STATE OF MISSISSIPPI
AIR POLLUTION CONTROL PERMIT

TO CONSTRUCT AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

Caterpillar, Inc.
501 Cardinal Drive
Corinth, Alcorn County, Mississippi

has been granted permission to construct air emissions equipment to comply with the emission limitations, monitoring requirements and other conditions set forth herein. This permit is issued in accordance with the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

Krystal Rudolph

AUTHORIZED SIGNATURE
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Issued: December 31, 2020 **Permit No.: 0060-00003**

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. Any activities not identified in the application are not authorized by this permit.

   (Ref.: Miss. Code Ann. 49-17-29 1.b)

3. 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 operating without a valid permit pursuant to State Law.

   (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(5).)

4. It is the responsibility of the applicant/permittee to obtain all other approvals, permits, clearances, easements, agreements, etc., which may be required including, but not limited to, all required local government zoning approvals or permits.

   (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.1.D(6).)

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 the 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.

   (Ref.: 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 permit does not convey any property rights of any sort, or any exclusive privilege.

   (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B(15)(c).)

9. The permittee shall furnish to the MDEQ within a reasonable time any information the 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 the 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 the MDEQ 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. *Design and Construction Requirements*: The stationary source shall be designed and constructed so as to operate without causing a violation of an Applicable Rules and Regulations, without interfering with the attainment and maintenance of State and National Ambient Air Quality Standards, and such that the emission of air toxics does not result in an ambient concentration sufficient to adversely affect human health and well-being or unreasonably and adversely affect plant or animal life beyond the stationary source boundaries.

    (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.A.)

11. *Solids Removal*: 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)

12. *Diversion and Bypass of Air Pollution Controls*: 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 Mississippi Administrative Code, Title 11, Part 2, Chapter 1, Rule 1.10. – "Provisions for Upsets, Start-Ups, and Shutdowns".

    (Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.10.)

13. *Fugitive Dust Emissions from Construction Activities*: The construction of the stationary source shall be performed in such a manner so as to reduce fugitive dust emissions from construction activities to a minimum.

    (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.A(4).)

14. *Right of Entry*: The permittee shall allow the Mississippi Department of Environmental Quality Office of Pollution Control and the Mississippi Environmental Quality Permit Board and/or their representatives upon 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 emissions.

(Ref.: Miss. Code Ann. 49-17-21)

15. *Permit Modification or Revocation*: After notice and opportunity for a hearing, the Permit Board may modify the permit or revoke it in whole or in part for good cause shown including, but not limited to:

(a) Persistent violation of any of the 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.

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

16. *Public Record and Confidential Information*: 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.

(Ref.: Miss. Code Ann. 49-17-39)

17. *Permit Transfer*: This permit shall not be transferred except upon approval of the Permit Board.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.16.B.)

18. *Severability*: The provisions of this permit are severable. If any provision of the permit, or the application of any provision of the 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.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.1.D(7).)

19. *Permit Expiration*: The permit to construct will expire if construction does not begin within eighteen (18) months from the date of issuance or if construction is suspended for eighteen (18) months or more.

    (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.C(1).)

20. *Certification of Construction*: A new stationary source issued a Permit to Construct cannot begin operation until certification of construction by the permittee.

    (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(3).)

21. *Beginning Operation*: Except as prohibited in Section 1 – Condition 24 of this permit, after certification of construction by the permittee, the Permit to Construct shall be deemed to satisfy the requirement for a permit to operate until the date the application for issuance or modification of the Title V Permit or the application for issuance or modification of the State Permit to Operate, whichever is applicable, is due. This provision is not applicable to a source excluded from the requirement for a permit to operate as provided by Mississippi Administrative Code, Title 11, Part 2, Chapter 2, Rule 2.13.G.

    (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(4).)

22. *Application for a Permit to Operate*: Except as otherwise specified in Section 1 – Condition 24 of this permit, the application for issuance or modification of the State Permit to Operate or the Title V Permit (whichever is applicable) is due twelve (12) months after beginning operation or such earlier date or time as specified in the Permit to Construct. The Permit Board may specify an earlier date or time for submittal of the application. Beginning operation will be assumed to occur upon certification of construction, unless the permittee specifies differently in writing.

    (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(5).)

