



GEORGIA

DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Air Quality – Permit Amendment

In accordance with The Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq and the Rules, Chapter 391-3-1, adopted pursuant to or in effect under that Act, Permit No. 7374-217-0072-S-01-0 issued on December 14, 2017, to:

Facility Name: Morning Hornet, LLC

Facility Address: South of Highway 278 NE and Shire Parkway and North of Cooper Road, Social Circle, Georgia 30025 Newton, Morgan, and Walton Counties

Mailing Address: 1 Hacker Way
Menlo Park, CA 94025

Facility AIRS Number: 04-13-217-00072

for the following: Construction and operation of a data center with emergency standby stationary generators.

is hereby amended as follows: Installation of eighteen [18] additional Group 4 emergency generators and separation of Group 2 Generators as “Group 2a” Generators and “Group 2b” Generators.

Reason for Amendment: Application No. 28974 was Dated August 2, 2023

This Permit is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached 4 page(s).

This Permit Amendment is hereby made a part of Permit No. 7374-217-0072-S-01-0 and compliance herewith is hereby ordered. Except as amended hereby, the above referenced Permit remains in full force and effect.



A handwritten signature in cursive script that reads 'Jeffrey W. Cown'.

Jeffrey W. Cown, Director
Environmental Protection Division

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2. Allowable Emissions

[Modified Condition]

2.3 The Permittee shall operate the emergency generators and fire pump according to the requirements specified below. Any operation other than emergency operation, maintenance check and readiness testing, **and operation in non-emergency situations for 50 hours per year**, as described below, is prohibited:

a. The Permittee may operate the emergency generators and fire pump of the purposes specified in paragraph i. below for a maximum of 100 hours per calendar year. **Any operation for non-emergency situations as allowed Condition 2.3.b counts as part of the 100 hours per calendar year.**

[40 CFR 60.4211(f)(2) and 40 CFR 63.6640(f)(2)]

i. The emergency generators and fire pump may be operated for maintenance checks and readiness testing, provided that 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 engine. The owner or operator may petition the Division for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency generators beyond 100 hours per calendar year.

b. **The emergency generators and fire pump 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 provided in Condition 2.3.a.i. Except as provided in 40 CFR 60.4211(f)(3)(i), 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 electric grid or otherwise supply power as part of a financial arrangement with another entity.**

[40 CFR 60.4211(f)(3) and 40 CFR 63.6640(f)(3)]

5. Process & Control Equipment

[Modified Condition]

5.3 The Permittee shall install, calibrate, operate, and maintain SCR devices on all **Group 2b and** Group 4 generators to control NO_x emissions to meet the emission factors in Condition 7.6 **Table Group 2b and** Table Group 4. The Permittee shall install, calibrate, operate, and maintain the SCR devices on each **Group 2b and** Group 4 generator according to the manufacturer's written instructions or procedures developed by the Permittee that are approved by the engine manufacturer. These units shall be equipped with alarms to indicate potential malfunctions of the SCRs.

[391-3-1-.02(6)(b)1]

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7. Notification, Reporting and Record Keeping Requirements

[Modified Conditions]

- 7.6 The Permittee shall use the operational data (hours and load) measured and recorded per Conditions 5.2 and 7.1 and calculate monthly NO_x emissions, each calendar month, from all emergency generators (Group 1, **Group 2a**, **Group 2b**, Group 3, and Group 4) and fire pump. All demonstration calculations shall be kept as part of the records required by Condition 7.1. Monthly NO_x emissions from fuel combustion at the facility shall be determined using the following equation:

$$\begin{aligned} \text{Total Monthly NO}_x \text{ Emission} \left(\frac{\text{tons}}{\text{months}} \right) &= \sum_{i=0\%}^{100\%} \left[\text{Group 1 Generator NO}_x \text{ Emission Rate at Load}_i \left(\frac{\text{lb}}{\text{hr}} \right) \times \text{Monthly Hours of Operation for all Group 1 Generators at Load}_i \left(\frac{\text{hrs}}{\text{month}} \right) \right] \div \left(2,000 \frac{\text{lb}}{\text{ton}} \right) \\ &+ \sum_{i=0\%}^{100\%} \left[\text{Group 2a Generator NO}_x \text{ Emission Rate at Load}_i \left(\frac{\text{lbs}}{\text{hr}} \right) \times \text{Monthly Hours of Operation for Group 2a Generator at Load}_i \left(\frac{\text{hrs}}{\text{month}} \right) \right] \div \left(2,000 \frac{\text{lbs}}{\text{ton}} \right) \\ &+ \sum_{i=0\%}^{100\%} \left[\text{Group 2b Generator NO}_x \text{ Emission Rate at Load}_i \left(\frac{\text{lbs}}{\text{hr}} \right) \times \text{Monthly Hours of Operation for Group 2b Generator at Load}_i \left(\frac{\text{hrs}}{\text{month}} \right) \right] \div \left(2,000 \frac{\text{lbs}}{\text{ton}} \right) \\ &+ \sum_{i=0\%}^{100\%} \left[\text{Group 3 Generator NO}_x \text{ Emission Rate at Load}_i \left(\frac{\text{lbs}}{\text{hr}} \right) \times \text{Monthly Hours of Operation for all Group 3 Generators at Load}_i \left(\frac{\text{hrs}}{\text{month}} \right) \right] \div \left(2,000 \frac{\text{lbs}}{\text{ton}} \right) \\ &+ \sum_{i=0\%}^{100\%} \left[\text{Group 4 Generator NO}_x \text{ Emission Rate at Load}_i \left(\frac{\text{lbs}}{\text{hr}} \right) \times \text{Monthly Hours of Operation for all Group 4 Generators at Load}_i \left(\frac{\text{hrs}}{\text{month}} \right) \right] \div \left(2,000 \frac{\text{lbs}}{\text{ton}} \right) \\ &+ \sum_{i=0\%}^{100\%} \left[\text{Fire Pump NO}_x \text{ Emission Rate} \left(\frac{\text{lbs}}{\text{hr}} \right) \times \text{Monthly Hours of Operation for Fire Pump} \left(\frac{\text{hrs}}{\text{month}} \right) \right] \div \left(2,000 \frac{\text{lbs}}{\text{ton}} \right) \end{aligned}$$

Where:

i = the engine load during the run (10%, 25%, 50%, 75%, and 100%)

Emission Rate at Load = the NO_x mass emission rate in pounds per hour for Load_{*i*}. For runs where the maximum recorded load is at 10%, 25%, 50%, 75% or 100% load, the *Emission Rate at Load_i* will be equal to the corresponding emission rate in the table below or will be based on more up-to-date specifications provided by the corresponding generator manufacturer. For runs where the maximum recorded load is at other loads, the *Emission Rate at Load_i* will be equal to the emission rate listed in the table below that corresponds to the next highest load.

Hours at Load = total facility wide operating hours at a given calculated load for the given calendar month.

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Hourly Emission Rate @ Load for engines (Group 1) with power input of 28.4 MMBtu/hr:

Group 1					
Average Load	10%	25%	50%	75%	100%
Emission Rate (lbs/hr)	11.93	14.03	26.93	47.91	70.72

Hourly Emission Rate @ Load for engines (Group 2a) w/ power input of 10.0 MMBtu/hr:

Group 2a					
Average Load	10%	25%	50%	75%	100%
Emission Rate (lbs/hr)	6.20	6.20	10.89	15.43	30.42

Hourly Emission Rate @ Load for engines (Group 2b) w/ power input of 10.0 MMBtu/hr:

Group 2b					
Average Load	10%	25%	50%	75%	100%
Emission Rate (lbs/hr)	4.03	2.48	1.63	2.31	3.04

Hourly Emission Rate @ Load for engines (Group 3) with power input of 28.4 MMBtu/hr:

Group 3					
Average Load	10%	25%	50%	75%	100%
Emission Rate (lbs/hr)	11.93	14.03	26.93	47.91	70.72

Hourly Emission Rate @ Load for engines (Group 4) with power input of 28.4 MMBtu/hr:

Group 4					
Average Load	10%	25%	50%	75%	100%
Emission Rate (lbs/hr)	7.75	5.61	4.04	7.19	7.07

Hourly Flow Rate @ Load for Fire Pump with power input of 1.2 MMBtu/hr:

Fire Pump					
Average Load	10%	25%	50%	75%	100%
Emission Rate (lbs/hr)	0.74				

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- 7.8 The Permittee shall maintain records of each fault condition and each alarm condition on each Group 4 Generator, **Group 2b Generator**, and the accompanying SCRs. The records shall indicate the date and time of the fault or alarm, cause of the fault or alarm, and corrective action taken to repair the fault or alarm. **The Group 2b and Group 4 Generators will normally be operated with SCR. In the event that the SCR is malfunctioning, the Group 2b and Group 4 Generators may be operated provided that the Permittee continues to demonstrate compliance with the site-wide emissions limits. If the Group 2b or Group 4 Generators are operated without SCR control, the Permittee shall calculate emissions for that event by using emission factors for Group 2a Generators (i.e., uncontrolled rates for the Group 2b Generators) and Group 3 Generators (i.e., uncontrolled rates for the Group 4 Generators) as stated in Condition 7.6.**

[391-3-1-.02(6)(b)1]