



**STATEMENT OF BASIS**  
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 BAQ Air Permitting Division

<b>Company Name:</b>	Autumn Timber LLC	<b>Permit Writer:</b>	Diana L Zakrzwski, PE
<b>Agency Air Number:</b>	0900-0144	<b>Date:</b>	November 13, 2024
<b>Permit Number:</b>	CP-50000183 v1.0		

**DATE APPLICATION RECEIVED:** March 22, 2024  
**DATE ACCEPTED INTO EXPEDITED REVIEW:** March 28, 2024  
**DATE OF OCRM APPROVAL:** June 20, 2024

**FACILITY AND PROJECT DESCRIPTION**

SIC CODE: 7374 – Computer Processing and Data Preparation and Processing Services  
 NAICS CODE: 518210 – Data Processing, Hosting, and Related Services

The facility wishes to construct a new data center facility which will include emergency generators which can be fueled by diesel or hydrotreated vegetable oils (HVO) or blends of the two fuels, fuel tanks and cooling towers. The facility has requested that the quantity and size of the generators remain confidential. The construction permit includes the emergency generators only since the cooling towers and fuel tanks will be exempt from permitting based on emission levels.

The facility had originally requested limits to remain below the Title V threshold in this construction permit; however, the facility submitted a request to remove those limits during the review of the draft permit.

**OPERATING PERMIT INCORPORATION**

This action is the original construction permit for this facility. The facility shall submit a timely and complete Title V permit application within twelve (12) months of startup.

**EMISSIONS**

<b>FACILITY WIDE EMISSIONS</b>		
<b>Pollutant</b>	<b>Uncontrolled</b>	<b>PTE</b>
	<b>TPY</b>	<b>TPY</b>
NO <sub>x</sub>	1443.41	< 250.0 TPY
CO	333.14	< 250.0 TPY
VOC	48.41	48.41
PM	38.71	38.71
PM <sub>10</sub>	35.46	35.46
PM <sub>2.5</sub>	34.55	34.55
SO <sub>2</sub>	0.81	0.81
Total HAPs	0.76	0.76

Emission calculations were done using emission factors from AP-42 Section 3.4: Large Stationary Diesel Tables 3.4-1, 3.4-2, 3.4-3, and 3.4-4 or manufacturer specifications. For small generators Tier 3 emission factors were utilized. Emissions were based on the worst case diesel fuel. Emissions from the combustion of HVO fuel are less than or equal to the emissions from diesel (for additional information see confidential file). All emergency generators are calculated at 500 hours/year. Emissions include exempt sources. The potential to emit (PTE) for NO<sub>x</sub> and CO are based on synthetic minor emission levels included in this permit.



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**SPECIAL CONDITIONS, MONITORING, LIMITS**

The facility has requested the ability to add new model year emergency generators as needed to the facility without additional construction permits for up to ten years after the date of the first engine installation. The facility will remain below the limits included in the construction permit (synthetic minor) and will comply with all applicable regulations. (See condition below.)

The following activity shall be allowed, without a construction permit, or without revising or reopening the operating permit unless otherwise specified by any State or Federal requirement providing that the activity will not result in emissions that will exceed any limit in this permit and all applicable State and Federal requirements are met including 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ.

The owner/operator is granted permission to install and operate additional new model year emergency generators for up to ten years after the date of the first engine installation. The facility is required to maintain a log on site that includes the date that the additional emergency generators were installed and their corresponding power output. This log shall be made available to Department representatives upon request. The log shall be submitted annually to the Director of Air Permitting and shall also include manufacturer specifications including appropriate emission factors for any new emergency generators. If no additional emergency generators were installed during the reporting period, then a letter shall be submitted to indicate such.

**REGULATIONS**

**Applicable - Section II(E) (*Synthetic Minor*)** – This permit includes the following synthetic minor limits to remain below PSD major source status. The facility had originally requested synthetic minor limits for Title V; however, the facility has decided to retract the request for these limits and only request synthetic minor limits to remain below PSD thresholds (email from Christy Richardson to Zakrzwski (5/2/2024)).

Synthetic Minor Limits					
Permit ID	Equipment ID	Permit Issue Date	Pollutant	Emission Limit (TPY)	Explanation
CA	Facility wide	Current permit action	NO <sub>x</sub> and CO	< 250.0	Synthetic minor limit to remain below PSD major source threshold.

The algorithm for the emission calculations includes emission factors that are based on manufacturer specifications. Emissions factors for engines combusting HVO have been shown to be equivalent or less than the emission factors for the equivalent engines utilizing diesel as fuel based on manufacturer specifications and alternative fuel documents. Therefore, for worst case emissions, the algorithm will utilize the emission factors for diesel fuel for both HVO and diesel fuel. Further information on HVO documents is available in the confidential permit file.

