

JEFFERSON COUNTY DEPARTMENT OF HEALTH

AIR POLLUTION PROGRAM

Title V Operating Permit

Permittee: Rock Wool Manufacturing Company

Location: 8610 Spruiell Street
Leeds, Alabama 35094

Permit No: 4-07-0251-04

Issuance Date: September 4, 2019

Expiration Date: September 3, 2024

Nature of Business: Manufacturing of Mineral Wool Products

Emissions Unit No.	Description of Emissions Units
002	Batt Curing Oven with a Dry Scrubbing (Coke Silo) System (Subject to Subpart DDD of 40 CFR 63)
004	Blow Chamber No. 1 and Batt Cooler connected to a Wet Scrubber (Subject to Subpart DDD of 40 CFR 63)
005	Mineral Wool Coke Fired Cupola No. 1 with a Cyclone and a Baghouse (Subject to Subpart DDD of 40 CFR 63)

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, 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, 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 (ACT), conditions of this permit are Federally enforceable by EPA, the Jefferson County Board of Health and citizens in general. Those provisions, which are not required by the ACT, 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 permit.


Jonathan Stanton, Director
Environmental Health Services

Approved: Mark E. Wilson, M.D.
Health Officer

ENV-AP-107-10/11



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FEDERALLY ENFORCEABLE GENERAL PERMIT CONDITIONS

In addition to compliance with Alabama Air Pollution Control Act Number 769 (Regular Session, 1971) as amended 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:

No.	Federally Enforceable General Permit Conditions	Regulations
1	<p><u>Definitions</u></p> <p>For the purposes of this Major Source Operating Permit, the following terms will have the meanings ascribed to in this permit:</p> <p>"40 <u>CFR</u> 60" shall be an acronym for Part 60 of Title 40 of the <u>Code of Federal Regulations</u>, as the same may be amended or revised.</p> <p>"40 <u>CFR</u> 61" shall be an acronym for Part 61 of Title 40 of the <u>Code of Federal Regulations</u>, as the same may be amended or revised.</p> <p>"40 <u>CFR</u> 63" shall be an acronym for Part 63 of Title 40 of the <u>Code of Federal Regulations</u>, as the same may be amended or revised.</p> <p>"40 <u>CFR</u> 68" shall be an acronym for Part 68 of Title 40 of the <u>Code of Federal Regulations</u>, as the same may be amended or revised.</p> <p>"40 <u>CFR</u> 82" shall be an acronym for Part 82 of Title 40 of the <u>Code of Federal Regulations</u>, as the same may be amended or revised.</p> <p>"Act" shall mean the Clean Air Act, as amended, 42 U.S.C. 7401, et seq.</p> <p>"ADEM" shall mean the Alabama Department of Environmental Management.</p> <p>"Air Permit" shall mean any permit issued pursuant to Chapter 2 of the Rules and Regulations.</p> <p>"Bag Leak Detection System" shall mean a monitoring device for a fabric filter that identifies an increase in particulate matter emissions resulting from a broken filter bag or other malfunction and sounds an alarm.</p> <p>"Bonded Product" shall mean mineral wool to which a hazardous air pollutant-based binder (containing such hazardous air pollutants as phenol or formaldehyde) has been applied.</p> <p>"CO" shall mean, for the purposes of this Operating Permit, emissions of carbon monoxide that serve as a surrogate for emissions of carbonyl sulfide, a compound included on the list of hazardous air pollutants in Section 112 of the Act.</p> <p>"Cupola" shall mean a large, water-cooled metal vessel to which is charged a mixture of fuel, rock and/or slag, and additives. As the fuel is burned, the charged mixture is heated to a molten state for later processing to form mineral wool.</p> <p>"Curing Oven" shall mean a chamber in which heat is used to thermoset a binder on the mineral wool fiber used to make bonded products.</p> <p>"Department" shall mean the Jefferson County Department of Health.</p>	<p>1.3 40 <u>CFR</u> 63</p>

No.	Federally Enforceable General Permit Conditions	Regulations
1	<p><u>Definitions continued</u></p> <p>"Emissions Unit" shall mean 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 Section 112(b) of the Act.</p> <p>"EPA" shall mean the U. S. Environmental Protection Agency.</p> <p>"Emergency" shall mean 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 action(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 exceedances of the permit emission limitations caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.</p> <p>"Fabric Filter" shall mean an air pollution control device used to capture particulate matter by filtering gas streams through fabric bags. It also is known as a baghouse.</p> <p>"Formaldehyde" shall mean, for the purposes of this Operating Permit, emissions of formaldehyde that, in addition to being a HAP itself, serve as a surrogate for organic compounds included on the list of hazardous air pollutants in Section 112 of the Act, including but limited to phenol.</p> <p>"Fugitive Emissions" shall mean those emissions, which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.</p> <p>"HAP" shall be an acronym for hazardous air pollutant.</p> <p>"Hazardous Air Pollutant" shall mean any air pollutant listed in or pursuant to Section 112(b) of the Act.</p> <p>"Incinerator" shall mean an enclosed air pollution control device that uses controlled flame combustion to convert combustible materials to noncombustible gases.</p> <p>"Melt" shall mean raw materials, excluding coke, which are charged into the cupola, heated to a molten state, and discharged to the fiber forming and collection process.</p> <p>"Melt Rate" shall mean the mass of molten material discharged from a single cupola over a specified time period. The melt rate is expressed in tons per hour.</p> <p>"Mineral Wool" shall mean a fibrous glassy substance made from natural rock (such as basalt or granite), blast furnace slag or other slag, or a mixture of rock and slag. It may be used as a thermal or acoustical insulation material or in the making of other products to provide structural strength, sound absorbency, fire resistance, or other required properties.</p> <p>"NESHAP" shall be an acronym for National Emission Standard for Hazardous Air Pollutants.</p> <p>"New Source" shall mean, for the purposes of Subpart DDD of 40 <u>CFR</u> 63, any affected source the construction or reconstruction of which is commenced after May 8, 1997.</p> <p>"Operating Permit" shall mean any permit issued pursuant to Chapter 18 of the Rules and Regulations.</p>	<p>1.3 40 <u>CFR</u> 63</p>

