Hilcorp Alaska, LLC

Post Office Box 244027
Anchorage, AK 99524-4027

3800 Centerpoint Drive
Suite 1400
Anchorage, AK 99503

Phone: 907/777-8300
Fax: 907/777-8301

October 12, 2022

Alaska Department of Environmental Conservation
Air Permits Program
Attention: Kathie Mulkey
555 Cordova Street
Anchorage, AK 99524

Subject: Hilcorp Alaska, LLC – Beluga River Unit Air Quality Operating Permit No. AQ0942TVP01, Revision 2 Third Amendment to Application for Renewal

Dear Ms. Mulkey:

Hilcorp Alaska, LLC (Hilcorp) is providing an update to the Title V Renewal Application for Beluga River Unit (BRU). This amendment is to incorporate the drill rig permitted under Air Quality Control Minor Permit No. AQ0942MSS02.

Based on 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.

Please contact Natalia Lau at (907) 777-8304 or Natalia.Lau@hilcorp.com with any questions or concerns.

Sincerely,

Jeff Allen
Asset Team Lead
Hilcorp Alaska, LLC

Enclosure: BRU Third Amendment to Application for Permit Renewal

cc: EPA Region 10
Natalia Lau, Hilcorp

Hilcorp Alaska, LLC

Beluga River Unit

Third Amendment to Air Quality Operating Permit Renewal Application

Prepared for:

Hilcorp Alaska, LLC

October 2022

BOREAL

Beluga River Unit

Third Amendment to Air Quality Operating Permit Renewal Application

Prepared for:

Hilcorp Alaska, LLC

3800 Centerpoint Dr., Suite 1400
Anchorage, AK 99503

Prepared by:

Boreal Environmental Services

4300 B Street, Suite 510
Anchorage, AK 99503

TABLE OF CONTENTS

Section A

Stationary Source

Form A1-R: Stationary Source Supplemental Information or Application Revision

Form A1: Stationary Source (General Information)

FORM A1-R
Stationary Source Supplemental Information or Application Revision

Permit Number: AQ0942TVP01, Rev. 2

Permit Contact:	Name	Natalia Lau
	Title	Environmental Specialist
	Mailing Address Line 1	3800 Centerpoint Drive, Suite 1400
	Mailing Address Line 2	Anchorage, AK 99503
	Phone Number	907-777-8304
	Email	Natalia.Lau@hilcorp.com

Brief Description of Supplemental Information or Application Revision:

This third amendment to the renewal application requests that the ADEC incorporate the drill rig permitted in Air Quality Control Minor Permit No. AQ0942MSS02. Hilcorp also took this opportunity to update the contact information previously submitted in the Form A1 and add applicable NSPS Subpart OOOOa requirements as noted in Form E3.

The following are included within this application amendment:

- Section A – Stationary Source
  - Form A1-R
  - Revised Form A1
- Section B – Emission Units
  - Revised Form B
  - New Form B1
- Section D – Emissions Summary
  - Revised Forms D1
  - Revised Forms D2
  - Revised Forms D3

  Note: These forms were revised to include the drill rig emission units as well as to correct for errors and consistency. Revisions are highlighted in yellow.
- Section E – Regulatory Requirements
  - Revised Form E3
- Attachments
  - Suggested NSPS Subpart OOOOa Conditions
  - Minor Permit No. AQ0942MSS02
  - Electronic Excel Emissions File

Statement of Certification:

Based on 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.

JEFF ALLEN
Name of Responsible Official

Asset Team Lead
Title

Signature (blue ink)

10-12-22
Date

FORM A1
Stationary Source (General Information)

GENERAL INFORMATION			
1. Permittee:			
Permittee Name: Hilcorp Alaska, LLC			
Mailing Address Line 1: 3800 Centerpoint Dr. Suite 1400			
Mailing Address Line 2			
City: Anchorage		State: AK	Zip Code: 99503
2. Stationary Source Name: Beluga River Unit			
3. Stationary Source Physical Address: Upper Cook Inlet, AK			
Physical Address Line 1: 40 miles west of Anchorage, Alaska, Seward Meridian, Section 27, Township 13 N, Range 10W			
Physical Address Line 2 **:** UTM Zone 5; 6784798 Northing; 605841 Easting			
City:		State: AK	Zip Code:
4. Location:	Latitude: 61.18333		Longitude: -151.0315
5. Primary SIC Code: 1311	SIC Code Description: Crude Oil and Natural Gas		***Primary NAICS Code:*** 211111
6. Current/Previous Title V Air Permit No.: AQ0942TVP01, Rev. 2			Expiration Date: February 20, 2019
7. Does this application contain confidential data?	☐ Yes		☒ No

8. APPLICATION IS BEING MADE FOR:		
☐ Initial Title V Permit for this Stationary Source	☐ Modify Title V Permit (currently permitted)	☒ Title V Permit Renewal

9. CONTACT INFORMATION (Attach additional sheets if needed)					
Owner:			***Operator:***		
Name/Title: Please see attached sheet.			Name/Title: Hilcorp Alaska, LLC		
Mailing Address Line 1:			Mailing Address Line 1: 3800 Centerpoint Drive, Suite 1400		
Mailing Address Line 2:			Mailing Address Line 2:		
City:	State: AK	Zip Code:	City: Anchorage	State: AK	Zip Code: 99503
Permittee's Responsible Official:			***Designated Agent:***		
Name/Title: Please see attached sheet.			Name/Title: CT Corporation		
Mailing Address Line 1:			Mailing Address Line 1: 9360 Glacier Highway Suite 202		
Mailing Address Line 2			Mailing Address Line 2		
City:	State:	Zip Code:	City: Juneau	State: AK	Zip Code: 99801
Stationary Source and Building Contact:			***Fee Contact:***		
Name/Title: Natalia Lau/Air Specialist			Name/Title: Hilcorp Alaska, LLC Accounts Payable		
Mailing Address Line 1: 3800 Centerpoint Dr. Suite 1400			Mailing Address Line 1: P.O. Box 61529		
Mailing Address Line 2			Mailing Address Line 2		
City: Anchorage	State: AK	Zip Code: 99503	City: Houston	State: TX	Zip Code: 77208
Phone: (907) 777-8304	Email: Natalia.Lau@hilcorp.com		Phone:	Email:	
Permit Contact:			***Person or Firm that Prepared Application:***		
Name/Title: Natalia Lau/Air Specialist			Name/Title: Jeanette Brena, P.E./Boreal Environmental Services		
Mailing Address Line 1: 3800 Centerpoint Dr. Suite 1400			Mailing Address Line 1: 4300 B Street, Suite 510		
Mailing Address Line 2			Mailing Address Line 2		
City: Anchorage	State: AK	Zip Code: 99503	City: Anchorage	State: AK	Zip Code: 99503
Phone: (907) 777-8304	Email: Natalia.Lau@hilcorp.com		Phone: 907-227-5569	Email: jbrena@boreal-services.com	

