork of the control system for evidence of visible defects such as gaps or tears. 3. A leak is detected if an instrument reading indicates an organic chemical concentration more than 500 ppm above a background concentration or if visible defects such as gaps in sealing materials are observed during a visual inspection. <p>C. Annually, conduct a maintenance inspection of the control system for evidence of system abnormalities, such as blocked or plugged lines, sticking valves, plugged condensate traps, and other maintenance defects that could result in abnormal system operation.</p>	<p>61.132(a)</p> <p>61.132(b)</p> <p>61.132(c)</p>

No.	Federally Enforceable Conditions for the By-Product Recovery Plant	Regulations
10.	<p><u>Light-Oil Sumps</u></p> <p>A. The permittee shall enclose and seal the liquid surface in the light-oil sump to form a closed system to contain the emissions.</p> <ol style="list-style-type: none"> 1. The permittee may elect to install, operate, and maintain a vent on the light-oil sump cover. Each vent pipe must be equipped with a water leg seal, a pressure relief device, or vacuum relief device. 2. The permittee may elect to install, operate, and maintain an access hatch on each light-oil sump cover. Each access hatch must be equipped with a gasket and a cover, seal, or lid that must be kept in a closed position at all times, unless in actual use. 3. The light-oil sump cover may be removed for periodic maintenance but must be replaced (with seal) at completion of the maintenance operation. <p>B. The venting of steam or other gases from the by-product process to the light-oil sump is not permitted.</p> <p>C. Semiannually and at any other time the cover is removed:</p> <ol style="list-style-type: none"> 1. Monitor the connections and seals on each control system to determine if it is operating with no detectable emissions, using Method 21 of 40 CFR 60, Appendix A and the procedures specified in § 61.245(c); and 2. Visually inspect each source (including sealing materials) and the ductwork of the control system for evidence of visible defects such as gaps or tears. 3. A leak is detected if an instrument reading indicates an organic chemical concentration more than 500 ppm above a background concentration or if visible defects such as gaps in sealing materials are observed during a visual inspection. 	<p>61.133(a)</p> <p>61.133(b)</p> <p>61.133(c)</p>
11.	<p><u>Naphthalene Separation Unit Emissions</u></p> <p>The permittee shall enclose and seal any open settling tank used in the separation of naphthalene from final cooler aqueous effluent to contain VOC emissions. The cover may include the following items of equipment:</p> <ol style="list-style-type: none"> A. A vent equipped with a water leg seal or a conservation vent; and B. An access hatch which is equipped with a gasket. C. The cover may be removed when required by process operations, but must be replaced at the completion of operations. 	<p>8.26.9</p>
12.	<p><u>Naphthalene Processing, Final Coolers and Final Cooler Cooling Towers</u></p> <p>No ("zero") emissions are allowed from naphthalene processing, final coolers and final-cooler cooling towers at coke by-product recovery plants. Zero emissions shall be determined by monthly monitoring of all connections, seals, and lines associated with the indicated equipment (naphthalene processing, final coolers and final cooler cooling towers) utilizing Method 21 of 40 CF 60, Appendix A and the procedures specified in §61.245(c). The indicated equipment (including sealing materials) shall be visually inspected monthly for evidence of visible defects such as gaps or tears.</p>	<p>61.134</p> <p>18.5.3</p> <p>18.7.1</p>
13.	<p><u>Exhausters</u></p> <ol style="list-style-type: none"> A. Each calendar quarter, monitor each exhauster to detect leaks using the methods specified in §61.245(b). A leak is detected if an instrument reading of 10,000 ppm or greater is measured. B. Each exhauster equipped with a seal system that includes a barrier fluid system and that prevents leakage of process fluids to the atmosphere is exempt from the quarterly monitoring requirements provided the following requirements are met: <ol style="list-style-type: none"> 1. Each exhauster seal system is: <ol style="list-style-type: none"> a. Operated with the barrier fluid at a pressure that is greater than the exhauster stuffing box pressure; or b. Equipped with a barrier fluid system that is connected by a closed vent system to a control device that complies with the requirements of §61.242-11; or c. Equipped with a system that purges the barrier fluid into a process stream with zero benzene emissions to the atmosphere. 	<p>61.135(d)</p> <p>61.135(e)</p>

No.	Federally Enforceable Conditions for the By-Product Recovery Plant	Regulations
	<ul style="list-style-type: none"> 2. The barrier fluid is not in benzene service. 3. Each barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both. 4. Each sensor shall be checked daily or shall be equipped with an audible alarm. The permittee shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. 5. If the sensor indicates failure of the seal system, the barrier system, or both, a leak is detected. C. Annually and at other times requested by the Department, monitor any exhauster that is designated, as described in §61.246(e) for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the methods specified in §61.245(c). D. An exhauster equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of §61.242-11 is exempt from the quarterly monitoring requirements. However, this exemption does not apply to an exhauster which is also subject to §61.135(g) (see Item C above). E. Any exhauster that is in vacuum service is excluded from the requirements of 40 CFR 61, Subpart L if it is identified as required in §61.246(e)(5). 	<p>61.135(g)</p> <p>61.135(f)</p> <p>61.135(h)</p>
14.	<p><u>Pumps in Light Liquid Service</u></p> <p>"In light liquid service" means that the piece of equipment contains or contacts a process fluid that is a liquid at operating conditions, one or more components having a vapor pressure greater than 2.1 mmHg at 20 °C (0.04 psia at 68 °F), and the total concentration of the pure components, having a vapor pressure greater than 2.1 mmHg (0.04 psia at 68 °F) at 20 °C, is equal to or greater than 20 percent by weight.</p> <ul style="list-style-type: none"> A. Each pump in light liquid service shall be: <ul style="list-style-type: none"> 1. Monitored each calendar quarter to detect leaks using Method 21 of 40 CFR 60, Appendix A; and 2. Checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. B. A leak is detected if: <ul style="list-style-type: none"> 1. An instrument reading of 10,000 ppm or greater is measured; or 2. There are indications of liquids dripping from the pump seal. C. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 8.26.8. D. A pump which is also subject to 40 CFR 61, Subpart V and which is monitored monthly does not need to be monitored separately to demonstrate compliance with the SIP. 	<p>8.26.4</p> <p>8.26.1(i)</p>
15.	<p><u>Pumps in Benzene Service</u></p> <ul style="list-style-type: none"> A. Each pump in benzene service shall be: <ul style="list-style-type: none"> 1. Monitored monthly to detect leaks by the methods specified in §61.245(b); and 2. Checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. B. A leak is detected if: <ul style="list-style-type: none"> 1. An instrument reading of 10,000 ppm or greater is measured; or 2. There are indications of liquids dripping from the pump seal. C. The following types of pumps are exempt from the above requirements, and shall comply with different requirements as specified: <ul style="list-style-type: none"> 1. Each pump equipped with a dual mechanical seal system that includes a barrier fluid system, provided the following requirements of §61.242-2(d) are met: <ul style="list-style-type: none"> a. Each dual mechanical seal system is: <ul style="list-style-type: none"> i. Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or 	<p>61.242-2</p> <p>61.135(a)</p> <p>61.242-2(d)</p>

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	<ul style="list-style-type: none"> ii. Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of §61.242-11; or iii. Equipped with a system that purges the barrier fluid into a process stream with zero VHAP emissions to atmosphere. b. The barrier fluid is not in VHAP service and, if the pump is covered by standards under 40 CFR part 60, is not in VOC service. c. Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both. d. Each pump is checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. <ul style="list-style-type: none"> i. If there are indications of liquid dripping from the pump seal at the time of the weekly inspection, the pump shall be monitored as specified in §61.245 to determine the presence of VOC and VHAP in the barrier fluid. ii. If the monitor reading (taking into account any background readings) indicates the presence of VHAP, a leak is detected. For the purpose of this paragraph, the monitor may be calibrated with VHAP, or may employ a gas chromatography column to limit the response of the monitor to VHAP, at the option of the owner or operator. iii. If an instrument reading of 10,000 ppm or greater (total VOC) is measured, a leak is detected. e. Each sensor as described in Item C.1.c above is checked daily or is equipped with an audible alarm. f. The owner or operator determines, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicates failure of the seal system, the barrier fluid system, or both. g. If indications of liquids dripping from the pump seal exceed the criteria established above, or if, based on the criteria established above, the sensor indicates failure of the seal system, the barrier fluid system, or both, then a leak is detected. 2. Each pump which has no externally actuated shaft penetrating the pump housing that is designated, as described in §61.246(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background as measured by the method specified in §61.245(c) annually and at other times requested by the Department, per §61.242-2(e). 3. Each pump that is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal(s) to a process or fuel gas system or to a control device that complies with the requirements of §61.242-11 is exempt from monitoring. 4. Each pump that is designated, as described in §61.246(f)(1), as an unsafe-to-monitor pump, provided that the requirements of §61.242-2(g) are met: <ul style="list-style-type: none"> a. The permittee demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of conducting monitoring and/or visual inspections; and b. The permittee has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable. c. The time allowed for repairs is not reduced by this provision. 	<p>61.242-2(e)</p> <p>61.242-2(f)</p> <p>61.242-2(g)</p>

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	<p>D. Collect, store, and transport the purged process fluid to any of the following systems or facilities:</p> <ol style="list-style-type: none"> 1. A waste management unit as defined in 40 CFR 63.111 if the waste management unit is subject to and operated in compliance with the provisions of 40 CFR part 63, subpart G, applicable to Group 1 wastewater streams; or 2. A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266; or 3. A facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261. <p>Gases displaced during filling of the sample container are not required to be collected or captured.</p>	
20.	<p><u>Open-Ended Valves & Sampling Connection Systems in VOC Service</u> "In VOC service" means that the piece of equipment contains or contacts VOC.</p> <p>A. Each open-ended valve shall be equipped with a cap, blind flange, plug, or a second valve, except during operations requiring fluid flow through the open-ended valve.</p> <p>B. Each open-ended valve equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.</p> <p>C. Open-ended valves which serve as a sampling connection shall be equipped with a closed vent system such that:</p> <ol style="list-style-type: none"> 1. Purged process fluid be returned to the process line with zero VOC emissions to atmosphere; or 2. Collect and recycle the purged process fluid with zero VOC emissions to atmosphere. 	<p>8.26.7 8.26.1(k)</p>
21.	<p><u>Open-Ended Valves and Lines in Benzene Service</u></p> <p>A. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve which shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.</p> <p>B. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.</p> <p>C. When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall seal the open end at all other times except during operations requiring process fluid flow through the open-ended valve or line.</p> <p>D. The following types of open-ended valves and lines are exempt from the above requirements:</p> <ol style="list-style-type: none"> 1. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset; and 2. Open-ended valves or lines containing materials which would auto-catalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified above. 	<p>61.242-6 61.135(a)</p>
22.	<p><u>Valves in Gas and Light Liquid Service</u> "In gas service" means that the piece of equipment contains process fluid that is in the gaseous state at operating conditions. "In light liquid service" means that the piece of equipment contains or contacts a process fluid that is a liquid at operating conditions, one or more components having a vapor pressure greater than 2.1 mmHg at 20 °C (0.04 psia at 68 °F), and the total concentration of the pure components, having a vapor pressure greater than 2.1 mmHg (0.04 psia at 68 °F) at 20 °C, is equal to or greater than 20 percent by weight.</p> <p>A. Each valve in gas or light liquid service shall be monitored each calendar quarter to detect leaks using Method 21 of 40 CFR 60, Appendix A.</p>	<p>8.26.5 8.26.1(h) 8.26.1(i)</p>

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	<p>B. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.</p> <p>C. When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 8.26.8.</p> <p>D. Valves may be exempted from the above requirements, provided that:</p> <ol style="list-style-type: none"> 1. The permittee demonstrates that a valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface. 2. A valve has no external actuating mechanism in contact with the process fluid. <p>A valve which is also subject to 40 CFR 61, Subpart V and which is monitored at least quarterly does not need to be monitored separately to demonstrate compliance with the SIP.</p>	
23.	<p><u>Valves in Benzene Service</u></p> <p>A. Each valve shall be monitored monthly to detect leaks by the method specified in §61.245(b), unless the valve qualifies under §61.242-7(c) (Item D below) for quarterly monitoring.</p> <p>B. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.</p> <p>C. A first attempt at repair, including but not limited to the best practices specified in §61.242-7(e) and below, shall be made no later than 5 calendar days after each leak is detected.</p> <ol style="list-style-type: none"> 1. Tightening of bonnet bolts; 2. Replacement of bonnet bolts; 3. Tightening of packing gland nuts; and 4. Injection of lubricant into lubricated packing. <p>D. Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.</p> <p>E. The following types of valves are exempt from the above requirements, and shall comply with different requirements as specified:</p> <ol style="list-style-type: none"> 1. Any valve that is designated, as described in §61.246(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, provided that it has no external actuating mechanism in contact with the process fluid and is monitored annually and at other times as requested by the Department. 2. Any valve that is designated, as described in §61.246(f)(1), as an unsafe-to-monitor valve, provided that it meets the requirements of §61.242-7(g): <ol style="list-style-type: none"> a. The permittee demonstrates that the valve is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of conducting monitoring and/or visual inspections; and b. The permittee has a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable. c. The time allowed for repairs is not reduced by this provision. 3. Any valve that is designated, as described in §61.246(f)(2), as a difficult-to-monitor valve, provided that it meets the requirements of §61.242-7(h). <ol style="list-style-type: none"> a. The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; b. The process unit within which the valve is located is an existing process unit; and c. The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. 	<p>61.242-7 61.135(a)</p> <p>61.242-7(c)</p> <p>61.242-7(f)</p> <p>61.242-7(g)</p> <p>61.242-7(h)</p>

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24.	<p><u>Coke Oven Gas Bleeder</u></p> <p>A "coke oven gas bleeder" is any piece of equipment which vents surplus coke oven gas (gas not consumed in the process or supplied to other sources) directly to the atmosphere.</p> <p>A. The permittee shall equip each coke oven gas bleeder with a closed vent system capable of capturing and transporting excess gas to a control device. All coke oven gas from the closed vent system shall be passed through the said control device which removes at least 95 percent of the VOC from such gas before it is discharged to the atmosphere. The control device shall be operated at all times when emissions may be vented to them from the closed vent systems.</p> <p>B. The permittee shall monitor these control devices to ensure that they are operated and maintained in conformance with their design specifications.</p> <p>C. Closed vent systems shall be monitored to determine compliance with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, and, by visual inspections, quarterly and at other times requested by the Health Officer.</p>	8.27
25.	<p><u>Closed Vent Systems and Control Devices</u></p> <p>Closed vent systems and control devices used to comply with 40 CFR 61, Subparts L & V shall be operated at all times when emissions may be vented to them.</p> <p>A. The permittee shall monitor any control device to ensure that operation and maintenance are in conformance with the applicable performance requirements of 61.242-11(b) through (d).</p> <ol style="list-style-type: none"> 1. Vapor recovery systems (for example, condensers and absorbers) shall be designed and operated to recover the organic vapors vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, whichever is less stringent. 2. Enclosed combustion devices shall be designed and operated to reduce the VHAP emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent, or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 °C. 3. Flares shall used to comply with this subpart shall comply with the requirements of §60.18. <p>B. Each closed vent system shall be monitored annually to detect leaks by the method specified in §61.245(b), unless it is operated under a vacuum, as follows:</p> <ol style="list-style-type: none"> 1. Closed vent systems constructed of hard piping are visually inspected for visible, audible, or olfactory indications of leaks. 2. Closed vent systems constructed of ductwork are monitored per §61.245(b). <p>C. A leak is detected if:</p> <ol style="list-style-type: none"> 1. An instrument reading of 500 ppm or greater is measured; or 2. Indications of leaks are observed during visual inspection. <p>D. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.</p> <p>E. The following types of valves are exempt from the inspection requirements above, and shall comply with different requirements as specified:</p> <ol style="list-style-type: none"> 1. Any parts of the closed vent system that are designated as unsafe-to-inspect because inspecting personnel would be exposed to an imminent or potential danger provided that the permittee has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times. 2. Any parts of the closed vent system that are designated as difficult-to-inspect because the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface provided that the permittee 	<p>61.242-11 61.135(a)</p> <p>61.242-11(f) 61.242-11(i)</p> <p>61.242-11(g)</p> <p>61.242-11(h)</p> <p>61.242-11(j)</p> <p>61.242-11(k)</p>

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	has a written plan that requires inspection of the equipment at least once every 5 years.	
26.	<p><u>Test Methods and Procedures for Equipment in Benzene Service Per §61.245</u></p> <p>A. Monitoring, as required in §61.242 and §61.135, shall comply with the following requirements:</p> <ol style="list-style-type: none"> 1. Monitoring shall comply with Method 21 of 40 CFR 60, Appendix A. 2. The detection instrument shall meet the performance criteria of Method 21. 3. The instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21, using the following calibration gases: <ol style="list-style-type: none"> a. Zero air (less than 10 ppm of hydrocarbon in air); and b. A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane. 4. The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Method 21. <p>B. When equipment is tested for compliance with or monitored for no detectable emissions, the owner or operator shall include the background level in the compliance determination using the procedure in Item A above, as well as:</p> <ol style="list-style-type: none"> 1. The background level shall be determined, as set forth in Method 21. 2. The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Method 21. 3. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. <p>C. Each piece of equipment within a process unit that can conceivably contain equipment in benzene service is presumed to be in benzene service unless it is demonstrated that the percent benzene content of the process fluid that is contained in or contacts equipment can be reasonably expected never to exceed 10 percent by weight, unless a lower threshold is specified for the equipment. Determine the percent benzene content using procedures that conform to the methods described in ASTM Method D-2267 on samples that are representative of the process fluid in question. Engineering judgment may also be used to demonstrate benzene content in accordance with §61.245(d)(2).</p> <p>D. If a flare is used to comply with Subpart V, it must meet the requirements of 61.242-11(d), 60.18, and 61.245(e) as follows:</p> <ol style="list-style-type: none"> 1. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. 2. Flares shall be designed for and operated with no visible emissions as determined by Method 22 of 40 CFR 60, Appendix A, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. 3. The net heating value of the gas being combusted in a flare shall be calculated using the following equation: $H_T = K \left(\sum_{i=1}^n C_i H_i \right)$ <p>Where:</p> <p>H_T = Net heating value of the sample, BTU/scf; where the net enthalpy per mole of offgas is based on combustion at 77 °F and 14.7 psi, but the standard temperature for determining the volume corresponding to one mole is 68 °F.</p> <p>K = Conversion constant, 4.674×10^6 ((g-mole) (Btu)/(ppm-scf-kcal))</p> <p>C_i = Concentration of sample component "i" in ppm, as measured by Method 18 of 400 CFR 60, Appendix A and ASTM D2504-67, 77, or 88 (Reapproved 1993) (incorporated by reference as specified in §61.18).</p>	<p>61.245</p> <p>61.135(a)</p> <p>61.245(b)</p> <p>61.245(c)</p> <p>61.245(d)</p> <p>61.245(e)</p> <p>61.242-11(d)</p>

