

STATE OF MISSISSIPPI AIR POLLUTION CONTROL PERMIT

TO CONSTRUCT AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

Relativity Space, Inc.
Building 4080
Stennis Space Center, Hancock 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

AUTHORIZED SIGNATURE
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Issued: August 26, 2019

Permit No.: 1000-00058

Modified: [DATE]

SECTION 1. GENERAL CONDITIONS

- 1.1 This permit is for air pollution control purposes only.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.1.D.)
- 1.2 Any activities not identified in the application are not authorized by this permit.

(Ref.: Miss. Code Ann. 49-17-29(1)(b))
- 1.3 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).)
- 1.4 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).)
- 1.5 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).)
- 1.6 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).)
- 1.7 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).)
- 1.8 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).)

- 1.9 The permittee shall furnish to the Mississippi Department of Environmental Quality (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).)

- 1.10 *Design and Construction Requirements:* The stationary source shall be designed and constructed so as to operate without causing a violation of any 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(1) – (3).)

- 1.11 The necessary facilities shall be constructed to prevent any wastes or other products or substances to be placed in a location where they are likely to cause pollution of the air or waters of the State without the proper environmental permits.

(Ref.: Miss. Code Ann. 49-17-29(1) and (2).)

- 1.12 *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).)

- 1.13 *General Nuisance Clause:* The permittee shall not cause or allow the emission of particles or any contaminants in sufficient amounts or of such duration from any process as to be injurious to humans, animals, plants, or property, or to be a public nuisance, or create a condition of air pollution.

- (a) The permittee shall not cause the handling, transporting, or storage of any material in a manner which allows or may allow unnecessary amounts of particulate matter to become airborne.

- (b) 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 to property other than that from which it originated or to violate any other provision of this permit, the MDEQ may order such corrected in a way that all air and gases or air and gas-borne material leaving the building or equipment are controlled or removed prior to discharge to the open air.

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

1.14 *Right of Entry:* The permittee shall allow the MDEQ 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)

1.15 *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 emissions.

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

1.16 *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 MDEQ Office of Pollution Control.

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

1.17 *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.)

- 1.18 *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).)

- 1.19 *Permit Expiration*: The Permit to Construct will expire if construction does not begin within eighteen (18) months from the date of issuance, if construction is suspended for at least eighteen (18) months, or if construction is not completed within a reasonable time. The MDEQ may extend the 18-month period upon a satisfactory showing that an extension is justified.

(Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.5.C(1)., R. 2.5.C(4)., and R. 5.2.)

- 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).)

- 1.21 *Beginning Operation*: 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 Operating 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, Part 2, Title 11, Chapter 2, Rule 2.13.G.

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

- 1.22 *Application for a Permit to Operate*: The application for issuance or modification of the State Permit to Operate or the Title V Operating 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).)

- 1.23 *Operating Under a Permit to Construct*: Upon submittal of a timely and complete application for issuance or modification of a State Permit to Operate or a Title V Operating 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).)

1.24 Except as otherwise specified herein, the permittee shall be subject to the following provisions with respect to upsets, start-ups, and shutdowns.

(a) Upsets (as defined in 11 Miss. Admin. Code Pt. 2, R. 1.2.)

- (1) For an upset, the Commission may pursue an enforcement action for noncompliance with an emission standard or other requirement of an applicable rule, regulation, or permit. In determining whether to pursue enforcement action, and/or the appropriate enforcement action to take, the Commission may consider whether the source has demonstrated through properly signed contemporaneous operating logs or other relevant evidence the following:
 - (i) An upset occurred and that the source can identify the cause(s) of the upset;
 - (ii) The source was at the time being properly operated;
 - (iii) During the upset the source took all reasonable steps to minimize levels of emissions that exceeded the emission standard or other requirement of an applicable rule, regulation, or permit;
 - (iv) That within five (5) working days of the time the upset began, the source submitted a written report to the Department describing the upset, the steps taken to mitigate excess emissions or any other non-compliance, and the corrective actions taken and;
 - (v) That as soon as practicable but no later than twenty-four (24) hours of becoming aware of an upset that caused an immediate adverse impact to human health or the environment beyond the source boundary or caused a general nuisance to the public, the source provided notification to the Department.
- (2) In any enforcement proceeding by the Commission, the source seeking to establish the occurrence of an upset has the burden of proof.
- (3) This provision is in addition to any upset provision contained in any applicable requirement.
- (4) These upset provisions apply only to enforcement actions by the Commission and are not intended to prohibit EPA or third party enforcement actions.