No.	Federally Enforceable General Permit Conditions	Regulations
1	<p><u>Definitions continued</u></p> <p>"Permittee" shall mean the holder of a permit issued by the Department.</p> <p>"PM" shall be an acronym for particulate matter. For the purposes of Subpart DDD of 40 <u>CFR</u> 63, PM emissions shall also serve as a surrogate for metals (in particulate or volatile form) on the list of HAPs in Section 112 of the Act, including but not limited to: antimony, arsenic, beryllium, cadmium, chromium, lead, manganese, nickel and selenium.</p> <p>"QIP" shall be an acronym for quality improvement plan for the filter bag leak detection system.</p> <p>"Rules and Regulations" shall mean the Jefferson County Board of Health Air Pollution Control Rules and Regulations, as the same may be amended or revised.</p> <p>"Source" shall mean any building, structure, facility, installation, article, machine, equipment, device, or other contrivance that 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.</p> <p>"Stationary Source" shall mean any building, structure, facility, or installation that emits or may emit any regulated air 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>"VOC" shall be an acronym for volatile organic compound.</p>	<p>1.3 40 <u>CFR</u> 63</p>
2	<p><u>Applicability</u></p> <p>The Major Source permitted herein shall include all of the equipment and operations of the manufacturing of mineral wool products, including but not limited to, coke-fired cupolas, blow chambers, mineral wool fiber pneumatic conveying systems, bagging and baling machines, particulate emissions collection and control systems, raw materials handling operations, raw materials storage areas, storage tanks, in-plant vehicles, plant roads, and parking areas. The facility's particulate, visible and fugitive emissions are subject to the restrictions of Chapter 6 of the Rules and Regulations. The mineral wool manufacturing operations are subject to the NESHAP regulations under 40 <u>CFR</u> 63. The facility is subject to the Operating Permit emissions fees of Chapter 16 and to the major source Operating Permit requirements of Chapter 18 of the Rules and Regulations.</p>	<p>Chapter 1 Chapter 4 Chapter 6 Chapter 14 Chapter 16 Chapter 18 40 <u>CFR</u> 63</p>
3	<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>	<p>AL Act 769 AL Act 612</p>
4	<p><u>Authority</u></p> <p>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) as amended or any regulations promulgated thereunder.</p>	<p>AL Act 769 AL Act 612</p>

No.	Federally Enforceable General Permit Conditions	Regulations
5	<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 episodes.</p>	Chapter 4 18.2.8(b)
6	<p><u>Bypass of Control Equipment Prohibited</u> 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 that the device is intended to control.</p>	1.12 18.2.4 18.2.8(a)
7	<p><u>Shutdown of Control Equipment</u> In the case of shutdown of air pollution control equipment for scheduled maintenance for a period greater than 24 hours, the intent shall be reported to this Department at least 24 hours prior to the planned shutdown in accordance with the requirements of Section 1.12.1 of the Rules and Regulations.</p>	1.12 18.2.4 18.2.8(a)
8	<p><u>Transfer of Permit</u> 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>	18.2.6 18.13.1(a)(5)
9	<p><u>Compliance Source Emissions Testing</u> The Department at any time may require a source emissions test. The methods for such testing shall be in accordance with procedures established by Part 51, Part 60, Part 61, and Part 63 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised. Refer to 40 CFR 63.1189 for testing of mineral wool manufacturing emission sources.</p>	1.9 18.2.5 18.2.8 40 CFR 63
10	<p><u>Notice of Testing</u> The permittee shall notify this Department in writing at least 30 calendar days prior to the actual conduction of any source emissions test. This notice shall state the source to be tested, the proposed time of the test, the testing date(s), and the proposed testing methods and procedures. Refer to 40 CFR 63.1191(d).</p>	1.9.1 18.2.5 40 CFR 63
11	<p><u>Provisions for Testing</u> The permittee shall provide each point of emission with sampling ports, ladders, stationary platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by 40 CFR 60 and 40 CFR 63.</p>	1.10.3 18.2.5 18.2.8(c)
12	<p><u>Test Results</u> The permittee shall submit the results of all emissions tests in duplicate in bound copies to this Department within a time period specified by this Department; however, not to exceed 60 days from the test completion date. Refer to 40 CFR 63.1193(a).</p>	18.2.8(c) 40 CFR 63
13	<p><u>Operation and Maintenance of Controls</u> A. The permittee shall equip each particulate matter control device with a pressure differential measuring device to measure the pressure drop across the filter media in the control device. This device shall be installed in a location that is easily accessible for inspection by personnel of this Department. B. All air pollution control devices and capture systems for which this permit is issued shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Written procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established and submitted to this Department for approval. C. The permittee shall conduct routine inspections on all control equipment. All inspections 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 in a format approved by this Department and shall be retained for 5 years after the date of the record.</p>	18.2.8(a) 40 CFR 63.1187

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14	<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. Paving of areas subject to vehicle and heavy equipment traffic; 2. Use of a water truck on paved surfaces; 3. Enclosed storage of baghouse dust beneath each hopper; 4. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures and during construction operations; and 5. Adequate containment methods shall be employed during slag handling or similar operations. <p>Other dust control methods used not listed above may be subject to Department approval.</p>	<p>6.2 18.2.8(a)</p>
15	<p><u>Monitoring Records</u></p> <p>Records of all required monitoring shall be retained for a period of 5 years from the date of measurement including all calibration and maintenance records and all original strip-chart recordings and copies of all reports.</p>	<p>1.9 18.5.3(b)(1)(vii)</p>
16	<p><u>Monitoring Reports</u></p> <p>Reports of required monitoring shall be submitted to the Department by January 31 and July 31 of each year unless notified otherwise. All instances of deviations from permit requirements must be clearly identified in such reports. A responsible official as defined in the Rules and Regulations [Paragraph 18.1.1(y)] must sign all reports.</p>	<p>1.9 18.1.1(y) 18.5.3(c)(1) 40 <u>CFR</u> 63.1193</p>
17	<p><u>Deviations</u></p> <p>Deviations from permit requirements shall be reported within 48 hours of such deviations, including those attributable to upset conditions, the probable cause of said deviations and any corrective actions or preventive measures that were taken.</p>	<p>18.5.3(c)(2) 40 <u>CFR</u> 63.1193</p>
18	<p><u>Severability</u></p> <p>In case of legal challenge to any portion or permit condition of this Operating Permit, the remainder of the permit conditions shall continue in force.</p>	<p>18.5.5</p>
19	<p><u>Compliance</u></p> <p>The major source (permittee) permitted herein must comply with all conditions of the Rules and Regulations. Noncompliance with a permit will constitute a violation of the Act and the Rules and Regulations and may result in an enforcement action; including but not limited to, permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.</p>	<p>18.5.6</p>
20	<p><u>Compliance Defense</u></p> <p>The permittee shall not use as a defense in an enforcement action, that maintaining compliance with permit conditions or the Rules and Regulations would have required halting or reducing the permitted activity.</p>	<p>18.5.7</p>