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	<p>H_i = Net heat of combustion of sample component "i" at 77 °F and 14.7 psi, kcal/g-mole. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in §61.18) if published values are not available or cannot be calculated.</p> <p>4. The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Method 2, 2A, 2C, or 2D, as appropriate, by the unobstructed (free) cross section area of the flare tip.</p> <p>5. The maximum permitted velocity, V_{max}, for air-assisted flares shall be determined by the following equation:</p> $V_{max} = K_1 + K_2 H_T$ <p>Where:</p> <p>V_{max} = Maximum permitted velocity, ft/sec</p> <p>H_T = Net heating value of the sample, BTU/SCF; where the net enthalpy per mole of offgas is based on combustion at 77 °F and 14.7 psi, but the standard temperature for determining the volume corresponding to one mole is 68 °F.</p> <p>K_1 = 28.56 ft/sec</p> <p>K_2 = 0.087 ft⁴/(Btu-sec)</p>	
27.	<p><u>Tagging of Leaking Equipment in Benzene Service</u></p> <p>When each leak is detected as specified in §§61.242-2, 61.242-3, 61.242-7, 61.242-8, and 61.135, the following requirements apply:</p> <p>A. A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.</p> <p>B. The identification on a valve may be removed after it has been monitored for 2 successive months as specified in §61.242-7(c) and no leak has been detected during those 2 months.</p> <p>C. The identification on equipment, except on a valve, may be removed after it has been repaired.</p>	61.246(b)
28.	<p><u>Recordkeeping for SIP</u></p> <p>The permittee shall maintain monitoring records (monitoring log) for all components subject to the SIP requirements of 8.26. The record shall contain at a minimum the following data:</p> <p>A. The type of component;</p> <p>B. The location of the component;</p> <p>C. The identification number of the component;</p> <p>D. The date on which a leaking component is discovered, initial repair attempted, and the component is repaired;</p> <p>E. The date and instrument reading of the recheck monitoring after a leaking component is repaired;</p> <p>F. A record of the calibration of the monitoring instrument; and</p> <p>G. The identification of components awaiting repair according to Section 8.26.8.</p> <p>Copies of the monitoring log shall be retained by the permittee for a minimum of 2 years after the date on which the record was made or the report prepared and shall immediately be made available to the Health Officer or his representative upon verbal or written request, at any reasonable time.</p>	8.26.10

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29.	<p><u>Recordkeeping for NESHAP</u> The permittee shall record the following information for sources subject to NESHAP:</p> <p>A. For control equipment installed to comply with §61.132 (process vessels, storage tanks, and tar-intercepting sumps), §61.133 (light oil sumps), and §61.134 (naphthalene processing, final coolers, and final-cooler cooling towers), detailed schematics, design specifications, and piping and instrumentation diagrams, and the dates and descriptions of any changes in the design specifications, which shall be kept in a readily accessible location.</p> <p>B. The following information pertaining to design requirements shall be kept in a readily accessible location:</p> <ol style="list-style-type: none"> 1. Detailed schematics, design specifications, and piping and instrumentation diagrams. 2. The dates and descriptions of any changes in the design specifications. 3. A description of the parameter or parameters monitored, as required in §61.242-11(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring. 4. Periods when the closed-vent systems and control devices required in §§61.242-2, 61.242-3, 61.242-4, 61.242-5 and 61.242-9 are not operated as designed, including periods when a flare pilot light does not have a flame. 5. Dates of startups and shutdowns of the closed-vent systems and control devices required in §§61.242-2, 61.242-3, 61.242-4, 61.242-5 and 61.242-9. <p>C. The following information pertaining to all equipment to which a standard applies shall be recorded in a log that is kept in a readily accessible location:</p> <ol style="list-style-type: none"> 1. A list of identification numbers for equipment (except welded fittings) subject to the requirements of Subpart V. 2. A signed list of identification numbers for equipment that the permittee elects to designate for no detectable emissions as indicated by an instrument reading of less than 500 ppm above background. 3. A list of equipment identification numbers for pressure relief devices required to comply with §61.242-4(a). 4. For each compliance test required in §§61.242-2(e), 61.242-4, 61.242-7(f), and 61.135(g) for pumps, valves and exhausters designated for no detectable emissions and pressure relief devices in gas/vapor service: the date, the background level measured during each compliance test, and the maximum instrument reading measured at the equipment during each compliance test. 5. A list of identification numbers for equipment in vacuum service. <p>D. The following inspection records pertaining to sources subject to §61.132 (process vessels, storage tanks, and tar-intercepting sumps) and sources subject to §61.133 (light oil sumps), maintained for 2 years.</p> <ol style="list-style-type: none"> 1. The date of the inspection and the name of the inspector. 2. A brief description of each visible defect in the source or control equipment and the method and date of repair of the defect. 3. The presence of a leak, as measured using the method described in §61.245(c). The record shall include the date of attempted and actual repair and method of repair of the leak. 4. A brief description of any system abnormalities found during the annual maintenance inspection, the repairs made, the date of attempted repair, and the date of actual repair. <p>E. For foundry coke by-product recovery plants, the annual coke production of both furnace and foundry coke shall be recorded and maintained for 2 years following each determination.</p>	<p>61.138(a)</p> <p>61.246(d) 61.135(a) 61.138(c)</p> <p>61.246(e) 61.135(a) 61.138(c)</p> <p>61.138(b)</p> <p>61.138(d)</p>

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	<p>F. The following information pertaining to all valves designated as unsafe-to-monitor or difficult-to-monitor subject to the requirements of §61.242-7(g) and (h) and to all pumps designated as unsafe-to-monitor subject to the requirements of § 61.242-2(g) shall be recorded in a log that is kept in a readily accessible location:</p> <ol style="list-style-type: none"> 1. A list of identification numbers for valves and pumps that are designated as unsafe to monitor, an explanation for each valve or pump stating why the valve or pump is unsafe to monitor, and the plan for monitoring each valve or pump. 2. A list of identification numbers for valves that are designated as difficult to monitor, an explanation for each valve stating why the valve is difficult to monitor, and the planned schedule for monitoring each valve. <p>G. The following information identifying all parts of the closed vent system that are designated as unsafe-to-inspect subject to the requirements of §61.242-11(j) and all parts of the closed vent system that are designated difficult-to-inspect subject to the requirements of §61.242-11(k):</p> <ol style="list-style-type: none"> 1. An explanation of why the equipment is unsafe-to-inspect or difficult-to-inspect, and the plan for inspecting the equipment. 2. For each inspection during which a leak is detected, a record of the information specified in §61.246(c). 3. For each inspection conducted in accordance with §61.245(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. 4. For each visual inspection conducted in accordance with §61.242-11(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. <p>H. The following information shall be recorded in a log that is kept in a readily accessible location:</p> <ol style="list-style-type: none"> 1. Design criterion for leak sensors if installed on a pump or exhauster as required in §§ 61.242-2(d)(5), and 61.135(e)(4) and an explanation of the design criterion; and 2. Any changes to this criterion and the reasons for the changes. <p>I. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in the applicability section of this subpart and other specific subparts:</p> <ol style="list-style-type: none"> 1. An analysis demonstrating the design capacity of the process unit, and 2. An analysis demonstrating that equipment is not in VHAP service. <p>J. Information and data used to demonstrate that a piece of equipment is not in VHAP service shall be recorded in a log that is kept in a readily accessible location.</p> <p>K. The permittee shall record the following information for each leak detected as specified in §§61.242-2, 61.242-3, 61.242-7, 61.242-8, and 61.135 for each exhauster, pump, valve, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector in benzene service in a log that shall be kept for 2 years in a readily accessible location:</p> <ol style="list-style-type: none"> 1. The instrument and operator identification numbers and the equipment identification number. 2. The date the leak was detected and the dates of each attempt to repair the leak. 3. Repair methods applied in each attempt to repair the leak. 4. "Above 10,000" if the maximum instrument reading measured by the methods specified in § 61.245(a) after each repair attempt is equal to or greater than 10,000 ppm. 5. "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak. 6. The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown. 	<p>61.246(f) 61.135(a) 61.138(c)</p> <p>61.242-11(l)</p> <p>61.246(h) 61.135(a) 61.138(c)</p> <p>61.246(i) 61.135(a) 61.138(c)</p> <p>61.246(j) 61.135(a) 61.138(c) 61.246(c) 61.135(a) 61.138(c)</p>

No.	Federally Enforceable Conditions for the By-Product Recovery Plant	Regulations
	7. The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days. 8. Dates of process unit shutdowns that occur while the equipment is unrepaired. 9. The date of successful repair of the leak.	
	40 CFR 61, Subpart FF Requirements for Benzene Waste Operations	
30.	Title V Monitoring The permittee shall measure the flow rate, using the procedures of §61.355(b), and the benzene concentration of each waste stream at least once per month by collecting and analyzing one or more samples using the procedures specified in §61.355(c)(3).	18.5.3 18.7.1
31.	Sampling and Testing Procedures per §61.355(c)(3) Measurements of the benzene concentration in each waste stream shall be performed in accordance with the following procedures: A. Collect a minimum of three representative samples from each waste stream. 1. Where feasible, samples shall be taken from an enclosed pipe prior to the waste being exposed to the atmosphere according to the procedures of §61.355(c)(3)(ii). 2. When sampling from an enclosed pipe is not feasible, a minimum of three representative samples shall be collected in a manner to minimize exposure of the sample to the atmosphere and loss of benzene prior to sampling. B. Each waste sample shall be analyzed using one of the following test methods listed at §61.355(c)(3)(iv) for determining the benzene concentration in a waste stream: 1. Method 8020, Aromatic Volatile Organics, in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846; 2. Method 8021, Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846; 3. Method 8240, Gas Chromatography/Mass Spectrometry for Volatile Organics in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846; 4. Method 8260, Gas Chromatography/Mass Spectrometry for Volatile Organics: Capillary Column Technique in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication No. SW-846; 5. Method 602, Purgeable Aromatics, as described in 40 CFR part 136, appendix A, Test Procedures for Analysis of Organic Pollutants, for wastewaters for which this is an approved EPA methods; or 6. Method 624, Purgeables, as described in 40 CFR part 136, appendix A, Test Procedures for Analysis of Organic Pollutants, for wastewaters for which this is an approved EPA method. C. The flow-weighted annual average benzene concentration shall be calculated by averaging the results of the sample analyses as follows: $\bar{C} = \frac{1}{Q_1} \times \sum_{i=1}^n (Q_i)(C_i)$ Where: \bar{C} = Flow-weighted annual average benzene concentration for waste stream, ppmw Q_t = Total annual waste quantity for waste stream, kg/yr (lb/yr) n = Number of waste samples (at least 3) Q_i = Annual waste quantity for waste stream represented by C_i , kg/yr (lb/yr) C_i = Measured concentration of benzene in waste sample i , ppmw	61.355(c)(3)

No.	Federally Enforceable Conditions for the By-Product Recovery Plant	Regulations
32.	<p data-bbox="277 268 893 300"><u>Calculation of Total Annual Benzene Quantity ("TAB")</u></p> <p data-bbox="277 300 1214 422">The total annual benzene quantity from facility waste is the sum of the annual benzene quantity for each waste stream at the facility that has a flow-weighted annual average water content greater than 10 percent or that is mixed with water, or other wastes, at any time and the mixture has an annual average water content greater than 10 percent.</p> <p data-bbox="277 422 1214 485">A. For each waste stream, the following provisions apply to the materials to be included in the TAB calculation:</p> <ol data-bbox="326 485 1214 1360" style="list-style-type: none"> <li data-bbox="326 485 1214 569">1. The benzene quantity in a waste stream is to be counted only once without multiple counting if other waste streams are mixed with or generated from the original waste stream. <li data-bbox="326 569 1214 695">2. Benzene in wastes generated by remediation activities conducted at the facility, such as the excavation of contaminated soil, pumping and treatment of groundwater, and the recovery of product from soil or groundwater, are not included in the calculation of total annual benzene quantity for that facility. <li data-bbox="326 695 1214 940">3. The determination for wastes at coke by-product plants subject to and complying with the control requirements of §61.132, 61.133, 61.134, or 61.139 of 40 CFR 61, Subpart L shall be made at the location that the waste stream exits the process unit component or waste management unit controlled by that subpart or at the exit of the ammonia still, provided that the following conditions are met: <ol data-bbox="370 848 1214 968" style="list-style-type: none"> <li data-bbox="370 848 1214 940">a. The transfer of wastes between units complying with the control requirements of 40 CFR 61, Subpart L, process units, and the ammonia still is made through hard piping or other enclosed system. <li data-bbox="370 940 1214 968">b. The ammonia still meets the definition of a sour water stripper in §61.341. <li data-bbox="326 968 1214 1087">4. Total annual benzene quantity from facility waste is calculated by adding together the annual benzene quantity for each waste stream generated during the year and the annual benzene quantity for each process unit turnaround waste annualized according to §61.355(b)(4). <li data-bbox="326 1087 1214 1360">5. The benzene quantity in a waste stream that is generated less than one time per year, except as provided for process unit turnaround waste in §61.355(b)(4), shall be included in the determination of total annual benzene quantity from facility waste for the year in which the waste is generated unless the waste stream is otherwise excluded from the determination of total annual benzene quantity from facility waste in accordance with §61.355(a) through §61.355(c). The benzene quantity in this waste stream shall not be annualized or averaged over the time interval between the activities that resulted in generation of the waste, for purposes of determining the total annual benzene quantity from facility waste. <p data-bbox="277 1360 1214 1423">B. Determine the annual waste quantity for each waste stream using one of the following methods:</p> <ol data-bbox="326 1423 1214 1543" style="list-style-type: none"> <li data-bbox="326 1423 1214 1486">1. Select the highest annual quantity of waste managed from historical records representing the most recent 5 years of operation; <li data-bbox="326 1486 1214 1514">2. Use the maximum design capacity of the waste management unit; or <li data-bbox="326 1514 1214 1543">3. Use measurements that are representative of maximum waste generation rates. <p data-bbox="277 1543 1214 1759">C. Determine the flow-weighted annual average benzene concentration for each waste stream using the procedures specified in 61.355(c). The determination of the benzene concentration shall not be reduced by volatilization of the benzene by exposure to air, or by any mixing or diluting the waste stream with other wastes or materials. The determination may rely upon the permittee's knowledge of the waste as allowed by 61.355(c)(2), or the benzene concentration in the waste stream may be measured in accordance with 61.355(c)(3).</p> <p data-bbox="277 1759 1214 1883">D. The total annual benzene quantity from facility waste is calculated by adding together the annual benzene quantity for each waste stream generated during the year and the annual benzene quantity for each process unit turnaround waste annualized according to 61.355(b)(4).</p>	<p data-bbox="1247 268 1356 296">61.342(a)</p> <p data-bbox="1247 296 1356 323">61.355(a)</p> <p data-bbox="1247 323 1356 350">61.355(b)</p> <p data-bbox="1247 350 1356 378">61.355(c)</p>

No.	Federally Enforceable Conditions for the By-Product Recovery Plant	Regulations
33.	<p><u>Requirements If the TAB Less Than 10 Megagram/year but Equal to Or Greater Than 1 Megagram/year</u></p> <p>If the total annual benzene quantity from facility waste is less than 10 Mg/yr (11 ton/yr) but is equal to or greater than 1 Mg/yr (1.1 ton/yr), then the permittee shall:</p> <ol style="list-style-type: none"> A. Comply with the recordkeeping requirements of §61.356 and reporting requirements of §61.357; and B. Repeat the determination of total annual benzene quantity from facility waste at least once per year and whenever there is a change in the process generating the waste that could cause the total annual benzene quantity from facility waste to increase to 10 Mg/yr (11 ton/yr) or more. C. Submit a report that updates the information listed below annually and whenever there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to 10 Mg/yr (11 ton/yr) or more. If the information in the annual report required below is not changed in the following year, the owner or operator may submit a statement to that effect. <ol style="list-style-type: none"> 1. Total annual benzene quantity from facility waste determined in accordance with §61.355(a). 2. A table identifying each waste stream and whether or not the waste stream will be controlled for benzene emissions in accordance with the requirements of Subpart FF. 3. For each waste stream identified as not being controlled for benzene emissions in accordance with the requirements of Subpart FF the following information shall be added to the table: <ol style="list-style-type: none"> a. Whether or not the water content of the waste stream is greater than 10 percent; b. Whether or not the waste stream is a process wastewater stream, product tank drawdown, or landfill leachate; c. Annual waste quantity for the waste stream; d. Range of benzene concentrations for the waste stream; e. Annual average flow-weighted benzene concentration for the waste stream; and f. Annual benzene quantity for the waste stream. 	<p>61.355(a)(4) 61.357(c) 61.357(a)</p>
34.	<p><u>Requirements If the TAB Less Than 1 Megagram/year</u></p> <p>If the total annual benzene quantity from facility waste is less than 1 Mg/yr (1.1 ton/yr), then the permittee shall:</p> <ol style="list-style-type: none"> A. Repeat the determination of total annual benzene quantity from facility waste whenever there is a change in the process generating the waste that could cause the total annual benzene quantity from facility waste to increase to 1 Mg/yr (1.1 ton/yr) or more; and B. Submit a report that updates the information listed below whenever there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to 1 Mg/yr (1.1 ton/yr) or more. <ol style="list-style-type: none"> 1. Total annual benzene quantity from facility waste determined in accordance with §61.355(a). 2. A table identifying each waste stream and whether or not the waste stream will be controlled for benzene emissions in accordance with the requirements of Subpart FF. 3. For each waste stream identified as not being controlled for benzene emissions in accordance with the requirements of Subpart FF the following information shall be added to the table: <ol style="list-style-type: none"> a. Whether or not the water content of the waste stream is greater than 10 percent; b. Whether or not the waste stream is a process wastewater stream, product tank drawdown, or landfill leachate; 	<p>61.355(a)(5) 61.357(b) 61.357(a)</p>

