

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

AIR QUALITY CONTROL MINOR PERMIT

Minor Permit: AQ0091MSS03 Revision 2
Revises Permit: AQ0091MSS03 Revision 1

Preliminary Date – April 11, 2025

The Alaska Department of Environmental Conservation (Department), under the authority of AS 46.14 and 18 AAC 50, issues Air Quality Control Minor Permit AQ0091MSS03 Revision 2 to the Permittee listed below.

Permittee: **Hilcorp Alaska, LLC**
P.O. Box 244027
3800 Centerpoint Drive, Suite 1400
Anchorage, AK 99503

Stationary Source: **Tyonek Platform**

Project: **Crane Replacement Project**

Location: Latitude: 61° 04' 34.3" North; Longitude: 150° 57' 02.6" West

Permit Contact: Drew Anderson, Environmental Specialist
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This project is classified under 18 AAC 50.508(6) for revising or rescinding the terms and conditions of a Title I Permit.

This permit satisfies the obligation of the Permittee to obtain a minor permit under 18 AAC 50. As required by AS 46.14.120(c), the Permittee shall comply with the terms and conditions of this permit.

The Permittee may operate under the terms and conditions of this minor permit upon issuance.

James R. Plosay, Manager
Air Permits Program

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Section 1 Emissions Unit Inventory

Emissions Unit (EU) Authorization. The Permittee is authorized to operate the EUs listed in Table 1 in accordance with the terms and conditions of this permit. Except as noted elsewhere in this permit, the information in Table 1 is for identification purposes only. The specific EU descriptions do not restrict the Permittee from replacing an EU identified in Table 1.

Table 1 – Emissions Unit Inventory¹

EU ID	EU Name	EU Description	Rating/ Capacity	Fuel	Install Date
20 ²	TY-G-3502A	Caterpillar D-398 Standby Electric Generator Engine No. 1	795 hp	Diesel	1968
21 ²	TY-G-3502B	Caterpillar D-398 Standby Electric Generator Engine No. 2	795 hp	Diesel	1968
24A ^{2,3}	TY-CR-0001	Caterpillar C9.3 MY 2013 Tier 4i Crane Engine	350 hp	Diesel	2013
25B ^{2,3,4}	TY-CR-0002	John Deere 6135HF485F MY 2008 Tier 3 Crane Engine	500 hp	Diesel	2022
28 ²	TY-C-0015	John Deere 4039DF001 Air Compressor Engine	80 hp	Diesel	1992
33 ²	TY-P-2809A	Caterpillar 3306 Firewater Engine No. 1	231 hp	Diesel	2002
34 ²	TY-P-2809B	Caterpillar 3306 Firewater Engine No. 2	231 hp	Diesel	2002

Notes:

- 1 Only the affected EUs with revised conditions under this permit appear in Table 1. EUs information in the table are as provided in the February 23, 2023 amendment to the Title V permit renewal application for AQ0091TVP03.
- 2 EU IDs 20, 21, 24A, 25B, 28, 33, and 34 are subject to a capped ORL of 20.2 tons of NO_x per 12-month period (see Condition 8).
- 3 EU IDs 24 and 25 were replaced by EU IDs 24A and 25A, respectively, as authorized under Minor Permit No. AQ0091MSS03, issued September 23, 2013.
- 4 EU ID 25A has been replaced by EU ID 25B in 2022. Minor Permit No. AQ0091MSS03 Revision 2 authorizes the replacement of EU ID 25A with EU ID 25B and associated changes in the permit terms and conditions.

1. The Permittee shall comply with all applicable provisions of AS 46.14 and 18 AAC 50 when installing a replacement EU, including any applicable minor or construction permit requirements.