10. STATEMENT OF CERTIFICATION		
Based on 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.		
Name of Responsible Official (typed): JEFF ALLEN	Title: Asset Team Lead	
X Signature (blue ink): Jeff Allen	Date: 10-12-22	

FORM A1
Stationary Source (General Information)

Owner:

1) Hilcorp Alaska, LLC
   3800 Centerpoint Drive, Suite 1400
   Anchorage, AK 99503

2) Anchorage Municipal Light and Power
   1200 East First Avenue
   Anchorage, AK 99501

3) Chugach Electric Association
   P.O. Box 196300
   Anchorage, AK 99519-6300

Permittee's Responsible Officials:

1) Luke Saugier
   Title: Senior Vice President
   Address: 3800 Centerpoint Drive, Suite 1400, Anchorage, AK, 99503

2) Jeff Allen
   Title: Asset Team Lead
   Address: 3800 Centerpoint Drive, Suite 1400, Anchorage, AK, 99503

3) Chris Kanyer
   Title: Asset Team Lead
   Address: 3800 Centerpoint Drive, Suite 1400, Anchorage, AK, 99503

4) Matt Brown
   Title: Asset Team Lead
   Address: 3800 Centerpoint Drive, Suite 1400, Anchorage, AK, 99503

5) Bradley Simpson
   Title: Asset Team Lead
   Address: 3800 Centerpoint Drive, Suite 1400, Anchorage, AK, 99503

Section B

Emission Units

Form B:	Emission Unit Listing for This Application
Form B1:	Emission Unit Detail Form – External Combustion Equipment

FORM B
Emission Unit Listing For This Application

Permit Number: AQ0942TVP01, Rev. 2

EMISSION UNIT LISTING: New, Modified, Previously Unpermitted, Replaced, Deleted					
Emission Unit ID Number	Emission Unit Name	Brief Emission Unit Description	Rating/Size	Construction Date	Notes
Emission Units To Be ADDED By This Application (New, Previously Unpermitted, or Replacement)					
R-1	Mud Pump Engine	Detroit Diesel 12V2000	850 hp	TBD	Nonroad engine
R-2	Mud Pump Engine	Detroit Diesel 12V2000	850 hp	TBD	Nonroad engine
R-3	Drawworks/Carrier Engine	Detroit Diesel Series 60	665 hp	TBD	Nonroad engine
R-4	Generator	Detroit Diesel Series 60	685 hp	TBD	Nonroad engine
R-5	Generator	Detroit Diesel Series 60	685 hp	TBD	Nonroad engine
R-6	Boiler	York-Shipley Boiler	100 bhp	TBD	
R-7	Boiler	York-Shipley Boiler	100 bhp	TBD	

Emission Units To Be MODIFIED By This Application					

Emission Units To Be DELETED By This Application					

FORM B
Emission Unit Listing For This Application

SIGNIFICANT EMISSION UNIT LISTING: Title V permitted emission units that have not been modified				
Emission Unit ID Number	Emission Unit Name	Brief Emission Unit Description	Rating/Size	Construction Date
1	Turbine Compressor	Solar Taurus 60 Compressor Drive	7,700 hp	2006
2	Emergency Compressor	Waukesha H24GLD MOC Compressor Drive	530 hp	2005
3	Emergency Generator Engine	John Deere Engine	420 kW	2008
12	Emergency Generator Engine	Cummins Engine	350 kW	Pre-1990
19	Emergency Generator Engine	Duetz Engine	50 kW	Pre-1990
26	Incinerator	Thermal Engine Corp Incinerator	150 lb/hr	Pre-1990
37	Compressors	Wellsite Compressor Engines	7,500 hp (cumulative maximum allowable total)	2011
42	Emergency Generator Engine	Caterpillar Engine	230 kW	2012
43	B Pad Compressor Drive	Caterpillar 3306TA Engine	220 hp	2015
44	GDF	Gasoline Dispensing Facility	Less than 10,000 gallons per month throughput	Prior to 11/9/2006
4	GDU	Pad H Glycol Dehydration Unit #1	5.53 MMscf/day	Pre-1990
5	GDU	Pad H Glycol Dehydration Unit #2	55 MMscf/day	Pre-1990
6	GDU	Pad H Glycol Dehydration Unit #3	55 MMscf/day	Pre-1990
7	GDU	Pad A Glycol Dehydration Unit	0.45 MMscf/day	1973
8	GDU	Pad B Glycol Dehydration Unit	0.27 MMscf/day	1968
9	GDU	Pad C Glycol Dehydration Unit #1	5.14 MMscf/day	1987
10	GDU	Pad C Glycol Dehydration Unit #2	5.14 MMscf/day	1987
13	GDU	Pad D Glycol Dehydration Unit	3.92 MMscf/day	1968
14	GDU	Pad E Glycol Dehydration Unit #1	1.99 MMscf/day	1968
15	GDU	Pad E Glycol Dehydration Unit #2	3.87 MMscf/day	1968
16	GDU	Pad F Glycol Dehydration Unit	6.71 MMscf/day	1968
17	GDU	Pad G Glycol Dehydration Unit	2.10 MMscf/day	1968
18	GDU	Pad I Glycol Dehydration Unit	3.05 MMscf/day	1968
21	GDU	Pad J Glycol Dehydration Unit #1	2.37 MMscf/day	1985
22	GDU	Pad J Glycol Dehydration Unit #2	2.37 MMscf/day	1985
23	GDU	Pad J Glycol Dehydration Unit #3	2.37 MMscf/day	1985
24	GDU	Pad K Glycol Dehydration Unit	3.53 MMscf/day	1985