No.	Federally Enforceable Conditions for the By-Product Recovery Plant	Regulations												
	c. Annual waste quantity for the waste stream; d. Range of benzene concentrations for the waste stream; e. Annual average flow-weighted benzene concentration for the waste stream; and f. Annual benzene quantity for the waste stream.													
35.	<p><u>Recordkeeping</u></p> <p>The permittee shall maintain the following records in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified:</p> <p>A. Records that identify each waste stream at the facility subject to Subpart FF, including all test results, measurements, calculations, and other documentation used to determine the following information for the waste stream: waste stream identification, water content, whether or not the waste stream is a process wastewater stream, annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity.</p> <p>B. For each facility where the annual waste quantity for process unit turnaround waste is determined in accordance with §61.355(b)(5), the records shall include all test results, measurements, calculations, and other documentation used to determine the following information: identification of each process unit at the facility that undergoes turnarounds, the date of the most recent turnaround for each process unit, identification of each process unit turnaround waste, the water content of each process unit turnaround waste, the annual waste quantity determined in accordance with §61.355(b)(5), the range of benzene concentrations in the waste, the annual average flow-weighted benzene concentration of the waste, and the annual benzene quantity calculated in accordance with §61.355(a)(1)(iii).</p>	61.356(a) 61.356(b)												
	SIP & 40 CFR 60, Subpart PP Requirements for Ammonium Sulfate Manufacturing													
36.	<p><u>Emissions Limitations</u></p> <p>The permittee shall not cause or allow emissions from the ammonium sulfate dryer in excess of the emission limits below:</p> <table border="1" data-bbox="318 1209 1167 1644"> <thead> <tr> <th>Pollutant</th><th>Emission Limit</th><th>Authority</th></tr> </thead> <tbody> <tr> <td>Particulate Matter</td><td> $E = 3.59 p^{0.62}$ <p>where: E = emission rate in pounds/hour p = process weight rate in tons/hour Not to exceed a maximum of 17.19 pounds per hour based on maximum process weight</p> </td><td>6.4.1</td></tr> <tr> <td>Particulate Matter</td><td>0.30 pound of particulate per ton of ammonium sulfate produced</td><td>60.422</td></tr> <tr> <td>Opacity</td><td>15% opacity</td><td>60.422</td></tr> </tbody> </table> <p>The permittee is also subject to and shall comply with the opacity limitation of Section 6.1.1 of the Rules and Regulations.</p>	Pollutant	Emission Limit	Authority	Particulate Matter	$E = 3.59 p^{0.62}$ <p>where: E = emission rate in pounds/hour p = process weight rate in tons/hour Not to exceed a maximum of 17.19 pounds per hour based on maximum process weight</p>	6.4.1	Particulate Matter	0.30 pound of particulate per ton of ammonium sulfate produced	60.422	Opacity	15% opacity	60.422	6.4.1 60.422 6.1.1
Pollutant	Emission Limit	Authority												
Particulate Matter	$E = 3.59 p^{0.62}$ <p>where: E = emission rate in pounds/hour p = process weight rate in tons/hour Not to exceed a maximum of 17.19 pounds per hour based on maximum process weight</p>	6.4.1												
Particulate Matter	0.30 pound of particulate per ton of ammonium sulfate produced	60.422												
Opacity	15% opacity	60.422												
37.	<p><u>Title V Monitoring</u></p> <p>The permittee shall perform a visual observation of the baghouse exhaust using Method 9 of 40 CFR 60, Appendix A and make a record of the observation at least once per month. If any visible emissions are observed, the permittee shall correct the problem causing the visible emissions and make a record of the event and corrective actions. The permittee shall complete repairs within one calendar month of the observation.</p>	18.5.3 18.2.4												

No.	Federally Enforceable Conditions for the By-Product Recovery Plant	Regulations
38.	<p><u>NSPS Monitoring of Operations</u> The permittee shall monitor and record the following information:</p> <p>A. The mass flow of ammonium sulfate feed material shall be determined using one of the following:</p> <ol style="list-style-type: none"> 1. A flow monitoring device with an accuracy of 5% over its range; or 2. Weigh scales with an accuracy of 5% over its range. <p>B. The total pressure drop across the baghouse shall be continuously monitored by a device with an accuracy of 5% over its operating range and permanently recorded.</p>	60.423
39.	<p><u>NSPS Performance Testing</u> Performance testing may be required at any time, using the following methods from 40 CFR 60, Appendix A and the requirements of 40 CFR §60.424(b):</p> <p>A. Method 5—Determination of particulate matter emissions from stationary sources;</p> <p>B. Production rate shall be directly measured by product weigh scales or computed as a material balance; and</p> <p>C. Method 9—Visual determination of the opacity of emissions from stationary sources.</p>	60.424
	Periodic Reporting for the By-Products Plant	
40.	<p><u>Quarterly Reporting</u> The following information shall be reported for the LDAR requirements from the SIP:</p> <p>A. The total number of components inspected;</p> <p>B. The total number of components found leaking; and</p> <p>C. The total number of components not repaired within 15 days per the delay of repair provisions of Section 8.26.8.</p>	8.26.11
41.	<p><u>Semi-Annual Reporting</u> The following information shall be reported for each semiannual period:</p> <p>A. For 40 CFR 61, Subpart L and Subpart V:</p> <ol style="list-style-type: none"> 1. For process vessels, affected storage tanks, tar-intercepting sumps, and light-oil sumps: <ol style="list-style-type: none"> a. A brief description of any visible defect in the source or ductwork; b. The number of leaks detected and repaired; and c. A brief description of any system abnormalities found during each annual maintenance inspection that occurred in the reporting period and the repairs made. 2. For equipment in benzene service, for each month during the reporting period, include the following information: <ol style="list-style-type: none"> a. Number of valves for which leaks were detected as described in §61.242–7(b). b. Number of valves for which leaks were not repaired as required in §61.242–7(d). c. Number of pumps for which leaks were detected as described in §61.242–2 (b) and (d)(6). d. Number of pumps for which leaks were not repaired as required in §61.242–2 (c) and (d)(6). e. The facts that explain any delay of repairs and, where appropriate, why a process unit shutdown was technically infeasible. f. Dates of process unit shutdowns which occurred within the semiannual reporting period. 3. Dates of process shutdowns which occurred within the semiannual reporting period. 	<p>61.138(f)(1)</p> <p>61.138(f)(2) 61.247(b)</p> <p>61.247(b)(3)</p>

No.	Federally Enforceable Conditions for the By-Product Recovery Plant	Regulations
	<p>4. Revisions to design specifications of control equipment installed to control process vessels, storage tanks, and tar-intercepting sumps, light oil sumps, naphthalene processing, final coolers, and final-cooler cooling towers, if changes have occurred since the initial report or subsequent revisions to the initial report, including the type of equipment, the percent by weight of benzene in the fluid at the equipment, process fluid state (gas/vapor or liquid), and the method of compliance with the standard. Revisions which are reported according to this provision for not require an application for approval if the new source complies with Subparts L & V.</p> <p>5. For exhausters, for each quarter of the semiannual reporting period:</p> <ol style="list-style-type: none"> The number of exhausters for which leaks were detected; The number of exhausters for which leaks were repaired as required; The results of performance tests to determine compliance with a designation of no detectable emissions conducted within the semiannual reporting period. <p>6. A statement signed by the responsible official stating whether all provisions of 40 CFR 61, Subpart L, have been fulfilled during the semiannual reporting period.</p> <p>7. For foundry coke by-product recovery plants, the annual coke production of both furnace and foundry coke, if determined during the reporting period.</p> <p>B. For 40 CFR 61, Subpart FF, each semiannual report due on January 30 shall include the TAB calculation using the monitoring data from the previous calendar year.</p>	<p>61.247(b)(4) 61.138(f)(6) 61.138(e)(4) 61.138(i) 61.247(e)</p> <p>61.138(f)(3)</p> <p>61.138(f)(4)</p> <p>61.138(f)(5)</p> <p>1.9.2 1.5.15 18.5.3(c)(1)</p>
42.	<p><u>Annual Emissions Reporting (JCDH Requirement)</u></p> <p>The permittee shall maintain the records required by Conditions 28, 29 and 35 above and include the following information for the previous calendar year at the by-products recovery plant in the annual emissions report as the basis for emissions calculations:</p> <ol style="list-style-type: none"> For each equipment type subject to 8.26 and/or 40 CFR 61, Subparts L and V, list the quantity of each equipment type and number of leaks identified; For each storage tank, the storage capacity, the chemical or trade name of the VOC stored, the average true vapor pressure in psia of the stored VOC, the average storage temperature in °F; and the annual throughput in gallons; For Subpart FF, at the point of waste generation, the annual waste quantity (in gallons and tons), summary of the results of monthly sampling for benzene concentration, the annual average flow-weighted benzene concentrations, and the annual benzene quantity; The emissions from the biological treatment unit; For each cooling tower, the hours of operation, flow rate (gallons per minute), total dissolved solids (TDS, mg/liter) and total suspended solids (TSS, mg/liter); For liquid loading operations, the total gallons of each (by-)product loaded, the type of loading (e.g. splash or vapor balance), and the estimated capture efficiency of vapors generated by loading; Miscellaneous consumption of chemicals and materials which emit VOC/HAP; The quantity of any VOC/HAP materials evaporated to the atmosphere due to spillage, leak or other mishap; The actual hours of operation of the ammonium sulfate manufacturing plant; and The quantity of ammonium sulfate produced (tons). 	<p>1.5.15 1.9.2 18.7.1 18.5.3</p>

SUMMARY TABLES OF REQUIREMENTS FOR BOILERS

Pollutant	Emissions Limitation	Citation
Particulate Matter (SIP)	0.12 lb/MMBtu, based on total heat input from all boilers exhausting through a common stack, not to exceed the following hourly rates based on maximum heat input: Boiler 7 24.48 lb/hr Boiler 8 24.48 lb/hr Boiler 9 20.88 lb/hr	6.3.2 & Table 6-1
Opacity (SIP)	20 % opacity (6-minute average), except for one 6-minute period per hour of not more than 40 % opacity (Boilers 7 & 8)	6.1.1
Opacity (Subpart Db)	20 % opacity (6-minute average), except for one 6-minute period per hour of not more than 27 % opacity (Boiler 9)	40 CFR §60.43b(f)
Sulfur Dioxide (SIP)	1.8 lb/MMBtu heat input, not to exceed the following hourly rates based on maximum heat input: Boiler 7 367.20 lb/hr Boiler 8 367.20 lb/hr	7.1.1
Sulfur Dioxide (Subpart Db)	1.2 lb/MMBtu heat input, not to exceed the following hourly rate based on new source review: Boiler 9 193.30 lb/hr	40 CFR §60.42b(d)(4) & New Source Review
Nitrogen Oxides (Subpart Db)	For natural gas alone, 0.20 lb/MMBtu For coke oven gas alone, 0.50 lb/MMBtu For mixture of both, calculate according to 40 CFR §60.44b(b)	40 CFR §60.44b(a)&(b)

Pollutant	Monitoring Requirements	Citation
Particulate Matter (SIP)	Daily Records to Demonstrate that Combustion Is Limited to Coke Oven Gas and/or Natural Gas	18.5.3
Opacity (SIP)	Daily Observations using EPA Method 22	18.5.3
Opacity (Subpart Db)	Daily Observations using EPA Method 22	40 CFR §60.48b(a) & §60.48b(j)(7)
Sulfur Dioxide (SIP)	Daily Records to Demonstrate that Combustion Is Limited to Coke Oven Gas and/or Natural Gas	18.5.3
Sulfur Dioxide (Subpart Db)	Monthly sampling of coke oven gas in an as-fired condition and analysis for sulfur and heat content according to the Tutwiler Method (ASTM UOP9-85 for Hydrogen Sulfide in Gases) and a calorimeter	40 CFR §60.45b(c)(5) & §60.49b(r)
Sulfur Dioxide (New Source Review)	Performance Testing	18.5.3
Nitrogen Oxides (Subpart Db)	CEMS for measuring NO _x and O ₂ or CO ₂	40 CFR §60.46b(e)(4)

FEDERALLY ENFORCEABLE CONDITIONS FOR BOILERS & EXCESS COG FLARE

Emissions Unit No.	Emissions Unit Description	Subject to:
001	Boiler 9 – Nebraska NSX-G-86-SH, 174 MMBtu/hr	SIP & 40 CFR 60, Subpart Db
019	Boiler 8 – Babcock & Wilcox, 204 MMBtu/hr	SIP only
020	Boiler 7 – Babcock & Wilcox, 204 MMBtu/hr	SIP only
031	Excess Coke Oven Gas Flare	SIP only

No.	Federally Enforceable Conditions for Boilers & Excess COG Flare	Regulations												
1.	<p><u>NSR Restrictions</u></p> <p>A. The permittee shall not allow the maximum heat input of any boiler to exceed the capacity stated in the unit description above, demonstrated by daily records of fuel combusted (measured within $\pm 1\%$ accuracy) and time operated for each combustion unit for each calendar day. Combustion of natural gas shall be included in the total heat input compliance determination using an equivalency factor of 1.86 MMCF COG for every 1 MMCF natural gas combusted.</p> <p>B. The permittee shall not allow the total COG input of all boilers and the excess COG flare to exceed 5,957 MMCF/yr of COG, demonstrated by the daily records required at Item A.</p> <p>C. The permittee shall combust only coke oven gas and/or natural gas in any boiler in this emission unit, demonstrated by the daily records required at Item A.</p> <p>D. The permittee shall combust only coke oven gas in the excess COG flare, demonstrated by daily records of fuel combusted (measured within $\pm 1\%$ accuracy).</p> <p>E. Boiler 9 shall not emit more than 193.30 lb/hr of SO₂, demonstrated by performance testing.</p>	New Source Review												
2.	<p><u>Applicable NSPS & NESHAP</u></p> <p>Boiler 9 is subject to 40 CFR 60, Subpart Db, however, construction of Boilers 7 & 8 commenced prior to the NSPS applicability date. Boiler 9 is also subject to the General Provisions of 40 CFR 60, Subpart A. The boilers are not subject to 40 CFR 63, Subpart DDDDD because they fall under the exemption of §63.7491(i).</p>	18.5.3 60.40b(a) 60.1 63.7491												
3.	<p><u>Emission Limitations for Boilers from the State Implementation Plan (SIP)</u></p> <p>The permittee shall not cause or allow emissions from this emission unit in excess of the emission limits below:</p> <table border="1"> <thead> <tr> <th>Pollutant</th><th>Limit</th><th>Authority</th></tr> </thead> <tbody> <tr> <td>Particulate Matter (PM)</td><td>0.12 lb/MMBtu, based on total heat input from all boilers exhausting through a common stack, not to exceed the following hourly rates based on the maximum heat input of each boiler, for a total potential rate of 69.84 lb/hr: Boiler 7 24.48 lb/hr Boiler 8 24.48 lb/hr Boiler 9 20.88 lb/hr</td><td>6.3.2 & Table 6-1</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> <tr> <td>Sulfur Dioxide (SO₂)</td><td>1.8 lb/MMBtu heat input, not to exceed the following hourly rates based on maximum heat input: Boiler 7 367.20 lb/hr Boiler 8 367.20 lb/hr</td><td>7.1.1</td></tr> </tbody> </table>	Pollutant	Limit	Authority	Particulate Matter (PM)	0.12 lb/MMBtu, based on total heat input from all boilers exhausting through a common stack, not to exceed the following hourly rates based on the maximum heat input of each boiler, for a total potential rate of 69.84 lb/hr: Boiler 7 24.48 lb/hr Boiler 8 24.48 lb/hr Boiler 9 20.88 lb/hr	6.3.2 & Table 6-1	Opacity	20 % opacity (6-minute average), except for one 6-minute period per hour of not more than 40 % opacity	6.1.1	Sulfur Dioxide (SO ₂)	1.8 lb/MMBtu heat input, not to exceed the following hourly rates based on maximum heat input: Boiler 7 367.20 lb/hr Boiler 8 367.20 lb/hr	7.1.1	6.3 7.1
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No.	Federally Enforceable Conditions for Boilers & Excess COG Flare	Regulations												
4.	<p><u>Emission Limitations for Boilers Subject to 40 CFR 60, Subpart Db</u> The permittee shall not cause or allow emissions from any boiler subject to 40 CFR 60, Subpart Db in excess of the emission limits below:</p> <table border="1" data-bbox="282 390 1230 1167"> <thead> <tr> <th>Pollutant</th><th>Limit</th><th>Authority</th></tr> </thead> <tbody> <tr> <td>Opacity</td><td>20 % opacity (6-minute average), except for one 6-minute period per hour of not more than 27 % opacity</td><td>60.43b(f)</td></tr> <tr> <td>Sulfur Dioxide (SO₂)</td><td>1.2 lb/MMBtu heat input, not to exceed the following hourly rate established per New Source Review: Boiler 9 193.30 lb/hr</td><td>60.42b(d)(4) & New Source Review</td></tr> <tr> <td>Nitrogen Oxides (NO_x)</td><td> <p>Natural gas only: 0.20 lb/MMBtu</p> <p>Coke oven gas only: 0.50 lb/MMBtu</p> <p>For a mixture of natural gas and coke oven gas:</p> $E_n = \frac{0.20H_{go} + 0.50H_c}{H_{go} + H_c}$ <p>Where: E_n = NO_x emission limit lb/MMBtu; H_{go} = Heat input from combustion of natural gas, MMBtu; H_c = Heat input from combustion of coke oven gas, MMBtu.</p> <p>As a practical matter, there is no need to calculate the emission limit for a mixture unless the lowest emission limit is exceeded.</p> </td><td>60.44b(a) 60.44b(b)</td></tr> </tbody> </table> <p>The permittee is also subject to and shall comply with 6.1.1 of the Rules and Regulations.</p>	Pollutant	Limit	Authority	Opacity	20 % opacity (6-minute average), except for one 6-minute period per hour of not more than 27 % opacity	60.43b(f)	Sulfur Dioxide (SO ₂)	1.2 lb/MMBtu heat input, not to exceed the following hourly rate established per New Source Review: Boiler 9 193.30 lb/hr	60.42b(d)(4) & New Source Review	Nitrogen Oxides (NO _x)	<p>Natural gas only: 0.20 lb/MMBtu</p> <p>Coke oven gas only: 0.50 lb/MMBtu</p> <p>For a mixture of natural gas and coke oven gas:</p> $E_n = \frac{0.20H_{go} + 0.50H_c}{H_{go} + H_c}$ <p>Where: E_n = NO_x emission limit lb/MMBtu; H_{go} = Heat input from combustion of natural gas, MMBtu; H_c = Heat input from combustion of coke oven gas, MMBtu.</p> <p>As a practical matter, there is no need to calculate the emission limit for a mixture unless the lowest emission limit is exceeded.</p>	60.44b(a) 60.44b(b)	18.2.4 60.40b(a) 60.43b(a)(4)
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Opacity	20 % opacity (6-minute average), except for one 6-minute period per hour of not more than 27 % opacity	60.43b(f)												
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5.	<p><u>Equipment Requirements and Emission Limitations for Excess COG Flare</u></p> <p>A. The permittee shall operate the flare at all times that COG may be vented to it and shall maintain a pilot flame at all times. Maintain the excess COG flare in conformance with its design specifications, including the requirement to remove at least 95% of the VOC from COG before it is discharged to the atmosphere.</p> <p>B. The flare must meet the equipment requirements of 40 CFR 60.18 to comply with 40 CFR 61, Subparts L & V. The flare shall be monitored for the presence of a flame using a thermocouple or equivalent device.</p> <p>C. The flares shall be designed for and operated with no visible emissions as determined by Method 22 of 40 CFR 60, Appendix A, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.</p> <p>D. The permittee shall not cause or allow visible emissions from the excess COG flare greater than 20 % opacity (6-minute average), except for one 6-minute period per hour of not more than 40 % opacity.</p>	8.27 61.135(a) 61.242-11(d) 61.245(e) 60.18 6.1.1												
6.	<p><u>Compliance & Monitoring for Particulate Matter (boilers)</u> The permittee shall maintain records to demonstrate combustion of only coke oven gas and natural gas in the boilers. Performance testing may be required at any time, and shall consist of three 1-hour runs using the following test method from 40 CFR 60, Appendix A:</p> <p>A. Method 1—Sample and velocity traverses for stationary sources;</p> <p>B. Method 2—Determination of stack gas velocity and volumetric flow rate (Type S pitot tube);</p> <p>C. Method 3—Gas analysis for the determination of dry molecular weight;</p>	1.9.1 18.5.3 18.7.1												

