

**STATE OF MISSISSIPPI
AND FEDERALLY ENFORCEABLE
AIR POLLUTION CONTROL
PERMIT**

**TO OPERATE AIR EMISSIONS EQUIPMENT AT A
SYNTHETIC MINOR SOURCE**

THIS CERTIFIES THAT

Mississippi Power Company
Operations Center
16006 Vick Road
Gulfport, Mississippi
Harrison County

has been granted permission to operate air emissions equipment in accordance with emission limitations, monitoring requirements and conditions set forth herein. This permit is issued in accordance with the Federal Clean Air Act and the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), the regulations and standards adopted and promulgated thereunder, and the State Implementation Plan for operating permits for synthetic minor sources.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD



AUTHORIZED SIGNATURE

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Issued: SEP 19 2016

Permit No.: 1020-00194

Expires: August 31, 2021

Section 1

A. GENERAL CONDITIONS

1. This permit is for air pollution control purposes only. [Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.1.D.]
2. This permit is a Federally-approved permit to operate a synthetic minor source as described in 11 Miss. Admin. Code Pt. 2, R. 2.1.D [11 Miss. Admin. Code Pt. 2, R. 2.1.D.]
3. Any activities not identified in the application are not authorized by this permit. [Miss. Code Ann. 49-17-29 1.b]
4. The knowing submittal of a permit application with false information may serve as the basis for the Permit Board to void the permit issued pursuant thereto or subject the applicant to penalties for constructing or operating without a valid permit. [11 Miss. Admin. Code Pt. 2, R.2.2.B(5).]
5. The issuance of a permit does not release the permittee from liability for constructing or operating air emissions equipment in violation of any applicable statute, rule, or regulation of state or federal environmental authorities. [Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(7).]
6. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit unless halting or reducing activity would create an imminent and substantial endangerment threatening the public health and safety of the lives and property of the people of this state. [11 Miss. Admin. Code Pt. 2, R.2.2.B(15)(a).]
7. The permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. Sufficient cause for a permit to be reopened shall exist when an air emissions stationary source becomes subject to Title V. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(15)(b).]
8. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(15)(c).]
9. The permittee shall furnish to the DEQ within a reasonable time any information the DEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee shall furnish such records to the DEQ along with a claim of confidentiality. The permittee

may furnish such records directly to the Administrator along with a claim of confidentiality. [Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(15)(d).]

10. The necessary facilities shall be constructed so that solids removed in the course of control of air emissions may be disposed of in a manner such as to prevent the solids from becoming windborne and to prevent the materials from entering State waters without the proper environmental permits. [Ref.: Miss. Code Ann. 49-17-29]
11. The permittee shall allow the Mississippi Department of Environmental Quality Office of Pollution Control and the Mississippi Environmental Quality Permit Board and/or their authorized representatives, upon the presentation of credentials:
 - a. To enter upon the permittee's premises where an air emission source is located or in which any records are required to be kept under the terms and conditions of this permit, and
 - b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any air emission.

(Ref.: Miss. Code Ann. 49-17-21)
12. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to:
 - a. Persistent violation of any terms or conditions of this permit.
 - b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
 - c. A change in federal, state, or local laws or regulations that require either a temporary or permanent reduction or elimination of previously authorized air emission [11 Miss. Admin. Code Pt. 2, R. 2.2.C.]
13. Except for data determined to be confidential under the Mississippi Air & Water Pollution Control Law, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Mississippi Department of Environmental Quality Office of Pollution Control. [Miss. Code Ann. 49-17-39]
14. Nothing herein contained shall be construed as releasing the permittee from any liability for damage to persons or property by reason of the installation, maintenance, or operation of the air cleaning facility, or from compliance with the applicable statutes of the State, or with local laws, regulations, or ordinances. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(7).]
15. This permit may only be transferred upon approval of the Mississippi Environmental Quality Permit Board. [11 Miss. Admin. Code Pt. 2, R. 2.16.B.]

16. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstances, is challenged or held invalid, the validity of the remaining permit provisions and/or portions thereof or their application to other persons or sets of circumstances, shall not be affected thereby. [11 Miss. Admin. Code Pt. 2, R. 2.1.D(7).]
17. The permittee shall furnish to MDEQ within a reasonable time any information MDEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to MDEQ copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee shall furnish such records to MDEQ along with a claim of confidentiality. [11 Miss. Admin. Code Pt. 2, R. 2.2.B(15)(d).]
18. This permit does not authorize a modification as defined in Regulation 11 Miss. Admin. Code Pt. 2, "Permit Regulations for the Construction and/or Operation of Air Emission Equipment." A modification may require a Permit to Construct and a modification of this permit. Modification is defined and "Any physical change in or change in the method of operation of a facility which increases the actual emissions or the potential uncontrolled emissions of any air pollutant subject to regulation under the Federal Act emitted into the atmosphere by that facility or which results in the emission of any air pollutant subject to regulation under the Federal Act into the atmosphere not previously emitted. A physical change or change in the method of operation shall not include:
 - a. routine maintenance, repair, and replacement;
 - b. use of an alternative fuel or raw material by reason of an order under Sections 2(a) and (b) of the Federal Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the Federal Power Act;
 - c. use of an alternative fuel by reason of an order or rule under Section 125 of the Federal Act;
 - d. use of an alternative fuel or raw material by a stationary source which:
 - (a) the source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.166; or
 - (b) the source is approved to use under any permit issued under 40 CFR 52.21 or under regulations approved pursuant to 40CFR 51.66;
 - e. an increase in the hours of operation or in the production rate unless such change would be prohibited under any federally enforceable permit condition which was

established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR Subpart I or 40 CFR 51.166; or

- f. any change in ownership of the stationary source.”

(11 Miss. Admin. Code Pt. 2, R. 2.1.D(2).)

B. GENERAL OPERATIONAL CONDITIONS

1. Should the Executive Director of the Mississippi Department of Environmental Quality declare an Air Pollution Emergency Episode, the permittee will be required to operate in accordance with the permittee’s previously approved Emissions Reduction Schedule or, in the absence of an approved schedule, with the appropriate requirements specified in Regulation, 11 Miss. Admin. Code Pt. 2, "Regulations for the Prevention of Air Pollution Emergency Episodes" for the level of emergency declared. [11 Miss. Admin. Code Pt. 2, R.2.10.]
2. Except as otherwise specified herein, the permittee shall report all deviations from permit requirements, including those attributable to upsets, the probable cause of such deviations, and any corrective actions or preventive measures taken. Said report shall be made within five (5) working days of the time the deviation began. [11 Miss. Admin. Code Pt. 2, R.2.2.B(10).]
3. The permittee shall retain all required records, monitoring data, supported information and reports for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-chart recordings or other data for continuous monitoring instrumentation, and copies of all reports required by this permit. Copies of such records shall be submitted to MDEQ as required by Applicable Rules and Regulations or this permit upon request. [11 Miss. Admin. Code Pt. 2, R.2.9.]
4. The air pollution control facilities shall be constructed such that diversion from or bypass of collection and control facilities is not needed except as provided for in 11 Miss. Admin. Code Pt. 2, R. 1.10., "Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants." [Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.10.]
5. Compliance Testing: Regarding compliance testing:
 - (a) The results of any emissions sampling and analysis shall be expressed both in units consistent with the standards set forth in any Applicable Rules and Regulations or this permit and in units of mass per time.
 - (b) Compliance testing will be performed at the expense of the permittee.
 - (c) Each emission sampling and analysis report shall include but not be limited to the following:

- (1) detailed description of testing procedures;
- (2) sample calculation(s);
- (3) results; and
- (4) comparison of results to all Applicable Rules and Regulations and to emission limitations in the permit.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.6.B(3), (4), and (6).)