No.	Federally Enforceable General Permit Conditions	Regulations
21	<p><u>Termination for Cause</u> This Operating Permit may be modified, revoked, reopened and reissued or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance or termination, or of a notification of a planned change or anticipated noncompliance will not stay any permit condition.</p>	18.5.8
22	<p><u>Property Rights</u> No property rights of any sort or any exclusive privilege are conveyed through the issuance of this Operating Permit.</p>	18.5.9
23	<p><u>Requests for Information</u> 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
24	<p><u>Payment of Fees</u> The permittee must have paid all fees required by the Rules and Regulations or this Operating Permit is not valid. Payment of Operating Permit fees required under Part 16.4 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 percent (3% of the original fee) per month or fraction thereof.</p>	16.4 16.5 18.5.11
25	<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
26	<p><u>Alternative Operating Scenarios</u> If the permittee has applied for alternate operating scenarios and the Department deems the alternative operating scenarios identified in the application for this Operating Permit acceptable, then the permittee shall: A. Record the change from one operating scenario to another in a log at the permitted facility. The recording of the change shall be made contemporaneously with the change and the log shall contain the scenario under which the facility is currently operating. B. Ensure that terms and conditions of each alternative operating scenario meets all of the requirements of this Operating Permit, as well as, the Rules and Regulations.</p>	18.5.13
27	<p><u>Trading of Emissions Increases and Decreases</u> If specifically requested by the applicant (permittee), the Department may authorize the trading of emissions increases and decreases in the permitted facility solely for the purposes of complying with a federally enforceable emissions cap that is established in the permit independent of otherwise applicable requirements, to the extent that the applicable requirements provide for trading such increases and decreases without a case-by-case approval of each emissions trade. The terms and permit conditions in the Operating Permit shall comply with the requirements Section 18.5.14 of the Rules and Regulations.</p>	18.5.14
28	<p><u>Changes</u> Certain changes (per Section 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 a notice is sent to the Department 7 days in advance of the change.</p>	18.13.2

No.	Federally Enforceable General Permit Conditions	Regulations
29	<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, 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>18.2.9(d) 18.7.2</p>
30	<p><u>Compliance Certification</u></p> <p>A compliance certification shall be submitted annually within 30 days of the anniversary of the initial issue date. The permittee shall provide a means for monitoring the compliance of its air pollution sources with the emissions limitation, standards and work practices listed or referenced within this permit.</p> <ul style="list-style-type: none"> A. The compliance certification shall include the following: <ul style="list-style-type: none"> 1. The identification of each term or condition of this permit that is the basis of the certification; 2. The compliance status; 3. Whether compliance has been continuous or intermittent; 4. The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with the Rules and Regulations; and 5. Such other facts as the Department may require to determine the compliance status of the source. B. The compliance certification shall be submitted to the following 2 agencies: <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 45%;"> <p>Jefferson County Department of Health Air Pollution Control Program P.O. Box 2648 Birmingham, AL 35202-2648</p> </div> <div style="width: 45%;"> <p>EPA Region IV Air & EPCRA Enforcement Branch 61 Forsyth Street Atlanta, GA 30303</p> </div> </div> 	<p>18.4.9 18.7.1 18.7.5(c) 18.7.5(d) 18.7.5(e)</p>
31	<p><u>Reopening for Cause</u></p> <p>Under any of the following circumstances, this Operating Permit will be reopened 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 not 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. 	<p>18.13.5</p>

No.	Federally Enforceable General Permit Conditions	Regulations
32	<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 1 or more of the following actions occur:</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. Such notice shall include 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. Within 5 working days of the emergency, a written documentation of what was reported in the notice of the emergency shall be submitted to the Department; and 5. 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>C. The Health Officer shall be the determiner of whether an emergency has occurred.</p> <p>D. This provision is in addition to any emergency or upset provision contained in any applicable requirement.</p>	18.11.2
33	<p><u>Nothing in this Operating Permit shall alter or affect the following:</u></p> <p>A. The provisions of Section 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 Section 408(a) of the Act; or</p> <p>D. The ability of EPA to obtain information from a source pursuant to Section 114 of the Act.</p>	18.10.3
34	<p><u>Duration, Expiration and Renewal of Operating Permit</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 the permit. Major Source Operating Permits are issued for a fixed period of 5 years except as provided under Paragraph 18.5.2(b) of the Rules and Regulations.</p>	18.4.3 18.5.2 18.12.2
35	<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>	18.2.2

No.	Federally Enforceable General Permit Conditions	Regulations
36	<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 Section 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. 	18.13.3
37	<p><u>Acceptance of Permit</u></p> <p>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. An 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 18.2.8(a)
38	<p><u>Construction Not in Accordance with Applications</u></p> <p>If the source permitted herein has been constructed not 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)
39	<p><u>Revocation of Operating Permit</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 condition of the Operating 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 Departmental administrative order issued concerning the permitted stationary source or facility; D. Failure to comply with the Rules and Regulations; or E. For any other cause, after a hearing which establishes, in the judgment of the Department, that continuance of the Operating Permit is not consistent with the purpose of the Act or the Rules and Regulations. 	1.9.2 18.2.9

