**PERMIT NO. 7376-121-0847-E-06-0**
**ISSUANCE DATE:**

GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

# Air Quality Permit

In accordance with the provisions of 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 and in effect under that Act, Permit No. 7376-121-0847-E-06-0 issued on [date] to:

**Facility Name:** **Quality Investment Properties Metro, LLC**

**Facility Address:** **1033 Jefferson Street NW, Suite 103**
**Atlanta, Georgia 30318 Fulton County**

**Mailing Address:** **1033 Jefferson Street NW, Suite 103**
**Atlanta, Georgia 30318**

**Facility AIRS Number: 04-13-121-00847**

is issued a Permit for the following:

**The operation of a data center consisting of the operation of 118 diesel-fired emergency standby generators and the construction and operation of 113 new diesel-fired emergency generators, each rated at 2,500 kWe.**

This Permit is conditioned upon compliance with all provisions of The Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq, the Rules, Chapter 391-3-1, adopted and in effect under that Act, or any other condition of this Permit.

This Permit may be subject to revocation, suspension, modification, or amendment by the Director for cause including evidence of noncompliance with any of the above; or for any misrepresentation made in Application No. 28436 dated May 2, 2022; any other applications upon which this Permit is based; supporting data entered therein or attached thereto; or any subsequent submittals or supporting data; or for any alterations affecting the emissions from this source.

This Permit is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached **8** pages.

STATE OF GEORGIA
CONSTITUTION
WISDOM JUSTICE MODERATION
1776

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Richard E. Dunn, Director
Environmental Protection Division

## 1. General Requirements

1.1 At all times, including periods of startup, shutdown, and malfunction, the Permittee shall maintain and operate this source, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection or surveillance of the source.

1.2 The Permittee shall not build, erect, install or use any article, machine, equipment or process the use of which conceals an emission which would otherwise constitute a violation of an applicable emission standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard that is based on the concentration of a pollutant in the gases discharged into the atmosphere.

1.3 The Permittee shall submit a Georgia Air Quality Permit application to the Division prior to the commencement of any modification, as defined in 391-3-1-.01(pp), which may result in air pollution and which is not exempt under 391-3-1-.03(6). Such application shall be submitted sufficiently in advance of any critical date involved to allow adequate time for review, discussion, or revision of plans, if necessary. The application shall include, but not be limited to, information describing the precise nature of the change, modifications to any emission control system, production capacity and pollutant emission rates of the plant before and after the change, and the anticipated completion date of the change.

1.4 Unless otherwise specified, all records required to be maintained by this Permit shall be recorded in a permanent form suitable for inspection and submission to the Division and shall be retained for at least five (5) years following the date of entry.

1.5 In cases where conditions of this Permit conflict with each other for any particular source or operation, the most stringent condition shall prevail.

## 2. Allowable Emissions

2.1 The Permittee shall not discharge or cause the discharge into the atmosphere from the **DC1/DC2 (Source Codes GN01 through GN57 and GN58 through GN118)** nitrogen oxides (NOx) emissions greater than 99.9 tons during any consecutive twelve-month period for and 99.9 tons during any consecutive twelve-month period for **DC3/DC4 (Source Codes GN119 through GN159 and GN160 through GN231).**
[Avoidance of NAA/NSR]

2.2 The Permittee shall limit the emergency generators to emergency standby operation only such that the total hours of operation for each generator are less than 500 hours during any consecutive twelve-month period. These generators shall be operated only in the event of power loss from the local grid or onsite power system failure (emergency standby mode), maintenance checks, or readiness testing.
[391-3-1-.02(2)(mmm)8; 40 CFR 60.4211(f)(1) subsumed]

2.3 For any emergency generator exceeding 200 operating hours during the previous 12 months, the Permittee shall limit operation for routine testing and maintenance during the months of May through September to the hours between 10 p.m. to 4 a.m.
[Avoidance of 391-3-1-.02(2)(mmm)8]

2.4 The Permittee shall operate the emergency generators according to the requirements specified below. Any operation other than emergency operation, maintenance and 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 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 by Condition 2.4b counts as part of the 100 hours per calendar year allowed.
[40 CFR 60.4211(f)(2)]

i. The emergency generators 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 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 2.4a. 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 without written approval from the Division.
[40 CFR 60.4211(f)(3)]