C. GENERAL SUBMITTAL REQUIREMENTS

1. For renewal of this permit, the applicant shall make application not less than one-hundred eighty (180) days prior to the expiration date of the permit substantiated with current emissions data, test results or reports or other data as deemed necessary by the Mississippi Environmental Quality Permit Board. [11 Miss. Admin. Code Pt. 2, R. 2.8.]

SECTION 2
EMISSION POINT DESCRIPTION

The permittee is authorized to operate air emissions equipment, as described in the following table.

Emission Point	Description
AA-001	1250 kW (1676.3 HP) Compression Ignition, Diesel Fueled Emergency Generator; Model Year 2007, Model Number 2138499; Maximum Heat Input 11.3 MMBTU/hour, <10 Liters Displacement per Cylinder; Manufactured on February 1, 2007
AA-002	1250 kW (1676.3 HP) Compression Ignition, Diesel Fueled Emergency Generator; Model Year 2007, Model Number 2138498; Maximum Heat Input 11.3 MMBTU/hour, <10 Liters Displacement per Cylinder; Manufactured on January 26, 2007
AA-003	7,500 Gallon Emergency Generator Fuel Tank
AA-004	7,500 Gallon Emergency Generator Fuel Tank

SECTION 3 EMISSION LIMITATIONS AND STANDARDS

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limitation/Standard
Facility-Wide	11 Miss. Admin. Code Pt. 2, R. 1.3.A.	3.1	Opacity	Opacity from any point source shall not exceed 40% unless otherwise specified
	11 Miss. Admin. Code Pt. 2, R. 1.3.B.	3.2		Visual obscuration caused by uncombined water droplets does not apply to the 40% Opacity limitation.
AA-001 AA-002	11 Miss. Admin Code Pt. 2, R. 2.2.B(10).	3.3	Hours of Operation	<u>For Emergency Operation:</u> See Condition 5.2 <u>For Non-Emergency Operation:</u> No more than 700 hours per year for each engine
	11 Miss. Admin. Code Pt. 2, R. 1.3.4(a)(2).	3.4	Particulate Matter	$E = 0.8808 \cdot I^{-0.667}$
	40 CFR 60, Subpart IIII (§ 60.4200(a)(2)(i))	3.5	Exhaust Emissions	Applicability
	40 CFR 63, Subpart ZZZZ (§ 63.6580; §63.6585(a) and (c); and §63.6590(c)(1))	3.6		Applicability
	40 CFR 60.4205(b), 40 CFR 60.4202(a)(2), and 40 CFR 89.112(a)	3.7	Exhaust Emission Standards	6.4 g/kW-hr Non-Methane Hydrocarbon + Nitrogen Oxides (NMHC+NO _x) 3.5 g/kW-hr Carbon Monoxide (CO) 0.20 g/kW-hr Particulate Matter (PM)
	40 CFR 89.113(a)	3.8		20% Opacity during acceleration mode 15% Opacity during lugging mode 50% Opacity during peaks in either acceleration or lugging modes
	40 CFR 60.4206	3.9		Emission Standards must be maintained for the entire life of the affected engines
	40 CFR 60.4207(b) and 40 CFR 80.510(c)(1) and (2)	3.10	Fuel Requirements	Diesel fuel requirements for stationary CI internal combustion engines
AA-003 AA-004	11 Miss. Admin. Code Pt. 2, R. 2.2.B(2).	3.11	Tank Emissions	Must operate both tanks as efficiently as possible in order to minimize the amount of air contaminants released.

- 3.1 Except as otherwise specified or limited herein, the permittee shall not cause, permit, or allow the emission of smoke from a point source into the open air from any manufacturing, industrial, commercial or waste disposal process which exceeds forty (40) percent opacity subject to the exceptions provided in (a) & (b).