No.	Federally Enforceable General Permit Conditions	Regulations
40	<p><u>Duty to Supplement or Correct an Application</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. The permittee must supply to the Department additional information concerning any new requirements, which have become applicable after a complete application has been filed but before a draft permit is released.</p>	18.4.7
41	<p><u>Permit Shield</u></p> <p>If the permittee has requested a permit shield in the permit application and the Department has granted the permit shield, the permit shield under Part 18.10 of the Rules and Regulations shall not extend to minor permit modifications.</p>	18.10 18.13.3(f)
42	<p><u>Significant Modifications</u></p> <p>Modifications that are significant modifications under the PSD (Part 2.4) or nonattainment (Part 2.5) regulations or are modifications under the NSPS (40 <u>CFR</u> 60) or NESHAPS (40 <u>CFR</u> 61 & 63) 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>	18.4 18.13.4 18.15
43	<p><u>Schedule of Compliance</u></p> <p>A. The permittee shall continue to comply with the applicable requirements with which the company has certified that it is already in compliance.</p> <p>B. The permittee shall comply in a timely manner with applicable requirements that become effective during the term of this Operating Permit.</p>	18.4.8(h) 18.7.3
44	<p><u>Progress Reports</u></p> <p>If any air pollution source owned or operated by the permittee is not in compliance with the emissions limitations, standards and work practices listed or referenced within this permit, the permittee shall submit a progress report for that air pollution source. The first schedule of compliance shall be submitted within 3 months after the Operating Permit issuance date or within 3 months of the permittee or Department determining that the air pollution source is not in compliance. Subsequent reports shall be submitted every 6 months following the initial report. The progress reports shall contain the following:</p> <p>A. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and/or dates when such activities, milestones or compliance were achieved and</p> <p>B. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.</p>	18.4.8(h) 18.7.4
45	<p><u>Abatement of 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 a determination by this Department that these measures are technically and economically feasible.</p>	6.2.3
46	<p><u>New Air Pollution Sources</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.</p>	2.1 18.4.2 18.13.3 18.13.4 40 <u>CFR</u> 63
47	<p><u>Maximum Achievable Control Technology Standards (MACT)</u></p> <p>The permittee shall be subject to and comply with any or all future federal MACT Standards that may apply to this facility immediately from the effective date of the standards. The permittee shall notify the Department in writing within 2 working days of becoming subject to a federal MACT standard pursuant to Section 112 of the Act, as the same may be amended or revised. The manufacturing of mineral wool products is subject to the requirements of Subpart DDD of 40 <u>CFR</u> 63.</p>	2.1.3 14.5 18.4.8(h)(3) 18.7.6 40 <u>CFR</u> 63 Act 112(i)(3)

No.	Federally Enforceable General Permit Conditions	Regulations
48	<p><u>Prevention of Accidental Releases</u> If the permittee has any substance listed pursuant to Paragraph 3 of Section 112(r) stored in the facility permitted herein, the permittee shall comply with the requirements of Section 112(r) of the Act to prevent accidental releases of any substance listed pursuant to Paragraph 3 of Section 112(r), as the same may be amended or revised, or any other extremely hazardous substance.</p>	<p>112 (r) 40 <u>CFR</u> 68</p>
49	<p><u>Housekeeping Requirements</u> The permittee shall not cause or allow the disposal of waste VOC/HAP materials in sewers, open containers, or in any manner that would result in vaporization to the atmosphere.</p>	<p>2.1.3 2.1.1(g) 18.5.3(c)(2)</p>
50	<p><u>Title VI Requirements (Refrigerants)</u> 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 <u>CFR</u> 82, Subpart A, Appendices A and B, shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 <u>CFR</u> 82, Subpart F. 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 <u>CFR</u> 82, Subpart F. B. The responsible official shall comply with all reporting and recordkeeping requirements of 40 <u>CFR</u> 82.166. Reports shall be submitted to the EPA and the Department as required.</p>	<p>18.1.1(e)(10) 18.1.1(w)(4) 40 <u>CFR</u> 82</p>
51	<p><u>Asbestos Demolition and Renovation</u> Asbestos demolition and renovation activities are subject to the National Emission Standard for Asbestos in 40 <u>CFR</u> 61, Subpart M. To determine the applicable requirements of the standard, the permittee shall inspect the affected part of the facility permitted herein 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 commencement of the demolition or renovation operations. The permittee shall comply with all applicable Sections of the standard, including notification requirements, emission control and waste disposal procedures. The permittee shall ensure that anyone performing asbestos related work at the facility permitted herein is trained and certified according to the Alabama Department of Environmental Management's regulations for Asbestos Contractor Certification.</p>	<p>14.2.12 40 <u>CFR</u> 61</p>
52	<p><u>Notification of Violations</u> The permittee shall submit a report to the Department within 2 working days after determining any deviations, violations or malfunctions of emissions or production permit restrictions and any Rule or Regulation. The report shall include the probable cause of the deviation, violation or malfunction and the corrective actions or preventive measures taken.</p>	<p>2.1.1(g) 2.1.3 18.5.3(c)(2)</p>
53	<p><u>Applicability of Subpart A of 40 CFR 63 (NESHAP Requirement)</u> The general provisions in Subpart A of 40 <u>CFR</u> 63 define requirements applicable to the permittee affected by the mineral wool manufacturing NESHAP in 40 <u>CFR</u> 63. Refer to Table 1 of Subpart DDD of 40 <u>CFR</u> 63 for the general provisions that apply.</p>	<p>40 <u>CFR</u> 63</p>
54	<p><u>Operations, Maintenance and Monitoring Plan (NESHAP Requirement)</u> The permittee shall submit a written operations, maintenance and monitoring plan to the Department for review and approval as part of the permit application for the Title V Major Source Operating Permit. Refer to Section 40 <u>CFR</u> 63.1187 for the required contents of the plan.</p>	<p>40 <u>CFR</u> 63</p>
55	<p><u>Recordkeeping Requirements (NESHAP Requirement)</u> The permittee must comply with the following recordkeeping requirements: A. Maintain files of all information required by Section 63.10(b) of the general provisions in Subpart A of 40 <u>CFR</u> 63, including all notifications and reports. B. Maintain records of the following information: 1. Cupola production (melt) rate in Mg/hour of melt or in tons/hour of melt; 2. All bag leak detection system alarms; Include the date and time of the alarm, when corrective actions were initiated, the cause of the alarm, an explanation of the corrective actions taken, and when the cause of the alarm was corrected. C. Retain each record for at least 5 years following the date of each occurrence,</p>	<p>40 <u>CFR</u> 63</p>