2.5 The Permittee shall comply with all applicable provisions of 40 CFR Part 60 New Source Performance Standards (NSPS) Subpart A, "General Provisions" and Subpart IIII, “Standards for Stationary Compression Ignition Internal Combustion Engines,” for the operation of generators **DC1/DC2 (Source Codes GN01 through GN19, GN21 through GN57 and GN58 through GN118) and DC3/DC4 (Source Codes GN119 through GN159 and GN160 through GN231)**, as applicable.
[40 CFR 60, Subparts A and IIII]

2.6 The Permittee shall comply with the 40 CFR 63, Subpart A, "General Provisions" and 40 CFR 63, Subpart ZZZZ, "National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [RICE]" for operation of the emergency generators **DC1/DC2 (Source Codes GN01 through GN19, GN21 through GN57 and GN58 through GN118) and DC3/DC4 (Source Codes GN119 through GN159 and GN160 through GN231)**, by complying with 40 CFR 60 Subpart IIII, "Standards for Stationary Compression Ignition Internal Combustion Engines."
[40 CFR 63, Subparts A and ZZZZ]

2.7 The Permittee shall fire the emergency generators with distillate fuel oil that has a maximum sulfur content of 15 ppm (0.0015% by weight) and either a minimum cetane index of 40 or maximum aromatic content of 35 volume percent.
[40 CFR 60.4207 and 391-3-1-.02(2)(g) subsumed]

2.8 The Permittee shall not cause, let, suffer, permit or allow emissions from the emergency generators the opacity of which is equal to or greater than forty (40) percent opacity (6-minute average).
[391-3-1-.02(2)(b)1]

2.9 **The Permittee shall comply with the 40 CFR 63, Subpart A "General Provisions" and 40 CFR 63, Subpart ZZZZ "National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [RICE]" for operation of emergency generator (Source Code: GN20), as applicable.**
**[40 CFR 63, Subparts A and ZZZZ]**

## 3. Fugitive Emissions

3.1 The Permittee shall take all reasonable precautions with any operation, process, handling, transportation, or storage facilities to prevent fugitive emissions of air contaminants.

## 4. Process & Control Equipment

4.1 Each of the emergency generators shall be operated and maintained according to the manufacturer's emission-related written specifications/instructions or procedures developed by the Permittee that are approved by the engine manufacturer, over the entire life of the engine. In addition, the Permittee shall only change those emission-related settings that are permitted by the manufacturer.
[40 CFR 60.4211(a)]

## 5. Monitoring

5.1 Any continuous monitoring system or device required by the Division and installed by the Permittee shall be in continuous operation except during calibration checks, zero and span adjustments or period of repair. Maintenance or repair shall be conducted in the most expedient manner to minimize the period during which the system is out of service.
[391-3-1-.02(6)(b)1]

5.2 The Permittee shall install, calibrate, maintain, and operate a system to monitor and record the indicated parameters on each emergency generator. Where such performance specification(s) exist, each system shall meet the applicable performance specification(s) of the Division's monitoring requirements.
[391-3-1-.02(6)(b)1; 40 CFR 63.6625(f); 40 CFR 60.4209(a)]

a. A non-resettable hour meter to continuously record and track the hours operated during emergency service and the hours operated in non-emergency service (maintenance and/or testing).

b. A system to record the reason the engine was in operation during emergency and/or non-emergency service, and to record the cumulative total hours of emergency operation and non-emergency operation.

c. A system to monitor the generator output load (in kilowatts electric, KWe) from each emergency generator. Data shall be recorded at least each hour the generator is operated. The generator output data shall be used to determine the average monthly measured operating load from each emergency generator.