INSIGNIFICANT EMISSION UNIT LISTING: Insignificant Title V permitted emission units that have not been modified				
Emission Unit Name	Brief Emission Unit Description	Rating/Size	Construction Date	Basis for Insignificant Status
Process Heater	Pad 211-3/224-34 Process Heater	1.00 MMBtu/hr	1987	18 AAC 50.326(g)(5)
Process Heater	Pad 224-23/232-26/211-26 Process Heater	1.00 MMBtu/hr	1985	18 AAC 50.326(g)(5)
Process Heater	Pad 224-23/232-26/211-26 Process Heater	1.00 MMBtu/hr	1985	18 AAC 50.326(g)(5)
Office Heater	Office Coleman Heater	0.06 MMBtu/hr	Pre-1990	18 AAC 50.326(g)(5)
Shop Heater	Shop Perfection Schwank Heater	0.02 MMBtu/hr	Pre-1990	18 AAC 50.326(g)(5)
Heater	Electrical Shop Modine Heater	0.03 MMBtu/hr	Pre-1990	18 AAC 50.326(g)(5)
Heater	Mechanics Shop Modine Heater	0.11 MMBtu/hr	Pre-1990	18 AAC 50.326(g)(5)
Heater	Mechanics Shop Modine Heater	0.30 MMBtu/hr	Pre-1990	18 AAC 50.326(g)(5)
Heater	BRWD Heater	0.50 MMBtu/hr	Pre-1990	18 AAC 50.326(g)(5)
Heater	Mechanics Shop Used Oil Heater	0.5 MMBtu/hr	Pre-1990	18 AAC 50.326(g)(7)
Portable Frost Fighter	Portable Frost Fighter	0.4 MMBtu/hr	Pre-1990	18 AAC 50.326(g)(7)
GDU	Pad A GDU Reboiler	0.075 MMBtu/hr	1973	18 AAC 50.326(g)(5)
GDU	Pad B GDU Reboiler	0.25 MMBtu/hr	1968	18 AAC 50.326(g)(5)
GDU	Pad C GDU Reboiler #1	0.25 MMBtu/hr	1987	18 AAC 50.326(g)(5)
GDU	Pad C GDU Reboiler #2	0.25 MMBtu/hr	1987	18 AAC 50.326(g)(5)
GDU	Pad D GDU Reboiler	0.25 MMBtu/hr	1968	18 AAC 50.326(g)(5)
GDU	Pad E GDU Reboiler #1	0.25 MMBtu/hr	1968	18 AAC 50.326(g)(5)
GDU	Pad E GDU Reboiler #2	0.125 MMBtu/hr	1968	18 AAC 50.326(g)(5)
GDU	Pad F GDU Reboiler	0.25 MMBtu/hr	1968	18 AAC 50.326(g)(5)
GDU	Pad G GDU Reboiler	0.50 MMBtu/hr	1968	18 AAC 50.326(g)(5)
GDU	Pad H GDU Reboiler #1	0.25 MMBtu/hr	Pre-1990	18 AAC 50.326(g)(5)
GDU	Pad H GDU Reboiler #2	0.25 MMBtu/hr	Pre-1990	18 AAC 50.326(g)(5)
GDU	Pad H GDU Reboiler #3	0.18 MMBtu/hr	Pre-1990	18 AAC 50.326(g)(5)
GDU	Pad I GDU Reboiler	0.25 MMBtu/hr	1968	18 AAC 50.326(g)(5)
GDU	Pad J GDU Reboiler #1	0.25 MMBtu/hr	1985	18 AAC 50.326(g)(5)
GDU	Pad J GDU Reboiler #2	0.175 MMBtu/hr	1985	18 AAC 50.326(g)(5)
GDU	Pad J GDU Reboiler #3	0.125 MMBtu/hr	1985	18 AAC 50.326(g)(5)
GDU	Pad K GDU Reboiler	0.25 MMBtu/hr	1985	18 AAC 50.326(g)(5)

FORM B1

Emission Unit Detail Form – External Combustion Equipment (Boilers and Heaters)

Permit Number: AQ0942TVP01, Rev. 2

1.	Emission Unit ID Number // Operating Scenario	R-6 and R-7//Base Scenario
2.	Date installation/construction commenced	Not available
3.	Date installed	Not available
4.	Emission Unit serial number	Not available
5.	Special control requirements? [if yes, describe]	No
6.	Manufacturer	York-Shipley
7.	Description of emission unit, including type of boiler/heater and firing method: Diesel-fired drill rig boilers	
8.	Rated design capacity (heat input, MMBtu/hr)	3.35 MMBtu/hr (100 boiler hp)
9.	Maximum steam production rate (lbs/hr)	Not applicable
10.	Maximum steam pressure (psi)	Not applicable
11.	Maximum steam temperature (°F)	Not applicable

12. Fuel usage: [for EACH fuel, enter]:

Fuel	Maximum hourly firing rate (specify units)
Diesel	29.5 gal/hr

13.	Is waste heat utilized for any purpose? If yes, describe: No

Applicable Requirements Specific to Emission Unit (*attach additional sheets as needed. Form B Supplement - Emission Unit-Specific Applicable Requirements*):

Permit and Condition Number	Applicable Requirement Citation[1]	Parameter/ Pollutant	Limit/Standard/ Requirement	Currently in Compliance?	Monitoring, Recordkeeping and Reporting Methods Used to Demonstrate Compliance
AQ0942MSS02, Condition 7	18 AAC 50.055(a)(1)	Industrial Process and Fuel Burning Equipment Visible Emissions	The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, to reduce visibility through the exhaust effluent by more than 20 percent averages over any six consecutive minutes.	Yes	Compliance is based on reasonable inquiry.
AQ0942MSS02, Condition 8	18 AAC 50.055(b)(1)	Industrial Process and Fuel Burning Equipment Particulate Matter	The Permittee shall not cause or allow particulate matter emitted to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.	Yes	Compliance is based on reasonable inquiry.
AQ0942MSS02, Condition 9	18 AAC 50.055(c)	Sulfur Compound Emissions	The Permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, to exceed 500 ppm averaged over three hours.	Yes	Compliance is based on reasonable inquiry.
AQ0942MSS02, Condition 11.1	N/A	Air Quality Protection	Construct and maintain vertical, uncapped exhaust stacks. The unit may use flapper-style rain covers, or other similar designs, that do not hinder the vertical momentum of their exhaust plume.	Yes	Report in the first operating report, that is due after the installation, a statement that the exhaust stack complies with the applicable requirements.

[1] Citations must be specific. Include sub-paragraph level detail [e.g. 18 AAC 50.055(a)(1), or 40 C.F.R. 60.332(a)(2).]

Non-applicable Requirements Specific to Emission Unit (*attach additional sheets as needed. Form B Supplement - Emission Unit-Specific Permit Shield Request*):

Non-Applicable Requirements[1]	Reason for non-applicability and citation/basis
40 CFR 63 Subpart DDDDD	Beluga River Unit is not a major source of HAPs.
40 CFR 63 Subpart JJJJJJ	EU IDs R-6 and R-7 are temporary boilers and per 40 CFR 63.11195(h) are exempt from the requirements of this subpart.

[1] Citations must be specific. Include sub-paragraph level detail [e.g. 18 AAC 50.055(a)(1), or 40 C.F.R. 60.332(a)(2).]

Section D

Emissions Summary

Forms D1:	Potential Annual Emissions (After Controls/Limitations)
Forms D2:	Potential Annual Emissions (Before Controls/Limitations)
Forms D3:	Expected Actual Annual Emissions (After Controls/Limitations)
Attachment:	Excel Emissions File

Permit Number: AQ0942TVP01, Rev. 2

Table D-1a. Limited Potential Emissions - Potential Annual Emissions (after controls/limitations)
Hilcorp Alaska, LLC - Beluga River Unit

