GEORGIA
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ENVIRONMENTAL PROTECTION DIVISION

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NARRATIVE

TO: Cynthia Dorrough

FROM: Alexander Lagunas

DATE: November 3, 2025

Facility Name:	**Amazon Data Services, Inc ATL089 Campus**
AIRS No.:	149-00013
Location:	Covington, GA (Newton County)
Application #:	29883
Date of Application:	September 19, 2025

Background Information

Amazon Data Services, Inc. proposes to construct and operate a new data center in Newton County under the name Amazon Data Services, Inc. ATL089 Campus. It is a greenfield project to be located at 11145 Alcovy Road, Covington, Newton County, which is in attainment for all criteria pollutants.

The proposed data center will consist of 321 diesel-fired emergency generators (316 critical emergency generators and 5 ancillary building emergency generators), which will provide backup electricity in the event of an emergency. All critical emergency generators will have emission controls, including selective catalytic reduction (SCR) and catalyzed diesel particulate filter (cDPF). The emergency generators will fire ultra-low sulfur diesel (ULSD) or renewable biodiesel.

The proposed facility will be a major source with respect to Title V because potential emissions of NO_X and CO are greater than 100 tons per year (tpy), the major source threshold under Title V. A Title V application will be required to be submitted within one year upon startup of the proposed facility.

The proposed facility will be a minor source with respect to PSD because the facility has requested NO_X and CO emissions limits of 249.9 tpy each, which is the major source threshold under PSD. The facility is not one of the 28 named source categories subject to the 100 tpy threshold limit.

The emergency generators will be restricted to 500 hours of operation per year due to this limitation used in the toxic impact assessment.

Purpose of Application

Amazon Data Services, Inc. submitted Application #29883, dated September 19, 2025, for the construction and operation of Amazon Data Services, Inc. ATL089 Campus, a greenfield data center. It will consist of 321 diesel-fired emergency generators (316 critical emergency generators and 5 ancillary building emergency generators). The facility will be a major source with respect to Title V and a minor source with respect to PSD. Its Public Advisory period ended on November 14, 2025, comments were received by the Division which were taken into consideration during the drafting of the permit and narrative.

Updated Equipment List

Emission Units			Associated Control Devices	
Source Code	**Description**	**Installation Date**	**Source Code**	**Description**
EG-1 through EG-316	Group 1 engines 316 critical emergency generators	2026*	SCR-1 through SCR-316	Selective Catalytic Reduction (SCR)
			cDPF-1 through cDPF-316	Catalyzed Diesel Particulate Filter (cDPF)
AWB-1 & AWB-2	Group 2 engines 2 ancillary building emergency generators	2026*	--	--
CLB-1 & CAB-1	Group 3 engines 2 ancillary building emergency generators	2026*	--	--
ACB-1	Group 4 engine 1 ancillary building emergency generators	2026*	--	--

*proposed within current application

The emergency generators are divided into four groups, based on the engine model and capacity. Each emergency generator within a group is of the same make, model, and capacity, equipped with the same control devices, and has the same emission factors. Group 1 consists of all 316 critical emergency generators. Group 2 through 4 consists of the five (5) ancillary building emergency generators.

Storage Tanks

Source Code	Contents	Installation Date	True Vapor Pressure (psia)
T1	Diesel Storage Tank 1 large diesel fuel tank	2026 or later	~0.005
TEG-1 through TEG-316	Group 1 belly tanks 316 diesel fuel tanks	2026 or later	~0.005
TAWB-1, TAWB-2	Group 2 belly tanks 2 diesel fuel tanks	2026 or later	~0.005
TCLB-1, TCAB-1	Group 3 belly tanks 2 diesel fuel tanks	2026 or later	~0.005
TACB-1	Group 4 belly tank 1 diesel fuel tank	2026 or later	~0.005

*proposed within current application

Emissions Summary

Facility-Wide Emissions
(in tons per year)

Pollutant	Potential Emissions			Actual Emissions		
	Before Mod.	After Mod.	Emissions Change	Before Mod.	After Mod.	Emissions Change
$PM/PM_{10}/PM_{2.5}$	--	32.04	+32.04	--	--	--
NOx	--	249.90	+249.90	--	--	--
SO_2	--	3.39	+3.39	--	--	--
CO	--	249.90	+249.90	--	--	--
VOC	--	44.56	+44.56	--	--	--
Max. Individual HAP	--	0.38	+0.38	--	--	--
Total HAP	--	0.78	+0.78	--	--	--
Total GHG (if applicable)	--	345,205	+345,205	--	--	--