23. *Operating Under a Permit to Construct*: Except as otherwise specified in Section 1 – Condition 24 of this permit, upon submittal of a timely and complete application for issuance or modification of a State Permit to Operate or a Title V Permit (whichever is applicable) the applicant may continue to operate under the terms and conditions of the Permit to Construct and in compliance with the submitted application until the Permit Board issues, modifies, or denies the Permit to Operate.

    (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(6).)

24. *Application Requirements for a Permit to Operate for Moderate Modifications*: For moderate modifications that require contemporaneous enforceable emissions reductions from more than one emission point in order to "*net*" out of Prevention of Significant Deterioration / New Source Review (PSD / NSR), the applicable Title V Permit to Operate or State Permit to Operate must be modified prior to beginning operation of the modified facilities.

    (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(7).)

25. *General Duty*: All air emission equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants.

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

26. *Deviation Reporting*: 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.

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

27. *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).)

B. GENERAL NOTIFICATION REQUIREMENTS

1. Within fifteen (15) days of beginning actual construction, the permittee must notify the MDEQ in writing that construction has begun.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.C(2).)

2. The permittee must notify the MDEQ in writing when construction does not begin within eighteen (18) months of issuance or if construction is suspended for eighteen (18) months or more.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.C(3).)

3. Upon the completion of construction or installation of an approved stationary source or modification, and prior to commencing operation, the applicant shall notify the Permit Board that construction or installation was performed in accordance with the approved plans and specifications on file with the Permit Board.

   (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(1) and (3).)

4. The Permit Board shall be promptly notified in writing of any change in construction from the previously approved plans and specifications or permit. If the Permit Board determines the changes are substantial, it may require the submission of a new application to construct with "as built" plans and specifications. Notwithstanding any provision herein to the contrary, the acceptance of an "as built" application shall not constitute a waiver of the right to seek compliance penalties pursuant to State Law.

   (Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.D(2).)

SECTION 2
EMISSION POINT DESCRIPTION

The permittee is authorized to construct and operate, upon certification of construction, air emissions equipment, as described in the following table.

EMISSION POINT	DESCRIPTION
AA-000	Facility-Wide [Caterpillar, Inc.]
AA-100a	Spray Booth utilized for Wire Arc Spray Application and Flame Spray Applications [dust generated from this booth is routed directly to a dust collector for particulate matter control]
AA-100b	Spray Booth utilized for Wire Arc Spray Applications, Flame Spray Applications, and Cold Spray Operations [dust generated from this booth is routed directly to a dust collector for particulate matter control]
AA-100c	Five (5) Detail Booths [each booth contains one (1) downdraft table that is utilized for buffing and grinding parts; each downdraft table is partially enclosed (open at the top) in order to accommodate hoists, operates under vacuum, and is vented to a respective dust collector for particulate matter control]
AA-100e	Rod Rust Preventative Spray Station
AA-100f	Various Dunker Tanks and Washers
AA-100g	330-Gallon Immersion Tank [contains corrosion prevention liquids]
AB-100a	Shot Peen Blasting Operations [emissions are routed to baghouses located inside the building]
AB-100b	Ceramic Bead Blasting Operations [emissions are routed to baghouses located inside the building]
AB-100c	Ceramic Bead Blasting Operations [emissions are routed to baghouses located inside the building]
AB-100d	Ceramic Bead Blasting Operations [emissions are routed to baghouses located inside the building]
AB-100e	Ceramic Bead Blasting Operations [emissions are routed to baghouses located inside the building]
AB-100f	Ceramic Bead Blasting Operations [emissions are routed to baghouses located inside the building]
AB-100g	Welding Operations
AB-100h	Cap Grinding Operations [consists of a small cap grinder station; emissions are routed to a baghouse inside the building]
AB-100i	Polishing Station [emissions are routed a wet dust collector]
AB-100j	Polishing Stations [emissions are vented inside the building]
AB-100k	Polishing Stations [emissions are vented inside the building]
AB-100l	Polishing Stations [emissions are vented inside the building]
AB-100m	Machining Operations [emissions are routed to a dust collector for particulate matter control]