EU ID	Emission Unit Name	Emissions (tons/year)						
		NO_X	CO	PM_{10}	VOC	SO_2	CO_2e	HAP
Significant Units								
Turbines and Engines								
1	Turbine Compressor - Out of Solonox	2.8	38.6	1.8	0.6	1.1	31,594	0.3
1	Turbine Compressor - In Solonox	7.7	5.6					
2	Emergency Compressor	0.6	0.1	1.1E-02	0.1	4.5E-03	124	3.4E-02
3	Emergency Generator Engine	1.5	0.8	0.8	0.8	0.2	161	3.8E-03
12	Emergency Generator Engine	3.6	0.8	0.3	0.3	0.1	134	3.2E-03
19	Emergency Generator Engine	0.5	0.1	3.7E-02	4.1E-02	1.8E-02	19	4.5E-04
37-1	Wellsite Compressor	0.4	2.8	0.6	8.1E-02	0.1	3,447	1.0
37-2	Wellsite Compressor	0.4	4.9	0.5	7.1E-02	0.1	3,036	0.8
37-3	Wellsite Compressor	1.3	0.5	0.3	2.7E-02	5.9E-02	1,641	0.5
37-4	Wellsite Compressor	3.8	6.2	0.6	0.2	0.1	3,447	1.0
37-6	Wellsite Compressor	1.0	1.4	0.3	0	5.9E-02	1,641	0.5
37-7	Wellsite Compressor	4.0	7.9	0.6	0.2	0.1	3,447	1.0
37-8	Wellsite Compressor	4.2	6.6	0.5	0.1	0.1	3,036	0.8
37-9	Wellsite Compressor	3.3	6.9	0.5	0.1	0.1	3,036	0.8
37-10	Wellsite Compressor	5.4	13.0	0.6	0.2	0.1	3,447	1.0
42	Emergency Generator Engine	0.6	0.1	2.3E-02	3.3E-02	8.3E-02	72	2.1E-03
43	Wellsite Compressor	1.4	1.6	0.1	6.4E-02	3.2E-02	903	0.3
Incinerator								
26	Incinerator	1.0	3.3	2.3	1.0	0.8	668	2.2
Gasoline Dispensing Facility								
44	GDF	0	0	0	1.5	0	0	8.3E-02
Glycol Dehydration Vents								
4	Pad H Glycol Dehydration Unit #1	0	0	0	0.8	0	1,282	0
5	Pad H Glycol Dehydration Unit #2	0	0	0	0	0	3,576	0
6	Pad H Glycol Dehydration Unit #3	0	0	0	7.7E-03	0	1,851	0
7	Pad A Glycol Dehydration Unit	0	0	0	0.2	0	1,536	0
8	Pad B Glycol Dehydration Unit	0	0	0	8.0E-04	0	673	0
9	Pad C Glycol Dehydration Unit #1	0	0	0	0.1	0	887	0
10	Pad C Glycol Dehydration Unit #2	0	0	0	0	0	399	0
13	Pad D Glycol Dehydration Unit	0	0	0	2.6E-03	0	870	0
14	Pad E Glycol Dehydration Unit #1	0	0	0	0.2	0	587	0
15	Pad E Glycol Dehydration Unit #2	0	0	0	7.2E-02	0	177	0
16	Pad F Glycol Dehydration Unit	0	0	0	8.0E-04	0	1,965	0
17	Pad G Glycol Dehydration Unit	0	0	0	0.4	0	562	0
18	Pad I Glycol Dehydration Unit	0	0	0	0.3	0	435	0
21	Pad J Glycol Dehydration Unit #1	0	0	0	0.2	0	2,419	0
22	Pad J Glycol Dehydration Unit #2	0	0	0	0.2	0	2,387	0
23	Pad J Glycol Dehydration Unit #3	0	0	0	2.7E-03	0	2,888	0
24	Pad K Glycol Dehydration Unit	0	0	0	0.2	0	498	0
Drill Rig								
R-1	Detroit Diesel 12V2000	0	0	0	0.0	0	0	0
R-2	Detroit Diesel 12V2000	0	0	0	0.0	0	0	0
R-3	Detroit Diesel Series 60	0	0	0	0.0	0	0	0
R-4	Detroit Diesel Series 60	0	0	0	0.0	0	0	0
R-5	Detroit Diesel Series 60	0	0	0	0.0	0	0	0
R-6	York-Shipley Boiler	2.6	0.6	0.4	4.4E-02	2.7E-02	2,886	6.6E-03
R-7	York-Shipley Boiler	2.6	0.6	0.4	4.4E-02	2.7E-02	2,886	6.6E-03
	Significant Unit Total	48.7	102.4	10.6	8.3	3.4	88,618	10.1
Insignificant Units								
Glycol Reboilers								
N/A	Pad H Glycol Reboiler #1	0.1	9.2E-02	8.3E-03	6.0E-03	4.6E-03	128	3.2E-02
N/A	Pad H Glycol Reboiler #2	0.1	9.2E-02	8.3E-03	6.0E-03	4.6E-03	128	
N/A	Pad H Glycol Reboiler #3	7.7E-02	6.4E-02	5.8E-03	4.2E-03	3.2E-03	90	
N/A	Pad A Glycol Reboiler	3.3E-02	2.8E-02	2.5E-03	1.8E-03	1.4E-03	38	
N/A	Pad B Glycol Reboiler	0.1	9.2E-02	8.3E-03	6.0E-03	4.6E-03	128	
N/A	Pad C Glycol Reboiler #1	0.1	9.2E-02	8.3E-03	6.0E-03	4.6E-03	128	
N/A	Pad C Glycol Reboiler #2	0.1	9.2E-02	8.3E-03	6.0E-03	4.6E-03	128	
N/A	Pad D Glycol Reboiler	0.1	9.2E-02	8.3E-03	6.0E-03	4.6E-03	128	
N/A	Pad E Glycol Reboiler #1	0.1	9.2E-02	8.3E-03	6.0E-03	4.6E-03	128	
N/A	Pad E Glycol Reboiler #2	5.5E-02	4.6E-02	4.2E-03	3.0E-03	2.3E-03	64	
N/A	Pad F Glycol Reboiler	0.1	9.2E-02	8.3E-03	6.0E-03	4.6E-03	128	
N/A	Pad G Glycol Reboiler	0.2	0.2	1.7E-02	1.2E-02	9.2E-03	256	
N/A	Pad I Glycol Reboiler	0.1	9.2E-02	8.3E-03	6.0E-03	4.6E-03	128	
N/A	Pad J Glycol Reboiler #1	0.1	9.2E-02	8.3E-03	6.0E-03	4.6E-03	128	
N/A	Pad J Glycol Reboiler #2	7.7E-02	6.4E-02	5.8E-03	4.2E-03	3.2E-03	90	
N/A	Pad J Glycol Reboiler #3	5.5E-02	4.6E-02	4.2E-03	3.0E-03	2.3E-03	64	
N/A	Pad K Glycol Reboiler	0.1	9.2E-02	8.3E-03	6.0E-03	4.6E-03	128	
Insignificant Heaters								
11	Process Heater	0.4	0.4	3.3E-02	2.4E-02	1.8E-02	513	8.3E-03
20	Process Heater	0.4	0.4	3.3E-02	2.4E-02	1.8E-02	513	8.3E-03
25	Process Heater	5.5E-02	4.6E-02	4.2E-03	3.0E-03	2.3E-03	64	1.0E-03
29	Office Coleman Heater	2.6E-02	2.2E-02	2.0E-03	1.4E-03	1.1E-03	31	5.0E-04
30	Shop Perfection Schwank Heater	8.8E-03	7.4E-03	6.7E-04	4.8E-04	3.7E-04	10	1.7E-04
31	Electrical Shop Modine Heater	1.3E-02	1.1E-02	1.0E-03	7.2E-04	5.5E-04	15	2.5E-04
32	Mechanics Shop Modine Heater	4.8E-02	4.0E-02	3.7E-03	2.6E-03	2.0E-03	56	9.1E-04
33	Mechanics Shop Modine Heater	0.1	0.1	1.0E-02	7.2E-03	5.5E-03	154	2.5E-03
34	BRWD Heater	0.2	0.2	1.7E-02	1.2E-02	9.2E-03	256	4.1E-03
35	Mechanics Shop Used Oil Heater	0.2	2.7E-02	0.2	1.6E-02	3.2E-03	358	5.2E-03
36	Portable Frost Fighter	0.3	6.4E-02	4.2E-02	4.3E-03	2.5E-03	287	6.5E-04
	Insignificant Unit Total	3.5	2.7	0.5	0.2	1.4E-01	4,271	6.4E-02
	Total (Significant and Insignificant)	52.2	105.1	11.1	8.5	3.5	92,889	10.2
	Major/Minor	Minor	Major	Minor	Minor	Minor	NA	NA
	Total Assessable Emissions				**180**			