Potential emissions are based on the proposed limitation of 249.9 tpy NO_X and 249.9 tpy CO. There are four different engine models that can operate at various loads, ranging from 10% to full load. Emission factors are provided for all models at these loads. The Group 1 critical engines use SCR as a control device for NO_X emissions and is considered "controlled" when the exhaust is treated with urea. The SCR system injects urea when the outlet temperature achieves a minimum temperature of 572°F. Whenever the SCR is not operating or the exhaust is not treated with urea, it is "uncontrolled." Separate emission factors are provided for both operating conditions. In the case of 10% load, the SCR cannot achieve the minimum temperature for urea injection function, so the engine is considered "uncontrolled." Due to these factors, NO_X or CO may be the limiting pollutant. CO tends to be higher at lower loads; NO_X is the higher of the two otherwise.

All other criteria pollutants will be below any major source threshold by limiting either NO_X or CO to 249.9 tpy. Potential emissions for all other criteria pollutants listed in the table above are based either on the ratio of emissions compared to 249.9 tpy NO_X or 249.9 tpy CO, or the sum of the potential emissions from all emergency generators while operating for a maximum of 500 hours of operation.

To demonstrate compliance with these limits, the facility will track fuel usage in each emergency generator and then use fuel-usage emission factors to calculate total emissions. Loads will not be required to be tracked because the worst-case emission factor for each model will be used. In the case of the Group 1 critical engines, "controlled" and "uncontrolled" operation will be distinguished. For the purposes of potential emissions, hour of operations will not be tracked; however, for the purposes of Condition 2.3 and for 40 CFR 60 Subpart IIII, hours of operations are tracked.

Regulatory Applicability

40 CFR 52.21– Prevention of significant deterioration of air quality

Not applicable.

The facility elected to limit facility-wide NOx and CO emissions to 249.9 tpy, which is below the major source threshold of 250 tpy for criteria pollutants.

40 CFR 70 – Title V

Not applicable yet.

Upon operation, the facility will be classified as a major source with respect to Title V because potential emissions of NO_X and CO are greater than the major source threshold of 100 tpy.

A Title V application will be required to be submitted within one year of startup.

40 CFR 60 Subpart IIII – "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines"

Applicable to all emergency generators (Source Codes: EG-1 through EG-316, AWB-1, AWB-2, CLB-1, CAB-1, and ACB-1).

This subpart applies to stationary compression ignition (CI) internal combustion engines (ICE) that commenced construction after April 1, 2006. The emergency generators are CI ICE constructed after April 1, 2006, and thus are subject to this subpart.

All emergency generators are subject to the following:

- Emission standards:
  - $NMHC+NO_X$, CO, and PM, either Tier 2 or Tier 3
  - Fuel content, including sulfur, cetane, and aromantic content
- Operational requirements
  - Operate and maintain according to the manufacturer's specification/instructions
  - Criteria to meet the definition of an emergency generator under this subpart
- Monitoring requirements
  - Non-resettable hour meter
- Performance Testing
  - Maintenance plan and performance testing if not operating according to the manufacturer's instructions
- Recordkeeping
  - Record of hours of operation in emergency and non-emergency service
  - Record of non-emergency hours of operation on a 12-month rolling total
  - Record of manufacturer's instructions or maintenance plan
  - Compliance with emissions standards by purchasing, installing, and configuring according to manufacturer's instructions
  - Annual report if operating as specified in 40 CFR 60.4211(f)(3)(i)

40 CFR 60 Subpart ZZZZ – "National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines"

Applicable to all emergency generators (Source Codes: EG-1 through EG-316, AWB-1, AWB-2, CLB-1, CAB-1, and ACB-1).

This subpart applies to any stationary reciprocating internal combustion engine (RICE) located at a major or area source of HAP emissions.

The emergency generators are located at an area source of HAP emissions and thus are subject to this subpart. The emergency generators are considered *new* because they were constructed after June 12, 2006 and located at an area source of HAP emissions. *New* RICE located at an area source meet the requirements of this subpart by meeting the requirements of 40 CFR 60 Subpart IIII. The emergency generators are subject to 40 CFR 60 Subpart IIII and thus no further requirements apply.

Georgia Rule 391-3-1-.02(2)(b) – "Visible Emissions"

Applicable to all emergency generators (Source Codes: EG-1 through EG-316, AWB-1, AWB-2, CLB-1, CAB-1, and ACB-1).

