



**DEPARTMENT OF THE AIR FORCE
HEADQUARTERS, JOINT BASE ELMENDORF-RICHARDSON
JOINT BASE ELMENDORF-RICHARDSON, ALASKA**

10 November 2022 (via email)

MEMORANDUM FOR ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR PERMITS PROGRAM
ATTN: KATHIE MULKEY
555 Cordova Street
Anchorage AK 99501

FROM: JOINT BASE ELMENDORF-RICHARDSON AIR QUALITY PROGRAM MANGER
724 Quartermaster Rd., STE 213
JBER AK 99505

SUBJECT: Review Comments for Joint Base Elmendorf-Richardson Title AQ1181MSS02

1. The Joint Base Elmendorf-Richardson (JBER) has reviewed draft Title V permit AQ0886TVP04 for the Flight Line Stationary Source and has compiled a set of comments, which accompanies this correspondence as Attachment 1.
2. If you have any questions regarding this report, please contact me at 907-384-1361 or amy.kearns.1@us.af.mil.
3. Based on the information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

AMY E. KEARNS, DAF, GS-12
JBER Air Quality Program Manager

Attachment

1. JBER Comments on Draft MSS Permit AQ0886TVP04

ATTACHMENT 1: UNITED STATES AIR FORCE COMMENTS REGARDING DRAFT TITLE V PERMIT AQ0886TVP04 AND STATEMENT OF BASIS

COMMENT 1:

Name(s) and Organization(s): Amy Kearns, 673 CES/CEIEC
 Document: Draft Title V Permit AQ0886TVP04
 Page#/ Section #/ Paragraph#: 1 of 62/ Section 1/Identification

Change “Quarter Master” to “Quartermaster” in address for the Stationary Source and Building Contact and Permit and Fee Contact blocks.

COMMENT 2:

Name(s) and Organization(s): Amy Kearns, 673 CES/CEIEC
 Document: Draft Title V Permit AQ0886TVP04
 Page#/ Section #/ Paragraph#: 3 of 62/ Section 1/Table A

Revise the following details in Table A:

EU ID(s)	Requested Change
10A	Reassign EU ID to 10B to reflect engine replacement that occurred in 2020. Update Permit Conditions 25, 33, 34, 36, and 87 (Table).
11A	Reassign EU ID to 11B to reflect engine replacement that occurred in 2020. Update Permit Conditions 25, 33, 34, 36, and 87 (Table).
20A	Replace “4BT3.9-G3” with “4BT3.9-G4” in Emission Unit Description
140	Replace “Generator Building” with “Pumphouse 3” in Emission Unit Description
148 & 149	Replace “JW6H660” with “JWHF60” in Emission Unit Description
150A	Replace “TBD” with “10105A” and remove “TBD” from table notes
151 & 152	Replace “Clarke” with “John Deere.” Fire water pump system is manufactured by Clarke but has a John Deere engine.
156A	Replace “4BT3.3BG” with 4BT3.3G5”
168A	Replace “4BTAA3.3F7” with “4BTAA3.3G7”
193A	Update Install Date of “June 2022” with “August 2022.” Installation delayed after renewal application and subsequent addendums submitted.
195A	Revise Install Date from “January 2021” to “October 2020.” Installation began in October 2020, but facility was not handed over to JBER until January 2021.

COMMENT 3:

Name(s) and Organization(s): Amy Kearns, 673rd CES/CEIEC
 Document: Draft Title V Permit AQ0886TVP04
 Page#/ Section #/ Paragraph#: 6 of 62/ Section 3/Condition 2.0, footnote

Add Emission Unit IDs 1A, 3A, 59A, 143A, 150A, 166A, and 166B to list of diesel-fired engines that reach the significance threshold for NO_x listed in 18 AAC 50.326(e) when operating less than

500 hours per year. While these items are correctly identified, there are additional engines to mention in this footnote: 1A, 3A, 59A, 143A, 150A, 166A, and 166B.