## 6. Performance Testing

6.1 The Permittee shall cause to be conducted a performance test at any specified emission point when so directed by the Division. The following provisions shall apply with regard to such tests:

a. All tests shall be conducted and data reduced in accordance with applicable procedures and methods specified in the Division’s Procedures for Testing and Monitoring Sources of Air Pollutants.

b. All test results shall be submitted to the Division within sixty (60) days of the completion of testing.

c. The Permittee shall provide the Division thirty (30) days prior written notice of the date of any performance test(s) to afford the Division the opportunity to witness and/or audit the test, and shall provide with the notification a test plan in accordance with Division guidelines.

d. All monitoring systems and/or monitoring devices required by the Division shall be installed, calibrated and operational prior to conducting any performance test(s). For any performance test, the Permittee shall, using the monitoring systems and/or monitoring devices, acquire data during each performance test run. All monitoring system and/or monitoring device data acquired during the performance testing shall be submitted with the performance test results.

## 7. Notification, Reporting and Record Keeping Requirements

7.1 The Permittee shall maintain monthly operating records for each emergency generator in emergency and non-emergency service, as recorded on the non-resettable hour meter required for each generator in Condition 5.2. The Permittee shall record the time of operation of the engine and the reason the engine was in operation during that time. Records shall be maintained for a period of five (5) years in a format suitable for inspection by or submission to the Division. [391-3-1-.02(6)(b)1]

7.2 The Permittee shall use monthly operating time data required by Condition 7.1 to calculate monthly the twelve-month rolling total of operating time for each emergency generator for each consecutive twelve-month period. All the calculations shall be kept as part of the records required in Condition 7.1. The Permittee shall notify the Division in writing within 15 days if the twelve-month rolling total operating time for any generator equals or exceeds 500 hours. This notification shall include an explanation of how the Permittee intends to comply with Condition 2.2 and 2.3.
[391-3-1-.02(6)(b)1]

7.3 The Permittee shall use monthly non-emergency service operating time records required by Condition 7.1 to calculate monthly the twelve-month rolling total of the non-emergency service operating time for the generators for each consecutive twelve-month period. All the calculations shall be kept as part of the records required in Condition 7.1. The Permittee shall notify the Division in writing within 15 days if the twelve-month rolling total of non-emergency service operating time for any generator equals or exceeds 100 hours. This notification shall include an explanation of how the Permittee intends to comply with Condition 2.4. [40 CFR 60.4211(f)(3) and 40 CFR 63.6640(f)]

7.4 The Permittee shall demonstrate compliance with emission standards specified in 40 CFR 60, Subpart IIII for emergency generators by purchasing an engine certified to the emission standards in 40 CFR60.4205(b) for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications. These records shall be maintained in a format suitable for inspection or submittal. [40 CFR 60.4211(c)]

7.5 The Permittee shall keep records verifying that each shipment of diesel fuel oil received for firing the emergency generators at the facility complies with the applicable requirements in Condition 2.7. Verification shall consist of the fuel oil receipts and/or fuel supplier certifications, or results of analyses of the fuel oils conducted by methods of sampling and analysis, which have been specified or approved, by the EPA or the Division. These records shall be kept available for inspection or submittal for five (5) years from the date of record. [391-3-1-.02(6)(b)1]

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 NOx emissions, each calendar month, from all emergency generators. All demonstration calculations shall be kept as part of the records required by Condition 7.1. **The Permittee shall notify the Division in writing within 15 days if the monthly total NOx emissions for either generator group DC1/DC2 or DC3/DC4**

**equal or exceed 8.325 tons during any calendar month. This notification shall include an explanation of how the Permittee intends to maintain compliance with the emission limits in Condition 2.1.** Monthly NOx emissions from the facility shall be determined using the following equation:

Total Monthly NOx Emissions (tons/month):

$$\text{NOx (tons)} = \frac{\sum_{i=1}^{n}\left(ER_L + (ER_H - ER_L) * \left[\left(\frac{L - L_L}{L_H - L_L}\right)\right](lb/hr)\right)_i * (Hrs_i)}{2000\ (\text{lbs/ton})}$$

Where:

$ER_L$ = When the monthly measured generator load is greater than 25%, the mass emission rate for each engine load at the next lower load for which there is a mass emission rate as determined in accordance with Table 1 (pounds per hour). For operating loads less than 25%, the mass emission rate shall be equal to the mass emission rate as determined in accordance with Table 4 in Condition 6.2.1 at 25% load.