This rule applies to emission sources that are also subject to other emission limitations under the Georgia Rules. The emergency generators are also subject to Rules (g) and (mmm) and thus subject to this rule.

Georgia Rule 391-3-1-.02(2)(g) – "Sulfur Dioxide"

Applicable to all emergency generators (Source Codes: EG-1 through EG-316, AWB-1, AWB-2, CLB-1, CAB-1, and ACB-1).

The emergency generators fire diesel fuel and thus are subject to this rule. The generators are subject to a sulfur content limitation of 2.5 percent sulfur by weight; however, the limitation imposed by 40 CFR 60 Subpart IIII of 15 ppm is more restrictive.

Georgia Rule 391-3-1-.02(2)(tt) – "VOC Emissions from Major Sources"

Not applicable.

This rule applies to facilities with potential emissions of VOC that exceed the threshold set in a listed county.

The proposed facility will be located in Newton County, which has a threshold of 100 tpy VOC. The facility has potential emission less than 100 tpy VOC and thus is not subject to this subpart.

Georgia Rule 391-3-1-.02(2)(yy) – "Emission of Nitrogen Oxides from Major Sources"

Not applicable.

This rule applies to facilities with potential emissions of NO_X that exceed the threshold set in a listed county.

The proposed facility will be located in Newton County, which has a threshold of 100 tpy NO_X. The emergency generators have a combined potential emission greater than 100 tpy NO_X; however, individual equipment subject to Georgia Rule (mmm) are excluded for the purpose of determining applicability of this rule. Thus, the facility is not subject to this rule.

Georgia Rule 391-3-1-.02(2)(mmm) – "NO_X Emissions from Stationary Gas Turbines and Stationary Engines"

Applicable to all emergency generators (Source Codes: EG-1 through EG-316, AWB-1, AWB-2, CLB-1, CAB-1, and ACB-1).

This rule applies to stationary engines used to generate electricity with a capacity greater than 100 kW and less than or equal to 25 MW in a listed county.

The emergency generators are stationary engines used to generate electricity with a capacity between 100 kW and 25 MW and located in Newton County, one of the listed counties, and thus are subject to this rule.

Group 1 critical engines (Source Codes: EG-1 through EG-316) will be classified as *emergency standby stationary engines at a data center*, as defined in (mmm)8, and will be not subject to the emission standard in 391-3-1-.02(2)(mmm)1 of this rule.

Groups 2 through 4 ancillary engines will be *emergency standby stationary engines*, as defined in (mmm)4 and will not be subject to the emission standard in 391-3-1-.02(2)(mmm)1 of this rule.

Permit Conditions

Condition 2.1 limits NO_X emissions to be below the major source threshold of PSD of 249.9 tpy, as part of PSD Avoidance.

Condition 2.2 limits CO emissions to be below the major source threshold of PSD of 249.9 tpy, as part of PSD Avoidance.

Condition 2.3 limits the emergency generators (Source Codes: EG-1 through EG-316, AWB-1, AWB-2, CLB-1, CAB-1, and ACB-1) to 500 hours of operations per 12 consecutive month period each, as part of Air Toxics Avoidance.

Condition 2.4 establishes the applicability of 40 CFR 60 Subpart A and 40 CFR 60 Subpart IIII to the emergency generators.

Condition 2.5 sets the emissions standards applicable to the emergency generators, per 40 CFR 60 Subpart IIII.

Condition 2.6 sets the standards for the fuel fired in the emergency generators, per 40 CFR 60 Subpart IIII.

Condition 2.7 sets the criteria for emergency generators in 40 CFR 60 Subpart IIII.

Condition 2.8 establishes the applicability of 40 CFR 63 Subpart A and 40 CFR 63 Subpart ZZZZ to the emergency generators (Source Codes: EG-1 through EG-316, AWB-1, AWB-2, CLB-1, CAB-1, and ACB-1).

Condition 2.9 sets a limit on the opacity of visible emissions from the emergency generators (Source Codes: EG-1 through EG-316, AWB-1, AWB-2, CLB-1, CAB-1, and ACB-1), per Georgia Rule (b).

Condition 2.10 sets the criteria for the emergency generators (Source Codes: AWB-1, AWB-2, CLB-1, CAB-1, and ACB-1) to meet the definition of *emergency standby stationary engine* in Georgia Rule (mmm)7.

Condition 2.11 sets the criteria for the Group 1 critical generators (Source Codes: EG-1 through EG-316) to meet the definition of *emergency standby stationary engine at data centers* in Georgia Rule (mmm)8

Condition 2.12 sets the fuel oil specifications for the fuel fired in the emergency generators (Source Codes: EG-1 through EG-316, AWB-1, AWB-2, CLB-1, CAB-1, and ACB-1).