	<p>measurement, corrective action, maintenance, record, or report. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained off site.</p> <p>D. Retain records on microfilm, on a computer, on computer disks, on magnetic tape disks, or on microfiche.</p> <p>E. Report the required information on paper or on a labeled computer disk using commonly available and compatible computer software.</p>	
56	<p><u>Reporting to Department (NESHAP Requirement)</u></p> <p>In accordance with the provisions of Subpart DDD of 40 <u>CFR</u> 63.1193 and Section 40 <u>CFR</u> 63.10, the permittee shall prepare and submit the following reports to the Department:</p> <p>A. A performance test report, as required by Section 40 <u>CFR</u> 63.10(d)(2);</p> <p>B. A startup, shutdown and malfunction plan, as described in Section 40 <u>CFR</u> 63.6(e)(3) and specified in Section 40 <u>CFR</u> 63.1193(b);</p> <p>C. A report of each event as required by Section 40 <u>CFR</u> 63.10(b) including a report if an action taken during startup, shutdown or malfunction is inconsistent with the procedures in the plan as described in Section 40 <u>CFR</u> 63.6(e);</p> <p>D. An operations, maintenance and monitoring plan as specified in Section 40 <u>CFR</u> 63.1187;</p> <p>E. A semiannual report as required by Section 40 <u>CFR</u> 63.10(e)(3); and</p> <p>F. A semiannual report stating that no excess emissions or deviations of monitored parameters occurred during the reporting period as required by Section 40 <u>CFR</u> 63.10(e)(3)(v) if no deviations have occurred.</p>	40 <u>CFR</u> 63
57	<p><u>Annual Recordkeeping and Reporting (JCDH Requirement)</u></p> <p>The permittee shall submit by February 10th of each calendar year to this Department an annual summary report for the previous calendar year in a format approved by this Department of the following production information of the source permitted herein:</p> <p>A. The total quantity in tons per year of raw materials charged into the cupola; The raw materials are slag, stone (granite), gravel, feldspar, olivine and any other material charged. The material charged shall be itemized by each permitted cupola. Determine the annual average melt rate for the year for each cupola.</p> <p>B. The fuel coke charged to the cupolas; The fuel coke shall be itemized by each permitted cupola. Determine the annual average total charge rate (all raw materials and coke) for each cupola.</p> <p>C. The quantity of all of the following fuels including sulfur content (% wt.) combusted and assign actual usage of fuels to the emissions unit where combusted:</p> <ol style="list-style-type: none"> Fuel oil (diesel) and gasoline in gallons per year; Natural gas and coke oven gas in million cubic feet; and LPG in gallons. <p>D. The quantity in tons of mineral wool fiber processed by the blow chambers; Itemize the tons per blow chamber.</p> <p>E. The quantity in tons of fiber sent through the pneumatic conveyor systems;</p> <p>F. The quantity in tons or gallons of all mineral wool surfactants applied to the fiber; The permittee shall submit material safety data sheets (MSDS) showing the weight percent contents of VOC and HAP in the surfactants (annealing oils).</p> <p>G. The actual hours of operation of each emissions unit (cupola, blow chamber, pneumatic conveyor) within the facility;</p> <p>H. The actual hours of operation of each emissions unit (cupola, blow chamber, pneumatic conveyor) within the facility that operated uncontrolled (control system off-line); and</p> <p>I. The actual and allowable emissions of all regulated air pollutants as defined in Chapter 18 of the Rules and Regulations including all individual HAP emissions; The emissions shall be assigned to the emissions unit where the emissions occurred. Fugitive emissions shall be included in the report. The fugitive emissions shall include paved and unpaved road dust emissions. The vehicle miles driven on the paved and unpaved roads shall be included. Report shall include method of calculation.</p>	<p>1.9</p> <p>2.1.3</p> <p>40 <u>CFR</u> 63</p>
58	<p><u>Gasoline Dispensing Facility</u></p> <p>The gasoline dispensing facility located within the facility permitted herein shall comply with the applicable requirements of Part 8.7 of the Rules and Regulations.</p>	<p>8.7</p> <p>18.5</p>
59	<p><u>Monthly Cupola "Cap-Up" Report on Five Cupolas</u></p> <p>The permittee shall maintain a copy of trend report on the hourly status of each cupola from</p>	<p>2.3.1</p> <p>18.5</p>

	the Cupola Production/Operation and Monitoring Data Base System. The permittee shall submit monthly summaries of cap-up time, to be received by the Department no later than 15 working days after the end of each calendar month. A written reason and explanation for each cap opening period exceeding 30 minutes must be furnished. All cap-up periods while operating that exceed the 30 minute period must state whether cupola charging was stopped or not stopped after the 30 minutes and if not stopped provide the reasons and a explanation.	
60	<u>CO Ambient "Self Monitoring" and Plant Action Taken To Prevent Violations-Monthly Report</u> The permittee shall submit a monthly report on all occurrences where more than 3 high CO ambient readings (above 5 ppm, based on a 8- hour average) were recorded and corrective actions implemented. The monthly report should be submitted to the Department no later than 15 working days after the end of each calendar month.	2.3.1 18.5

Emissions Unit 002 Operating Permit Summary

Description: Batt Curing Oven with a Dry Scrubbing (Coke Silo) System (Subject to Subpart DDD of 40 CFR 63)

Permitted Operating Schedule: 24 hours/day, 7 days/week, and 52 weeks/year

Type of Fuel Used:

Primary: Natural Gas

Secondary: None

Pollutant Emitted	Regulatory Emission Limit	Applicable Regulations
Formaldehyde	2.4 lb per ton melt	40 <u>CFR</u> 63, Subpart DDD
Methanol	0.92 lb per ton melt	40 <u>CFR</u> 63, Subpart DDD
Phenol	0.71 lb per ton melt	40 <u>CFR</u> 63, Subpart DDD

Pollution Control Devices: Dry Scrubber (Coke Silo) System

EPA Reference Test Methods: 1, 2, 3A, 4, & 318 of 40 CFR 60, Appendix A

Continuous Opacity Monitor COM is a compliance option

Continuous Emissions Monitor N/A

Monitor Certification Test: N/A

Monitor Quality Assurance Procedures: N/A

Reporting Requirements: Refer to this Emissions Unit's Permit Conditions 10 and 12 & General Conditions 16, 30, 44, 55, 57, and 58