No.	Federally Enforceable Conditions for Boilers & Excess COG Flare	Regulations
	<p>D. Method 4—Determination of moisture content in stack gases;</p> <p>E. Method 5—Determination of particulate matter emissions from stationary sources; and</p> <p>F. Method 9—Visual determination of the opacity of emissions from stationary sources.</p>	
7.	<p><u>Compliance & Monitoring for Visible Emissions (all units)</u></p> <p>The 3 boilers exhaust through a common stack, therefore as a practical matter the opacity standard of Subpart Db applies at all times that Boiler 9 operates, except during periods of startup, shutdown or malfunction. Compliance with opacity limitations is determined by Method 9 of 40 CFR 60, Appendix A. The permittee shall perform monitoring of the boiler stack and maintain records as follows:</p> <p>A. Daily visible emissions observation of the boiler common stack as follows:</p> <ol style="list-style-type: none"> 1. The permittee shall make visible emission observations in accordance with EPA Method 22 for a minimum of 20 minutes each day; 2. If any visible emissions are detected during the Method 22 observation period, the permittee shall make 20 minutes of additional observations using EPA Method 9; 3. If any individual 15-second Method 9 reading exceeds 20% opacity, the permittee shall continue to make readings until the opacity either drops below 20% for 8 consecutive 15-second readings or a violation of the opacity limit is confirmed; and 4. When violation(s) of the applicable opacity standard are identified, the permittee shall take immediate steps to identify the cause of the violation and bring the boiler back into compliance. <p>B. Compliance with Subpart Db is demonstrated using a COMS or visible emissions observations according to 60.48b(a) or using a written site-specific monitoring plan according to 60.48b(j)(7). Item A above has been approved per 60.48b(j)(7).</p> <p>C. Maintain records of observations of opacity, including the following information for boilers affected by 40 CFR 60, Subpart Db:</p> <ol style="list-style-type: none"> 1. Dates and time intervals of all opacity observation periods; 2. Name and affiliation for each visible emission observer, including certification for each visible emission observer if Method 9 is used; 3. Copies of all visible emission observer opacity field data sheet; and 4. Documentation of any adjustments made and the time the adjustments were completed to the affected facility operation by the owner or operator to demonstrate compliance with the applicable monitoring requirements if Method 22 is used. <p>D. For the flare, the presence of a pilot flame shall be monitored at all times using a thermocouple or equivalent device.</p> <p>E. Monitoring records shall be retained for at least 2 years.</p>	<p>18.5.3</p> <p>18.7.1</p> <p>6.1.1</p> <p>60.43b(g)</p> <p>60.46b(a)</p> <p>60.48b(a)</p> <p>60.48b(j)(3)</p> <p>60.48b(j)(7)</p> <p>60.49b(f)</p> <p>60.49b(o)</p> <p>61.245(e)</p>
8.	<p><u>Compliance & Monitoring for SO₂ (all units)</u></p> <p>The SO₂ emission limit applies at all times, including periods of startup, shutdown and malfunction. The permittee shall demonstrate compliance with the SO₂ emissions limit using the following fuel-based procedures:</p> <p>A. Each month, collect a coke oven gas sample in an as-fired condition prior to the inlet to the steam generating unit and analyze for sulfur content (H₂S) and heat content (gross calorific value) according to the Tutwiler Method (ASTM UOP9-85 for Hydrogen Sulfide in Gases) and using a calorimeter.</p> <p>B. Maintain records to demonstrate that the natural gas meets the definition of natural gas at 40 CFR §60.41b.</p> <p>C. Maintain records of the amount of each fuel combusted (within a ±1% accuracy) and the time each boiler operated for each calendar day.</p> <p>D. Maintain records to demonstrate that the potential sulfur emissions rate of the COG and/or the fuel mixture does not exceed the emissions limit. The potential sulfur emissions rate shall be calculated as a mass balance using the following equations:</p>	<p>60.42b(g)</p> <p>60.45b(a)</p> <p>18.5.3</p> <p>18.7.1</p> <p>60.45b(k)</p> <p>60.47(b)(1)</p> <p>60.47b(f)</p> <p>60.49b(r)(2)</p> <p>60.49b(o)</p>

No.	Federally Enforceable Conditions for Boilers & Excess COG Flare	Regulations
	$E_{COG} = 268.6 \left(\frac{C_{H2S}}{HC_{COG}} \right) \quad (SO_2 \text{ emission rate, COG only})$ <p>Where: E_{COG} = calculated SO₂ emission rate from COG, lb/MMBtu C_{H2S} = measured sulfur content of COG as H₂S from Item A, gr/CF HC_{COG} = measured heat content (gross calorific value) of COG from Item A, Btu/CF and using the conversion factor below to convert sulfur content measured as H₂S to sulfur content as SO₂ in the units required for the equation, derived as follows:</p> $268.6 = \left(\frac{1 \text{ pound}}{7,000 \text{ gr}} \right) \times \left(\frac{1,000,000 \text{ Btu}}{1 \text{ MMBtu}} \right) \times \left(\frac{64.06 \text{ lb SO}_2}{34.076 \text{ lb H}_2\text{S}} \right)$ <p>And, if needed to demonstrate compliance:</p> $E_{SO2} = \frac{268.6 C_{H2S} \times V_{COG} + 0.6 \times V_{NG}}{HC_{COG} \times V_{COG} + 1000 \times V_{NG}} \quad (SO_2 \text{ emission rate, mixture})$ <p>Where: E_{SO2} = calculated SO₂ emission rate from fuel mixture, lb/MMBtu C_{H2S} = measured sulfur content of COG as H₂S from Item A, gr/CF V_{COG} = volume of COG combusted, MMCF 0.6 = AP-42 emission factor for SO₂ emissions from natural gas, lb/MMCF V_{NG} = volume of natural gas combusted, MMCF HC_{COG} = measured heat content of COG from Item A, MMBtu/MMCF 1000 = heat content of natural gas, MMBtu/MMCF and using the conversion factor below to convert sulfur content measured as H₂S to sulfur content as SO₂ in the units required for the equation, derived as follows:</p> $268.6 = \left(\frac{1 \text{ pound}}{7,000 \text{ gr}} \right) \times \left(\frac{1,000,000 \text{ CF}}{1 \text{ MMCF}} \right) \times \left(\frac{64.06 \text{ lb SO}_2}{34.076 \text{ lb H}_2\text{S}} \right)$ <p>E. These records shall be retained for at least 2 years for Subpart Db.</p>	
9.	<p>Performance Testing for New Source Review – Boiler 9 SO₂ Emissions Rate</p> <p>Compliance with the New Source Review on hourly emissions of SO₂ for Boiler 9 shall be determined by the average of three 1-hour test runs using the following methods of 40 CFR 60, Appendix A:</p> <ul style="list-style-type: none"> A. Method 1—Sample and velocity traverses for stationary sources; B. Method 2—Determination of stack gas velocity and volumetric flow rate (Type S pitot tube); C. Method 3—Gas analysis for the determination of dry molecular weight; D. Method 4—Determination of moisture content in stack gases; E. Method 6C—Determination of Sulfur Dioxide Emissions From Stationary Sources (Instrumental Analyzer Procedure); and F. Method 9—Visual determination of the opacity of emissions from stationary sources. 	<p>18.5.3 18.7.1</p>
10.	<p>Compliance & Monitoring for NO_x (Boiler 9, subject to Subpart Db)</p> <p>The NO_x emission limit applies at all times, including periods of startup, shutdown and malfunction. The permittee shall demonstrate compliance with the NO_x emissions limit using performance testing per §60.46b(e)(4) initially and upon request by the Department. The permittee shall perform monitoring according to one of the methods presented below as Items A and B, and maintain records according to Items C and D below:</p> <ul style="list-style-type: none"> A. Install, calibrate, maintain, and operate CEMS for measuring NO_x and O₂ (or CO₂) emissions discharged to the atmosphere according to the procedures under 40 CFR §60.13, and: <ul style="list-style-type: none"> 1. Record the output of the system during all periods of operation of the affected facility, except for CEMS breakdowns and repairs; 	<p>60.44b(h) 18.5.3 18.7.1 60.46b(e)(4) 60.48b(g) 60.48b 60.49b(o)</p>

No.	Federally Enforceable Conditions for Boilers & Excess COG Flare	Regulations
	<ol style="list-style-type: none"> 2. Calculate the 1-hour NO_x emission averages using the data points required under §60.13(h)(2), expressed as ng/J or lb/MMBtu heat input, and use the results to calculate the average emission rates under §60.44b; 3. Determine the span value for NO_x according to §60.48b(e)(2), rounded to the nearest 500 ppm; 4. Obtain data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days as required by §60.48b(f); or <p>B. Monitor the steam generating unit operating conditions and predict the NO_x emission rate following an approved plan as specified in §60.49b(c).</p> <p>C. For each steam generating unit operating day, record the following:</p> <ol style="list-style-type: none"> 1. Calendar date; 2. The measured or predicted hourly NO_x emission rates (as NO₂); 3. The 30-day average NO_x emission rates calculated at the end of each steam generating unit operating day from the measured or predicted hourly NO₂ emission rates for the preceding 30 steam generating unit operating days; 4. Identify any steam generating unit operating days when the calculated 30-day average NO_x emission rates are in excess of the Subpart Db NO_x emissions standards, with the reasons for such excess emissions as well as a description of corrective actions taken; 5. Identify any steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; 6. Identify any times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data; 7. Identify the "F" factor used for calculations, method of determination, and type of fuel combusted; and 8. For CEMS: <ol style="list-style-type: none"> a. Identify the times when the pollutant concentration exceeded full span of the CEMS; b. Describe any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3 of 40 CFR 60, Appendix B; and c. Maintain the results of daily CEMS drift tests and quarterly accuracy assessments as required under Procedure 1 of 40 CFR 60, Appendix F. <p>D. These records shall be retained for at least 2 years for Subpart Db.</p>	
11.	<p><u>Recordkeeping</u></p> <p>The permittee shall maintain the following records for the emissions sources listed above:</p> <ol style="list-style-type: none"> A. Daily fuel records for each emission unit, including the type and amount of each fuel combusted (measured within ±1% accuracy) and time operated for each combustion unit for each calendar day; B. For boilers subject to Subpart Db, calculate the annual capacity factor individually according to 60.43b(e) for coke oven gas and natural gas on a 12-month rolling average basis at the end of each calendar month per 60.49b(d)(1); C. Records of opacity per 60.49b(f); D. Daily records of the information related to the NO_x CEMS required by 60.49b(g), which shall be reported according to 60.49b(i); E. Records of all periods of excess emissions required to prepare the excess emission reports as required by 60.49b(h); F. Records demonstrating compliance with the SO₂ emission limit as required by 60.49b(j), (k) and (m); G. Records of fuel-based compliance demonstrations as required by 60.49b(r); H. Records required for Subpart Db must be maintained for a period of 2 years; and 	<p>1.9.1 18.5.3 18.7.1 60.49b</p>

No.	Federally Enforceable Conditions for Boilers & Excess COG Flare	Regulations
	I. Time, date and duration of any startup, shutdown or malfunction, whether the event causes excess emissions and any corrective actions taken.	
	Periodic Reporting for the Boilers & Excess COG Flare	
12.	<p><u>Semi-Annual Monitoring Reports</u> The permittee shall submit semi-annual reports for Title V and 40 CFR 60, Subpart Db which include the following information for each reporting period:</p> <p>A. Calendar dates covered in the reporting period;</p> <p>B. For PM emissions and for the New Source Review fuel restriction compliance: certification that only coke oven gas and natural gas is combusted in each boiler;</p> <p>C. For opacity monitoring: report any excess emissions, defined as all 6-minute periods during which the average opacity exceeds the applicable opacity standards (Subpart Db or SIP);</p> <p>D. For NO_x monitoring (units subject to Subpart Db): report any excess emissions, defined as any calculated 30-day rolling average NO_x emission rate that exceeds the applicable emission limits in §60.44b; and for the continuous monitoring requirements for NO_x under §60.48b, a report summarizing the information recorded under §60.49b(g); and</p> <p>E. For SO₂ monitoring: the results of monthly coke oven gas testing and the annual capacity factor calculation under §60.49b(d) for Boiler 9.</p> <p>F. For the New Source Review limit on COG combusted in the 3 boilers and the flare: the 12-month rolling total amount of COG combusted by these units calculated for each month during the reporting period.</p> <p>G. The permittee may elect to submit quarterly electronic reports in lieu of submitting the written reports required above as allowed by 40 CFR §60.49(v).</p>	<p>18.2.4 18.5.3 18.7.1 60.49b(w) 60.49b(h) 60.49b(i) 60.49b(j) 60.49b(k) 60.49b(v)</p>
13.	<p><u>Annual Emissions Reporting (JCDH Requirement)</u> The permittee shall maintain the records required by Condition 11 above and include the following information for each boiler and flare in the annual emissions report as the basis for emissions calculations:</p> <p>A. The actual hours of operation of each unit for the previous calendar year;</p> <p>B. The quantity of COG and the quantity of natural gas combusted in each unit (CF);</p> <p>C. The monthly sulfur content (gr H₂S/CF) and heat content (Btu/CF) of COG from test results for the previous calendar year; and</p> <p>D. Miscellaneous consumption of chemicals and materials which emit VOC/HAP.</p>	<p>1.5.15 18.5.3 1.9.2 18.7.1</p>

SUMMARY TABLES OF REQUIREMENTS FOR COKE PRODUCTION

Recordkeeping for Monitoring and Compliance Demonstration
<i>See Coke Production Conditions 15, 21 & 29</i>

Requirements for Batteries (SIP & Subpart L)	Citation
<p>Emissions shall not exceed these limits at any time:</p> <p style="padding-left: 40px;">15% leaking doors</p> <p style="padding-left: 40px;">5% leaking topside port lids</p> <p style="padding-left: 40px;">10% leaking offtake systems</p> <p>Visible emissions from the charging with an opacity which is greater than 20% for periods of:</p> <p style="padding-left: 40px;">(Battery 1): no more than 4 minutes of any consecutive 60 minutes</p> <p style="padding-left: 40px;">(Batteries 5 & 6): no more than 3 minutes of any consecutive 60 minutes</p> <p style="text-align: center;"><i>See Coke Production Conditions 7, 9 & 10</i></p>	<p>6.9.6(a), 6.9.5(b) & 6.9.3</p>
<p>Emissions determined by a certified observer employing Method 303 of 40 CFR 63, Appendix A according to the requirements of 40 CFR §63.309 shall not exceed:</p> <p style="padding-left: 40px;">4.0% leaking doors (30-run rolling average)</p> <p style="padding-left: 40px;">0.4% leaking topside port lids (30-run rolling average)</p> <p style="padding-left: 40px;">2.5% leaking offtake systems (30-run rolling average)</p> <p style="padding-left: 40px;">12 seconds of visible emissions per charge (logarithmic 30-day rolling average)</p> <p style="text-align: center;"><i>See Coke Production Conditions 16 & 19</i></p>	<p>40 CFR §63.304(b)</p>
<p>Inspect each collecting main at least once per day using Method 303 of 40 CFR 63, Appendix A. Seal any leak as soon as possible but no later than 4 hours after discovery. Initiate repair as expeditiously as possible and within 5 calendar days and complete within 15 calendar days.</p> <p style="text-align: center;"><i>See Coke Production Condition 18</i></p>	<p>40 CFR §63.308</p>
<p>Prepare a written Work Practice Plan for each coke oven battery, designed to achieve (restore) compliance with 40 CFR 63, Subpart L. The plan must be implemented following the second "independent" exceedance of any visible emission limitation for any emission point (doors, topside ports, offtakes, or charging) in any 6-month period.</p> <p style="text-align: center;"><i>See Coke Production Condition 16</i></p>	<p>40 CFR §63.306</p>
<p>Prepare and operate according to a written Startup, Shutdown and Malfunction Plan that describes procedures for operating the battery, including associated air pollution control equipment, during a period of startup, shutdown or malfunction in a manner consistent with good air pollution control practices for minimizing emissions, and procedures for correcting malfunctioning process and air pollution control equipment as quickly as practicable.</p> <p style="text-align: center;"><i>See Coke Production Condition 20</i></p>	<p>40 CFR §63.310</p>