EMISSION POINT	DESCRIPTION
AB-100n	Slurry Blast Operations
AB-100o	Internal Grinding Operations [includes use of a grinding coolant and an enclosed dust free process]
AC-101	Final Rod Flushing Operations [includes one (1) 490-gallon tank and one (1) 420-gallon tank]
AC-102	3-Stage Rough Rod Flushing Operations [includes one (1) 625-gallon tank and two (2) 325-gallon tanks]
AC-103	Four (4) 500-Gallon Dunker Tanks [parts are flushed and a rust preventative coating is applied]
AC-104	2-Stage Final Water / Oil Pump Wash Operations [includes one (1) 560-gallon tank and one (1) 1,400-gallon tank]
AC-105	Engine Connecting Rod Flushing Operations [includes one (1) 305-gallon tank and four (4) 220-gallon tanks]
AC-106	Fuel System Rough Washing Operations [includes five (5) 330-gallon tanks]
AC-107	5-Stage Oil Cooler Cleaning and Painting Operations [includes two (2) 200-gallon tanks and two (2) 350-gallon tanks]
AC-108	Cam Shaft Tarp Washing Operations [includes one (1) 350-gallon tank]
AC-109	Typhoon Fuel System Washing Operations [includes one (1) 130-gallon tank]
AC-110	Rod Belt Washing Operations [includes one (1) 200-gallon tank]
AC-111	3-Stage Rocker Arm Washing Operations [includes one (1) 190-gallon tank, one (1) 175-gallon tank, and three (3) 300-gallon tanks]
AC-112	Aluminum Parts Washing Operations [includes one (1) 1,252-gallon tank]
AC-113	Heat Pin Washing Operations [includes one (1) 300-gallon tank]
AC-114	3-Stage Piston Rough Washing Operations [includes one (1) 275-gallon tank, one (1) 400-gallon tank, and two (2) 275-gallon tanks]
AC-115	Diesel Engine Flywheel Flushing Operations
AC-116	2-Stage Rough Crown Washing Operations [includes one (1) 190-gallon tank and (1) 175-gallon tank]
AC-117	Final Crown Washing Operations [includes one (1) 175-gallon tank]
AC-118	Miscellaneous Part Washing Operations
AD-101	0.8 MMBTU / Hour Stage 1 Rough Rod Wash Natural Gas-Fired Burner
AD-102	Two (2) 0.2 MMBTU / Hour Stage 2 & 3 Rough Rod Wash Natural Gas-Fired Burners
AD-103	Two (2) 1.5 MMBTU / Hour Stage 1 & 2 Final Water / Oil Pump Wash Natural Gas-Fired Burners
AD-104	3.0 MMBTU / Hour Natural Gas-Fired Burner

EMISSION POINT	DESCRIPTION
AD-105	Two (2) 1.0 MMBTU / Hour Natural Gas-Fired Burners [one located in Rough Water / Oil Pump Wash Operations and one located in the Spray Booth for Wire Arc Spray Application]
AD-108	Two (2) 0.25 MMBTU / Hour Natural Gas-Fired Graphite / Print Operation Ovens
AD-110	One (1) 1.3 MMBTU / Hour Natural Gas-Fired Dryer
AE-100	Miscellaneous Operations [includes (but not limited to) fuel system assembly and testing, battery charge, induction heat cam shaft gears, disassembly, assembly and packaging, oil and chemical use (i.e. miscellaneous, maintenance, and machining), and component flush station]
AF-100	Laser Cleaning Operations [includes (but not limited to) the general cleaning of surfaces / molds, by producing a high-quality laser beam (max. output: 160 kW per pulse) to remove oxides, paint, and varnish]
AJ-001	7-Stage Molten Salt Bath System [includes three (3) 3,950-gallon salt bank tanks, three (3) 3,790-gallon water only rinse tanks, two (2) 3,790-gallon chelating tanks, and two (2) 3,790-gallon PR tanks; emissions routed to a scrubber]
AJ-002	Salt Bath Furnace No. 1 [equipped with a 3.0 MMBTU / hour natural gas-fired burner]
AJ-003	Salt Bath Furnace No. 2 [equipped with a 3.0 MMBTU / hour natural gas-fired burner]
AJ-004	Salt Bath Furnace No. 3 [equipped with a 3.0 MMBTU / hour natural gas-fired burner]

