



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10  
1200 Sixth Avenue, Suite 155  
Seattle, WA 98101

AIR & RADIATION  
DIVISION

January 5, 2023

Mr. Larry Burgess  
SEQ Manager, Alaska  
Eni US Operating Company, Inc.  
3800 Centerpoint Drive, Suite 300  
Anchorage, Alaska 99503

Re: Test Waiver for Turbine Subject to NSPS KKKK at the Oliktok Point Processing Facility

Dear Mr. Burgess:

This is a response to your letter on behalf of Eni US Operating Company, Inc. (Eni) submitted to the U.S. Environmental Protection Agency, Region 10, dated July 8, 2022, requesting a waiver from ongoing performance testing under 40 CFR part 60 subpart KKKK, *Standards of Performance for Stationary Combustion Turbines* (NSPS KKKK) at the Oliktok Point Processing Facility. Specifically, Eni is requesting a reduced testing frequency for a unit that combusts diesel fuel infrequently. We are conditionally granting your request as described below.

### **Background**

Eni operates four identical 8.25-megawatt Solar Taurus 70-10301S turbines at the Oliktok Point Processing Facility, Nikaitchuq Development Site, in North Slope Borough, Alaska. The turbines are identified in the facility's part 70 operating permit (AQ0923TVP02, January 22, 2020) issued by the Alaska Department of Environmental Conservation as emission units (EU) 1, 2, 32, and 33. EU 1, 2, and 33 are fired exclusively on fuel gas produced locally on the North Slope. EU 32 is a dual fuel unit fired on fuel gas or liquid fuel, which, according to condition 27.2, can only be ultra low sulfur diesel (ULSD). ULSD is delivered commercially from outside North Slope Borough.

According to condition 1.5, EU 32 shall combust gas as the primary fuel with ULSD as a backup fuel. Condition 28 requires Eni to conduct a performance test for EU 32 when operation on ULSD exceeds the limit specified in Table C, which is 600 hours per year.<sup>1</sup>

NSPS KKKK limits emissions of oxides of nitrogen (NO<sub>x</sub>) from turbines with an output of less than or equal to 30 megawatts located above the Arctic Circle to no greater than 150 parts per million (ppm), corrected to 15 percent oxygen. According to 40 CFR 60.4340(a), turbines that do not use water or steam injection to comply with the limit and that have not installed continuous emission monitoring systems or continuous parameter monitoring systems shall demonstrate initial and continuous compliance through source testing. The initial source test must be performed within 60 days of

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<sup>1</sup> A year means a rolling 12-continuous month period. This is clear from the requirements of condition 28 and was confirmed by ADEC staff.

achieving the maximum firing rate, but not later than 180 days after initial startup, and subsequent tests are performed annually thereafter. If NO<sub>x</sub> emissions from a source test do not exceed 75 percent of the standard, testing frequency may be reduced to every other year.

Eni provided historical source operations test data for EU 32 when firing ULSD going back to 2013. NO<sub>x</sub> emissions, corrected to 15 percent oxygen, vary from 104.0 to 126.4 ppm, or 69.3 to 78.3 percent of the standard.

Table 1: Annual Hours of Operation on ULSD and Test Results for EU 32

	2022	2021	2020	2019	2018	2017	2016	2015		2014	2013
Hours of Operation	TBD	417	20	179	18	19	15	23		88	4
Test Date	03/20		03/18		04/01		05/21	03/25	01/22		11/05
NO <sub>x</sub> (ppm @ 15% O <sub>2</sub> )	126.4		105.4		109.0		110.0	116.5	109.9		104.0

Notes:

- (1) The January 2015 test results were invalidated by ADEC for a NO<sub>x</sub> converter error.
- (2) Eni reports that for eight days in 2019, Conoco Phillips was working on their gas line and could not deliver fuel to the facility.
- (3) The facility had a planned shutdown in 2021 resulting in increased diesel fuel consumption. The next facility shutdown is not planned for at least the next five years.
- (4) According to an email dated December 14, 2022, EU 32 had operated on diesel fuel for 13 hours in 2022.

According to 40 CFR 60.4400(b)(1), “If the stationary combustion turbine combusts both oil and gas as primary or backup fuels, separate performance testing is required for each fuel.”

### **Regulatory Basis**

The EPA has authority to waive a performance test requirement, including an initial performance test, pursuant to the provisions at 40 CFR 60.8(b)(4), if the owner or operator of the source has demonstrated by other means to the Administrator’s satisfaction that the affected facility is in compliance with the standards. Because the State of Alaska has not requested delegation of NSPS KKKK, the EPA remains the Administrator for this subpart.

### **Determination**

Eni has demonstrated to the EPA’s satisfaction that EU 32 has consistently, and with low variability, met the NO<sub>x</sub> emission limit in NSPS KKKK when fired on ULSD and only operates on ULSD infrequently as a backup fuel. Therefore, the EPA is granting Eni’s request to waive annual (or biennial) testing of EU 32 as required by 40 CFR 60.4340(a), effective immediately, provided the following conditions are met:

1. A performance test shall be performed in accordance with 40 CFR 60.4400 to demonstrate continuous compliance with the NO<sub>x</sub> emission limit in Table 1 of NSPS KKKK for EU 32 when fired on ULSD not later than the earlier of the following dates:
  - a. Five years (60 months) after the previous performance test, or
  - b. If cumulative operation of EU 32 on ULSD since the previous performance test exceeds 600 hours, the later of the following dates:

- i. Within 180 days after the end of the calendar month during which the cumulative operation of EU 32 on ULSD since the previous performance test exceeds 600 hours, or
  - ii. when a performance test would have been required by 40 CFR 60.4340(a) (within 14 or 26 months).
2. The results of any performance test performed pursuant to condition 1 of this waiver may be used to demonstrate continuous compliance with the NO<sub>x</sub> emission limit in Table 1 of NSPS KKKK for EU 32 only when the unit is fired on ULSD.
3. A written report of the results of each performance test conducted pursuant to condition 1 of this waiver shall be submitted to the EPA before the close of business on the 60<sup>th</sup> day following the completion of the performance test. Written reports shall contain the information specified in 40 CFR 60.8(f)(2).
4. Test reports and notifications submitted to the EPA pursuant to condition 1 of this waiver shall be submitted via the EPA's Compliance and Emission Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange at <https://cdx.epa.gov>.
5. This waiver will automatically terminate if the NO<sub>x</sub> emission result from a performance test for EU 32 when fired on ULSD exceeds the NO<sub>x</sub> emission limit in Table 1 of NSPS KKKK.

Any compliance obligation not specifically waived in this letter continues to apply. Nothing in this letter prevents the EPA from requiring additional testing under section 114 of the Clean Air Act or ADEC from requiring additional testing under its state authority.

If you have any questions regarding this letter, please contact Geoffrey Glass at (206) 553-1847 or at [glass.geoffrey@epa.gov](mailto:glass.geoffrey@epa.gov).

Sincerely,

KARL  
PEPPLE

Digitally signed by KARL  
PEPPLE  
Date: 2023.01.05  
17:12:09 -08'00'

Karl Pepple, Acting Manager  
Air Permits and Toxics Branch

Enclosure

cc: Mr. James Plosay  
ADEC

Ms. Grace Germain  
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Mr. Chris Lindsey  
SLR Consultants