COMMENT 4:

Name(s) and Organization(s): Amy Kearns, 673rd CES/CEIEC

Document: Draft Title V Permit AQ0886TVP04

Page#/ Section #/ Paragraph#: 11 of 62/ Section 3/Condition 5.1

Insert footnote to indicate the permit condition is triggered when the emission unit(s) are operating within the Flight Line Stationary Source.

These units are operated inside and outside of the Flight Line Stationary Source; therefore, clarification is warranted.

COMMENT 5:

Name(s) and Organization(s):

Document: Draft Title V Permit AQ0886TVP04

Page#/ Section #/ Paragraph#: 11 of 62/ Section 3/Condition 5.2(b)

Remove “When possible” and change “minimizes” to “eliminates”

COMMENT 6:

Name(s) and Organization(s): Amy Kearns, 673 CES/CEIEC

Document: Draft Title V Permit AQ0886TVP04

Page#/ Section #/ Paragraph#: 12 of 62/ Section 3/Condition 5.2(e)(iii)

Insert “while operating within the stationary source”

COMMENT 7:

Name(s) and Organization(s): Amy Kearns, 673 CES/CEIEC

Document: Draft Title V Permit AQ0886TVP04

Page#/ Section #/ Paragraph#: 18 of 62/ Section 3/Condition 16, Citation

Insert reference to “AQ0886TVP01” in citation provided immediately after Permit Condition 16.3 to be consistent with permit number referenced in factual basis for Permit Condition 16 through 20 of the Statement of Basis for Draft Title V Permit AQ0886TVP04.

COMMENT 8:

Name(s) and Organization(s): Amy Kearns, 673 CES/CEIEC

Document: Draft Title V Permit AQ0886TVP04

Page#/ Section #/ Paragraph#: 21 of 62/ Section 4/Condition 23

Insert space between “to” and “40” on line 2 of the permit condition

COMMENT 9:

Name(s) and Organization(s): Amy Kearns, 673 CES/CEIEC
Document: Draft Title V Permit AQ0886TVP04
Page#/ Section #/ Paragraph#: 23 of 62/ Section 4/Condition 27.1

JBER requests ADEC remove Permit Condition 27.1. The permit condition does not appear in the current permit (AQ0886TVP03). JBER reviewed the regulatory basis for the permit condition (40 CFR 1039.105) and determined the requirement does not apply. All the engines on JBER are built and certified by the manufacturer for constant-speed operation, which is standard for generators, firewater pumps, and aircraft arrestor systems. As stated in 40 CFR 1039.105(a)(2), “the smoke standards apply to all engines subject to emission standards under this part, except the following engines:...(2) constant-speed engines.”

COMMENT 10:

Name(s) and Organization(s): Amy Kearns, 673 CES/CEIEC
Document: Draft Title V Permit AQ0886TVP04
Page#/ Section #/ Paragraph#: 26 of 62/ Section 4/Condition 32

Add EU ID 197 to list of affected sources. 40 CFR 63 Subpart ZZZZ covers both compression and spark ignition engines. EU ID 197 meets the requirements found in 40 CFR 63 Subpart ZZZZ by meeting the requirements found in 40 CFR 60 Subpart JJJJ. As stated in Comment 13 below, JBER asserts that EU ID 197 is an affected source based on applicability criteria described on 40 CFR 60.4230(a)(4)(iii) in addition to 40 CFR 60.4230(a)(4)(iv).

COMMENT 11:

Name(s) and Organization(s): Amy Kearns, 673 CES/CEIEC
Document: Draft Title V Permit AQ0886TVP04
Page#/ Section #/ Paragraph#: 48 of 62/Section 10/Condition 87, Table 3, Row 3 (EU ID 141)

EU ID 141 is a test stand used to test combustion turbine engines from F-22 fighter jets. 40 CFR 63 Subpart ZZZZ applies to reciprocating internal combustion engines, not combustion turbines. A permit shield from 40 CFR 63 Subpart ZZZZ is not required since it is not a potentially affected source under the rule.

JBER requests ADEC change permit shield to 40 CFR 63 Subpart PPPPP, which regulated engine test cells on the basis that the Flight Line Title V Stationary Source is not a major stationary source. There is currently no area source rule for 40 CFR 63 Subpart PPPPP.