Table D-1b. Unlimited Potential Emissions - Potential Annual Emissions (before controls/limitations)
Hilcorp Alaska, LLC - Beluga River Unit

EU ID	Emission Unit Name	Emissions (tons/year)						
		NO_x	CO	PM_{10}	VOC	SO_2	CO_2e	HAP
Significant Units								
Turbines and Engines								
1	Turbine Compressor - Out of Solonox	61.3	845.3	1.8	0.6	1.1	31,594	0.3
1	Turbine Compressor - In Solonox	0	0					
2	Emergency Compressor	10.2	2.1	0.2	2.2	7.8E-02	2,175	0.6
3	Emergency Generator Engine	26.0	14.2	14.2	14.2	2.6	2,825	6.7E-02
12	Emergency Generator Engine	63.7	13.7	4.5	5.1	2.2	2,354	5.6E-02
19	Emergency Generator Engine	9.1	2.0	0.6	0.7	0.3	336	8.0E-03
37-1	Wellsite Compressor	0.4	2.8	0.6	8.1E-02	0.1	3,447	1.0
37-2	Wellsite Compressor	0.4	4.9	0.5	7.1E-02	0.1	3,036	0.8
37-3	Wellsite Compressor	1.3	0.5	0.3	2.7E-02	5.9E-02	1,641	0.5
37-4	Wellsite Compressor	3.8	6.2	0.6	0.2	0.1	3,447	1.0
37-6	Wellsite Compressor	1.0	1.4	0.3	0	5.9E-02	1,641	0.5
37-7	Wellsite Compressor	4.0	7.9	0.6	0.2	0.1	3,447	1.0
37-8	Wellsite Compressor	4.2	6.6	0.5	0.1	0.1	3,036	0.8
37-9	Wellsite Compressor	3.3	6.9	0.5	0.1	0.1	3,036	0.8
37-10	Wellsite Compressor	5.4	13.0	0.6	0.2	0.1	3,447	1.0
42	Emergency Generator Engine	9.8	2.1	0.4	0.6	1.5	1,266	3.7E-02
43	Wellsite Compressor	1.4	1.6	0.1	6.4E-02	3.2E-02	903	0.3
Incinerator								
26	Incinerator	1.0	3.3	2.3	1.0	0.8	668	2.2
Gasoline Dispensing Facility								
44	GDF	0	0	0	1.5	0	0	8.3E-02
Glycol Dehydration Vents								
N/A	Pad H Glycol Dehydration Unit #1	0	0	0	0.8	0	1,282	0
N/A	Pad H Glycol Dehydration Unit #2	0	0	0	0	0	3,576	0
N/A	Pad H Glycol Dehydration Unit #3	0	0	0	0	0	1,851	0
N/A	Pad A Glycol Dehydration Unit	0	0	0	0.2	0	1,536	0
N/A	Pad B Glycol Dehydration Unit	0	0	0	8.0E-04	0	673	0
N/A	Pad C Glycol Dehydration Unit #1	0	0	0	0.1	0	887	0
N/A	Pad C Glycol Dehydration Unit #2	0	0	0	0	0	399	0
N/A	Pad D Glycol Dehydration Unit	0	0	0	2.6E-03	0	870	0
N/A	Pad E Glycol Dehydration Unit #1	0	0	0	0.2	0	587	0
N/A	Pad E Glycol Dehydration Unit #2	0	0	0	7.2E-02	0	177	0
N/A	Pad F Glycol Dehydration Unit	0	0	0	8.0E-04	0	1,965	0
N/A	Pad G Glycol Dehydration Unit	0	0	0	0.4	0	562	0
N/A	Pad I Glycol Dehydration Unit	0	0	0	0.3	0	435	0
N/A	Pad J Glycol Dehydration Unit #1	0	0	0	0.2	0	2,419	0
N/A	Pad J Glycol Dehydration Unit #2	0	0	0	0.2	0	2,387	0
N/A	Pad J Glycol Dehydration Unit #3	0	0	0	2.7E-03	0	2,888	0
N/A	Pad K Glycol Dehydration Unit	0	0	0	0.2	0	498	0
Drill Rig								
N/A	Detroit Diesel 12V2000	0	0	0	0.0	0	0	0
N/A	Detroit Diesel 12V2000	0	0	0	0.0	0	0	0
N/A	Detroit Diesel Series 60	0	0	0	0.0	0	0	0
N/A	Detroit Diesel Series 60	0	0	0	0.0	0	0	0
N/A	Detroit Diesel Series 60	0	0	0	0.0	0	0	0
N/A	York-Shipley Boiler	2.6	0.6	0.4	4.4E-02	2.7E-02	2,886	6.6E-03
N/A	York-Shipley Boiler	2.6	0.6	0.4	4.4E-02	2.7E-02	2,886	6.6E-03
	Significant Unit Total	211.5	935.7	29.4	29.7	9.7	97,063	10.8
Insignificant Units								
Glycol Reboilers								
N/A	Pad H Glycol Reboiler #1	0.1	9.2E-02	8.3E-03	6.0E-03	4.6E-03	128	
N/A	Pad H Glycol Reboiler #2	0.1	9.2E-02	8.3E-03	6.0E-03	4.6E-03	128	
N/A	Pad H Glycol Reboiler #3	7.7E-02	6.4E-02	5.8E-03	4.2E-03	3.2E-03	90	
N/A	Pad A Glycol Reboiler	3.3E-02	2.8E-02	2.5E-03	1.8E-03	1.4E-03	38	
N/A	Pad B Glycol Reboiler	0.1	9.2E-02	8.3E-03	6.0E-03	4.6E-03	128	
N/A	Pad C Glycol Reboiler #1	0.1	9.2E-02	8.3E-03	6.0E-03	4.6E-03	128	
N/A	Pad C Glycol Reboiler #2	0.1	9.2E-02	8.3E-03	6.0E-03	4.6E-03	128	
N/A	Pad D Glycol Reboiler	0.1	9.2E-02	8.3E-03	6.0E-03	4.6E-03	128	
N/A	Pad E Glycol Reboiler #1	0.1	9.2E-02	8.3E-03	6.0E-03	4.6E-03	128	3.2E-02
N/A	Pad E Glycol Reboiler #2	5.5E-02	4.6E-02	4.2E-03	3.0E-03	2.3E-03	64	
N/A	Pad F Glycol Reboiler	0.1	9.2E-02	8.3E-03	6.0E-03	4.6E-03	128	
N/A	Pad G Glycol Reboiler	0.2	0.2	1.7E-02	1.2E-02	9.2E-03	256	
N/A	Pad I Glycol Reboiler	0.1	9.2E-02	8.3E-03	6.0E-03	4.6E-03	128	
N/A	Pad J Glycol Reboiler #1	0.1	9.2E-02	8.3E-03	6.0E-03	4.6E-03	128	
N/A	Pad J Glycol Reboiler #2	7.7E-02	6.4E-02	5.8E-03	4.2E-03	3.2E-03	90	
N/A	Pad J Glycol Reboiler #3	5.5E-02	4.6E-02	4.2E-03	3.0E-03	2.3E-03	64	
N/A	Pad K Glycol Reboiler	0.1	9.2E-02	8.3E-03	6.0E-03	4.6E-03	128	
Insignificant Heaters								
11	Process Heater	0.4	0.4	3.3E-02	2.4E-02	1.8E-02	513	8.3E-03
20	Process Heater	0.4	0.4	3.3E-02	2.4E-02	1.8E-02	513	8.3E-03
25	Process Heater	5.5E-02	4.6E-02	4.2E-03	3.0E-03	2.3E-03	64	1.0E-03
29	Office Coleman Heater	2.6E-02	2.2E-02	2.0E-03	1.4E-03	1.1E-03	31	5.0E-04
30	Shop Perfection Schwank Heater	8.8E-03	7.4E-03	6.7E-04	4.8E-04	3.7E-04	10	1.7E-04
31	Electrical Shop Modine Heater	1.3E-02	1.1E-02	1.0E-03	7.2E-04	5.5E-04	15	2.5E-04
32	Mechanics Shop Modine Heater	4.8E-02	4.0E-02	3.7E-03	2.6E-03	2.0E-03	56	9.1E-04
33	Mechanics Shop Modine Heater	0.1	0.1	1.0E-02	7.2E-03	5.5E-03	154	2.5E-03
34	BRWD Heater	0.2	0.2	1.7E-02	1.2E-02	9.2E-03	256	4.1E-03
35	Mechanics Shop Used Oil Heater	0.2	2.7E-02	0.2	1.6E-02	3.2E-03	358	5.2E-03
36	Portable Frost Fighter	0.3	6.4E-02	4.2E-02	4.3E-03	2.5E-03	287	6.5E-04
	Insignificant Unit Total	3.5	2.7	0.5	0.2	1.4E-01	4,271	6.4E-02
	Total (Significant and Insignificant)	215.0	938.4	29.9	29.9	9.8	101,334	10.9
	Major/Minor	Major	Major	Minor	Minor	NA	NA	NA