SECTION 3
EMISSION LIMITATIONS AND STANDARDS

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter	Limitation / Standard
AA-000	11 Miss. Admin. Code Pt. 2, R. 1.3.A.	3.1	Opacity	40%
	11 Miss. Admin. Code Pt. 2, R. 1.3.B.	3.2	Opacity	40% Exception
	11 Miss. Admin. Code Pt. 2, R. 1.3.F(1).	3.3	PM	$E = 4.1(p^{0.67})$
	11 Miss. Admin. Code Pt. 2, R. 1.4.A(1).	3.4	SO_2	4.8 Pounds Per Million BTU (lbs. / MMBTU) Heat Input
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). **(MACT Avoidance Limits)**	3.5	HAPs	9.9 tpy (Individual); 24.9 tpy (Total) (12-Month Rolling Totals)
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(10). **(PSD Avoidance Limits)**	3.6	Total PM (filterable only)	249.0 tpy (12-Month Rolling Total)
			PM_{10} (filterable + condensable)	249.0 tpy (12-Month Rolling Total)
			$PM_{2.5}$ (filterable + condensable)	249.0 tpy (12-Month Rolling Total)
			VOCs	249.0 tpy (12-Month Rolling Total)
AB-100a through AB-100f AB-100h AB-100i	11 Miss. Admin Code Pt. 2, R. 2.2.B(10).	3.7	PM / PM_{10} / $PM_{2.5}$ (*filterable only)*	Operate Emissions Control Devices at All Times During Operation
AD-101 through AD-111 AJ-002 AJ-003 AJ-004	11 Miss. Admin. Code Pt. 2, R. 1.3.D(1)(a).	3.8	PM	0.6 lbs. / MMBTU Heat Input

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter	Limitation / Standard
AD-107	40 CFR Part 63, Subpart ZZZZ – National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines 40 CFR 63.6585(a), (c), and 63.6590(a)(1)(iii); Subpart ZZZZ	3.9	HAPs	Applicability
	40 CFR 63.6640(f); Subpart ZZZZ	3.10	Operating Limitations	50 Hours Per Calendar Year – Non-Emergency Operations 100 Hours Per Calendar Year – Maintenance and Testing
	40 CFR 63.6625(f); Subpart ZZZZ	3.11	Monitoring Limitation	Install Non-Resettable Hour Meter

3.1 For Emission Point AA-000 (Facility-Wide), except as otherwise specified or limited herein, the permittee shall not cause 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 percent (40%) opacity subject to the exceptions provided below:

(a) Start-up 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) start-ups 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 sixty percent (60%) 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 (1) hour.

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

3.2 For Emission Point AA-000 (Facility-Wide), except as otherwise specified or limited herein, the permittee shall not cause or allow the discharge into the ambient air from any point source 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 Point AA-000 (Facility-Wide), the permittee shall not allow the emission of particulate matter in total quantities in any one hour from any manufacturing process (which includes any associated stacks, vents, outlets, or combination thereof) to exceed the amount determined by the relationship:

$$E = (4.1)*(p^{0.67}),$$

where "E" is the emission rate in pounds per hour and "p" is the process weight input rate in tons per hour. Conveyor discharge of coarse solid matter may be allowed if no nuisance is created beyond the property boundary where the discharge occurs.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.F.(1).)

3.4 For Emission Point AA-000 (Facility-Wide), where applicable, the maximum discharge of sulfur oxides from any fuel burning installation in which the fuel is burned primarily to produce heat or power by indirect heat transfer shall not exceed 4.8 pounds (measured as sulfur dioxide or SO_2) per million BTU heat input (4.8 lbs. / MMBTU).

(Ref.:11 Miss. Admin. Code Pt. 2, R. 1.4.A.(1).)

3.5 For Emission Point AA-000 (Facility-Wide), the permittee shall limit total emission of each total hazardous air pollutant (HAP) to no more than 9.9 tons per year (tpy) based on a 12-month rolling total basis and all HAPs in total to no more than 24.9 tpy based on a 12-month rolling total basis.

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

3.6 For Emission Point AA-000 (Facility-Wide), the permittee shall limit the total emission of total particulate matter (PM; filterable only), particulate matter less than 10 µm in diameter (PM_{10}; filterable + condensable), particulate matter less than 2.5 µm in diameter ($PM_{2.5}$; filterable + condensable), and volatile organic compounds (VOCs) to no more than 245 tons per year (tpy) based on a 12-month rolling total.

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

3.7 For Emission Points AB-100a, AB-100b, AB-100c, AB-100d, AB-100e, AB-100f, AB-100h, and AB-100i, the permittee shall operate all accompanying emissions control devices at all times in which the noted processes are in operation in order to minimize the emission of PM, PM_{10}, and $PM_{2.5}$.

