



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8

1595 Wynkoop Street
Denver, CO 80202-1129
Phone 800-227-8917
www.epa.gov/region8

Ref: 8ENF-AT

SENT VIA EMAIL
DIGITAL READ RECEIPT REQUESTED

Emily Zambuto
Manager of Environmental Programs
Archaea Energy
Email: ezambuto@archaea.energy

Re: Response to Performance Test Waiver Request

Dear Ms. Zambuto:

This letter is in response to your letter received via email on November 5, 2021, requesting a waiver from the performance test requirements of the New Source Performance Standards (NSPS), 40 C.F.R. § 60.8, and the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines, at 40 C.F.R. Part 60, Subpart JJJJ (NSPS JJJJ), as they apply to the two stationary engines owned by Timberline Emery LLC and operated by Archaea Energy, LLC, located at the Weld County Landfill on 1830 Weld County Road 5, Erie, Colorado (the Facility). In your letter, you state that Archaea Energy LLC, on behalf of Timberline Energy LLC, is requesting to conduct performance testing on one of the two engines per year, alternating the testing on each engine every year over the next four years so that each engine is tested once per 2-year period instead of the once every year frequency for each engine required by in the NSPS JJJJ.

Archaea LLC currently operates two Caterpillar G3520C reciprocating internal combustion engines (RICE) identified as Engines 01 and 02 and constructed on 01/07/11 and 01/10/11 respectively. These engines are fueled by landfill gas and are engine generator sets operating at 2,233 horsepower (HP) providing power to the Facility 24/7.

Pursuant to 40 C.F.R. § 60.4243(b)(2), Timberline Energy LLC must conduct an initial performance test and conduct subsequent performance tests every 8,760 hours or three years, whichever comes first to demonstrate compliance with the emission limits established in Table 2d of Subpart JJJJ at each of the two-stationary spark-ignition RICE located at the Facility. Pursuant to 40 C.F.R. § 60.8(b)(4), performance tests shall be conducted in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator waives the requirement for performance tests because

the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard. Section Y11.2 of the EPA's April 27, 2009, Clean Air Act National Stack Test Guidance states that a performance test waiver for identical emissions units may be appropriate when the following conditions are met:

- (1) the units must be located at the same facility;
- (2) the units were produced by the same manufacturer, have the same model number or other manufacturer's designation in common, and have the same rated capacity and operating specifications;
- (3) the units must be operated and maintained in a similar manner; and
- (4) the EPA or delegated agency, based on documents submitted by the facility;
 - (a) determines that the margin of compliance for the identical units tested is significant and can be maintained on an ongoing basis; or
 - (b) determines based on a review of sufficient emission data that, though the margin of compliance is not substantial, other factors allow for the determination that the variability of emissions for identical tested units is low enough for confidence that the untested unit(s) will be in compliance. These factors may include, but are not limited to, the following:
 - (i) historical records at the tested unit showing consistent/invariant loads;
 - (ii) fuel characteristics yielding low variability and therefore assurance that the emissions will be consistent and below allowable levels; and
 - (iii) statistical analysis of a robust emissions data set demonstrates sufficiently low variability to convey assurance that the margin of compliance, though small, is reliable.

In your letter, you stated that Engines 01 and 02 are both located at the Facility. Engines 01 and 02 were manufactured by Caterpillar, are of the same G3520C model, and are rated at 2,233 HP. Engines 01 and 02 are constructed after January 2011 and burn the same landfill gas fuel. Finally, Engines 01 and 02 are operated and maintained in the same manner, subject to the same maintenance procedures and schedules, and are used to produce electricity for distribution on the electrical grid. Archaea Energy, LLC rotates operations to balance usage and provide adequate downtime for scheduled periodic maintenance.

Timberline Energy LLC provided a table and graphs summarizing test results from 2012 through 2021 for each engine showing compliance with the applicable NSPS JJJJ emission requirements.

Based on the information provided, EPA approves your request to conduct future stack testing on one representative engine annually, in a staggered schedule such that each engine is tested once every 2 years for the next four years to establish compliance with the performance testing requirements of 40 CFR § 60.8 and Subpart JJJJ.

Year	Representative Engine to be tested
2022	ENG 01
2023	ENG 02
2024	ENG 01
2025	ENG 02

This performance test waiver does not alter Archaea Energy LLC or Timberline Energy LLC's responsibility to comply with other applicable requirements of Subpart JJJ. If you have any questions regarding this determination, please contact Alexis North of my staff at (303) 312-7005.

Sincerely,

Scott H. Patefield, Branch Chief
Air & Toxics Enforcement Branch

Cc: Jeffrey Bishop, CDPHE
jeffrey.bishop@state.co.us