Requirements for Coking & Pushing Operations (SIP & Subpart CCCCC)	Citation
<p>Visible emissions from pushing shall not exceed 40% opacity for more than 1 push per hour per battery or for more than 2 consecutive pushes from the same oven. Compliance is determined by peak opacity during a push.</p> <p><i>See Coke Production Condition 8</i></p>	<p>6.9.4</p>
<p>Identify ovens for which corrective actions are required by visual observations of fugitive pushing emissions made by a certified observer using Method 9 of 40 CFR 60, Appendix A.</p> <ul style="list-style-type: none"> Observe and record the opacity of fugitive pushing emissions for at least four consecutive pushes per battery each day. Include a record of the pushing schedule and document the reason for any changes. Observe and record the opacity of fugitive pushing emissions from each oven at least once every 90 days. <p>If the average opacity for any individual push exceeds the threshold below, the permittee shall take corrective action and/or increase coking time for that oven.</p> <p>30% opacity for Batteries 5&6 ("Beckers") or 35% opacity for Battery 1A ("Wilputte")</p> <p>An attempt at corrective action or increased coking time must be completed within 10 days, except as allowed by Equation 1 at §63.7291(a)(5) for current coking times greater than 18 hours. To demonstrate the success of the attempt at corrective action and/or increasing coking time, or to attempt to reduce the coking time of an oven on increased coking time, observe and record the opacity of fugitive pushing emissions of the first 2 pushes capable of being observed.</p> <ul style="list-style-type: none"> If both re-readings are below the corrective action threshold, the oven may be returned to the normal reading rotation. If either reading exceeds the threshold, another attempt at corrective action and/or a return to the increased coking time is required. <p>Report as deviations:</p> <ul style="list-style-type: none"> Each unsuccessful attempt at corrective action and/or increased coking time. The second and any subsequent consecutive unsuccessful attempts on the same oven to qualify for decreased coking time. <p><i>See Coke Production Condition 23</i></p>	<p>40 CFR §63.7291(a) & §63.7334(a)</p>
<p>Prepare and operate according to a written Operation & Maintenance (O&M) Plan for general operation and maintenance of batteries, including:</p> <ul style="list-style-type: none"> Frequency and method of recording underfiring gas parameters Frequency and method of recording battery operating temperature, including measurement of individual flue and cross-wall temperatures Procedures to prevent pushing an oven before it is fully coked Procedures to prevent overcharging and undercharging of ovens, including measurement of coal moisture, coal bulk density, and procedures for determining volume of coal charged Frequency and procedures for inspecting flues, burners, and nozzles Schedule and procedures for the daily washing of baffles <p><i>See Coke Production Condition 25</i></p>	<p>40 CFR §63.7300(b)</p>

Requirements for Pushing Emission Control System (SIP & Subpart CCCCC)	Citation
<p>Visible emissions from any baghouse stack shall not exceed 20 % opacity (6-minute average), except for one 6-minute period per hour of not more than 40 % opacity.</p> <p><i>Coke Production Condition 5</i></p>	<p>6.1.1</p>
<p>Particulate matter from any pushing emissions control baghouse shall not exceed:</p> <p>0.02 lb/ton of coke produced</p> <p>Compliance with the emission limit is determined by performance testing (per Coke Production Condition 22, Item E) performed twice during each Title V permit term.</p> <p><i>See Coke Production Condition 22</i></p>	<p>40 CFR §63.7290(a)(2) & §63.7333(a)</p>
<p>Monitor & maintain the daily average of one of the following parameters for the pushing emission capture system at or above the minimum level established during performance testing (per Coke Production Condition 22, Item F):</p> <p>volumetric flow rate at the inlet of the baghouse</p> <p>fan motor amperes (if an electric motor is used to drive the fan)</p> <p>Monitor the operation of the capture system by checking and recording the selected capture system operating parameter at least every 8 hours to verify the daily average.</p> <p><i>See Coke Production Condition 22, Item A</i></p>	<p>40 CFR §63.7290(b)(3) §63.7330(d) §63.7331(g) §63.7331(h) & §63.7333(d)</p>
<p>Monitor the relative change in particulate matter loadings continuously using a bag leak detection system (per Coke Production Condition 22, Item C). In the event a bag leak detection system alarm is triggered, 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.</p> <p>Monitor baghouse cleaning cycles to ensure proper operation using an appropriate methodology.</p> <p><i>See Coke Production Condition 22, Items B & D</i></p>	<p>40 CFR §63.7300(c) & §63.7330(a)</p>
<p>Prepare and operate according to a written Operation & Maintenance (O&M) Plan for the capture and control system including but not necessarily limited to:</p> <ul style="list-style-type: none"> • Daily: Monitor the pressure drop across each baghouse cell to ensure pressure drop is within the normal operating range identified in the manual, and check the compressed air supply for pulse-jet baghouses. • Weekly: Confirm that dust is being removed from hoppers through visual inspections or equivalent means of ensuring the proper functioning of removal mechanisms. • Monthly: Check bag cleaning mechanisms for proper functioning through visual inspection or equivalent means, and make visual checks of bag tension. Inspect the equipment that is important to the performance of the total capture system and repair within 30 days. • Quarterly: Confirm the physical integrity of the baghouse through visual inspections of the baghouse interior for air leaks, and inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means. • A preventative maintenance schedule for each control device that is consistent with the manufacturer's instructions for routine and long-term maintenance. <p><i>See Coke Production Condition 22, Items B & D</i></p>	<p>40 CFR §63.7300(c) & §63.7330(a)</p>

Startup, Shutdown and Malfunction (Subpart CCCCC)	Citation
<p>Prepare and operate according to a written Startup, Shutdown and Malfunction Plan for Subpart CCCCC according to 40 CFR §63.6(e)(3). This plan should include provisions for corrective action to address malfunctioning process, air pollution control and monitoring equipment that could cause excess emissions from pushing, soaking quenching and battery stacks.</p> <p><i>See Coke Production Condition 28</i></p>	<p>40 CFR §63.7310(c)</p>

Requirements for Soaking (Subpart CCCCC)	Citation
<p>Prepare and operate according to a written work practice plan for soaking, designed to achieve compliance with 40 CFR 63, Subpart CCCCC, including the elements listed below:</p> <ul style="list-style-type: none"> • Training of topside working to recognize soaking emissions that require corrective action. • Damper the oven off the collecting main prior to opening the standpipe cap. • Determine the cause of soaking emissions that do not ignite automatically, including emissions that result from raw coke oven gas leaking from the collecting main through the damper, and emissions that result from incomplete coking. • If soaking emissions are caused by leaks from the collecting main, take corrective actions to eliminate the soaking emissions. Corrective actions may include, but are not limited to, reseating the damper, cleaning the flushing liquor piping, using aspiration, putting the oven back on the collecting main, or igniting the emissions. • If soaking emissions are not caused by leaks from the collecting main, notify a designated responsible party. The responsible party must determine whether the soaking emissions are due to incomplete coking. If incomplete coking is the cause of the soaking emissions, you must put the oven back on the collecting main until it is completely coked or you must ignite the emissions. <p><i>See Coke Production Condition 24</i></p>	<p>40 CFR §63.7294 & §63.7334(d)</p>

Requirements for Quenching (SIP & Subpart CCCCC)	Citation
<p>Baffles must be installed and properly operated in the quench towers.</p> <p>Water introduced to the quenching station must be of a quality approved by the Health Officer.</p> <p><i>Coke Production Condition 13</i></p>	<p>6.9.9</p>
<p>Visible emissions from quenching must not exceed shall not exceed 20 % opacity (6-minute average), except for one 6-minute period per hour of not more than 40 % opacity.</p> <p><i>Coke Production Condition 5</i></p>	<p>6.1.1</p>
<p>Baffles must be installed and maintained such that no more than 5% of the cross-sectional area of the tower is uncovered, washed daily, inspected monthly and repaired promptly.</p> <p><i>See Coke Production Condition 26, Item C</i></p>	<p>40 CFR §63.7295(b) §63.7300(b)(6) & §63.7334(e)</p>
<p>1,100 milligrams/Liter of total dissolved solids (TDS) (determined by weekly testing) or a site-specific limit on the concentrations of benzene, benzo(a)pyrene, and naphthalene (determined by monthly testing).</p> <p>Use acceptable make-up water as defined in §63.7352.</p> <p><i>See Coke Production Condition 26, Items A & B</i></p>	<p>40 CFR §63.7295(a) §63.7325(a) §63.7333(f) & §63.7334(e)</p>

Requirements for Battery Combustion (Underfire) Stacks (SIP & Subpart CCCCC)	Citation						
<p>Only coke oven gas (COG) may be combusted to heat the batteries.</p> <p><i>See Coke Production Condition 12</i></p>	<p>18.2.4 18.5.3 18.7.1</p>						
<p>The emission of particulate matter from combustion of COG to heat the batteries shall not exceed the amount shown in Table 6-1 of the Rules and Regulations, or as calculated by the equation at 6.3.1. Emissions shall not to exceed the following hourly rates based on maximum heat input capacity and permitted limits:</p> <table><tr><td>Underfire Stack 4</td><td>0.12 lb/MMBtu</td><td>30.0 lb/hr</td></tr><tr><td>Underfire Stack 1</td><td>0.10 lb/MMBtu</td><td>36.0 lb/hr</td></tr></table> <p><i>See Coke Production Condition 12, Item B</i></p>	Underfire Stack 4	0.12 lb/MMBtu	30.0 lb/hr	Underfire Stack 1	0.10 lb/MMBtu	36.0 lb/hr	<p>6.3 & Table 6-1 18.2.4</p>
Underfire Stack 4	0.12 lb/MMBtu	30.0 lb/hr					
Underfire Stack 1	0.10 lb/MMBtu	36.0 lb/hr					
<p>The emission of sulfur dioxide from combustion of COG to heat the batteries shall not exceed 1.8 lb/MMBtu heat input, not to exceed the following hourly rates based on maximum heat input capacity:</p> <table><tr><td>Underfire Stack 4</td><td>450 lb/hr</td></tr><tr><td>Underfire Stack 1</td><td>648 lb/hr</td></tr></table> <p><i>See Coke Production Condition 12, Item C</i></p>	Underfire Stack 4	450 lb/hr	Underfire Stack 1	648 lb/hr	<p>7.1.1</p>		
Underfire Stack 4	450 lb/hr						
Underfire Stack 1	648 lb/hr						
<p>No visible emissions, other than water mist or vapor, with an opacity greater than 20% from any stack except for a period or periods aggregating not more than 3 minutes in any consecutive 60 minutes. Compliance is determined by observations using Method 9 of 40 CFR 60, Appendix A.</p> <p><i>See Coke Production Condition 12, Item A</i></p>	<p>6.9.8</p>						
<p>Daily average not to exceed 15% as a daily average for a battery on a normal coking time (or 20% as a daily average for a battery on battery-wide extended coking). Compliance is determined by continuous monitoring using a COMS.</p> <p><i>See Coke Production Condition 27</i></p>	<p>40 CFR §63.7296 §63.7330(e) & §63.7333(e)</p>						

Requirements for Material Handling (SIP)	Citation
<p>Every person operating coke ovens shall apply all reasonable measures to prevent emissions from coal unloading, transfer, and coke transfer.</p> <p><i>See Coke Production Condition 6</i></p>	<p>6.9.2</p>
<p>Particulate matter emissions from any process which handles materials shall not exceed the hourly particulate matter emission rate shown in Table 6-2 of the Rules and Regulations based on the weight of materials processed during an hour.</p> <p>Visible fugitive dust emissions shall not be discharged beyond the lot line of the property on which the emissions originate.</p> <p><i>See Coke Production Condition 14</i></p>	<p>6.4 6.2.2</p>

Requirements for Bypass/Bleeder Vents & Flares (SIP & Subpart L)	Citation
<p>Closed Vent System must capture all excess gas and shall be monitored quarterly for "no detectable emissions" (<500 ppm by Method 21 of 40 CFR 60, Appendix A).</p> <p>Flares must remove at least 95% of the VOC before it is discharged to the atmosphere.</p> <p><i>See Coke Production Condition 4</i></p>	8.27
<p>Coke oven emissions shall not be vented to the atmosphere through bypass/bleeder stacks, except through a flare system capable of controlling 120% of the normal gas flow of generated by the battery and operated with no visible emissions, as determined by Method 22 per §63.309(h)(1), except for periods not to exceed 5 minutes during any consecutive 2 hours. A pilot light shall be confirmed at all times with a thermocouple or equivalent device.</p> <p><i>See Coke Production Condition 17</i></p>	40 CFR §63.307 & §63.309(h)
<p>If coke oven gas is vented through a bypass/bleeder stack without flaring, report to the Department as soon as practicable but not later than 24 hours after the beginning of the event. A written report shall be submitted within 30 days including a description of the event and a copy of any notification for a hazardous substance release made pursuant to 40 CFR §302.6.</p> <p><i>See Coke Production Condition 17</i></p>	40 CFR §63.311(e)

Maintenance Requirements (SIP)	
<p>Oven maintenance requirements, including recordkeeping.</p> <p><i>Coke Production Condition 11</i></p>	6.9.7
<p>Door maintenance requirements, including inventory.</p> <p><i>Coke Production Condition 10, Item D</i></p>	6.9.6

**FEDERALLY ENFORCEABLE CONDITIONS FOR COKE PRODUCTION, SUBJECT
TO SIP & 40 CFR 63, Subparts L & CCCCC**

Emissions Unit No.	Emissions Unit Description
002	Coke Battery 6 ("Beckers") 4 meters tall with 29 Ovens
003	Coke Battery 5 ("Beckers") 4 meters tall with 25 Ovens
004	Coke Battery 1 ("Wilputte") 5 meters tall with 78 Ovens
007	Underfire Stack 4, Associated with Batteries 5 & 6, Maximum Heat Input 250 MMBtu/hr
008	Underfire Stack 1, Associated with Battery 1, Maximum Heat Input 360 MMBtu/hr
018	South Coke Quenching Tower
024	North Coke Quenching Tower
032	Coke Pushing Emissions Control Baghouses (2 for Wilputte, 1 for Beckers)

No.	Federally Enforceable Conditions for Coke Production	Regulations
	State Implementation Plan & NESHAPs	
1.	<u>State Implementation Plan</u> Part 8.27 of the Rules and Regulations, "Emissions from Coke by-Product Recovery Plant Coke Oven Gas Bleeder," applies to each coke oven gas bleeder. Part 6.3, "Fuel Burning Equipment," and Part 7.1, "Fuel Combustion," apply to the combustion on coke oven gas to heat the batteries. Part 6.9, "Coke Ovens," applies to the production of coke in existing conventional slot-oven coke batteries. Part 6.4, "Process Industries -- General," applies to materials handling operations. Part 6.1, "Visible Emissions," applies to coke production and material handling operations.	8.27 6.3 7.1 6.9.1 6.4
2.	<u>40 CFR 63, Subpart L</u> The "existing" affected sources under 40 CFR 63, Subpart L consist of the by-product coke oven batteries. Subpart L includes requirements for emissions from doors, topside port lids, standpipes, offtake system, collecting mains, bypass/bleeder stacks, and charging operations. The emission limits of Subpart L apply at all times, except during a period of startup, shutdown, or malfunction, when the requirements of §63.310(b) apply. At all times, including periods of startup, shutdown, and malfunction, the permittee shall operate and maintain the coke oven battery and its pollution control equipment required under Subpart L, in a manner consistent with good air pollution control practices for minimizing emissions to the applicable limits of Subpart L. Malfunctions shall be corrected as soon as practicable after their occurrence. The permittee is a "foundry coke producer" as defined by §63.301 based on capacity and ownership on January 1, 1992. The permittee is subject to the standards for foundry coke producers in §63.304(b), "Standards for Compliance Date Extension," in lieu of the standards in §63.302(a), however at this time the limits are identical because all compliance dates have passed.	63.300(a) 63.300(e) 63.300(d)(1) 63.310 63.1(a)(4)(iii)
3.	<u>40 CFR 63, Subpart CCCCC</u> The "existing" affected source under 40 CFR 63, Subpart CCCCC includes each coke oven battery. The permittee is also subject to the General Provisions of 40 CFR 63, Subpart A as provided in 40 CFR 63, Subpart CCCCC, Table 1. Subpart CCCCC includes requirements for emissions from pushing, soaking, quenching, and battery stacks from each affected source. The permittee shall be in compliance with the emission limitations, work practice standards, and operation and maintenance requirements in Subpart CCCCC at all times, except during periods of startup, shutdown, and malfunction as defined in §63.2, during which time you must follow a	63.7280 63.7281 63.7282 63.7300(a) 63.7310 63.6(e)(1) 63.7350