Section 2 *Fee Requirements*

2. Condition 5 (in its entirety) of Minor Permit No. AQ0091MSS03 Revision 1 is rescinded and replaced by Condition 3 of Minor Permit No. AQ0091MSS03 Revision 2.
3. **Assessable Emissions.** For each period from July 1 through the following June 30, the Permittee shall pay to the Department an annual emission fee based on the stationary source's assessable emissions as determined by the Department under 18 AAC 50.410. The Department will assess fees per ton of each air pollutant that the stationary source emits or has the potential to emit. The quantity for which fees will be assessed is the lesser of the stationary source's:
 - 3.1 potential to emit of 705.39 TPY; or
 - 3.2 projected annual rate of emissions, in TPY, based upon actual annual emissions for the most recent calendar year, or another 12-month period approved in writing by the Department, when demonstrated by credible evidence of actual emissions, based upon the most representative information available from one or more of the following methods:
 - a. an enforceable test method described in 18 AAC 50.220;
 - b. material balance calculations;
 - c. emission factors from EPA's publication AP-42, Vol. I, adopted by reference in 18 AAC 50.035; or
 - d. other methods and calculations approved by the Department, including appropriate vendor-provided emissions factors when sufficient documentation is provided.

Section 3 State Emission Standards

4. **Visible Emissions.** The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from any of the EUs listed in Table 1 to reduce through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.
5. **Particulate Matter (PM).** The Permittee shall not cause or allow PM emitted from any of the EUs listed in Table 1 to exceed 0.05 grains per cubic foot of (gr/dscf) of exhaust gas corrected to standard conditions and averaged over three hours.
6. **Sulfur Compound Emissions.** The Permittee shall not cause or allow sulfur compound emissions, expressed as SO₂, from any of the EUs listed in Table 1 to exceed 500 ppm averaged over three hours.

Section 4 Revisions to Previous Permit Actions

7. Condition 9 (in its entirety) of Minor Permit No. AQ0091MSS03 Revision 1 is rescinded and replaced by Condition 8 of Minor Permit No. AQ0091MSS03 Revision 2.

Owner Requested Limit (ORL) to Avoid Classification as PSD Major

8. **NO_x Limit.** The Permittee shall limit the combined oxides of nitrogen (NO_x) emissions, expressed as nitrogen dioxide (NO₂), from EU IDs 20, 21, 24A, 25B, 28, 33, and 34 to no greater than 20.2 tons per rolling 12-month period as follows:

- 8.1 Limit fuel consumptions for these EUs such that the following equation holds true:

Equation

$$\frac{\left(0.45 \frac{\text{lb}}{\text{gal}} \times FC_{20,21}\right) + \left(0.07 \frac{\text{lb}}{\text{gal}} \times FC_{24A}\right) + \left(0.15 \frac{\text{lb}}{\text{gal}} \times FC_{25B}\right) + \left(0.58 \frac{\text{lb}}{\text{gal}} \times FC_{28}\right) + \left(0.51 \frac{\text{lb}}{\text{gal}} \times FC_{33,34}\right)}{2000 \frac{\text{lb}}{\text{ton}}} \leq 20.2 \text{ tpy NO}_x$$

Where:

FC_{20,21} is the total fuel consumption per rolling 12-month period for EU IDs 20 and 21

FC_{24A} is the total fuel consumption per rolling 12-month period for EU ID 24A

FC_{25B} is the total fuel consumption per rolling 12-month period for EU ID 25B

FC₂₈ is the total fuel consumption per rolling 12-month period for EU ID 28

FC_{33,34} is the total fuel consumption per rolling 12-month period for EU IDs 33 and 34

- 8.2 Monitor, record, and report compliance with the limit in Condition 8, as follows:
- Except as allowed under Condition 8.3, measure the monthly and the rolling 12-month total diesel fuel consumed by each of EU IDs 20, 21, 24A, 25B, 28, 33, and 34 using a fuel flow meter with a minimum accuracy of ± 5%.
 - Each month, calculate and record the total volume of diesel fuel consumed by each EU during the previous calendar month.
 - Calculate and record monthly, the rolling 12-month combined NO_x emissions from EU IDs 20, 21, 24A, 25B, 28, 33, and 34 using the equation in Condition 8.1.
 - Include the records required in Conditions 8.2b and 8.2c in the operating report required by the applicable operating permit issued for the source under AS 46.14.130(b) and 18 AAC 50.
- 8.3 If any of the fuel flow meters for EU IDs 20, 21, 24A, 25B, 28, 33 and 34 did not function for any period of time when fuel is being combusted by the EU(s), the Permittee may use the operational hours of the EU(s), in lieu of fuel consumption, to

calculate NO_x emissions using the corresponding maximum NO_x emission rates in lb/hr in Table 2 as follows:

- a. Monitor and maintain records of the monthly and the rolling 12-month hours of operation for each of EU IDs 20, 21, 24A, 25B, 28, 33, and 34. Each month, calculate and record
 - (i) the total hours of operation of each EU during the previous calendar month; and
 - (ii) the consecutive 12-month hours of operation during the previous 12 calendar months using the records for each EU obtained in accordance with Condition 8.3a(i).
- b. Using the consecutive 12-month hours of operation obtained in Condition 8.3a(ii), calculate and record the monthly rolling 12-month combined NO_x emissions from EU IDs 20, 21, 24A, 25B, 28, 33, and 34 using the corresponding maximum NO_x emission rates in lb/hr listed in Table 2.

Table 2 – Maximum NO_x Emission Rates

EU ID	20	21	24A	25B	28	33	34
NO _x Emissions (lb/hr)	18.0	18.0	1.23	3.9	2.5	6.2	6.2

- c. Include the records required in Conditions 8.3a and 8.3b in the operating report required by the applicable operating permit issued for the source under AS 46.14.130(b) and 18 AAC 50 for the period covered by the report.
- 8.4 Report under Excess Emissions and Permit Deviation, as required by applicable operating permit for the source under AS 46.14.130(b) and 18 AAC 50, any time the NO_x limit in Condition 8 is exceeded.

Section 5 *Standard Permit Conditions*

9. The Permittee must comply with each permit term and condition. Non-compliance with a permit term or condition constitutes a violation of AS 46.14, 18 AAC 50, and, except for those terms or conditions designated in the permit as not federally enforceable, the Clean Air Act, and is grounds for
 - 9.1 an enforcement action; or
 - 9.2 permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280.
10. It is not a defense in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with a permit term or condition.
11. Each permit term and condition is independent of the permit as a whole and remains valid regardless of a challenge to any other part of the permit.
12. The permit may be modified, reopened, revoked and reissued, or terminated for cause. A request by the Permittee for modification, revocation and reissuance, or termination or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
13. The permit does not convey any property rights of any sort, nor any exclusive privilege.
14. The Permittee shall allow the Department or an inspector authorized by the Department upon presentation of credentials and at reasonable times with the consent of the owner or operator to
 - 14.1 enter upon the premises where an emissions unit subject to this permit is located or where records required by the permit are kept;
 - 14.2 have access to and copy any records required by this permit;
 - 14.3 inspect any stationary source, equipment, practices, or operations regulated by or referenced in the permit; and
 - 14.4 sample or monitor substances or parameters to assure compliance with the permit or other applicable requirements.

Section 6 Permit Documentation

<u>Date</u>	<u>Document Details</u>
December 21, 2022	Hilcorp submitted minor permit revision application for the Crane Replacement Project.
March 10, 2023	Received spreadsheets on PTE calculations from Hilcorp.
March 28, 2023	Received inquiry response from Hilcorp about PTE calculations between minor permit revision application and Title V renewal application, “temporary” replacement, and clarification of dates of removing and replacing EU ID 25A with EU ID 25B.
March 29, 2023	Sent clarification request to Hilcorp on which application best represents the Tyonek Platform.
April 5, 2023	Received response from Hilcorp on using PTE calculations from Title V renewal application, AQ0091TVP03.
July 19, 2023	Sent pre-Public Notice draft to Hilcorp for 1 st review.
July 25, 2023	Received completed 1 st pre-Public Notice review from Hilcorp.
July 25, 2024	Sent pre-Public Notice draft to Hilcorp for 2 nd review.
September 5, 2024	Received completed 2 nd pre-Public Notice review from Hilcorp.
April 11, 2025	Preliminary draft and TAR sent for public notice with Operating Permit No. AQ0091TVP03.