Table D-1c. Estimated Actual Emissions - Expected Actual Annual Emissions
Hilcorp Alaska, LLC - Beluga River Unit

EU ID	Emission Unit Name	Emissions (tons/year)						
		NO_x	CO	PM_{10}	VOC	SO_2	CO_2e	HAP
Significant Units								
Turbines and Engines								
1	Turbine Compressor - Out of Solonox	0	0	1.3	0.4	0.8	22,207	0.2
1	Turbine Compressor - In Solonox	5.7	4.1					
2	Emergency Compressor	0.1	2.4E-02	2.1E-03	2.5E-02	8.9E-04	25	6.9E-03
3	Emergency Generator Engine	0.2	0.1	0.1	0.1	1.9E-02	20	4.7E-04
12	Emergency Generator Engine	0.4	7.6E-02	2.5E-02	2.8E-02	1.2E-02	13	3.1E-04
19	Emergency Generator Engine	3.9E-02	8.3E-03	2.7E-03	3.1E-03	1.3E-03	1	3.4E-05
37-1	Wellsite Compressor	0.3	2.3	0.5	6.7E-02	0.1	2,834	0.8
37-2	Wellsite Compressor	0.4	4.1	0.4	5.9E-02	9.1E-02	2,517	0.7
37-3	Wellsite Compressor	1.1	0.4	0.2	2.2E-02	4.8E-02	1,347	0.4
37-4	Wellsite Compressor	2.7	4.5	0.4	0.2	8.9E-02	2,465	0.7
37-6	Wellsite Compressor	0.8	1.1	0.2	0	4.8E-02	1,337	0.4
37-7	Wellsite Compressor	3.2	6.4	0.5	0.1	0.1	2,817	0.8
37-8	Wellsite Compressor	3.5	5.4	0.4	0.1	9.0E-02	2,502	0.7
37-9	Wellsite Compressor	2.7	5.7	0.4	0.1	9.0E-02	2,506	0.7
37-10	Wellsite Compressor	4.4	10.6	0.5	0.2	0.1	2,815	0.8
42	Emergency Generator Engine	2.7E-02	5.7E-03	1.1E-03	1.6E-03	4.0E-03	3	1.0E-04
43	Wellsite Compressor	0.8	0.9	8.5E-02	3.6E-02	1.8E-02	511	0.1
Incinerator								
26	Incinerator	6.1E-03	2.0E-02	1.4E-02	6.1E-03	5.1E-03	4	1.4E-02
Gasoline Dispensing Facility								
44	GDF	0	0	0	1.5	0	0	8.3E-02
Glycol Dehydration Vents								
4	Pad H Glycol Dehydration Unit #1	0	0	0	0.7	0	1,003	0
5	Pad H Glycol Dehydration Unit #2	0	0	0	0	0	2,521	0
6	Pad H Glycol Dehydration Unit #3	0	0	0	5.4E-03	0	1,310	0
7	Pad A Glycol Dehydration Unit	0	0	0	4.7E-04	0	4	0
8	Pad B Glycol Dehydration Unit	0	0	0	3.2E-04	0	273	0
9	Pad C Glycol Dehydration Unit #1	0	0	0	0.1	0	696	0
10	Pad C Glycol Dehydration Unit #2	0	0	0	0	0	107	0
13	Pad D Glycol Dehydration Unit	0	0	0	2.1E-03	0	707	0
14	Pad E Glycol Dehydration Unit #1	0	0	0	0.1	0	409	0
15	Pad E Glycol Dehydration Unit #2	0	0	0	5.9E-02	0	144	0
16	Pad F Glycol Dehydration Unit	0	0	0	6.5E-04	0	1,605	0
17	Pad G Glycol Dehydration Unit	0	0	0	0.2	0	361	0
18	Pad I Glycol Dehydration Unit	0	0	0	0.2	0	350	0
21	Pad J Glycol Dehydration Unit #1	0	0	0	0.2	0	1,865	0
22	Pad J Glycol Dehydration Unit #2	0	0	0	7.7E-02	0	778	0
23	Pad J Glycol Dehydration Unit #3	0	0	0	2.2E-03	0	2,316	0
24	Pad K Glycol Dehydration Unit	0	0	0	0.2	0	383	0
Drill Rig								
R-1	Detroit Diesel 12V2000	0	0	0	0	0	0	0
R-2	Detroit Diesel 12V2000	0	0	0	0	0	0	0
R-3	Detroit Diesel Series 60	0	0	0	0	0	0	0
R-4	Detroit Diesel Series 60	0	0	0	0	0	0	0
R-5	Detroit Diesel Series 60	0	0	0	0	0	0	0
R-6	York-Shipley Boiler	0	0	0	0	0	0	0
R-7	York-Shipley Boiler	0	0	0	0	0	0	0
	Significant Unit Total	26.3	45.7	5.0	4.8	1.6	58,755	6.3