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

3.8 For Emission Points AD-101 through AD-111, AJ-002, AJ-003, and AJ-004, the maximum permissible emission of ash and/or particulate matter (PM) from fossil fuel burning installations of less than 10 million BTU (MMBTU) per hour heat input shall not exceed 0.6 pounds per MMBTU per hour heat input.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 1.3.D.(1)(a).)

3.9 For Emission Point AD-107, the permittee is subject to and shall comply with 40 CFR Part 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE).

For the purpose of this permit, Emission point AD-107 is a stationary, diesel-fired compression ignition emergency RICE with a rated power less than 500 HP located at an area source of HAP emissions that was constructed prior to June 12, 2006.

(40 CFR 63.6585(a), (c), and 63.6590(a)(1)(iii); Subpart ZZZZ)

3.10 For Emission Point AD-107, any operation of an engine for any reason other than emergency operation, maintenance and testing, and operation in non-emergency situations for fifty (50) hours per year is prohibited. If an engine is not operated in accordance with Parts (a) through (c) of this condition, the engine will not be considered an emergency engine under the referenced regulation and shall meet all requirements for a corresponding non-emergency engine:

(a) There is no time limit on the use of an engine in emergency situations.

(b) The permittee may operate an engine for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, or the insurance company accompanied with the engine. Maintenance checks and readiness testing of an engine is limited to a maximum of one hundred (100) hours per calendar year. The permittee may petition the MDEQ for approval of additional hours to be used for maintenance checks and readiness testing. However, a petition is not required if the permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of the engine beyond 100 hours per calendar year.

(c) The permittee may operate an engine 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. 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 supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(Ref.: 40 CFR 63.6640(f)(1),(2), and (4); Subpart ZZZZ)

3.11 For Emission Point AD-107, the permittee shall install a non-resettable hour meter on the engine if one is not already installed.

(Ref.: 40 CFR 63.6625(f); Subpart ZZZZ)

SECTION 4
WORK PRACTICE STANDARDS

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter	Work Practice
AD-107	40 CFR 63.6603 – Table 2d, Item 4 and footnote 2; Subpart ZZZZ	4.1	HAPs	Conduct Routine Maintenance

4.1 For Emission Point AD-107, except during periods of start-up, the permittee shall conduct and record the following routine maintenance actions on the engine:

(a) Change the oil and filter in the engine every five hundred (500) hours of operation or annually (whichever comes first);

(b) Inspect the air cleaner every one thousand (1,000) hours of operation or annually (whichever comes first) and replace as necessary; and

(c) Inspect all hoses and belts every 500 hours of operation or annually (whichever comes first) and replace as necessary.

If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform a maintenance action on the required schedule or if performing a maintenance action on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the permittee may delay the maintenance action until the emergency is over or the unacceptable risk under Federal, State or local law has abated. The maintenance action should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State or local law has abated.

(Ref.: 40 CFR 63.6603(a) – Table 2d, Item 4 and footnote 2; Subpart ZZZZ)

SECTION 5
MONITORING AND RECORDKEEPING REQUIREMENTS

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter	Monitoring / Recordkeeping Requirement
AA-000	11 Miss. Admin. Code Pt. 2, R. 2.9.	5.1	Recordkeeping	Maintain Records For A Minimum of Five (5) Years
	11 Miss. Admin. Code Pt. 2, R. 2. 2.B(11).	5.2	PM (filterable) PM_{10} / $PM_{2.5}$ (filterable + condensable) VOCs HAPs	Calculate the Total Emission of Applicable Pollutants (Monthly and 12-Month Rolling Totals)
	11 Miss. Admin. Code Pt. 2, R. 2. 2.B(11).	5.3	VOCs HAPs	Maintain Records For Any Coating, Adhesive, Solvent, Etc. That Contain VOCs / HAPs Keep Records of the VOC / HAP Content of All Materials Used
	11 Miss. Admin. Code Pt. 2, R. 2. 2.B(11).	5.4	PM / PM_{10} / $PM_{2.5}$ *(filterable only)*	Perform Monthly Inspections on Control Devices
AA-100a AA-100b AA-100c	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	5.5	PM Opacity	Conduct Weekly Visible Emissions Observations / Evaluations
AD-107	40 CFR 63.6625(e), (h) and (i); Subpart ZZZZ	5.6	HAPs	Perform Routine Maintenance on the Engine
	40 CFR 63.6605 and 63.6640(a), (b), (e), (f); Subpart ZZZZ	5.7		Continuous Compliance Monitoring Requirements
	40 CFR 63.10(b)(2)(xiv); 63.10(b)(2)(viii); Subpart A 40 CFR 63.6605(b), 63.6640, and 63.6655(a), (d), (e), (f); Subpart ZZZZ	5.8		Maintain Records For Stationary RICE Generator

5.1 For Emission Point AA-000 (Facility-Wide), the permittee shall retain all required records, monitoring data, supporting 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 the MDEQ as required by Applicable Rules and Regulations or this permit upon request.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.9.)