Applicable Regulations: Chapters 6 & 7; 40 CFR 63, Subpart DDD

	Federally Enforceable Conditions for Emissions Unit No. 002	Regulations
1.	<p>The permittee shall submit by February 10th of each calendar year to this Department an annual summary report for the previous calendar year in a format approved by this Department of the following production information of the source permitted herein:</p> <p>A. Quantity of phenol formaldehyde resins, binders, ammonia, and urea used;</p> <p>B. The free formaldehyde content of each resin lot and the binder formulation, including formaldehyde content, of each binder batch used in the manufacture of bonded mineral wool products; and</p> <p>C. Hours of operation of the source.</p>	18.2.3
2.	<p>The source permitted herein shall have an exhaust opacity not to exceed 20%, as determined by a 6-minute average or as otherwise provided in Section 6.1.1 of the Rules and Regulations. The opacity shall be determined by EPA Reference Method 9 of appendix A of 40 <u>CFR</u> 60.</p>	6.1.1
3.	<p>The source permitted herein shall have a particulate matter emissions rate not to exceed that allowed Part 6.4 of the Regulation. The opacity shall be determined by EPA Reference Method 5 of appendix A of 40 <u>CFR</u> 60.</p>	6.4
4.	<p>The permittee must control emissions from the source permitted herein by limiting emissions of formaldehyde to either of the following:</p> <p>(1) 0.03 kg of formaldehyde per MG (0.06 lb of formaldehyde per ton) of melt or less.</p> <p>(2) A reduction of uncontrolled formaldehyde emissions by at least 80 percent.</p> <p>The concentration of formaldehyde shall be measured by EPA Reference Method 318 of appendix A of 40 <u>CFR</u> 63.</p>	<p>40 <u>CFR</u> 1179(a)</p> <p>40 <u>CFR</u> 1189(g)</p>
5.	<p>The permittee must maintain the free-formaldehyde content of each resin lot and the formaldehyde content of each binder formulation at or below the specification ranges of the resin and binder used during the performance test.</p>	40 <u>CFR</u> 1179(b)(1)
6.	<p>The permittee must comply with the applicable requirements in 63.1183 of 40 <u>CFR</u> 63.</p>	40 <u>CFR</u> 63.1183
7.	<p>The permittee may change control device and process operating parameter levels established during performance tests and used to monitor compliance if it follows the requirements in 63.1186(a) and 11.86(b) of 40 <u>CFR</u> 63.</p>	40 <u>CFR</u> 63.1186
8.	<p>The permittee must comply with the applicable requirements in 63.1187 of 40 <u>CFR</u> 63.</p>	40 <u>CFR</u> 63.1187
9.	<p>The permittee must comply with the applicable requirements in 63.1188 of 40 <u>CFR</u> 63.</p>	40 <u>CFR</u> 63.1188

10.	For all notification, recordkeeping, and reporting, the permittee must comply with applicable requirements 63.1191, 63.1192, and 63.1193, respectively of 40 <u>CFR</u> 63.	40 <u>CFR</u> 63.1191 40 <u>CFR</u> 63.1192 40 <u>CFR</u> 63.1193
11.	The coke in the coke silo shall be replaced every 7 days in which oven heater operates within new coke to maintain the formaldehyde removal efficiency of 80% required in 63.1179(a) of 40 <u>CFR</u> 63. The permittee shall maintain a record of dates of coke replacement.	18.2.3
12.	The permittee shall make calculations for the previous year's actual emissions of TSP, PM ₁₀ , and PM _{2.5} . The calculations shall be submitted to the Department by February 28 th each year for review. Concurrence with the calculations by the Department shall be the basis for determining the annual emissions fees.	18.2.3

Emissions Unit 004 Operating Permit Summary

Description: Blow Chamber No. 1 and Batt Cooler connected to a Wet Scrubber (The source is subject to Subpart DDD of 40 CFR 63)

Permitted Operating Schedule: 24 hours/day, 7 days/week, and 52 weeks/year

Type of Fuel Used:

Primary: Natural Gas

Secondary: None

Pollutant Emitted	Regulatory Emission Limit	Applicable Regulations
Formaldehyde	2.4 lb per ton melt	40 <u>CFR</u> 63, Subpart DDD
Methanol	0.92 lb per ton melt	40 <u>CFR</u> 63, Subpart DDD
Phenol	0.71 lb per ton melt	40 <u>CFR</u> 63, Subpart DDD

Pollution Control Devices: Wet Scrubber

EPA Reference Test Methods: 1, 2, 3A, 4, & 318 of 40 CFR 60, Appendix A

Continuous Opacity Monitor COM is a compliance option

Continuous Emissions Monitor N/A

Monitor Certification Test: N/A

Monitor Quality Assurance Procedures: N/A

Reporting Requirements: Refer to this Emissions Unit's Permit Conditions 10 and 12 & General Conditions 16, 30, 44, 55, 57, and 58

Applicable Regulations: Chapters 6 & 7; CAM - 40 CFR 63, Subpart DDD

Federally Enforceable Conditions for Emissions Unit No. 004		Regulations
1.	The permittee shall submit by February 10th of each calendar year to this Department an annual summary report for the previous calendar year in a format approved by this Department of the following production information of the source permitted herein: A. The quantity of mineral wool fiber produced; B. The quantity of annealing oil used; and C. The Hours of operation of the blow chamber.	18.2.3
2.	The sources permitted herein shall have an exhaust opacity not to exceed 20%, as determined by a 6-minute average, or as otherwise provided in Section 6.1.1 of the Rules and Regulations. The opacity shall be determined by EPA Reference Method 9 of appendix A of 40 CFR 60.	6.1.1
3.	The permittee shall not cause, suffer, allow or permit any materials to be handled, transported, or stored, or a building, its appurtenances, or a road to be used, constructed, altered, repaired or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, but not be limited to the requirements in Paragraphs 6.2.1(a) through (c) of the Rules and Regulations.	6.2.1
4.	The permittee shall not cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate.	6.2.2
5.	When dust, fumes, gases, mist, odorous matter, vapor, or any combination thereof escape from a building or equipment in such a manner and amount as to cause 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 or gas-borne material leaving the building or equipment are treated by removal or destruction of air contaminants before discharge to the open air.	6.2.3
6.	The source permitted herein shall have particulate matter emissions rate not to exceed that allowed by Part 6.4 of the Regulations. The particulate matter emissions rate shall be measured by EPA Reference Method 5 of appendix A of 40 CFR 60.	6.4
7.	The permittee shall make calculations for the previous year's actual emissions of TSP, PM ₁₀ , PM _{2.5} , NO _x , CO, VOC, SO ₂ , and HAPS. The calculations shall be submitted to the Department by February 10 th each year. Concurrence with the calculations by the Department shall be the basis for determining the annual emissions fees.	18.2.3