No.	Federally Enforceable Conditions for Coke Production	Regulations
	written startup, shutdown and malfunction plan prepared according to §63.6(e)(3). The permittee shall always operate and maintain the affected source, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by Subpart CCCCC at all times.	
	SIP Requirements	
4.	<p><u>Coke Oven Gas Bleeder Vents/Flares</u></p> <p>The permittee shall equip each coke oven gas bleeder with a closed vent system capable of capturing and transporting excess gas to a control device, which shall be operated at all times when emissions may be vented to them from the closed vent systems.</p> <p>A. Each control device (flare) shall remove at least 95% of the VOC from collected gas before it is discharged to the atmosphere.</p> <p>B. The permittee shall monitor these control devices to ensure that they are operated and maintained in conformance with their design specifications.</p> <p>C. Closed vent systems shall be monitored to determine compliance with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, and, by visual inspections, quarterly and at other times requested by the Health Officer.</p>	8.27
5.	<p><u>Visible Emissions</u></p> <p>The permittee shall not cause or allow emissions from any source of emissions to exceed 20% opacity as a 6-minute average, except for one 6-minute period per hour of not more than 40% opacity, as determined by Method 9 of 40 CFR 60, Appendix A. For Title V monitoring, perform and make a record of a visual observation of the exhaust from each pushing emission control baghouse stack and each quench tower at least once per month. If any visible emissions are observed, the permittee shall take and document corrective action. The permittee shall complete repairs within 1 month of the observation. When condensed water vapor is present within the plume as it emerges from the emission outlet, opacity observations shall be made beyond the point in the plume at which condensed water vapor is no longer visible.</p>	6.1.1 Section 2.3.1 of Method 9
6.	<p><u>Unloading and Transfer of Coal and Coke</u></p> <p>Every person operating coke ovens shall apply all reasonable measures to prevent emissions from coal unloading, transfer, and coke transfer. The following pre-approved control measures appropriate to unloading and transfer of coal and coke are relisted from the general conditions:</p> <p>A. Use of wet suppression system on storage piles when conditions are dry and fugitive dust could become airborne and leave property lines;</p> <p>B. Application of surfactants in conjunction with the wet suppression system;</p> <p>C. Maintain roof/cover over coal and coke conveyors;</p> <p>D. Use of water truck as needed on surfaces;</p> <p>E. Use of wet sprays on all coke loading points;</p> <p>F. Use of water sprays, injected with surfactant, on rotary dump; and</p> <p>G. Installation and use of hoods, fans, and fabric filters (or other suitable control devices) to enclose and vent the handling of dust materials.</p> <p>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.</p>	6.9.2
7.	<p><u>Charging</u></p> <p>There shall be no visible emissions during the charging cycle from the charging holes or the larry car of any battery with an opacity which is greater than 20% except for an average period or periods not to exceed 3 minutes of any consecutive 60 minutes on</p>	6.9.3

No.	Federally Enforceable Conditions for Coke Production	Regulations
	batteries with less than 70 ovens (Batteries 5 & 6) nor more than 4 minutes of any consecutive 60 minutes on batteries with 70 ovens or more (Battery 1).	
8.	<p><u>Pushing</u></p> <p>There shall be no visible emissions during the pushing cycle, other than water mist or vapor, with an opacity which is greater than 40% for more than 1 push per hour per battery or for more than 2 consecutive pushes from the same oven. After a push exceeding 40% peak opacity, the oven must be re-read the next time it is pushed to confirm compliance. Individual readings will be in accordance with Method 9 of 40 CFR 60, Appendix A, except that the peak opacity reading during the push shall be recorded instead of averaging readings taken at 15-second intervals. Monthly observations shall be performed for Title V monitoring. If any visible emissions greater than 40% are observed, the permittee shall immediately correct the problem causing the excess emissions and shall make a record of the event and the corrective actions. At the next push following the completion of corrective actions, the permittee shall again observe the oven to document the effectiveness of corrective actions. Records of corrective actions and follow-up observations shall be placed with the record from the initial observation of excess emissions and identified by oven.</p>	6.9.4
9.	<p><u>Topside Emissions</u></p> <p>A. Any leak discovered on the topside of a battery shall be wet sealed or the oven shall not be recharged until the necessary repairs are made.</p> <p>B. At no time shall there be leaks in more than 10% of the offtake piping and no more than 5% of the charging hole lids on any one battery.</p>	6.9.5
10.	<p><u>Coke Oven Doors</u></p> <p>A. There shall be no visible emissions, except non-smoking flame, from any opening on the coke oven doors from more than 15% of the coke oven doors on any battery at any time.</p> <p>B. If a self-sealing door fails to seal during the coking cycle, it shall be adjusted, repaired or replaced prior to a subsequent charge of that oven.</p> <p>C. Luted doors which fail to seal after the oven is charged shall be reluted promptly.</p> <p>D. Every person operating coke ovens shall have a facility to maintain and repair coke oven doors, and shall maintain an inventory of 1 coke oven door per 12 ovens operated.</p>	6.9.6
11.	<p><u>Oven Maintenance</u></p> <p>A. All ovens shall be maintained in good condition to promote complete coking of coal.</p> <p>B. All coke oven cracks are to be sealed as soon as practicable after they are detected.</p> <p>C. As directed by the Health Officer, reasonable records of the maintenance of oven doors, oven burners, and oven interiors are to be made and retained for a reasonable time.</p>	6.9.7
12.	<p><u>Combustion Stacks</u></p> <p>The permittee shall combust only coke oven gas in the batteries and shall not allow the combustion of COG in excess of the maximum heat input capacity identified in the emission unit descriptions. Compliance is determined by measuring (within $\pm 1\%$ accuracy) and recording the amount of coke oven gas combusted in each battery each day in cubic feet (CF).</p> <p>A. There shall be no visible emissions, other than water mist or vapor, with an opacity greater than 20% from any stack except for a period or periods aggregating not more than 3 minutes in any consecutive 60 minutes.</p> <ol style="list-style-type: none"> Compliance shall be determined using Method 9 of 40 CFR 60, Appendix A. The permittee shall perform and make a record of a visual observation of each combustion stack at least twice per week for a period of 15 minutes or more. If any visible emissions (greater than 15%) are observed, the permittee shall expeditiously correct the problem causing the visible emissions, recording the event and the corrective actions. 	<p>18.2.4 18.5.3 18.7.1</p> <p>6.9.8 18.5.3 18.7.1</p>

No.	Federally Enforceable Conditions for Coke Production	Regulations																
	<p>3. If the visible emissions cannot be corrected, the permittee shall have a certified Method 9 observer determine the combustion stack's opacity within 24 hours.</p> <p>B. The permittee shall not cause or allow the emission of particulate matter from combustion of COG to heat the batteries in excess of the amount shown in Table 6-1 of the Rules and Regulations, or as calculated by the following equation when heat input is between 10 MMBtu/hr and 250 MMBtu/hr:</p> $E = 1.38 H^{-0.44}$ <p>Where E = Emissions in lb/MMBtu and H = heat input in MMBtu.hr. Emissions shall not to exceed the following hourly rates based on maximum heat input as stated in the emission unit descriptions and previously permitted limits:</p> <table><tr><td>Underfire Stack 4</td><td>0.12 lb/MMBtu</td><td>30.0 lb/hr</td></tr><tr><td>Underfire Stack 1</td><td>0.10 lb/MMBtu</td><td>36.0 lb/hr</td></tr></table> <p>Compliance with this condition shall be demonstrated by combustion of only coke oven gas, by daily records of the amount of coke oven gas combusted, and by certifying semiannually that only clean coke oven gas is combusted in each battery.</p> <p>C. The permittee shall not cause or allow the emissions of sulfur dioxide from combustion of COG to heat the batteries in excess of 1.8 lb/MMBtu heat input, not to exceed the following hourly rates based on maximum heat input as stated in the emission unit descriptions:</p> <table><tr><td>Underfire Stack 4</td><td>450 lb/hr</td></tr><tr><td>Underfire Stack 1</td><td>648 lb/hr</td></tr></table> <p>Compliance with this condition shall be demonstrated by combustion of only coke oven gas and by conducting monthly sampling of the coke oven gas in an as-fired condition and analyzing sample(s) for sulfur content (H₂S) and heat content (gross calorific value) according to the Tutwiler Method (ASTM UOP9-85 for Hydrogen Sulfide in Gases) and using a calorimeter.</p>	Underfire Stack 4	0.12 lb/MMBtu	30.0 lb/hr	Underfire Stack 1	0.10 lb/MMBtu	36.0 lb/hr	Underfire Stack 4	450 lb/hr	Underfire Stack 1	648 lb/hr	<p>6.3.2 Table 6-1 18.2.4 18.5.3 18.7.1</p> <p>7.1.1 18.5.3 18.7.1</p>						
Underfire Stack 4	0.12 lb/MMBtu	30.0 lb/hr																
Underfire Stack 1	0.10 lb/MMBtu	36.0 lb/hr																
Underfire Stack 4	450 lb/hr																	
Underfire Stack 1	648 lb/hr																	
13.	<p><u>Quenching</u></p> <p>A. No person shall operate a coke oven plant without baffles installed and properly operating in the quench towers.</p> <p>B. Water introduced to the quenching station must be of a quality approved by the Health Officer.</p>	6.9.9																
14.	<p><u>Material Handling and Processes</u></p> <p>The permittee shall not cause or allow the emission of particulate matter in any one hours from any source in excess of the amount shown in Table 6-2 of the Rules and Regulations based on the process weight per hour, except as calculated using the equations at 6.4.1. The following allowable emission rates have been calculated for specific processes:</p> <table><tr><td>Battery 1 Charging & Coking</td><td>35.42 lb/hr</td></tr><tr><td>Battery 5 Charging & Coking</td><td>21.33 lb/hr</td></tr><tr><td>Battery 6 Charging & Coking</td><td>23.38 lb/hr</td></tr><tr><td>Battery 1 Pushing & Hot Car Transport</td><td>34.65 lb/hr</td></tr><tr><td>Batteries 5&6 Pushing & Hot Car Transport</td><td>30.34 lb/hr</td></tr><tr><td>Battery 1 Quenching (South Tower)</td><td>34.65 lb/hr</td></tr><tr><td>Batteries 5&6 Quenching (North Tower)</td><td>30.34 lb/hr</td></tr><tr><td>Coal Handling</td><td>37.53 lb/hr</td></tr></table>	Battery 1 Charging & Coking	35.42 lb/hr	Battery 5 Charging & Coking	21.33 lb/hr	Battery 6 Charging & Coking	23.38 lb/hr	Battery 1 Pushing & Hot Car Transport	34.65 lb/hr	Batteries 5&6 Pushing & Hot Car Transport	30.34 lb/hr	Battery 1 Quenching (South Tower)	34.65 lb/hr	Batteries 5&6 Quenching (North Tower)	30.34 lb/hr	Coal Handling	37.53 lb/hr	<p>6.4 6.2 18.2.4</p>
Battery 1 Charging & Coking	35.42 lb/hr																	
Battery 5 Charging & Coking	21.33 lb/hr																	
Battery 6 Charging & Coking	23.38 lb/hr																	
Battery 1 Pushing & Hot Car Transport	34.65 lb/hr																	
Batteries 5&6 Pushing & Hot Car Transport	30.34 lb/hr																	
Battery 1 Quenching (South Tower)	34.65 lb/hr																	
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Coal Handling	37.53 lb/hr																	

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No.	Federally Enforceable Conditions for Coke Production	Regulations
	<p>the second such exceedance. The second exceedance is "independent" if either of the following criteria is met:</p> <ol style="list-style-type: none"> 1. The second exceedance occurs 30 days or more after the first exceedance; and 2. In the case of coke oven doors, topside port lids, and offtake systems, the 29-run average, calculated by excluding the highest value in the 30-day period, exceeds the value of the applicable emission limitation; or 3. In the case of charging emissions, the 29-day logarithmic average, calculated in accordance with Method 303 in 40 CFR 63, Appendix A by excluding the valid daily set of observations in the 30-day period that had the highest arithmetic average, exceeds the value of the applicable emission limitation. <p>B. Continue to implement such plan provisions until the visible emission limitation for the emission point is achieved for 90 consecutive days if work practice requirements are implemented.</p>	
17.	<p><u>Bypass/Bleeder Stacks</u></p> <p>Coke oven emissions shall not be vented to the atmosphere through bypass/bleeder stacks, except through a flare system capable of controlling 120 percent of the normal gas flow generated by the battery which meets the requirements of 63.307(b). A pilot light shall be confirmed at all times with a thermocouple or equivalent device. Each flare installed to meet this requirement shall be operated with no visible emissions, as determined by Method 22 of 40 CFR 60, Appendix A with an observation period of 2 hours, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. Report any venting of coke oven gas through a bypass/bleeder stack that was not vented through the bypass/bleeder stack flare system to the Department as soon as practicable but no later than 24 hours after the beginning of the event. A written report shall be submitted within 30 days of the event and shall include a description of the event and, if applicable, a copy of the notification for a hazardous substance release required pursuant to § 302.6 of this chapter.</p>	<p>63.307 63.309(h) 63.311(e)</p>
18.	<p><u>Collecting Mains</u></p> <p>The permittee shall inspect the collecting main for leaks at least once daily according to the procedures in Method 303 in 40 CFR 63, Appendix A. Any leak in the collecting main shall be temporarily sealed as soon as possible after detection, but no later than 4 hours after detection of the leak. The permittee shall initiate a collecting main repair as expeditiously as possible, but no later than 5 calendar days after initial detection of the leak. The repair shall be completed within 15 calendar days after initial detection of the leak unless an alternative schedule is approved by the Department. The permittee shall record the time and date a leak is first observed, the time and date the leak is temporarily sealed, and the time and date of repair.</p>	<p>63.308</p>
19.	<p><u>Daily Performance Testing</u></p> <p>A daily performance test shall be conducted each day, 7 days per week for each coke oven battery, the results of which shall be used to determine compliance with each of the applicable visible emission limitations for coke oven doors, topside port lids, offtake systems, and charging operations from 40 CFR 63, Subpart L. Each performance test is to be conducted by a certified observer according to the procedures and requirements in 63.309 and in Method 303 in 40 CFR 63, Appendix A or Methods 9 and 22 in 40 CFR 60, Appendix A (where applicable). After each performance test, the certified observer shall check and records the collecting main pressure according to the procedures in section 6.3 of Method 303. The observations obtained from each performance test shall be used to compute in accordance with the procedures and requirements of Method 303 in 40 CFR 63, Appendix A, for each day of operations on which a valid emissions value (or set of values) is obtained:</p> <p>A. The 30-run rolling average of the percent leaking coke oven doors, topside port lids, and offtake systems on each coke oven battery, using the equations in sections 4.5.3.2, 5.6.5.2, and 5.6.6.2 of Method 303 in 40 CFR 63, Appendix A; and</p>	<p>63.309</p>

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	<p>B. The logarithmic 30-day rolling average of the seconds of visible emissions per charge for each battery, using the equation in section 3.9 of Method 303 in 40 CFR 63, Appendix A.</p> <p>A record of each daily test and calculations shall be maintained. If additional valid emission observations are obtained during a day, the arithmetic average of all valid values shall be used in the compliance computation for that day.</p>	
20.	<p><u>Startup, Shutdown and Malfunction Plan</u></p> <p>The permittee shall develop a written startup, shutdown, and malfunction plan that describes procedures for operating the battery, including associated air pollution control equipment, during a period of a startup, shutdown, or malfunction in a manner consistent with good air pollution control practices for minimizing emissions, and procedures for correcting malfunctioning process and air pollution control equipment as quickly as practicable. The permittee may use the standard operating procedures manual for the battery, provided the manual meets all the requirements for §63.310 and is made available for inspection at reasonable times when requested by the Department. An observation or set of observations for a particular day may be excluded from certain compliance determinations as allowed by §63.310(i) only if the Department is notified within 24 hours as required by §63.310(d). Within 14 days of any such notification, the permittee shall submit a written report to the Department that describes the time and circumstances of the startup, shutdown, or malfunction; and any actions taken that might be considered inconsistent with the startup, shutdown, or malfunction plan. The permittee shall maintain a record of internal reports which form the basis of each malfunction notification.</p>	63.310 63.6(e)(3)
21.	<p><u>Recordkeeping</u></p> <p>The permittee shall maintain files of all required information in a permanent form suitable for inspection at an onsite location for at least 1 year and must thereafter be accessible within 3 working days to the Department for the time period specified in 40 CFR §70.6(a)(3)(ii)(B). Copies of the work practice plan developed under §63.306 and the startup, shutdown, and malfunction plan developed under §63.310 shall be kept onsite at all times. The permittee shall maintain the following information:</p> <ul style="list-style-type: none"> A. A copy of the work practice plan required by §63.306 and any revision to the plan; B. If the owner or operator is required under §63.306(c) to implement the provisions of a work practice plan for a particular emission point, the following records regarding the implementation of plan requirements for that emission point during the implementation period; <ul style="list-style-type: none"> 1. Copies of all written and audiovisual materials used in the training, the dates of each class, the names of the participants in each class, and documentation that all appropriate personnel have successfully completed the training required under §63.306(b)(1); 2. The records required to be maintained by the plan provisions implementing §63.306(b)(7); 3. Records resulting from audits of the effectiveness of the work practice program for the particular emission point, as required under §§63.306(b)(2)(i), 63.306(b)(3)(i), 63.306(b)(4)(i), or 63.306(b)(5)(i); and 4. If the plan provisions for coke oven doors must be implemented, records of the inventory of doors and jambs as required under §63.306(b)(2)(vi). C. The design drawings and engineering specifications for the bypass/bleeder stack flare system as required under §63.307. D. Records specified in §63.310(f) regarding the basis of each malfunction notification. <p>Records required to be maintained and reports required to be filed under Subpart L shall be made available in accordance with the requirements of §63.611(g) by the owner or operator to the authorized collective bargaining representative of the employees at a coke oven battery, for inspection and copying.</p>	63.311(f) 63.311(g)