- (a) Startup operations may produce emissions which exceed 40% opacity for up to fifteen (15) minutes per startup in any one hour and not to exceed three (3) startups per stack in any twenty-four (24) hour period.
- (b) Emissions resulting from soot blowing operations shall be permitted provided such emissions do not exceed 60 percent opacity, and provided further that the aggregate duration of such emissions during any twenty-four (24) hour period does not exceed ten (10) minutes per billion BTU gross heating value of fuel in any one hour.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.A.)

- 3.2 Except as otherwise specified or limited herein, the permittee shall not cause, allow, or permit the discharge into the ambient air from any point source or emissions, any air contaminant of such opacity as to obscure an observer's view to a degree in excess of 40% opacity, equivalent to that provided in Condition 3.1. This shall not apply to vision obscuration caused by uncombined water droplets.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.B.)

- 3.3 For Emission Points AA-001 and AA-002, the affected engines shall only be operated in an emergency capacity as outlined in Condition 5.2. In the event that the affected engines are operated in a non-emergency capacity, the permittee shall limit the operation of each engine to less than 700 hours per year for every consecutive 12-month period on a rolling basis and shall comply with all applicable non-emergency engine requirements in 40 CFR Part 63, Subpart ZZZZ. Furthermore, upon the change of operating status from emergency to non-emergency operation, the permittee shall submit a new application to the MDEQ as required by Condition 6.2.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(10).)

- 3.4 For Emission Points AA-001 and AA-002, the maximum permissible emission of ash and/or particulate matter from fossil fuel burning installations shall be limited as the following:

Emissions from installations equal to or greater than 10 million BTU per hour heat input but less than 10,000 million BTU per hour heat input shall not exceed an emission rate as determined by the relationship:

$$E = 0.8808 \cdot I^{-0.667}$$

where E is the emission rate in pounds per million BTU per hour input and I is the heat input in millions of BTU per hour.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.4(a)(2).)

- 3.5 Emission Points AA-001 and AA-002 are subject to and shall comply with all applicable requirements of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 CFR Part 60, Subpart III.

(Ref.: 40 CFR 60.4200(a)(2)(i))

- 3.6 Emission Points AA-001 and AA-002 are subject to and shall comply with all applicable requirements of the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), 40 CFR Part 63, Subpart ZZZZ.

Emission Points AA-001 and AA-002 are new compression ignition (CI) emergency stationary RICEs (as defined in 40 CFR 60.4219) with a site rating of >500 HP located at an area source of HAP emissions. As such, these engines shall meet the requirements of Subpart ZZZZ by complying with the applicable requirements of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 CFR Part 60, Subpart III.

(Ref.: 40 CFR 63.6580; 40 CFR 63.6585(a) and (c); and 40 CFR 63.6590(c)(1))

- 3.7 For Emission Points AA-001 and AA-002, the permittee shall limit the emission rate of Non-Methane Hydrocarbon + Nitrogen Oxides to 6.4 g/kW-hr, the emission rate of Carbon Monoxide to 3.5 g/kW-hr, and the emission rate of Particulate Matter to 0.20 g/kW-hr.

(Ref.: 40 CFR 60.4205(b); 40 CFR 4202(a)(2); and 40 CFR 89.112(a))

- 3.8 For Emission Points AA-001 and AA-002, the permittee shall limit the opacity of the exhaust from both engines to no more than 20% during the acceleration mode, 15% during the lugging mode, and 50% during the peaks in either the acceleration or lugging modes.

(Ref.: 40 CFR 89.113(a))

- 3.9 For Emission Points AA-001 and AA-002, the permittee shall maintain the emissions standards outlined in Conditions 3.6 and 3.7 for the entire life of each affected engine.

(Ref.: 40 CFR 60.4206)

- 3.10 For Emission Points AA-001 and AA-002, the permittee shall use diesel fuel that meets the following requirements:

(a) Sulfur content

- (1) 15ppm maximum for non-road diesel fuel

(b) Cetane index or aromatic content

- (1) A minimum cetane index of 40; or
(2) A maximum aromatic content of 35 volume percent.