COMMENT 12:

Name(s) and Organization(s): Amy Kearns, 673 CES/CEIEC
Document: Draft Title V Permit AQ0886TVP04
Page#/ Section #/ Paragraph#: 48 of 62/Section 10/Condition 87, Table 3, Row 5 (EU ID 197)

JBER asserts that Emission Unit ID 197 is an affected source under 40 CFR 60 Subpart JJJJ because it meets the applicability criteria described in 40 CFR 60.4230(a)(4)(iii) in addition to the criteria described in 40 CFR 60.4230(a)(4)(iv). JBER requests ADEC re-evaluate the

applicability of 40 CFR 60 Subpart JJJJ to Emission Unit ID 197 and remove the permit shield if it determines the rule applies.

COMMENT 13:

Name(s) and Organization(s): Amy Kearns, 673 CES/CEIEC

Document: Statement of Basis for Draft Title V Permit AQ0886TVP04

Page#/ Section #/ Paragraph#: 8 of 28 / Non-Applicable Requirements /40 CFR 60 Subpart JJJJ

JBER asserts that the 3rd Operations Support Squadron (3 OSS) Wind Shear emergency generator (EU ID 197) is subject to the new source performance standard (NSPS) for Spark-Ignition Combustion Engines based on the applicability criteria described in 40 CFR 60.4230(a)(4)(iii).

§60.4230(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (6) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

...

(4) Owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured:

...

(iii) on or after July 1, 2008, for engines with a maximum engine power less than 500 HP; or

(iv) on or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 HP).

EU ID 197 is a model year 2022, 14 horsepower (Hp), gasoline-fired emergency generator with an engine displacement of 653 cubic centimeters (cc) that is used to support 3 OSS Wind Shear equipment. The emergency generator and affiliated equipment were installed in July 2022; therefore, it meets the applicability criteria in 40 CFR 60.4230(a)(4)(iii). Since EU ID 197 is less than 19 kW (25 Hp), it does not meet the criteria in 40 CFR 60.4230(a)(4)(iv).

JBER's assertion that EU ID 197 is subject to 40 CFR 60 Subpart JJJJ is further bolstered by the emission standards set for owner/operators in 40 CFR 60.4233. As stated in 40 CFR 60.4233(a) "owners and operators of stationary SI IC with a maximum engine power less than or equal to 19 kW (25 Hp) manufactured on or after July 1, 2008, must meet the applicable standards in 40 CFR 60.4231(a) for their stationary SI ICE."

40 CFR 60.4231(a) states "Stationary SI internal combustion engine manufacturers must certify their stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) manufactured on or after July 1, 2008, to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 1054, as follows (Table):

...

(4) If engine displacement is at or above 225 cc and manufacturing dates are January 1, 2011, or later the engine must meet the following non-handheld emission standards identified in 40 CFR part 1054 and related requirements: Phase 3."

EPA does not set separate emission standards for emergency and non-emergency engines less than 19 kW (25 Hp) in the provisions described above. EPA does set separate emission standards for emergency and non-emergency gasoline fired engines greater than 19 kW (25 Hp) as described in 40 CFR 60.4233(b), which cross references 40 CFR 60.4231(b). Based on the language in 40 CFR 60.4230 through 40 CFR 60.4233, JBER reasons EPA intended to regulate engines less than 19 kW (25 Hp), including those used for emergency operations.

COMMENT 14:

Name(s) and Organization(s): Amy Kearns, 673 CES/CEIEC

Document: Statement of Basis for Draft Title V Permit AQ0886TVP04

Page#/ Section #/ Paragraph#: 13 of 28/ Factual Basis/ Conditions 16 through 20

Insert reference to permit “291TVP01C” after “AQ0886TVP01” to be consistent with citation provided in with Permit Condition 16 of the Draft Title V Permit AQ0886TVP04. Reiterate that Title V Permit Number 291TVP01C is administratively referred to as AQ0886TVP01.