Notes:
[1] Expected actual annual emissions are not required to be calculated for insignificant emission units. No insignificant emission units at Beluga River that are insignificant on an emission rate basis have potential annual emissions exceeding 80% of the thresholds.

Section E

Regulatory Requirements

Form E3:	Title V Condition Change Request
Attachment:	Suggested NSPS Subpart OOOOa Conditions

FORM E3

Title V Condition Change Request

Permit Number: AQ0942TVP01, Revision 2

Title V Permit Information (*attach additional sheets as needed*):

Current Title V Operating Permit Condition Number	Type of change (revise or remove)	Reason for change	Requested Alaska Title V Operating Permit Condition
Refer to Application Amendment 1 for the most recent Form E3. This submittal only updates the request for Section 1 and 2 and Conditions 10 through 12 and 27 as noted below:			
Section 1 – Stationary Source Information	Revise	Update the contact information in Section 1.	Update the contact information in accordance with attached Revised Form A1.
Section 2, Table A – Emission Unit Inventory	Revise	Update to include the drill rig permitted in Air Quality Control Minor Permit No. AQ0942MSS02.	Update to include the drill rig permitted in Air Quality Control Minor Permit No. AQ0942MSS02 in accordance with the attached Revised Form B.
Section 3, Title I Permit Conditions, Conditions 10 through 12	Revise	Replace Conditions 10 through 12 with Conditions 10 through 16 of Air Quality Control Minor Permit No. AQ0942MSS02.	Update Title I conditions that are carried forward into the Title V permit.
Condition 27	Revise	Beluga River Unit is now an affected wellsite under NSPS Subpart OOOOa. Update Condition 27 to include applicable conditions.	See Attachment for Suggested Language.

SUGGESTED NSPS SUBPART OOOOa CONDITIONS

Subpart OOOOa

1. The Permittee shall comply with the following applicable requirements in 40 CFR 60 Subpart OOOOa for those pads that have triggered applicability under Subpart OOOOa.

[18 AAC 50.040(a)(2)(ZZ), 50.040(j)(4) & 50.326(j)]

[40 CFR 71.6(a)(1)]

[40 CFR 60.5365a, Subpart OOOOa]

1.1. You must be in compliance with the standards of this subpart no later than August 2, 2016 or upon startup, whichever is later.

1.2. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. The provisions for exemption from compliance during periods of startup, shutdown and malfunctions provided for in 40 CFR 60.8(c) do not apply to this subpart.

[40 CFR 71.6(a)(1)]

[40 CFR 60.5370a(a) & (b), Subpart OOOOa]

NSPS Subpart OOOOa Fugitive Emissions GHG and VOC Standards

1.3. For the collection of fugitive emissions components at a well site, as defined in 40 CFR 60.5430a, you must reduce VOC emissions by complying with the requirements of Conditions 1.3.a through 1.3.j.

[40 CFR 71.6(a)(1)]

[40 CFR 60.5397a, Subpart OOOOa]

a. You must comply with Condition 1.3.a(i), unless your affected facility under 40 CFR 60.5365a(i) (i.e., the collection of fugitive emissions components at a well site) meets the conditions specified in either Condition 1.3.a(i)(A) or 1.3.a(i)(B). If your affected facility under 40 CFR 60.5365a(i) (i.e., the collection of fugitive emissions components at a well site) meets the conditions specified in either Condition 1.3.a(i)(A) or 1.3.a(i)(B), you must comply with either Condition 1.3.a(i) or 1.3.a(ii).

[40 CFR 60.5397a(a), Subpart OOOOa]

(i) You must monitor all fugitive emission components, as defined in 40 CFR 60.5430a, in accordance with Conditions 1.3.b through 1.3.g. You must repair all sources of fugitive emissions in accordance with Condition 1.3.h. You must keep records in accordance with Condition 1.3.i and report in accordance with Condition 1.3.j. For purposes of this condition, fugitive emissions are defined as any visible emission from a fugitive emissions component observed using optical gas imaging or an instrument reading of

500 parts per million (ppm) or greater using Method 21 of appendix A-7 to 40 CFR 60.

[40 CFR 60.5397a(a)(1), Subpart OOOOa]

(A) *First 30-day production*. For the collection of fugitive emissions components at a well site, where the total production of the well site is at or below 15 barrels of oil equivalent (boe) per day for the first 30 days of production, according to 1.6, you must comply with the provisions of either Condition 1.3.a(i) or 1.3.a(ii). Except as provided in this condition, the calculation must be performed within 45 days of the end of the first 30 days of production. To convert gas production to equivalent barrels of oil, divide the cubic feet of gas produced by 6,000. For well sites that commenced construction, reconstruction, or modification between October 15, 2019, and November 16, 2020, the owner or operator may use the records of the first 30 days of production after becoming subject to NSPS Subpart OOOOa, if available, to determine if the total well site production is at or below 15 boe per day, provided this determination is completed by December 14, 2020.

(B) *Well site production decline*. For the collection of fugitive emissions components at a well site, where, at any time, the total production of the well site is at or below 15 boe per day based on a rolling 12-month average, you must comply with the provisions of either Condition 1.3.a(i) or 1.3.a(ii). To convert gas production to equivalent barrels of oil, divide the cubic feet of gas produced by 6,000.

[40 CFR 60.5397a(a)(1)(i) & (ii), Subpart OOOOa]

(ii) You must maintain the total production for the well site at or below 15 boe per day based on a rolling 12-month average, according to Condition 1.5, comply with the reporting requirements in 40 CFR 60.5420a(b)(7)(i)(C), and the recordkeeping requirements in 40 CFR 60.5420a(c)(15)(ii), until such time that you perform any of the actions in Conditions 1.3.a(ii)(A) through 1.3.a(ii)(E). If any of the actions listed in Conditions 1.3.a(ii)(A) through 1.3.a(ii)(E) occur, you must comply with Condition 1.3.a(iii).