- (b) Start-ups and Shutdowns (as defined in 11 Miss. Admin. Code Pt. 2, R. 1.2.)
- (1) Start-ups and shutdowns are part of normal source operation. Emission limitations apply during start-ups and shutdowns unless source specific emission limitations or work practice standards for start-ups and shutdowns are defined by an applicable rule, regulation, or permit.
 - (2) Where the source is unable to comply with existing emission limitations established under the State Implementation Plan (SIP) and defined in this Mississippi Administrative Code, Title 11, Part 2, Chapter 1, the Department will consider establishing source specific emission limitations or work practice standards for start-ups and shutdowns. Source specific emission limitations or work practice standards established for start-ups and shutdowns are subject to the requirements prescribed in Mississippi Administrative Code, Title 11, Part 2, Chapter 1, Rule 1.10.B.(2)(a) through (e).
 - (3) Where an upset as defined in Rule 1.2 occurs during start-up or shutdown, see the upset requirements above.

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

1.25 *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).)

1.26 *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 of 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).)

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 [Relativity Space, Inc.]
AA-001	Non-Assisted Flare [equipped with one (1) 0.05 MMBTU / hour natural gas-fired pilot flame]
AA-002	Natural Gas-Fired Rocket Engine Test Stand No. 1 [E-4 Cell No. 1]
AA-003	Natural Gas-Fired Rocket Engine Test Stand No. 2 [E-4 Cell No. 2]
AA-004	Natural Gas-Fired Rocket Engine Test Stand No. 3 [E-4 Cell No. 3]
AA-005	Natural Gas-Fired Rocket Engine Test Stand No. 4 [E-4 Cell No. 4]
AA-006	16,000-Gallon Liquefied Natural Gas (LNG) Above-Ground Storage Tank
AA-007	Non-Assisted Flare for Hockey Stick “Engine” Test Stand [equipped with two (2) 0.05 MMBTU / hour natural gas-fired pilot flames]
AA-008	Non-Assisted Flare for Hockey Stick “Stage 2” Test Stand [equipped with two (2) 0.05 MMBTU / hour natural gas-fired pilot flames]
AA-009	Non-Assisted Flare for Hockey Stick “Stage 1” Test Stand [equipped with two (2) 0.05 MMBTU / hour natural gas-fired pilot flames]
AA-010	Natural Gas-Fired “Hockey Stick” Engine Test Stand No. 1
AA-011	Natural Gas-Fired “Hockey Stick” Engine Test Stand No. 2
AA-012	Natural Gas-Fired “Hockey Stick” Stage 2 Test Stand
AA-013	Natural Gas-Fired “Hockey Stick” Stage 1 Test Stand
AA-014	200 kW (268 HP) Diesel-Fired Emergency Generator Engine [total heat input: 0.682 MMBTU / hour; manufactured in 2023]
AA-015	Sixteen (16) “Hockey Stick” Above-Ground LNG Storage Tanks [includes six (6) 30,000-gallon tanks, two (2) 28,000-gallon tanks, six (6) 15,000-gallon tanks, and two (2) 7,000-gallon tanks]