$ER_H$ = When the monthly measured generator load is greater than 25%, the mass emission rate for each engine load at the next higher load for which there is a mass emission rate as determined in accordance with Table 1 (pounds per hour). For operating loads less than 25%, the mass emission rate shall be equal to the mass emission rate as determined in accordance with Table 1 at 25% load.

L = Average monthly measured generator load of each generator (%) where the average monthly measured generator load is based on actual monthly generator operating hours.

$L_L$ = When the monthly measured generator load is greater than 25%, the operating load for each engine at the next lower load for which there is test data as determined in accordance with Table 1 (%). For operating loads less than 25%, the operating load shall be equal to 25% load.

$L_H$ = When the monthly measured generator load is greater than 25%, the operating load for each engine at the next higher load for which there is test data as determined in accordance with Table 1 (%). For operating loads less than 25%, the operating load shall be equal to 25% load.

Hrs = The total operating hours for each individual emergency generator at the given month as verified by the non-resettable hour meter.

i = Individual emergency generator (**GN01 through GN231**).

n = Number of emergency generators at the site.

Table 1. NOx Mass Emission Rate

| Source Code | NOx Emission Factor (lb/hr) | | | |
|---|---|---|---|---|
| | 25% | 50% | 75% | 100% |
| GN01 through GN04 | 9.76 | 19.24 | 37.36 | 59.66 |
| GN05 through GN19 | 13.28 | 26.89 | 45.38 | 65.88 |
| GN20 | - | - | - | 3.49 |
| GN21 through GN36 | 7.65 | 14.84 | 29.62 | 48.11 |
| GN37 through GN46 | 9.82 | 19.65 | 29.47 | 39.29 |
| GN47 through GN49 | 6.72 | 13.01 | 26.01 | 42.27 |
| GN50 through GN53 | 9.81 | 20.34 | 34.67 | 63.88 |
| GN54 through GN57 | 11.38 | 20.62 | 39.48 | 64.57 |
| GN58 through GN97 | 4.13 | 12.13 | 23.52 | 35.80 |
| GN98 through GN117 | 4.13 | 12.13 | 23.53 | 35.80 |
| GN118 | 6.20 | 10.84 | 15.38 | 30.68 |
| **GN119 through GN159** | **7.94** | **15.58** | **31.34** | **51.10** |
| **GN160 through GN231** | **7.94** | **15.58** | **31.34** | **51.10** |

7.7 The Permittee shall use the monthly records required in Condition 7.6 to calculate the twelve-month rolling total of NOx emissions from the facility for each calendar month. All the calculations shall be kept as part of the records required in Condition 7.1. The Permittee shall notify the Division in writing within 15 days if any of the twelve-month rolling total of the NOx emissions exceeds **99.9 tons for DC1/DC2 and 99.9 tons for DC3/DC4**. This notification shall include an explanation of how the Permittee intends to attain future compliance with the NOx emission limits in Condition 2.1.
[Avoidance of NAA/NSR]

7.8 The Permittee shall provide the Division with a statement, in such form as the Director may prescribe, showing the actual emissions of nitrogen oxides and volatile organic compounds from the entire facility. These statements shall be submitted every year by the date specified in 391-3-1-.02(6)(a)4 and shall show the actual emissions of the previous calendar year.
[391-3-1-.02(6)(b)1(i)]

## 8. Special Conditions

8.1 At any time that the Division determines that additional control of emissions from the facility may reasonably be needed to provide for the continued protection of public health, safety and welfare, the Division reserves the right to amend the provisions of this Permit pursuant to the Division's authority as established in the Georgia Air Quality Act and the rules adopted pursuant to that Act.

8.2 The Permittee shall calculate and pay an annual Permit fee to the Division. The amount of the fee shall be determined each year in accordance with the "Procedures for Calculating Air Permit Fees."

8.3 Within twelve months of startup of generators (Source Codes: GN119 through GN159 and GN160 through GN231), the Permittee is required to submit a complete application to the Division for a Part 70 (Title V) permit.
[40 CFR 70.5(a)(1)(i)]

8.4 All Georgia Air Quality Permits previously issued to this facility, including Air Quality Permit No. 7376-121-0847-S-05-0 and its amendments are hereby revoked in their entirety.