Condition 4.1 requires the operation of the emergency generators (Source Codes: EG-1 through EG-316, AWB-1, AWB-2, CLB-1, CAB-1, and ACB-1) according to the manufacturer's instructions, per 40 CFR 60 Subpart IIII.

Condition 4.2 requires the operation of the selective reduction catalyst systems (Source Codes: SCR-1 through SCR-316) whenever the emergency generators (Source Codes: EG-1 through EG-316) are in use.

Condition 4.3 requires the operation of the catalyzed diesel particulate filter (Source Codes: cDPF-1 through cDPF-316) whenever the emergency generators (Source Codes: EG-1 through EG-316) are in use.

Condition 4.4 requires monitoring of the exhaust temperature of the SCR (Source Codes: SCR-1 through SCR-316).

Condition 4.5 requires the labeling of each emergency generator (Source Codes: EG-1 through EG-316, AWB-1, AWB-2, CLB-1, CAB-1, and ACB-1).

Condition 5.1 requires a non-resettable hour meter and a system to monitor and record fuel usage on each emergency generator (Source Codes: EG-1 through EG-316, AWB-1, AWB-2, CLB-1, CAB-1, and ACB-1).

Condition 5.2 requires monitoring of the exhaust temperature of each SCR system (Source Codes: SCR-1 through SCR-316 and defines when the Group 1 emergency generators are considered in "controlled" operation.

Condition 5.3 requires certification of the distillate fuel oil or biodiesel to be fired in the emergency generators (Source Codes: EG-1 through EG-316, AWB-1, AWB-2, CLB-1, CAB-1, and ACB-1).

Condition 6.2 requires the development of a maintenance plan and performance test if the emergency engines generators (Source Codes: EG-1 through EG-316, AWB-1, AWB-2, CLB-1, CAB-1, and ACB-1) cannot meet the criteria of Condition 4.1, per 40 CFR 60 Subpart IIII.

Condition 7.2 calculates the monthly NO_X and CO emissions from the emergency generators (Source Codes: EG-1 through EG-316, AWB-1, AWB-2, CLB-1, CAB-1, and ACB-1) using the fuel usage records of Condition 5.1.

Condition 7.3 uses the monthly emissions of Condition 7.2 to calculate the 12 consecutive month total of NO_X and CO emissions to demonstrate compliance with Conditions 2.1 and 2.2.

Condition 7.4 calculates the monthly total hours of operation of each emergency generators (Source Codes: EG-1 through EG-316, AWB-1, AWB-2, CLB-1, CAB-1, and ACB-1) using the hour meter records of Condition 5.1.

Condition 7.5 uses the monthly total hours of operation of Condition 7.4 to calculate the 12 consecutive month total of hours of operation of each emergency generator (Source Codes: EG-1 through EG-316, AWB-1, AWB-2, CLB-1, CAB-1, and ACB-1) to demonstrate compliance with Condition 2.3.

Condition 7.6 requires records of the emergency and non-emergency service of the emergency generators (Source Codes: EG-1 through EG-316, AWB-1, AWB-2, CLB-1, CAB-1, and ACB-1) using the hour meter of Condition 5.1.

Condition 7.7 uses the records of non-emergency service of Condition 7.6 to calculate the calendar year total of non-emergency service of each emergency generator (Source Codes: EG-1 through EG-316, AWB-1, AWB-2, CLB-1, CAB-1, and ACB-1) to demonstrate compliance with Condition 2.7.

Condition 7.8 requires records of the manufacturer's instructions, per 40 CFR 60 Subpart IIII.

Condition 7.9 requires purchase of a certified engine to demonstrate compliance with Condition 2.5, per 40 CFR 60 Subpart IIII.

Condition 7.10 requires a report if the emergency generators (Source Codes: EG-1 through EG-316, AWB-1, AWB-2, CLB-1, CAB-1, and ACB-1) are operated per 40 CFR 60.4211(f)(3)(i), per 40 CFR 60 Subpart IIII.

Condition 7.11 requires records of the diesel fuel to demonstrate compliance with Condition 2.12

Condition 8.3 requires the submittal of a Title V application within 12 months of startup, per Title V.

Toxic Impact Assessment

The facility conducted a toxic impact assessment for all TAPs emitted and identified benzene and formaldehyde as TAPs of interest because their potential emissions are greater than their respective minimum emission rates (MER).