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 (as smoke)	≤ 40%
	11 Miss. Admin. Code Pt. 2, R. 1.3.B.	3.2	Opacity	
	11 Miss. Admin. Code Pt. 2, R. 1.3.D.(1).	3.3	PM (filterable)	0.6 lb. / MMBTU; or E = 0.8808·(T ^{-0.1667}); or 0.19 lb. / MMBTU (As Applicable)
AA-001 AA-007 AA-008 AA-009	11 Miss. Admin. Code Pt. 2, R. 2.2.B.(10)., as established in the Permit to Construct issued August 26, 2019 and modified [DATE]	3.4	VOCs	Operational Requirements
AA-002 through AA-005 AA-010 through AA-013	11 Miss. Admin. Code Pt. 2, R. 2.2.B.(10)., as established in the Permit to Construct issued August 26, 2019 and modified [DATE]	3.5	Fuel Restriction	Only Combust Liquefied Natural Gas (LNG)
		3.6	VOCs	Operational Requirement
AA-006 AA-015	11 Miss. Admin. Code Pt. 2, R. 2.2.B.(10)., as established in the Permit to Construct issued August 26, 2019 and modified [DATE]	3.7	VOCs	Operational Requirement
AA-014	40 CFR 63.6585(a), (c), and 63.6590(c)(1); Subpart ZZZZ	3.8	HAPs	General Applicability
	40 CFR 60.4200(a)(2); Subpart III	3.9	NO _x + NMHC CO PM	General Applicability
	40 CFR 60.4207(b); Subpart III	3.10	Fuel Requirements	15 ppm Sulfur Content (Max.) 40 Cetane Index (Min.) or 35% Aromatic Content (Max. – by volume)
	40 CFR 60.4209(a); Subpart III 11 Miss. Admin. Code Pt. 2, R. 2.2.B.(10).	3.11	Hours of Operation	Install Non-Resettable Hour Meter

Emission Point(s)	Applicable Requirement	Condition Number	Pollutant / Parameter	Limitation / Standard
AA-014	40 CFR 60.4211(f)(1) – (3); Subpart IIII	3.12	Operational Requirements	100 Hours / Calendar Year for Maintenance and Readiness Testing; 50 Hours / Calendar Year for Non-Emergency Situations
	40 CFR 60.4202(a)(2) and 60.4205(b); Subpart IIII 40 CFR 1039.105; Subpart B	3.13	NMHC + NO _x	4.0 grams per kilowatt-hour
			CO	3.5 grams per kilowatt-hour
			PM	0.20 grams per kilowatt-hour
40 CFR 60.4202(a)(2) and 60.4205(b); Subpart IIII 40 CFR 1039.105; Subpart B	3.14	Opacity (Smoke)	20% During Acceleration Mode 15% During Lugging Mode 50% During Peaks in Either Acceleration or Lugging Modes	

3.1 Emission Point AA-000 (Facility-Wide), except as otherwise specified herein, the permittee shall not cause or allow the emission of smoke into the open air from a point source or from any manufacturing / industrial process on-site that exceeds forty (40) percent opacity subject to the following exceptions:

- (a) Start-up operations may produce emissions that exceed 40% opacity for up to fifteen (15) minutes per start-up in any one (1) 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 (60) percent opacity and provided further that the aggregation 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 (1) one hour.

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

3.2 For Emission Point AA-000 (Facility-Wide), the permittee shall not discharge into the ambient air from a point source any contaminant of such opacity as to obscure an observer's view to a degree in excess of 40% opacity. 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 comply with the following ash / particulate matter (PM) emission standards (as applicable):

- (a) For any source that utilizes fossil fuel and has a heat input of less than ten (10) million BTU (MMBTU) per hour, the permittee shall not exceed 0.6 pounds per MMBTU per hour heat input;
- (b) For any source that combusts fossil fuel and has a heat input equal to / greater than 10 MMBTU per hour heat input but less than 10,000 MMBTU per hour heat input, the permittee shall not exceed an emission rate as determined by the following relationship:

$$E = 0.8808 \cdot (I^{-0.1667})$$

Where “E” is the emission rate in pounds per MMBTU per hour heat input and “I” is the heat input in MMBTU per hour; or

- (c) For any source that combusts fossil fuel and has a heat input equal to / greater than 10,000 MMBTU per hour heat input, the permittee shall not exceed 0.19 pounds per MMBTU per hour heat input.

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

3.4 For Emission Points AA-001, AA-007, AA-008, and AA-009, the permittee shall operate each flare in accordance with the following specifications to achieve (at a minimum) ninety-eight (98) percent destruction efficiency of volatile organic compound (VOC) emissions:

- (a) The flare shall be operated at all times when emissions may be vented to the control device;
- (b) The flare shall be operated and maintained according to the manufacturer’s specifications and recommendations;
- (c) The flare shall be operated as to generate no visible emissions (as determined by EPA Test Method 22), except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours; and
- (d) The permittee shall maintain a pilot flame at all times when emissions may be vented to the flare.

[Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B.(10)., as established in the Permit to Construct issued August 26, 2019 and modified [DATE] (to include AA-007 through AA-009)]

3.5 For Emission Points AA-002 through AA-005 and AA-010 through AA-013, the permittee shall only combust liquefied natural gas (LNG) as the primary fuel source for engine testing operations.

[Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B.(10)., as established in the Permit to Construct issued August 26, 2019 and modified [DATE] (to include AA-010 through AA-013)]

- 3.6 For Emission Points AA-002 through AA-005 and AA-010 through AA-013, the permittee shall direct the contents of fuel source piping to the corresponding flare (i.e. Emission Points AA-001 and AA-007 through AA-009) during periods of engine pre-test chill-in mode and engine post-test vent mode.

For the purpose of the permit, “*chill-in mode*” is defined as the operation of directing LNG through piping (at a reduced flow rate) prior to an engine testing event to prevent a cold-shock effect, and “*vent mode*” is defined as the operation of purging LNG from piping (via nitrogen gas) after completing an engine testing event.

[Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B.(10)., as established in the Permit to Construct issued August 26, 2019 and modified [DATE] (to include AA-010 through AA-013)]

- 3.7 For Emission Point AA-006 and AA-015, the permittee shall direct natural gas (in the vapor phase) from a storage tank to a flare (i.e. Emission Points AA-001 and AA-007 through AA-009) during periods of tank filling and idle mode.

For the purpose of this permit, “*idle mode*” is defined as the transient period in which liquefied natural gas (LNG) vaporizes due to ambient atmospheric conditions.

[Ref.: 11 Miss. Admin. Code Pt. 2, R. 2.2.B.(10)., as established in the Permit to Construct issued August 26, 2019 and modified [DATE] (to include AA-015)]

- 3.8 For Emission Point AA-014, the permittee is subject to and shall comply with the applicable requirements found in 40 CFR Part 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE) and 40 CFR Part 63, Subpart A – General Provisions (as required by Table 8 of Subpart ZZZZ)

For the purpose of this permit, stationary RICE is classified as “new” if construction or reconstruction commenced on / after June 12, 2006. For new compression-ignition RICE, the permittee shall comply with the applicable requirements in Subpart ZZZZ by complying with 40 CFR Part 60, Subpart IIII. No further requirements apply for the engine under Subpart ZZZZ.

(Ref.: 40 CFR 63.6585(a), (c), and 63.6590(c)(1); Subpart ZZZZ)

- 3.9 For Emission Point AA-014, the permittee is subject to and shall comply with all applicable requirements found in 40 CFR Part 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and 40 CFR Part 60, Subpart A – General Provisions (as required by Table 8 of Subpart IIII).

(Ref.: 40 CFR 60.4200(a)(2); Subpart IIII)

- 3.10 For Emission Point AA-014, the permittee shall only combust diesel fuel within the engine that meet the following requirements (on a per-gallon basis):

- (a) A maximum sulfur content of fifteen (15) parts per million (ppm); and

- (b) A minimum cetane index of forty (40) or a maximum aromatic content of thirty-five (35) volume percent.

(Ref.: 40 CFR 60.4207(b); Subpart III)

- 3.11 For Emission Point AA-014, the permittee shall install a non-resettable hour meter on the engine regardless of whether the permittee is required to do so by a Federal Regulation.

(Ref.: 40 CFR 60.4209(a); Subpart III and 11 Miss. Admin. Code Pt. 2, R. 2.2.B.(10).)

- 3.12 For Emission Point AA-014, any operation of the 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 the engine is not operated in accordance with paragraphs (a) through (c) of this condition, the engine will not be considered an emergency engine under the applicable regulation and shall meet all requirements for a corresponding non-emergency engine.