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	40 CFR 63, Subpart CCCCC Requirements	
22.	<p><u>Capture and Control of Pushing Emissions</u> The permittee shall not cause or allow emissions from a stationary control device applied to pushing emissions from a coke oven battery collected with a moveable hood in excess of 0.02 pound per ton (lb/ton) of coke. Demonstrate continuous compliance by maintaining emissions of particulate matter at or below the applicable limit; and conduct subsequent performance tests to demonstrate continuous compliance no less frequently than twice during each term of your title V operating permit (at mid-term and renewal). See Item E below for detailed testing requirements.</p> <p>A. For each capture system applied to pushing emissions, the permittee shall establish during performance testing (see Item F below), record, monitor at all times and maintain operating limits using one of the methods below:</p> <ol style="list-style-type: none"> 1. Volumetric flow rate: <ol style="list-style-type: none"> a. Install, operate and maintain a device to measure the total volumetric flow rate at the inlet of the baghouse; b. Maintain the daily average volumetric flow rate at the inlet of the control device at or above the minimum level established during the initial or subsequent performance test; and c. Check the volumetric flow rate at least every 8 hours to verify the daily average is at or above the minimum level established during the initial or subsequent performance test and recording the results of each check. 2. Fan motor amperes, if the capture system uses an electric motor to drive the fan: <ol style="list-style-type: none"> a. Install, operate and maintain a device to measure and record the fan motor amperes; b. Maintain the daily average fan motor amperages at or above the minimum level established during the initial or subsequent performance test; and c. Check the fan motor amperage at least every 8 hours to verify the daily average is at or above the minimum level established during the initial or subsequent performance test and recording the results of each check. <p>B. The permittee shall prepare and operate at all times according to a written operation and maintenance (O&M) plan for each capture system and control device applied to pushing emissions, including, as a minimum:</p> <ol style="list-style-type: none"> 1. Monthly inspections of the equipment that is important to the performance of the total capture system (e.g., pressure sensors, dampers, and damper switches). This inspection must include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). In the event a defect or deficiency is found in the capture system (during a monthly inspection or between inspections), you must complete repairs within 30 days after the date that the defect or deficiency is discovered. If you determine that the repairs cannot be completed within 30 days, you must submit a written request for an extension of time to complete the repairs that must be received by the permitting authority not more than 20 days after the date that the defect or deficiency is discovered. The request must contain a description of the defect or deficiency, the steps needed and taken to correct the problem, the interim steps being taken to mitigate the emissions impact of the defect or deficiency, and a proposed schedule for completing the repairs. The request shall be deemed approved unless and until such time as the permitting authority notifies you that it objects to the request. The permitting authority may consider all relevant factors in deciding whether to approve or deny the request (including feasibility and safety). Each approved schedule must provide for completion of repairs as expeditiously as practicable, and the permitting authority may request modifications to the proposed schedule. 	<p>63.7290(a)(2) 63.7321 63.7333(a)</p> <p>63.7290(b)(3) 63.7330(d) 63.7331(g) 63.7331(h) 63.7333(d)</p> <p>63.7300(c) 63.7335(b) 63.7335(c) 63.7335(d)</p>

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	<ol style="list-style-type: none"> 2. Preventative maintenance for each control device, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance. 3. Corrective action for all baghouses applied to pushing emissions. In the event a bag leak detection system alarm is triggered, 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. Actions may include, but are not limited to: <ol style="list-style-type: none"> a. Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions. b. Sealing off defective bags or filter media. c. Replacing defective bags or filter media or otherwise repairing the control device. d. Sealing off a defective baghouse compartment. e. Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system. f. Shutting down the process producing the particulate emissions. 4. Demonstrate continuous compliance with the operation and maintenance requirements above by making monthly inspections of capture systems, performing preventative maintenance for each control device, and initiating and completing corrective action for a bag leak detection system alarm and by recording all information needed to document conformance with these requirements. This includes records of the times the bag leak detection system alarm sounds, and for each valid alarm, the time you initiated corrective action, the corrective action(s) taken, and the date on which corrective action is completed. 5. Maintain a current copy of the operation and maintenance plan onsite and available for inspection upon request for the life of the affected source or until the affected source is no longer subject to the requirements of Subpart CCCCC. <p>C. The permittee shall install, operate and maintain each bag leak detection system according to the operation and inspection requirements below:</p> <ol style="list-style-type: none"> 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; 2. The system must provide output of relative changes in particulate matter loadings; 3. The system must be equipped with an alarm that will sound when an increase in relative particulate loadings is detected over a preset level. The alarm must be located such that it can be heard by the appropriate plant personnel; 4. Each system that works based on the triboelectric effect must be installed, operated, and maintained in a manner consistent with the guidance document, "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015, September 1997). You may install, operate, and maintain other types of bag leak detection systems in a manner consistent with the manufacturer's written specifications and recommendations; 5. To make the initial adjustment of the system, establish the baseline output by adjusting the sensitivity (range) and the averaging period of the device. Then, establish the alarm set points and the alarm delay time; 6. Following the initial adjustment, do not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time, except as detailed in your operation and maintenance plan. Do not increase the sensitivity by more than 100 percent or decrease the sensitivity by more than 50 percent over a 365-day period unless a responsible official certifies, in writing in the next 	<p>63.7331(a) 63.7335(c)</p>

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	<p>semiannual compliance report, that the baghouse has been inspected and found to be in good operating condition; and</p> <p>7. Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.</p> <p>D. The permittee shall monitor at all times the relative change in particulate matter loadings using a bag leak detection system that conforms to §63.7331(a), Item C above, and conduct inspections according to the following requirements:</p> <ol style="list-style-type: none"> 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; 2. Confirm that dust is being removed from hoppers through weekly visual inspections or equivalent 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 inspection or equivalent means; 6. Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (knead or bent) or laying on their sides. You do not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices; 7. Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks; and 8. Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means. <p>E. The permittee shall conduct performance tests for the pushing emissions control device according to the requirements below, no less frequently than twice (at mid-term and renewal) during each term of this title V operating permit. Compliance is demonstrated if the concentration of particulate matter measured during performance testing does not exceed the emissions limit.</p> <ol style="list-style-type: none"> 1. Determine the concentration of particulate matter according to the following test methods in 40 CFR 60, Appendix A. <ol style="list-style-type: none"> a. Method 1 to select sampling port locations and the number of traverse points. Sampling sites must be located at the outlet of the control device and prior to any releases to the atmosphere. b. Method 2, 2F, or 2G to determine the volumetric flow rate of the stack gas. c. Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas. d. Method 4 to determine the moisture content of the stack gas. e. Method 5 or 5D, as applicable, to determine the concentration of front half particulate matter in the stack gas. 2. During each particulate matter test run, sample only during periods of actual pushing when the capture system fan and control device are engaged. Collect a minimum sample volume of 30 dry standard cubic feet of gas during each test run. Three valid test runs are needed to comprise a performance test. Each run must start at the beginning of a push and finish at the end of a push (<i>i.e.</i>, sample for an integral number of pushes). 3. Determine the total combined weight in tons of coke pushed during the duration of each test run according to the procedures in your source test plan for calculating coke yield from the quantity of coal charged to an individual oven. 	<p>63.7330(a)</p> <p>63.7321</p> <p>63.7322</p>

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	<p>4. Compute the process-weighted mass emissions (E_p) for each test run using the following equation:</p> $E_p = \frac{C \times Q \times T}{P \times K}$ <p>Where:</p> <p>E_p = Process weighted mass emissions of particulate matter, lb/ton C = Concentration of particulate matter, gr/dscf Q = Volumetric flow rate of stack gas, dscf/hr T = Total time during a run that a sample is withdrawn from the stack during pushing, hr P = Total amount of coke pushed during the test run, tons K = Conversion factor, 7,000 gr/lb</p> <p>F. Operating limits are established (or reestablished as allowed by §63.7323(e)) during performance testing using the following procedures, as applicable to the selected equipment:</p> <ol style="list-style-type: none"> 1. Volumetric flow rate: Measure and record the total volumetric flow rate at the inlet of the control device during each push sampled for each particulate matter test run. The operating limit is the lowest volumetric flow rate recorded during any of the three runs that meet the emission limit. 2. Fan motor amperes: Measure and record the fan motor amperes during each push sampled for each particulate matter test run. The operating limit is the lowest fan motor amperes recorded during any of the three runs that meet the emission limit. 	<p>63.7323(c)</p>
23.	<p><u>Work Practice Standard for Fugitive Pushing Emissions (Vertical Flues)</u> The permittee shall perform daily observations of fugitive pushing emissions and perform corrective actions when required as follows:</p> <p>A. Daily observation requirements:</p> <ol style="list-style-type: none"> 1. Observe and record the opacity of fugitive pushing emissions for at least four consecutive pushes per battery each day. Exclude any push during which the observer's view is obstructed or obscured by interferences and observe the next available push to complete the set of four pushes. If necessary due to circumstances that were not reasonably avoidable, you may observe fewer than four consecutive pushes in a day; however, you must observe and record as many consecutive pushes as possible and document why four consecutive pushes could not be observed. You may observe and record one or more non-consecutive pushes in addition to any consecutive pushes observed in a day. 2. Maintain records of the pushing schedule for each oven and records indicating the legitimate operational reason for any change in the pushing schedule. 3. Do not alter the pushing schedule to change the sequence of consecutive pushes to be observed on any day. Keep records indicating the legitimate operational reason for any change in the pushing schedule which results in a change in the sequence of consecutive pushes observed on any day. 4. Batteries 5 & 6 ("Beckers") may be treated as one battery for observation of pushing emissions as allowed by §63.7291(a)(2). <p>B. Identify ovens for which corrective actions are required by visual observations made by a certified observer using Method 9 of 40 CFR 60, Appendix A:</p> <ol style="list-style-type: none"> 1. Observe and record the opacity of fugitive pushing emissions from each oven at least once every 90 days using the procedures below. If an oven cannot be observed during a 90-day period due to circumstances that were not reasonably avoidable, you must observe the opacity of the first push of that oven following the close of the 90-day period that is capable of being observed, and document why the oven was not observed within a 90-day period. 	<p>63.7291 63.7334(a)</p>

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	<p>2. If the average opacity for any individual push exceeds 30% opacity for any short battery ("Beckers") or 35% opacity for any tall battery ("Wilputte"), the permittee shall take corrective action and/or increase coking time for that oven.</p> <p>3. Procedures for visual observations:</p> <ul style="list-style-type: none"> a. Record pushing opacity observations at 15-second intervals as required in section 2.4 of Method 9. The requirement in section 2.4 of Method 9 for a minimum of 24 observations does not apply, and the data reduction requirements in section 2.5 of Method 9 do not apply. The requirement in §63.6(h)(5)(ii)(B) for obtaining at least 3 hours of observations (thirty 6-minute averages) to demonstrate initial compliance does not apply. b. If fewer than six but at least four 15-second observations can be made, use the average of the total number of observations to calculate average opacity for the push. Missing one or more observations during the push (e.g., as the quench car passes behind a building) does not invalidate the observations before or after the interference for that push. However, a minimum of four 15-second readings must be made for a valid observation. c. Begin observations for a push at the first detectable movement of the coke mass. End observations of a push when the quench car enters the quench tower. d. Observe fugitive pushing emissions from a position at least 10 meters from the quench car that provides an unobstructed view and avoids interferences from the topside of the battery. This may require the observer to be positioned at an angle to the quench car rather than perpendicular to it. Typical interferences to avoid include emissions from open standpipes and charging. Observe the opacity of emissions above the battery top with the sky as the background where possible. Record the oven number of any push not observed because of obstructions or interferences. e. You may reposition after the push to observe emissions during travel if necessary. <p>C. The corrective action must be completed or the coking time increased within either 10 calendar days or the number of days determined using the following the equation below, whichever is greater:</p> $X = 0.55 * Y$ <p>where X = the number of calendar days allowed to complete corrective action or increase coking time; and Y = the current coking time for the oven, hours. For the purpose of determining the number of calendar days allowed under the equation above, day one is the first day following the day when the excess opacity was first observed from the oven. Any fraction produced by the equation above must be counted as a whole day. Days during which the oven is removed from service are not included in the number of days allowed to complete corrective action.</p> <p>D. For attempted corrective actions and/or increased coking time, after a period of time no longer than the number of days allowed above, observe and record the opacity of the first two pushes for the oven capable of being observed using the procedures in Items A and B above.</p> <ul style="list-style-type: none"> 1. The corrective action was successful if the average opacity for each of the two pushes is 30% or less for a short battery ("Beckers") or 35% or less for a tall battery ("Wilputte"), and the oven may be returned to the 90-day reading rotation. 2. If the average opacity of either push exceeds 30% for a short battery ("Beckers") or 35% for a tall battery ("Wilputte"), the corrective action was unsuccessful, and you must complete additional corrective action and/or increase coking time for that oven within the number of days allowed above. 	

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	<p>3. For attempted corrective actions and/or increased coking time after one unsuccessful attempt, after a period of time no longer than the number of days allowed above, observe and record the opacity of the first two pushes for the oven capable of being observed using the procedures in Items A and B above. The criteria to demonstrate the success of the second attempt is the same as for the first attempt.</p> <p>a. If the attempt is successful, the oven may be returned to the 90-day reading rotation.</p> <p>b. If the attempt was unsuccessful, additional attempts must be made until success is demonstrated.</p> <p>4. Report to the Department as a deviation each unsuccessful attempts on the same oven to restore compliance with the visible emissions limit using corrective action and/or increased coking time under this Item D.</p> <p>E. To qualify for a decreased coking time after an oven has been placed on increased coking time, operate the oven on the decreased coking time. After no more than two coking cycles on the decreased coking time, observe and record the opacity of the first two pushes that are capable of being observed using the procedures in Items A and B above.</p> <p>1. The corrective action and/or increased coking time was successful if the average opacity for each of the two pushes is 30% or less for a short battery ("Beckers") or 35% or less for a tall battery ("Wilputte"), the oven may be returned to the 90-day reading rotation.</p> <p>2. If the average opacity of either push exceeds 30% for a short battery ("Beckers") or 35% for a tall battery ("Wilputte"), the attempt to qualify for a decreased coking time was unsuccessful.</p> <p>a. If the oven is returned to the previously established (successful) increased coking time, further observation is not required until/unless coking time is again decreased.</p> <p>b. If other corrective action(s) are attempted and/or if the oven is placed on a coking time that is shorter than the previously established (successful) increased coking time, observe and record the opacity of the first two pushes that are capable of being observed using the procedures in Items A and B above. The criteria to demonstrate the success of the second attempt is the same as for the first attempt.</p> <p>i. If the attempt is successful, the oven may be returned to the 90-day reading rotation.</p> <p>ii. If the attempt was unsuccessful, additional attempts must be made until success is demonstrated.</p> <p>3. Report to the Department as a deviation the second and any subsequent consecutive unsuccessful attempts on the same oven to qualify for decreased coking time under this Item E.</p> <p>F. Repeat the procedures in Items D or E above until the corrective action and/ or increased coking time is successful. Timing requirements for corrective actions and follow-up observations are the same for repeated attempts as for the initial attempt. Maintain records documenting conformance with these requirements.</p>	
24.	<p><u>Work Practice Plan for Soaking Emissions</u></p> <p>The permittee shall prepare and operate at all times according to a written work practice plan for soaking. Each plan must include measures and procedures to:</p> <p>A. Train topside workers to identify soaking emissions that require corrective actions.</p> <p>B. Damper the oven off the collecting main prior to opening the standpipe cap.</p> <p>C. Determine the cause of soaking emissions that do not ignite automatically, including emissions that result from raw coke oven gas leaking from the collecting main through the damper, and emissions that result from incomplete coking.</p>	<p>63.7294</p> <p>63.7334(d)</p>

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	<p>D. If soaking emissions are caused by leaks from the collecting main, take corrective actions to eliminate the soaking emissions. Corrective actions may include, but are not limited to, reseating the damper, cleaning the flushing liquor piping, using aspiration, putting the oven back on the collecting main, or igniting the emissions.</p> <p>E. If soaking emissions are not caused by leaks from the collecting main, notify a designated responsible party. The responsible party must determine whether the soaking emissions are due to incomplete coking. If incomplete coking is the cause of the soaking emissions, you must put the oven back on the collecting main until it is completely coked or you must ignite the emissions.</p> <p>Continuous compliance is demonstrated by maintaining records that document conformance with these requirements.</p>	
25.	<p><u>General Operation and Maintenance (O&M) Plan for Coke Oven Batteries</u> Prepare and operate at all times according to a written operation and maintenance plan for the general operation and maintenance of each existing by-product coke oven battery, addressing, at a minimum, the following elements:</p> <p>A. Frequency and method of recording underfiring gas parameters.</p> <p>B. Frequency and method of recording battery operating temperature, including measurement of individual flue and cross-wall temperatures.</p> <p>C. Procedures to prevent pushing an oven before it is fully coked.</p> <p>D. Procedures to prevent overcharging and undercharging of ovens, including measurement of coal moisture, coal bulk density, and procedures for determining volume of coal charged.</p> <p>E. Frequency and procedures for inspecting flues, burners, and nozzles.</p> <p>F. Schedule and procedures for the daily washing of baffles.</p> <p>Demonstrate continuous compliance with these operation and maintenance requirements by adhering at all times to the plan requirements and recording all information needed to document conformance. Maintain a current copy of the operation and maintenance plan onsite and available for inspection upon request for the life of the affected source or until the affected source is no longer subject to the requirements of Subpart CCCCC.</p>	<p>63.7300(b) 63.7335(a) 63.7335(d)</p>
26.	<p><u>Requirements for Quenching</u></p> <p>A. For the quenching of hot coke, the permittee shall use water meeting one of the following requirements, demonstrated by sampling:</p> <ol style="list-style-type: none"> The concentration of total dissolved solids (TDS) in the water used for quenching must not exceed 1,100 milligrams per liter (mg/L), determined and recorded at least weekly as required by §63.7325(a), summarized as follows: <ol style="list-style-type: none"> Take the quench water sample from a location that provides a representative sample of the quench water as applied to the coke (e.g., from the header that feeds water to the quench tower reservoirs). Conduct sampling under normal and representative operating conditions. Determine the TDS concentration of the sample using Method 160.1 in 40 CFR 136.3 (see "residue—filterable"), except that you must dry the total filterable residue at 103 to 105 °C instead of 180 °C. The sum of the concentrations of benzene, benzo(a)pyrene, and naphthalene in the water used for quenching must not exceed the applicable site-specific limit established as required by §63.7325(b) and approved by the Department, and determined and recorded at least monthly as required by §63.7325(c), summarized as follows: <ol style="list-style-type: none"> Take a quench water sample from a location that provides a representative sample of the quench water as applied to the coke (e.g., from the header that feeds water to the quench tower reservoirs). Conduct sampling under normal and representative operating conditions. Determine the sum of the concentration of benzene, benzo(a)pyrene, and naphthalene in the sample using the applicable methods in 40 CFR 136 or an approved alternative method. 	<p>63.7295 63.7325 63.7333(f) 63.7333(g) 63.7334(e)</p>