Emissions Unit 005 Operating Permit Summary

Description: Coke Fired Cupola No. 1 with a Cyclone and a 12,165 SCFM Baghouse (The source is subject to Subpart DDD of 40 CFR 63)

Permitted Operating Schedule: 24 hours/day, 7 days/week, and 52 weeks/year

Type of Fuel Used:

Primary: Natural Gas

Secondary: None

Pollutant Emitted	Regulatory Emission Limit	Applicable Regulations
PM	0.10 lb per ton melt	40 <u>CFR</u> 63, Subpart DDD
COS	6.8 lb per ton melt	40 <u>CFR</u> 63, Subpart DDD
HF	0.16 lb per ton melt	40 <u>CFR</u> 63, Subpart DDD
HCl	0.44 lb per ton melt	40 <u>CFR</u> 63, Subpart DDD

Pollution Control Devices: Cyclone and a 12,165 DSCFM Baghouse

EPA Reference Test Methods: 1, 2, 3A, 4, 5, 9, 26A & 318 of 40 CFR 60, Appendix A

Continuous Opacity Monitor COM is a compliance option

Continuous Emissions Monitor N/A

Monitor Certification Test: N/A

Monitor Quality Assurance Procedures: N/A

Reporting Requirements: Refer to this Emissions Unit's Permit Conditions 10 and 12 & General Conditions 16, 30, 44, 55, 57, and 58

Applicable Regulations: Chapters 6 & 7; 40 CFR 63, Subpart DDD

	Federally Enforceable Conditions for Emissions Unit No. 005	Regulations
1.	The permittee shall submit by February 10th of each calendar year to this Department an annual summary report for the previous calendar year in a format approved by this Department of the following production information of the source permitted herein: A. Quantity of raw materials through the cupola; and B. Hours of operation of the cupola.	18.2.3
2.	The source permitted herein shall have an exhaust opacity not to exceed 20%, as determined by a 6-minute average, or as otherwise provided in Section 6.1.1 of the Rules and Regulations. The opacity shall be determined by EPA Reference Method 9 of appendix A of 40 <u>CFR</u> 60.	6.1.1
3.	The permittee shall observe the cupola baghouse stack at least once every day the facility operates in accordance with the procedures of EPA Method 22. The observer shall permanently record the time and date of the observation, and the presence or absence of any visible emissions. If visible emissions are observed, corrective actions to eliminate the visible emissions shall be initiated within 1 hour. Within 24 hours of the completion of the corrective activities, the permittee shall again observe the cupola baghouse stack where the emissions were previously detected. If visible emissions are present, a certified observer shall complete an EPA Method 9 Visible Emissions Evaluation within 3 business days to establish compliance with the opacity limitation in Condition No. 2. The date, time, and type of corrective action initiated to eliminate the visible emissions and the date and time the corrective actions were completed shall be recorded.	18.2.3
4.	The permittee shall not cause, suffer, allow or permit any materials to be handled, transported, or stored, or a building, its appurtenances, or a road to be used, constructed, altered, repaired or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, but not be limited to the requirements in Paragraphs 6.2.1(a) through (c) of the Rules and Regulations.	6.2.1
5.	The permittee shall not cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate.	6.2.2
6.	When dust, fumes, gases, mist, odorous matter, vapor, or any combination thereof escape from a building or equipment in such a manner and amount as to cause 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 or gas-borne material leaving the building or equipment are treated by removal or destruction of air contaminants before discharge to the open air.	6.2.3
7.	The cupola permitted herein shall have a particulate matter emissions rate not to exceed 0.05 kilogram (kg) per mega gram (MG) [0.10 pound (lb) of PM per ton] of melt or less.	40 <u>CFR</u> 1178(a)(1)
8.	The permittee shall conduct a source emissions test within 180 days of the installation of the cupola permitted herein to show compliance with PM standard in Condition No. 7 and opacity standard in Condition No. 2.	18.2.3
9.	The particulate matter emissions rate shall be measured by EPA Reference Method 5 of appendix A of 40 <u>CFR</u> 60. Each PM test run must consist of a minimum run time of three hours and a minimum sample volume of 3.75 dscm (135 dscf).	40 <u>CFR</u> 1189(e)
10.	In order to comply with the PM standards in Condition No. 7, the permittee must install, adjust, maintain, and continuously operate a bag leak detection system for the fabric filter and comply with the requirements in (b) through (d) of 1181 of 40 <u>CFR</u> 63.	40 <u>CFR</u> 1181