- (a) There is no time limit on the use of the 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 the 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 the 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 60.4211(f)(1) – (3); Subpart III)

- 3.13 For Emission Point AA-014, the permittee shall comply with the following emission standards:

- (a) Non-Methane Hydrocarbons + Nitrogen Oxides (NMHC + NO_x): 4.0 grams per kilowatt-hour;
- (b) Carbon Monoxide (CO): 3.5 grams per kilowatt-hour; and
- (c) Particulate Matter (PM): 0.20 grams per kilowatt-hour.

The permittee shall operate and maintain the engine in such a manner as to achieve the denoted emission standards over the entire life of the engine.

(Ref.: 40 CFR 60.4202(b)(2), 60.4205(b), and 60.4206; Subpart III)

(Ref.: 40 CFR Part 1039, Appendix I – Table 3)

3.14 For Emission Point AA-014, the permittee shall not discharge into the atmosphere smoke exhaust that exceeds the following opacity standards:

- (a) Twenty (20) percent during acceleration mode;
- (b) Fifteen (15) percent during lugging mode; and
- (c) Fifty (50) percent during the peaks in either the acceleration or lugging modes.

The permittee shall operate and maintain the engine in such a manner to achieve the denoted opacity standards over the entire life of the engine.

(Ref.: 40 CFR 60.4202(a)(2) and 60.4205(b); Subpart III)

(Ref.: 40 CFR 1039.105; Subpart B)

SECTION 4. WORK PRACTICE STANDARDS

Emission Point(s)	Applicable Requirement	Condition Number	Work Practice Standard
AA-014	40 CFR 60.4211(a); Subpart IIII	4.1	Perform Compliance Practices

4.1 For Emission Point AA-014, the permittee shall demonstrate compliance with the emission standards specified in Condition 3.12 by performing the following work practices:

- (a) Operate and maintain each engine and control device (if any) according to the manufacturer's emission-related written instructions;
- (b) Change only those emission-related settings that are permitted by the manufacturer; and
- (c) Meet the requirements of 40 CFR Part 1068 (as applicable).

(Ref.: 40 CFR 60.4211(a); Subpart IIII)

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
AA-001 AA-007 AA-008 AA-009	11 Miss. Admin. Code Pt. 2, R. 2.2.B.(11).	5.2	Gas Flow Rate	Install, Calibrate, Operate, and Maintain a Continuous Monitoring System
		5.3	VOCs	Continuously Monitor the Presence of the Flare Pilot Flame
		5.4	Opacity	Perform a Visible Emissions Observation on Each Flare Monthly
AA-002 through AA-005 AA-010 through AA-013	11 Miss. Admin. Code Pt. 2, R. 2.2.B.(11).	5.5	LNG Consumption Number of Engine Tests	Monitoring Requirements
AA-014	40 CFR 60.4214(b); Subpart III 11 Miss. Admin. Code Pt. 2, R. 2.2.B.(11).	5.6	Emergency Engine Status	Monitor Hours of Operation Monthly (Emergency and Non-Emergency)
	40 CFR 60.4114(a)(2)(i) – (iii); Subpart III	5.7	NMHC + NO _x	Recordkeeping Requirements
	40 CFR 60.4211(g)(2) and (3); Subpart III	5.8	CO PM	Perform Compliance Actions (As Applicable)

5.1 For Emission Point AA-000 (Facility-Wide), except as otherwise specified herein, 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. Supporting information includes all calibration and maintenance records, all original strip-chart recordings or other data from 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” of this permit upon request.

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

5.2 For Emission Points AA-001 and AA-007 through AA-009, the permittee shall calculate and record the total quantity of LNG directed to the flare by monitoring both the quantity of LNG purchased and the quantity of LNG combusted during testing operations on a monthly basis.

For the purpose of this condition, the difference between the total quantity of LNG purchased and the total quantity of LNG combusted during a corresponding month shall be considered the total quantity of LNG directed to the flare.

Additionally, the permittee shall maintain documentation that details the manufacturer's recommendations for each flare.

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

- 5.3 For Emission Points AA-001 and AA-007 through AA-009, the permittee shall continuously monitor and record the presence of the flare pilot flame by use of a thermocouple or any other equivalent heat-sensing device to detect the presence of a flame.