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	<p>B. The permittee shall use acceptable makeup water, as defined in §63.7352, as makeup water for quenching.</p> <p>C. For each quench tower:</p> <ol style="list-style-type: none"> 1. Equip each quench tower with baffles such that no more than 5 percent of the cross sectional area of the tower may be uncovered or open to the sky. 2. Wash the baffles in each quench tower once each day that the tower is used to quench coke, except: <ol style="list-style-type: none"> a. You are not required to wash the baffles in a quench tower if the highest measured ambient temperature remains less than 30 degrees Fahrenheit throughout that day (24-hour period). If the measured ambient temperature rises to 30 degrees Fahrenheit or more during the day, resume daily washing according to the schedule in your operation and maintenance plan. b. You must continuously record the ambient temperature on days that the baffles were not washed. 3. Inspect each quench tower monthly for damaged or missing baffles and blockage. 4. Initiate repair or replacement of damaged or missing baffles within 30 days and complete as soon as practicable. <p>Demonstrate continuous compliance by maintaining baffles in each quench tower such that no more than 5 percent of the cross-sectional area of the tower is uncovered or open to the sky; by maintaining records that document conformance with the washing, inspection, and repair requirements, including records of the ambient temperature on any day that the baffles were not washed; and by maintaining records of the source of makeup water to document conformance with the requirement for acceptable makeup water.</p>	
27.	<p><u>Requirements for Battery Combustion Stacks ("Underfire" Stacks)</u></p> <p>The permittee shall not discharge to the atmosphere any emissions from any battery stack that exhibit an opacity greater than the applicable limit below:</p> <ol style="list-style-type: none"> A. Daily average of 15 percent opacity for a battery on a normal coking cycle. B. Daily average of 20 percent opacity for a battery on battery-wide extended coking, defined as increasing the average coking time for all ovens in the coke oven battery by 25 percent or more over the manufacturer's specified design rate. <p>Compliance with the opacity limit is determined by monitoring at all times the opacity of emissions exiting each stack using the continuous opacity monitoring system (COMS) installed, operated, and maintained according to the requirements below to measure and record the opacity of emissions from each battery stack at the required intervals for a 24-hour period.</p> <ol style="list-style-type: none"> 1. Install, operate, and maintain each COMS according to the requirements in §63.8(e) and Performance Specification 1 in 40 CFR 60, Appendix B. Identify periods the COMS is out-of-control, including any periods that the COMS fails to pass a daily calibration drift assessment, quarterly performance audit, or annual zero alignment audit. 2. Conduct a performance evaluation of each COMS according to the requirements in §63.8 and Performance Specification 1 in 40 CFR 60, Appendix B. 3. Develop and implement a quality control program for operating and maintaining each COMS according to the requirements in §63.8(d). At minimum, the quality control program must include a daily calibration drift assessment, quarterly performance audit, and an annual zero alignment audit of each COMS. 4. Each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period. Reduce the COMS data to hourly averages as specified in §63.8(g)(2). 	<p>63.7296 63.7352</p> <p>63.7330(e) 63.7331(j) 63.7332 63.7333(e) 63.7324 18.2.4 18.7.1</p>

No.	Federally Enforceable Conditions for Coke Production	Regulations
	<p>5. Determine and record the hourly and daily (24-hour) average opacity according to the procedures in §63.7324(b) using all the 6-minute averages collected for periods during which the COMS is not out-of-control.</p> <p>6. 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 emission or operating levels, or in fulfilling a minimum data availability requirement, if applicable. You must use all the data collected during all other periods in assessing compliance. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitor to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.</p> <p>Compliance is demonstrated if the daily average opacity does not exceed the applicable limit above. Notify the Department in writing 2 weeks prior to the COMS annual audit.</p>	
28.	<p><u>Written SSM Plans for Coke Oven Batteries</u></p> <p>The permittee shall develop a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction; and a program of corrective action for malfunctioning process, air pollution control, and monitoring equipment used to comply with the relevant standard. The startup, shutdown, and malfunction plan does not need to address any scenario that would not cause the source to exceed an applicable emission limitation in the relevant standard.</p>	63.7310(c) 63.6(e)(3)
29.	<p><u>Recordkeeping</u></p> <p>The permittee shall maintain the following records:</p> <p>A. A copy of each notification and report submitted to comply with 40 CFR 63, Subpart CCCCC, including all documentation supporting any initial notification or notification of compliance status.</p> <p>B. For startups, shutdowns, and malfunctions:</p> <ol style="list-style-type: none"> 1. Keep records of the occurrence and duration of each startup or shutdown (if the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction of operation and each malfunction of the air pollution control and monitoring equipment. 2. When actions taken during a startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, keep records for that event which demonstrate that the procedures specified in the plan were followed. 3. If an action taken during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard, then record the actions taken for that event and report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event. 4. Maintain at the affected source a current startup, shutdown, and malfunction plan and make the plan available upon request for inspection and copying by the Department. In addition, if the startup, shutdown, and malfunction plan is subsequently revised, maintain at the affected source each previous (i.e., superseded) version of the startup, shutdown, and malfunction plan, and make each such previous version available for inspection and copying by the Department for a period of 5 years after revision of the plan. <p>C. Records of performance tests, performance evaluations, and opacity observations, including but not limited to all measurements as may be necessary to determine the conditions of performance tests and performance evaluations.</p>	63.7342

No.	Federally Enforceable Conditions for Coke Production	Regulations
	<p>D. For each COMS:</p> <ol style="list-style-type: none"> Each period during which a COMS is malfunctioning or inoperative (including out-of-control periods); All required measurements needed to demonstrate compliance with a relevant standard, including, but not limited to, 15-minute averages of COMS data, raw performance evaluation measurements and data quality indicators; All COMS calibration checks and all adjustments and maintenance performed on COMS; Previous (that is, superceded) versions of the performance evaluation plan as required in §63.8(d)(3). Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period. <p>E. Records of performance tests, monitored parameters, samples, visible emissions observations, COMS data, actions taken to comply with work practice plans, and inspections required in §§63.7333 through 63.7335 to show continuous compliance with each applicable emission limitation, work practice standard, and operation and maintenance requirement. This includes, but may not be limited to, records for the pushing emission control baghouse, pushing emission capture system, battery stack, quench water, daily pushing observations and the bag leak detection system.</p>	
	Periodic Reporting for Coke Production	
30.	<p><u>Quarterly Reporting</u></p> <p>The following information shall be reported for the battery stacks each quarter:</p> <ol style="list-style-type: none"> If there were no deviations from the continuous compliance requirements in §63.7333(e) for battery stacks, a statement that there were no deviations from the emission limitations during the reporting period. If there were no periods during which a COMS was out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which a continuous monitoring system was out-of-control during the reporting period. If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in §63.10(d)(5)(i). For each deviation from an emission limitation, and for each period of startup, shutdown or malfunction, include: <ol style="list-style-type: none"> The date and time that each malfunction started and stopped. The date and time that each COMS was inoperative, except for zero (low-level) and high-level checks. The date, time, and duration that each COMS was out-of-control, including the information in §63.8(c)(8). The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period. A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period. A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes. A summary of the total duration of continuous monitoring system downtime during the reporting period and the total duration of continuous monitoring system downtime as a percent of the total source operating time during the reporting period. An identification of each HAP that was monitored at the affected source. A brief description of the process units. 	63.7341

No.	Federally Enforceable Conditions for Coke Production	Regulations
	<ol style="list-style-type: none"> 10. A brief description of the continuous monitoring system. 11. The date of the latest continuous monitoring system certification or audit. 12. A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period. 	
31.	<p><u>Semi-Annual Reporting</u> The following information shall be reported for each semiannual period:</p> <p>A. For SIP:</p> <ol style="list-style-type: none"> 1. Certification that only clean coke oven gas was combusted in each battery. <p>B. For 40 CFR 63, Subpart L:</p> <ol style="list-style-type: none"> 1. Certification, signed by the owner or operator, that no coke oven gas was vented, except through the bypass/bleeder stack flare system of a by-product coke oven battery during the reporting period or that a venting report has been submitted according to the requirements in §63.311(e); 2. Certification, signed by the owner or operator, that a startup, shutdown, or malfunction event did not occur for a coke oven battery during the reporting period or that a startup, shutdown, and malfunction event did occur and a report was submitted according to the requirements in §63.310(e); and 3. Certification, signed by the owner or operator, that work practices were implemented if applicable under §63.306. <p>C. For 40 CFR 63, Subpart CCCCC:</p> <ol style="list-style-type: none"> 1. If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in §63.10(d)(5)(i). 2. If there were no deviations from the applicable continuous compliance requirements in §§63.7333 through 63.7335 for all affected sources other than battery stacks, a statement that there were no deviations from the emission limitations, work practice standards, or operation and maintenance requirements during the reporting period. 3. The information required to be reported quarterly for the battery stacks. 4. For each deviation from an emission limitation that occurs at an affected source where you are using a continuous monitoring system, the information required by §63.7341(c)(8), listed at the requirements for the Subpart CCCCC quarterly compliance report. 5. Report the following deviations: each instance in which you did not meet each emission limitation (including operating limits), each work practice standard or operation and maintenance requirement in this subpart that applies to you according to the requirements in §63.7341. 6. If you increase or decrease the sensitivity of the bag leak detection system beyond the limits specified in §63.7331(a)(6), you must include a copy of the required written certification by a responsible official in the next semiannual compliance report. 7. A written certification by a responsible official that the baghouse has been inspected and found to be in good operating condition if the sensitivity of the bag leak detection system has been increased by more than 100 percent or decrease the sensitivity by more than 50 percent over a 365-day period. 8. For each deviation from an emission limitation (including quench water limits) and for each deviation from the requirements for work practice standards that occurs at an affected source where you are not using a continuous monitoring system to comply with the emission limitations in Subpart CCCCC, include the total operating time of each affected source during the reporting period and information on the number, duration, and cause of deviations (including unknown cause, if applicable) as applicable and the corrective action taken. This includes periods of startup, shutdown and malfunction. 	<p>18.5.3 18.7.1 63.311(d)</p> <p>63.7335(c) 63.7341(c) 63.7336(a)</p>

No.	Federally Enforceable Conditions for Coke Production	Regulations
32.	<p><u>Annual Emissions Reporting (JCDH Requirement)</u> The permittee shall maintain the records required by Conditions 15, 21 and 29 above and include the following information in the annual emissions report as the basis for emissions calculations:</p> <p>A. For each battery:</p> <ol style="list-style-type: none"> 1. The total quantity of coal charged and coke breeze charged (tons/year); 2. The total quantity of foundry coke produced and the total quantity of furnace coke produced (pushed) (tons/year); 3. The total quantity of coke oven gas combusted in each battery to produce coke (cubic feet); 4. The total quantity of raw coke oven gas released through the bypass/bleeder stacks without being combusted by the emergency flare (cubic feet); 5. The total quantity of raw coke oven gas released through the bypass/bleeder stacks after being combusted by the emergency flare (cubic feet); 6. The results of monthly sulfur content and heat content of COG tests for the previous calendar year; 7. Foundry and furnace coking times (hours); 8. The average number of operating ovens; 9. The annual average percentage of leaking doors, lids and offtakes from daily Method 303 observations; 10. The number of charges observed and annual average seconds of visible emissions per charge; 11. The number of pushes observed using Method 9 and the average opacity read; 12. The total number of ovens pushed and total tonnage of coke pushed for each battery; 13. The total number of ovens pushed, and total tonnage of coal charged, when each battery's hood and baghouse were not operating; 14. Quantity of lid sealant used and VOC/HAP contents; and 15. The results of sampling and analysis for total dissolved solids for each quench tower. <p>B. For coal handling, foundry coke handling, and furnace coke handling, the number of executions and performed for each of the indicated processes and the total amounts in tons processed of the following:</p> <ol style="list-style-type: none"> 1. Loading/unloading; 2. Conveyor transfer; 3. Screening; and 4. Crushing. <p>C. For each coal and/or coke storage pile:</p> <ol style="list-style-type: none"> 1. The type and average amount of material stored (tons); 2. The acres of storage; 3. The number of active days of storage; 4. Percent moisture; and 5. Ash content. <p>D. For coal, foundry coke, and furnace coke handling and storage, any emission control techniques and their effectiveness.</p> <p>E. For on-site fueling of vehicles, the total quantity of each type of fuel dispensed (gallons).</p> <p>F. For vehicular traffic, distinguishing between paved and unpaved roads and distinguishing between equipment types (e.g. light trucks, fork lifts, dump trucks):</p> <ol style="list-style-type: none"> 1. Loaded and unloaded weight (tons); 2. Number of wheels per equipment type; 3. Vehicle miles travelled one way; 4. Silt content; 5. Average daily water application (including surfactant) (gallons/day); 	<p>1.5.15 18.5.3 1.9.2 18.7.1</p>

No.	Federally Enforceable Conditions for Coke Production	Regulations
	6. Total surfactant usage (gallons) and application rate (gal/square yard/month); and 7. Traffic speed. G. Miscellaneous consumption of chemicals and materials which emit VOC/HAP.	

FEDERALLY ENFORCEABLE CONDITIONS FOR GENERATORS

Emissions Unit No.	Emissions Unit Description
035	Generator #1 – Caterpillar 3412/SR4 (Serial # AGE00234), 2001, with 644 Hp
036	Generator #2 – Detroit 91237306/12V-149T1 (Serial # 12E0003323), 1974, with 805 Hp

No.	Federally Enforceable Conditions for Generators	Regulations
1.	<p><u>Applicability</u> The generators include “existing” compression ignition engines subject to 40 CFR 63, Subpart ZZZZ (NESHAP). The generators were constructed prior to the applicability date for 40 CFR 60, Subpart IIII (NSPS). These generators are available to use during emergencies and for non-emergency use as allowed by Subpart ZZZZ. The generators are enrolled in a demand-response program, and therefore are regulated as non-emergency generators. However, an individual engine larger than 500 hp located at a major source of HAP that is operated for 100 hours or less within a calendar year (a “limited use” engine) is exempt from Subpart ZZZZ.</p>	<p>63.6585 63.6590(a)(1)(i) 63.6590(b)(3)(iv) 63.6675 60.4200(a)(2)(i)</p>
2.	<p><u>Restriction on the Hours of Operation</u> Each generator is limited to 100 hours of operation per year for any purpose.</p>	18.5.3
3.	<p><u>Visible Emissions</u> 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), 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.</p>	<p>6.1.1 18.5.3</p>
4.	<p><u>Fuel Restrictions</u> The permittee shall combust only diesel fuel in compression ignition (CI) engines. Compliance with this provision will serve as compliance with the applicable requirements for emissions of particulate matter and sulfur dioxide from fuel combustion at Part 6.3 and Section 7.1.1 of the Rules and Regulations, respectively.</p>	<p>18.2.4 6.3 7.1.1</p>
5.	<p><u>Non-Resettable Hour Meter (Recordkeeping)</u> For each engine, the permittee shall install a non-resettable hour meter and record the time (duration) of engine operation for each calendar year.</p>	18.5.3
6.	<p><u>Annual Emissions Reporting (JCDH Requirement)</u> The permittee shall include the following information for each generator in the annual emissions report as the basis for emissions calculations: A. The sulfur content of diesel fuel combusted; and B. The actual hours of operation of each unit for the previous calendar year.</p>	<p>1.5.15 18.5.3 1.9.2 18.7.1</p>

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
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

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 NSR interpollutant ratios at 335-3-14-.05(3)(g)1.-4. (JCDH 2.5.3(g)(1)-(4)).

JCDH Citation	State Citation	Title/Subject
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 (VOC) Emissions
Part 8.1 ⁷	Section 335-3-6-.24	Applicability
Part 8.2	Section 335-3-6-.25	VOC Water Separation
Part 8.3	Section 335-3-6-.26 ^{8,9}	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 ¹⁰	Solvent Metal Cleaning
Part 8.13	Section 335-3-6-.34	Cutback and Emulsified Asphalt
Part 8.15	Section 335-3-6-.36	Compliance Schedules
Part 8.16 ¹¹	Section 335-3-6-.37	Test Methods and Procedures

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.

⁸ 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).

⁹ 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)).

¹⁰ ADEM 335-3-6-.33(5)(n) (JCDH 8.12.5(n)) is not included in the approved SIP.

¹¹ 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).

JCDH Citation	State Citation	Title/Subject
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 ¹	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 ²	Manufacture of Laminated Countertops
Part 8.29	Section 335-3-6-.50	Paint Manufacture
Part 8.23 ³	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
Part 10.5	Section 335-3-8-.05 ⁴	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 ⁵	Definitions
Part 17.2, except 17.2.8(h)(7)	Section 335-3-15-.02 ⁶	General Provisions
Part 17.3	Section 335-3-15-.03	Applicability
Part 17.4 ⁷	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 ⁸	Transportation Conformity
Part 19.2	Section 335-3-17-.02	General Conformity

¹ 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).

² 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."

³ Test Methods 204, 204A-204F are not included in the APR-approved SIP.

⁴ ADEM 335-3-8-.05 was approved into the SIP as ADEM 335-3-8-.14 but was renumbered when CAIR provisions were removed.

⁵ Only the first sentence of ADEM 335-3-15-.01(g) is approved into the SIP. JCDH does not include the unapproved language.

⁶ ADEM 335-3-15-.02(10) is not included in the EPA-approved SIP. JCDH does not include the unapproved provision.

⁷ JCDH Part 17.4 does not include the federally enforceable provisions of ADEM 335-3-15-.04(1)(g) and (3)(c).

⁸ 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.