11.	The bag leak detection system must meet the requirements included in 63.1184 of 40 <u>CFR</u> 63.	40 <u>CFR</u> 1184
12.	The permittee shall begin within one hour after the alarm on a bag leak detection system sounds, and complete in a timely manner, corrective actions as specified in the company's operations, maintenance, and monitoring plan required by 63.1187 of 40 <u>CFR</u> 63	40 <u>CFR</u> 1178(b)(1)
13.	When the alarm on a bag leak detection system sounds more than 5% of the total operating time in a 6-month period, the company shall develop and implement a written quality improvement plan (QIP) consistent with the compliance assurance monitoring requirements of 64.8(b)-(d) of 40 <u>CFR</u> 64.	40 <u>CFR</u> 1178(b)(2)
14.	The permittee must comply with the applicable requirements in 63.1180 of 40 <u>CFR</u> 63.	40 <u>CFR</u> 1180
15.	The permittee may change control and process operating parameter levels established during performance tests and used to monitor compliance by following if it follows the requirements in 63.1186(a) and 63.1186(b) of 40 <u>CFR</u> 63.	40 <u>CFR</u> 1186
16.	The permittee must submit an operations, maintenance, and monitoring (O, M, & M) plan to the Health Officer for review and approval. The O, M, & M plan must include the applicable requirements in 63.1187 of 40 <u>CFR</u> 63.	40 <u>CFR</u> 1187
17.	The permittee must meet the applicable performance requirements and test methods in 63.1188 and 63.1189 of 40 <u>CFR</u> 63.	40 <u>CFR</u> 63.1188 40 <u>CFR</u> 63.1189
18.	For all notification, recordkeeping, and reporting, the permittee must comply with applicable requirements 63.1191, 63.1192, and 63.1193, respectively of 40 <u>CFR</u> 63.	40 <u>CFR</u> 63.1191 40 <u>CFR</u> 63.1192 40 <u>CFR</u> 63.1193
19.	The permittee shall make calculations for the previous year's actual emissions of TSP, PM ₁₀ , PM _{2.5} , NO _x , CO, VOC, SO ₂ , and HAPS. The calculations shall be submitted to the Department by February 10 th each year. Concurrence with the calculations by the Department shall be the basis for determining the annual emissions fees.	18.2.3

Summary for Requirements

Pollutant	Emission Limitations	Citations
Particulate Matter	Exhaust opacity not to exceed 20% as determined by a 6 minute average	6.1.1
Formaldehyde	0.06 lb of formaldehyde per ton of melt or less	40 CFR 63.1179(a)
Particulate Matter	Cupola shall not exceed 0.05 kilogram(kg) per mega gram(MG) [0.10 pound (lb) of PM per ton] of melt or less	40 CFR 63.1179(a)(1)
Carbonyl Sulfide	6.8 lb of COS per ton melt	40 CFR 63.1179(a)
Hydrogen Fluoride	0.16 lb of HF per ton melt	40 CFR 63.1179(a)
Hydrogen Chloride	0.44 lb of HCl per ton melt	40 CFR 63.1179(a)
Formaldehyde	2.4 lb of formaldehyde per ton melt	40 CFR 63.1179(a)
Methanol	0.92 lb of methanol per ton melt	40 CFR 63.1179(a)
Phenol	0.71 lb of phenol per ton melt	40 CFR 63.1179(a)

Pollutant	Work Practices	Citation
Formaldehyde	Coke in coke silo shall be replaced every 7 days	18.2.3
Visible Emissions	Cupola Baghouse Stack Daily Monitoring	18.2.3

Testing Method	Performance Testing	Citation
Method 1 40 CFR 60, Appendix A	Selection of Sampling port locations and number of sampling ports	40 CFR 63.1189(a)
Method 2	Stack gas velocity and volumetric flow rate	40 CFR 63.1189(b)
Method 3 or 3A	Oxygen and carbon dioxide	40 CFR 63.1189(c)
Method 4	Moisture content of the stack gas	40 CFR 63.1189(d)
Method 5	PM concentration (minimum run time of three hours and minimum sample volume of 3.75 dscm)	40 CFR 63.1189(e)
Method 9	Visual determination of the opacity of emissions	40 CFR 60, Appendix A
Method 10	CO concentration (minimum run time of one hour)	40 CFR 63.1189(f)
Method 318	Concentration of formaldehyde, phenol, methanol, and carbonyl sulfide	40 CFR 63.1189(g)
Method 318	Determine the free-formaldehyde content of each resin	40 CFR 63.1189(h)
Method 26A or 320	Concentration of hydrogen fluoride and hydrogen chloride	40 CFR 63.1189(i)

	Report	Due Date
	Semi Annual	January 31
	Semi Annual	July 31
	Annual Compliance	October 20
	Annual Emissions	February 10th

**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
Sections 5.1.1 – 5.1.5 ⁵	Section 335-3-3-.01	Open Burning

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

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

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

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

JCDH Citation	State Citation	Title/Subject
Part 5.2	Section 335-3-3-.02	Incinerators
Part 5.3 ⁶ , 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 ⁷	Visible Emissions
Part 6.2	Section 335-3-4-.02 ⁸	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 ⁹	Section 335-3-4-.05	Small Foundry Cupola
Part 6.6 ¹⁰	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 ¹¹	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 ^{12, 13}	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 ¹⁴	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 ¹⁵	Section 335-3-6-.37	Test Methods and Procedures

⁵ 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.

⁶ 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."

⁷ ADEM 335-3-4-.01(1) & (2) are included in the EPA-approved SIP, however, the remaining provisions are not SIP-approved.

⁸ ADEM 335-3-4-.02(4) was removed effective July 15, 1999, however, the provision is still included in the EPA-approved SIP.

⁹ 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.

¹⁰ 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.

¹¹ The definition at ADEM 335-3-6-.24(2)(d) is located at JCDH Part 1.3.

¹² 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).

¹³ 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)).

¹⁴ ADEM 335-3-6-.33(5)(n) (JCDH 8.12.5(n)) is not included in the approved SIP.

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 ¹⁶	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 ¹⁷	Manufacture of Laminated Countertops
Part 8.29	Section 335-3-6-.50	Paint Manufacture
Part 8.23 ¹⁸	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 ¹⁹	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 ²⁰	Definitions
Part 17.2, except 17.2.8(h)(7)	Section 335-3-15-.02 ²¹	General Provisions
Part 17.3	Section 335-3-15-.03	Applicability
Part 17.4 ²²	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 ²³	Transportation Conformity
Part 19.2	Section 335-3-17-.02	General Conformity

¹⁵ 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).

¹⁶ 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).

¹⁷ 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."

¹⁸ Test Methods 204, 204A-204F are not included in the APR-approved SIP.

¹⁹ ADEM 335-3-8-.05 was approved into the SIP as ADEM 335-3-8-.14 but was renumbered when CAIR provisions were removed.

²⁰ Only the first sentence of ADEM 335-3-15-.01(g) is approved into the SIP. JCDH does not include the unapproved language.

²¹ ADEM 335-3-15-.02(10) is not included in the EPA-approved SIP. JCDH does not include the unapproved provision.

²² JCDH Part 17.4 does not include the federally enforceable provisions of ADEM 335-3-15-.04(1)(g) and (3)(c).

²³ 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.