(Ref.: 40 CFR 60.4207(b) and 40 CFR 80.510(c)(1) and (2))

- 3.11 For Emission Points AA-003 and AA-004, the permittee shall operate both fuel storage tanks as efficiently as possible to provide the maximum reduction of the release of air contaminants.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(2).)

SECTION 4
WORK PRACTICES

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Limitation/Standard
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SECTION 5 MONITORING AND RECORDKEEPING REQUIREMENTS

Emission Point	Applicable Requirement	Condition Number(s)	Pollutant/Parameter	Monitoring/Recordkeeping Requirement
AA-001 AA-002	40 CFR 60.4209(a)	5.1	Exhaust Emissions	Install a non-resettable hour meter prior to start-up.
	40 CFR 60.4211(a)(1-3), (c), and (f)(1-3) 40 CFR 63.6640(f)	5.2		Operate the affected engines in accordance with the manufacturer's written instructions.
	40 CFR 60.4214(b)	5.3		Record the number of hours of operation for each affected engine.

- 5.1 For Emission Points AA-001 and AA-002, the permittee shall install non-resettable hour meters prior to the start-up of each affected engine.

(Ref.: 40 CFR 60.4209(a))

- 5.2 For Emission Points AA-001 and AA-002, the permittee shall install, operate, and maintain the engines according to the manufacturer's emission related written instructions, may change only those emissions related settings that are permitted by the manufacturer, and the engines must be certified to meet the emissions limitations contained in Condition 3.6 and 3.7.

The permittee shall operate the emergency engines in accordance with (a) through (c) below so that the engines may continue to be considered "emergency engines". Any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year as described in (a) through (c) below is prohibited.

- (a) There is no time limit on the use of the engines in emergency situations.
- (b) The engines may each be operated for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided the tests are recommended by federal, state, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engines. The permittee may petition the MDEQ for approval of additional hours to be used for maintenance checks and readiness testing, but such a petition is not required if the permittee keeps records indicating that federal, state, or local standards require maintenance and testing of the engines for more than 100 hours per calendar year.
- (c) The engines may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing contained in (b). The 50 hours per calendar year for non-emergency

situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electrical grid or otherwise supply power as part of a financial agreement with another entity. If the source does have a financial agreement with another entity, the 50 hours of non-emergency operation may be used as long as ALL the conditions in 40 CFR 60.4211(f)(3)(i)(A through E) are met.

If the affected engines do not operate in accordance with the requirements in (1) through (3) above, then the engines will not be considered emergency engines under 40 CFR Subpart ZZZZ and must meet all requirements for non-emergency engines.

(Ref.: 40 CFR 60.4211(a)(1-3), (c), (f)(1-3), and 40 CFR 63.6640(f))

- 5.3 For Emission Points AA-001 and AA-002, the permittee shall keep records of the operation of each engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee shall record the time and reason that each engine is being operated.

(Ref.: 40 CFR 60.4214(b))

SECTION 6
REPORTING REQUIREMENTS

Emission Point	Applicable Requirement	Condition Number(s)	Reporting Requirement
Facility-Wide	11 Miss. Admin. Code Pt. 2, R.2.2.B(11).	6.1	Annual Synthetic Minor monitoring report is due by 31 st of January for the preceding calendar year.
AA-001 AA-002	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	6.2	Reporting of changes in the status of affected engines

- 6.1 Except as otherwise specified herein, the permittee shall submit a certified annual synthetic minor monitoring report by the 31st of January for preceding calendar year. This report shall address any required monitoring specified in the permit.

(Ref.: 11 Miss. Admin. Code Pt. 2, R.2.2.B(11).)

- 6.2 For Emission Points AA-001 and AA-002, if either of the affected engines begins to operate as a non-emergency engine, as outlined in Condition 5.2, the permittee shall submit a new application for a modification to this operating permit within sixty (60) days of the change in operating status.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).)