5.2 For Emission Point AA-000 (Facility-Wide), the permittee shall calculate and record the total emission of particulate matter (PM; filterable only), particulate matter less than 10 microns (µm) in diameter (PM_{10}; filterable + condensable), particulate matter less than 2.5 µm in diameter ($PM_{2.5}$; filterable + condensable), volatile organic compounds (VOCs), each individual hazardous air pollutant (HAP), and all HAPs in total from all process equipment that can reasonably emit a pollutant(s) in tons both on a monthly basis and on a 12-month rolling total basis.

Unless otherwise specified herein, the permittee shall include all reference data utilized to validate the calculated emissions (e.g. operational data, applicable emission factors, engineering judgement determinations, etc.).

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

5.3 For Emission Point AA-000 (Facility-Wide), the permittee shall monitor and record the total volume (in gallons) of each surface coating (e.g. thinner, paint, etc.) and solvent used that contains a volatile organic compound (VOC) and/or hazardous air pollutant (HAP) monthly. Additionally, the permittee shall maintain documentation for any coating material that includes (at a minimum) the following information:

(a) The product name and identification;

(b) The density (in pounds per gallon);

(c) The weight percentage (wt.%) of the VOC content;

(d) The wt.% content for each individual HAP; and

(e) The wt.% of the solids content (as applicable).

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

5.4 For Emission Point AA-000 (Facility-Wide), the permittee shall perform and record an inspection of each air pollution control device monthly to note any required maintenance.

If a problem is noted during an inspection, the permittee shall perform the maintenance necessary on the control device to ensure operation as originally designed. Additionally, the permittee shall maintain on-site sufficient components as is necessary to repair a process unit (to the extent practicable).

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

5.5 For Emission Points AA-100a, AA-100b, AA-100c, the permittee shall have a certified VEE reader perform weekly a visible emission observation in accordance with EPA Test Method 22 on the exhaust of each noted point source during daylight hours and during representative operating conditions.

If visible emissions are observed from a point source, the permittee shall then immediately perform and record a visible emission evaluation (VEE) in accordance with EPA Test Method 9. In the event that a VEE is required but cannot be conducted on a point source immediately following the initial observation of visible emissions, the permittee shall record a written explanation as to why it was not possible to perform the VEE immediately and shall conduct the VEE as soon as practicable.

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

5.6 For Emission Point AD-107, the permittee shall comply with the following monitoring requirements:

(a) Operate and maintain, according to the manufacturer's emission-related written instructions or develop a maintenance plan which shall provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions;

(b) Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply; and

(c) The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in lieu of Condition 4.1(a).

(1) The oil analysis shall be performed at the same frequency specified for changing the oil.

(2) The analysis program shall at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows:

(i) Total Base Number is less than 30 percent of the Total Base Number of the oil when new;

(ii) Viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or

(iii) Percent water content (by volume) is greater than 0.5.

If all of these condemning limits are not exceeded, the permittee is not required to change the oil. If any of the limits are exceeded, the permittee shall change the oil within two (2) days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee shall change the oil within two (2) days or before commencing operation (whichever is later). The permittee shall keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

(Ref: 40 CFR 63.6625(e), (h) and (i); Subpart ZZZZ)

5.7 For Emission Point AD-107, the permittee shall comply with the following continuous compliance requirements:

(a) Work or management practices by operating and maintaining according to the manufacturer's emission-related operation and maintenance instructions or by developing and following a maintenance plan which shall provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions;

(b) Report each instance in which an emission or operating limitation (that applies) was not met according to 40 CFR 63.6650, Subpart ZZZZ;

(c) Report each instance in which a general provisions requirement (that applies) was not met;

(d) Operate in accordance with the following requirements:

(1) There is no time limit on the use of emergency stationary RICE in emergency situations.