Pollutant	Facility-Wide Potential Emissions (lb/yr)	MER (lb/yr)
Benzene	767.77	31.63
Formaldehyde	78.37	22.10

Further analysis was conducted using SCREEN3 modeling software (version 13043). The facility prepared a model run for a single emergency generator for each type of generator at each building between the two aggregated facilities. The model was based on the engine in the grouping located nearest the fence line and an emission rate of 1 g/s for each engine.

Separate short-term and long-term emission rates were developed because the emergency generators will not operate continuously throughout the year. The short-term rate is equivalent to the potential hourly emission rate per generator (lb/hr/gen). The long-term emission rate was developed based on each generator operating for a maximum of 500 hours per year (hr/yr). This 500 hr/yr was selected based on USEPA guidance on the maximum expected hours of operations for emergency generators. The following equation was used to determine the long-term modeled emission rate.

$$E_{long} = \frac{E_{short} \times 500}{8760}$$

The modeling analysis evaluated separate 1-year modeled concentrations for the short-term and long-term averaging periods, and individual model runs were conducted for each grouping of engine types at each building, respectively. The short-term 1-hour modeled impact was converted to 15-minute impact by multiplying by a factor of 1.32, while the long-term 1-hour modeled impact was converted to an annual impact by multiplying by a factor of 0.08.

The results of this analysis demonstrate that the 15-minute and annual modeled impact for both benzene and formaldehyde are below their respective acceptable ambient concentrations (AACs). The table below presents the results.

Pollutant	15-minute Modeled Impact	15-Minute AAC	Annual Modeled Impact	Annual AAC
	$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$
Benzene	26.78	1,600	0.09	0.13
Formaldehyde	2.78	245	0.01	0.0909

Because the annual modeled impact of benzene is closer to the AAC of benzene, the 500 hours of operation used in the calculation of the long-term emission rate will be imposed as an operational limit. No further analysis was conducted by the applicant.

Summary & Recommendations

I recommend that Air Quality Permit No. 7374-217-0078-E-01-0 be issued to Amazon Data Services, Inc ATL089 Campus for the construction and operation of a data center with 321 diesel-fired emergency generators that will provide electricity in the event of an emergency. The facility will be a minor with respect to PSD by limiting NO_X and CO to 249.9 tpy. The facility will be a major source with respect to Title V and will be required to submit a Title V application within one year of startup.

Addendum to Narrative

The 30-day public review started on March 4, 2026 and ended on April 6, 2026. Comments were received by the Division.

Comments from the Sierra Club:

Comments were received from the Sierra Club on behalf of itself and its nearly 9,000 Georgia members. Comments were received on April 6, 2026 and signed by Isabella Ariza, Staff Attorney, and Caden Koontz, Legal Assistant.

Please refer to Appendix A to view the comments in their entirety. EPD will only address the comments relevant to the draft permit and application below.

Comment No. 1: EPD should release guidance suggesting more stringent emissions control technology for diesel backup generators at data centers.

EPD Response to Comment 1:

The Division acknowledges the recommendation to develop guidance for emission controls for diesel backup generators at new data centers. Should the Division determine that such guidance is necessary, it will be developed with stakeholder engagement.

While the Division is responsible for protecting Georgia's air quality through the regulation of emissions from industrial and mobile sources according to state and federal regulations, the Division cannot dictate to the facility how to design or build the facility.

As a part of the permit application review process, the Division requires the performance of a toxic impact assessment (TIA) of the project's facility-wide toxic air pollutant (TAP) emissions from the source in accordance with the *Guideline for Ambient Impact Assessment of Toxic Air Pollutant Emissions*. The applicant performed the TIA assessment, and the results were below the AACs with the proposed Tier II standard engines. The state is allowed to be stricter than federal regulations, yet it is not in the Division's procedures to require the type of control technology for the engines as the federal and state regulations are being met.

Comment No. 2: The Draft Permit should be considered in the larger context of Georgia's growing number of data centers and their effect on Georgia's grid planning.

EPD Response to Comment 2:

The Division is aware of and monitoring the new developments in the MSA area. The Division required the performance of a TIA assessment of the project TAP emissions from the source. The applicant performed the TIA assessment, and the results were below the AAC. The TIA analysis does not require a cumulative impact analysis. The Division issues enforceable air permits that adhere to the requirements of the Clean Air Act, federal regulations, and Georgia air quality regulations to assure that the facility will maintain its emissions to the standards required by federal and state regulations, and which will protect public health and the environment.