**Not Applicable - Standard No. 1 (*Emissions from Fuel Burning Operations*)** – All engines are direct fired and therefore not subject to this regulation.

**Not Applicable - Standard No. 3 (state only) (*Waste Combustion and Reduction*)** The Hydrotreated vegetable oil (HVO) is considered to be a renewable diesel fuel that meets the requirements of ASTM D975 and therefore is granted a renewable energy exemption.



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**Applicable - Standard No. 4** (*Emissions from Process Industries*) – The facility does not have PM limits since the engines are not considered processes (per Section VIII). All equipment onsite is subject to the opacity limitation of 20% (per Section IX).

**Not Applicable - Standard No. 5** (*Volatile Organic Compounds*) No applicable equipment (tanks are less than 40,000 gallons) and are not considered existing equipment.

**Not Applicable - Standard No. 5.2** (*Control of Oxides of Nitrogen (NOx)*) – The engines are not subject to this regulation due to being a source that qualifies as exempt per SC Regulation 61-62.1 Section II (B)(2) - “Generators of greater than 150 kW rated capacity designated for emergency use only and are operated a total of 500 hours per year or less for testing and maintenance and have a method to record the actual hours of use such as an hour meter.” Exemption listed in SC Regulation 62.5, Standard 5.2, Section I (B)(2).

**Not Applicable - Standard No. 7** (*Prevention of Significant Deterioration*) – The facility has taken synthetic minor limits to remain below the major source threshold for NO<sub>x</sub> and CO (see above).

**Applicable - 61-62.6** (*Control of Fugitive Particulate Matter*)

**40 CFR 60 and 61-62.60** (*New Source Performance Standards (NSPS)*)

**Applicable - Subpart IIII** (*Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*) – The emergency engines at this facility are subject to this regulation and shall comply with all applicable requirements.

**Not Applicable - Subpart Kb** (*Standards of Performance for Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984*) – The exempt fuel tanks at the facility are less than 19,813 gallons and therefore not subject to this regulation.

**Not Applicable - 40 CFR 61 and 61-62.61** (*National Emission Standards for Hazardous Air Pollutants (NESHAP)*) - This facility does not emit the pollutants in a way that is subject to this standard (asbestos, benzene, beryllium, coke oven emissions, arsenic, mercury, radio nuclide, radon, or vinyl chloride).

**40 CFR 63 and 61-62.63** (*National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories*)

**Applicable - Subpart ZZZZ** (*National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*) – Since the emergency generators are subject to 40CFR60, Subpart IIII and the facility is an area source for HAP emissions, the generators will meet the requirements of this regulation by meeting the requirements of NSPS Subpart IIII. (40CFR63.6590(c))

**Not Applicable - 61-62.68** (*Chemical Accident Prevention Provisions*) – No chemicals above the threshold quantity.

**AMBIENT AIR STANDARDS REVIEW**

**Not Applicable - Standard No. 2** (*Ambient Air Quality Standards*) – Emissions from emergency generators (with an installed hour meter) are not required to model emissions for this regulation.



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**Not Applicable - Standard No. 8 (state only) (Toxic Air Pollutants)** - Emissions from virgin fuel burning are not required to model emissions for this regulation.

**PUBLIC NOTICE**

This construction permit(s) has undergone a 30-day public notice period, in accordance with SC Regulation 61-62.1, Section II(N) and SC Regulation 61-62.1, Section II(E) to establish synthetic minor limits to remain below PSD major source threshold with Nitrogen Oxides (NO<sub>x</sub>) emissions and Carbon Monoxide (CO) emissions limited to less than 250.0 tons per year (TPY) each. The initial comment period was open from July 23, 2024 to August 21, 2024 . During which time a public hearing was requested, and the comment period was extended from September 11, 2024 to October 17, 2024 and the draft permit was placed on the BAQ website during that time period. A Public Hearing was held on October 15, 2024. Comments were received during both comment periods.

**CHANGES TO CONSTRUCTION PERMIT AFTER PUBLIC NOTICE**

Corrections were made to the units in the algorithm condition.

Conditions specifying applicable requirements of New Source Performance Standards (NSPS) (Subpart IIII) and National Emission Standards for Hazardous Air Pollutant (NESHAP) (Subpart ZZZZ) were added to the permit in place of the general engine NSPS and NESHAP condition.

**SUMMARY AND CONCLUSIONS**

It has been determined that this source, if operated in accordance with the submitted application, will meet all applicable requirements and emission standards.