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

- 5.4 For Emission Points AA-001 and AA-007 through AA-009, the permittee shall demonstrate compliance with the opacity limit specified in Condition 3.4(c) by performing a visible emissions test on the exhaust of each flare on a monthly basis in accordance with EPA Test Method 22 and the following requirements:

- (a) The permittee shall conduct a visible emission test while gases are being vented to a flare;
- (b) The observation period for a visible emission test event shall be at least fifteen (15) consecutive minutes; and
- (c) The permittee shall monitor and maintain the gas flow rate to a flare during a visible emissions test.

If visible emissions are detected for more than one (1) minute during a test, the permittee shall conduct manufacturer-recommended repairs and/or implement best combustion engineering practices on the corresponding flare. The permittee shall perform a follow-up visible emissions test in accordance with the requirements of this condition during the first period in which gases are vented to the flare after the completion of repairs or best combustion engineering practices (as applicable).

The permittee shall maintain documentation that details the date / time span of each test, the results of each test (including any follow-up test – as applicable), the duration (in minutes) in which visible emissions are detected (as applicable), and an outline of any repairs and/or best combustion engineering practices conducted (as applicable).

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

- 5.5 For Emission Points AA-002 through AA-005 and AA-010 through AA-013, the permittee shall maintain documentation that details the following information:

- (a) The total quantity of LNG combusted for each engine test based on the engine fuel flow rates and the engine run-time; and

(b) The total number of rocket engine tests conducted on a monthly basis.

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

5.6 For Emission Point AA-014, the permittee shall monitor and record (via a non-resettable hour meter) the hours of operation for the engine on a monthly basis for both emergency and non-emergency service. Additionally, the permittee shall detail (in writing) and maintain what classified each occurrence as either an emergency or a non-emergency.

(Ref.: 40 CFR 60.4214(b); Subpart III and 11 Miss. Admin. Code Pt. 2, R. 2.2.B.(11).)

5.7 For Emission Point AA-014, the permittee shall maintain documentation that details the following information:

- (a) All notifications submitted must comply with Subpart III;
- (b) Any maintenance conducted on the engine; and
- (c) Documentation from the manufacturer that indicates the engine is certified to meet the emission standards specified in Conditions 3.13.

(Ref.: 40 CFR 60.4114(a)(2); Subpart III)

5.8 For Emission Point AA-014, the permittee shall demonstrate compliance through the emission standards specified in Condition 3.13 through the following actions **if** the permittee does not operate and maintain the engine according to the manufacturer's emission-related written instructions or the permittee changes emission-related settings in a way that is not permitted by the manufacturer:

- (a) Keep a maintenance plan, records of conducted maintenance, and (to the extent practicable) maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.
- (b) The permittee shall conduct an initial performance test in accordance with 40 CFR 60.4212(a) – (c); Subpart III (as applicable) to demonstrate compliance with the applicable emission standards in accordance with one of the following deadlines:
 - (1) Within one (1) year of start-up, or
 - (2) Within one (1) year after the engine is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or
 - (3) Within one (1) year after the permittee changes emission-related settings in a way that is not permitted by the manufacturer.

(Ref.: 40 CFR 60.4211(g)(2); Subpart III)

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(a)	Report Deviations Within Five (5) Working Days
		6.1(b)	Submit Certifications Signed By a Responsible Official
	11 Miss. Admin. Code Pt. 2, R. 2.5.C.(2).	6.1(c)	Submit a Notification on Beginning Actual Construction
	11 Miss. Admin. Code Pt. 2, R. 2.5.C.(3).	6.1(d)	Submit a Notification When Construction Does Not Begin or Is Suspended
	11 Miss. Admin. Code Pt. 2, R. 2.5.D.(1) and (3).	6.1(e)	Submit a Certification on the Completion of Construction Prior to Operation
	11 Miss. Admin. Code Pt. 2, R. 2.5.D.(2).	6.1(f)	Submit a Notification on Changes in Construction

6.1 General Reporting Requirements:

- (a) 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).)

- (b) Any document required by this permit to be submitted to the MDEQ shall contain 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).)

- (c) 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).)

- (d) 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).)

- (e) 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 no later than fifteen (15) days after the actual event.

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

- (f) 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).)