(2) For the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The permittee may petition for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.

(Ref: 40 CFR 63.6605 and 63.6640(a), (b), (e), (f); Subpart ZZZZ)

5.8 For Emission Point AD-107, the permittee shall comply with the following recordkeeping requirements:

(a) A copy of each notification and report submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to the requirement in 63.10(b)(2)(xiv), Subpart A;

(b) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment;

(c) Records of performance tests and performance evaluations as required in 63.10(b)(2)(viii);

(d) Records of all required maintenance performed on the air pollution control and monitoring equipment; and

(e) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), Subpart ZZZZ, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation;

(f) Keep the records required in Table 6 of this subpart (as stated in 40 CFR 63.6605 and 63.6640; Subpart ZZZZ) to show continuous compliance with each emission or operating limitation that applies;

(g) Deep records of the maintenance conducted on the stationary RICE in order to demonstrate that the permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to the maintenance plan; and

(h) Keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for non-emergency and emergency operation (including what classified the operation as emergency).

(Ref: 40 CFR 63.6655(a), (d), (e), (f); Subpart ZZZZ)
(Ref.: 40 CFR 63.10(b)(2)(xiv); 63.10(b)(2)(viii); Subpart A

SECTION 6
REPORTING REQUIREMENTS

Emission Point(s)	Applicable Requirement	Condition Number	Reporting Requirement
AA-000	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	6.1	Report Permit Deviations Within Five (5) Working Days
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	6.2	Submit Certified Annual Monitoring Report
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	6.3	All Documents Submitted to MDEQ Shall be Certified by a Responsible Official
	Miss. Admin. Code Pt. 2, R. 2.2.B(11)	6.4	Submit an Annual Report on Emissions and Operational Data
AD-107	40 CFR 63 Subpart ZZZZ – Table 2d,footnote 2	6.5	Report Any Delay on Performing a Maintenance Action
	11 Miss. Admin. Code Pt. 2, R. 2.2.B(11).	6.6	Report the Hours of Operation

6.1 For Emission Point AA-000 (Facility-Wide), 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. The report shall be made within five (5) working days of the time the deviation began.

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

6.2 For emission point AA-000 (Facility-Wide), except as otherwise specified herein, the permittee shall submit a certified annual synthetic minor monitoring report postmarked no later than January 31st and July 31st of each year for the preceding six-month period. This report shall address any required monitoring specified in Section 6 of the permit. All instances of deviations from permit requirements must be clearly identified in the report. Where no monitoring data is required to be reported and/or there are no deviations to report, the report shall contain the appropriate negative declaration.

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

6.3 For Emission Point AA-000 (Facility-Wide), the permittee shall submit any and all documents required by this permit with a certification signed by a responsible official stating that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

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

6.4 For Emission Point AA-000 (Facility-Wide), the permittee shall submit an annual monitoring report in accordance with Condition 6.2 that contains the following information:

(a) The total emission of PM, PM_{10} (filterable + condensable), $PM_{2.5}$ (filterable + condensable), VOCs, each individual HAP, and all HAPs in total in tons per year based on a 12-month rolling total basis;

(b) The identification of each coating, adhesive, solvent, or other surface coating material that contains VOCs and/or HAPs;

(b) The VOC and/or HAP content(s) of each coating, adhesive, solvent, or other surface coating material;

(c) The total gallons of each coating, adhesive, solvent, or other surface coating material used that contains VOCs and/or HAPs on a 12-month rolling total basis; and

(d) The quantity of PM / PM_{10} / $PM_{2.5}$ producing materials, which may include (but is not limited to) abrasive blasting medium, welding wire / electrodes, etc. that are consumed / used.

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

6.5 For Emission Point AD-107, the permittee shall report any failure to perform a maintenance action on the required schedule specified in Condition 4.1 and the Federal, State or local law under which the risk was deemed unacceptable.

(Ref: 40 CFR 63 Subpart ZZZZ – Table 2d, footnote 2)

6.6 For Emission Point AD-107, the permittee shall submit a summary within the semi-annual monitoring report (SMR) postmarked by January 31st that details the hours of operation for the engine during the preceding calendar year. The report shall include how many hours are spent for emergency operation, what classified the operation as an emergency, how many hours are spent for non-emergency operation, and the reason for the non-emergency operation.

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