[40 CFR 60.5397a(a)(2), Subpart OOOOa]

(A) A new well is drilled at the well site;

(B) A well at the well site is hydraulically fractured;

(C) A well at the well site is hydraulically refractured;

(D) A well at the well site is stimulated in any manner for the purpose of increasing production, including well workovers; or

(E) A well at the well site is shut-in for the purpose of increasing production from the well.

[40 CFR 60.5397a(a)(2)(i) through (v), Subpart OOOOa]

(iii) You must determine the total production for the well site for the first 30 days after any of the actions listed in Conditions 1.3.a(ii)(A) through 1.3.a(ii)(E) is completed, according to Condition 1.6, comply with Condition 1.3.a(iii)(A) or 1.3.a(iii)(B), the reporting requirements in 40 CFR 60.5420a(b)(7)(i)(C), and the recordkeeping requirements in 40 CFR 60.5420a(c)(15)(iii).

[40 CFR 60.5397a(a)(3), Subpart OOOOa]

(A) If the total production for the well site is at or below 15 boe per day for the first 30 days after the action is completed, according to Condition 1.6, you must either continue to comply with Condition 1.3.a(ii) or comply with Condition 1.3.a(i).

(B) If the total production for the well site is greater than 15 boe per day for the first 30 days after the action is completed, according to Condition 1.6, you must comply with Condition 1.3.a(i) and conduct an initial monitoring survey for the collection of fugitive emissions components at the well site in accordance with the same schedule as for modified well sites as specified in Condition 1.3.f.

[40 CFR 60.5397a(a)(3)(i) & (ii), Subpart OOOOa]

b. You must develop an emissions monitoring plan that covers the collection of fugitive emissions components at well sites within each company-defined area in accordance with Conditions 1.3.c and 1.3.d.

c. Fugitive emissions monitoring plans must include the elements specified in 40 CFR 60.5397a(c)(1) through (8) at a minimum.

[40 CFR 60.5397a(b) & (c), Subpart OOOOa]

d. Each fugitive emissions monitoring plan must include the elements specified at a minimum, as applicable.

[40 CFR 60.5397a(d), Subpart OOOOa]

e. Each monitoring survey shall observe each fugitive emissions component, as defined in 40 CFR 60.5430a, for fugitive emissions.

[40 CFR 60.5397a(e), Subpart OOOOa]

f. You must conduct an initial monitoring survey within 90 days of the startup of production, as defined in 40 CFR 60.5430a, for each collection of fugitive emissions components at a new well site or by June 3, 2017, whichever is later. For a modified collection of fugitive emissions components at a well site, the initial monitoring survey must be conducted within 90 days of the startup of production for each collection of fugitive emissions components after the modification or by June 3, 2017, whichever is later.

[40 CFR 60.5397a(f)(1), Subpart OOOOa]

g. A monitoring survey of each collection of fugitive emissions components at a well site must be performed at the frequencies specified in Condition 1.3.g(i), with the exceptions noted in Conditions 1.3.g(ii) through 1.3.g(iv).

[40 CFR 60.5397a(g), Subpart OOOOa]

(i) Except as provided in this condition, a monitoring survey of each collection of fugitive emissions components at a well site must be conducted at least semiannually after the initial survey. Consecutive semiannual monitoring surveys must be conducted at least 4 months apart and no more than 7 months apart.

[40 CFR 60.5397a(g)(1), Subpart OOOOa]

(ii) Fugitive emissions components that cannot be monitored without elevating the monitoring personnel more than 2 meters above the surface may be

designated as difficult-to-monitor. Fugitive emissions components that are designated difficult-to-monitor must meet the specifications of 40 CFR 60.5397a(g)(3)(i) through (iv).

[40 CFR 60.5397a(g)(3), Subpart OOOOa]

(iii) Fugitive emissions components that cannot be monitored because monitoring personnel would be exposed to immediate danger while conducting a monitoring survey may be designated as unsafe-to- monitor. Fugitive emissions components that are designated unsafe-to- monitor must meet the specifications of 40 CFR 60.5397a(g)(4)(i) through (iv).

[40 CFR 60.5397a(g)(4), Subpart OOOOa]

(iv) You are no longer required to comply with the requirements of Condition 1.3.g(i) when the owner or operator removes all major production and processing equipment, as defined in 40 CFR 60.5430a, such that the well site becomes a wellhead only well site. If any major production and processing equipment is subsequently added to the well site, then the owner or operator must comply with the requirements in Conditions 1.3.f and 1.3.g(i).

[40 CFR 60.5397a(g)(5), Subpart OOOOa]

h. Each identified source of fugitive emissions shall be repaired, as defined in CFR 60.5430a, in accordance with 40 CFR 60.5397a(h)(1) through (4) as applicable.

[40 CFR 60.5397a(h), Subpart OOOOa]

i. Records for each monitoring survey shall be maintained as specified Condition 1.8.a.

j. Annual reports shall be submitted for each collection of fugitive emissions components at a well site that include the information specified in Condition 1.7.b. Multiple collection of fugitive emissions components at a well site may be included in a single annual report.

[40 CFR 60.5397a(i) & (j), Subpart OOOOa]

NSPS Subpart OOOOa Continuous Compliance Requirements

1.4. For each collection of fugitive emissions components at a well site, you must demonstrate continuous compliance with the fugitive emission standards specified in Condition 1.3.a(i) according to Conditions 1.4.a through 1.4.d.

[40 CFR 71.6(a)(3)]

[40 CFR 60.5415a(h), Subpart OOOOa]

a. You must conduct periodic monitoring surveys as required in Condition 1.3.g.

b. You must repair each identified source of fugitive emissions as required in Condition 1.3.h.

c. You must maintain records as specified in Condition 1.8.a.

d. You must submit annual reports for collection of fugitive emissions components at a well site as required in Conditions 1.7.a and 1.7.b.

[40 CFR 60.5415a(h)(1) through (4), Subpart OOOOa]

1.5. For each collection of fugitive emissions components at a well site complying with Condition 1.3.a(ii), you must demonstrate continuous compliance according to 40 CFR

60.5415a(i)(1) through (4).You must perform the calculations shown in 40 CFR 60.5415a(i)(1) through (4) within 45 days of the end of each month. The rolling 12-month average of the total well site production determined according to 40 CFR 60.5415a(i)(4) must be at or below 15 boe per day.

[40 CFR 60.5415a(i), Subpart OOOOa]

1.6. To demonstrate that the well site produced at or below 15 boe per day for the first 30 days after startup of production as specified in Condition 1.3.a(iii), you must calculate the daily production for each individual well at the well site during the first 30 days of production after completing any action listed in Conditions 1.3.a(ii)(A) through 1.3.a(ii)(E) and sum the individual well production values to obtain the total well site production. The calculation must be performed within 45 days of the end of the first 30 days of production after completing any action listed in Conditions 1.3.a(ii)(A) through 1.3.a(ii)(E) To convert gas production to equivalent barrels of oil, divide cubic feet of gas produced by 6,000.

[40 CFR 60.5415a(j), Subpart OOOOa]

NSPS Subpart OOOOa Notification, Reporting, and Recordkeeping Requirements

1.7. *Reporting requirements*. You must submit annual reports containing the information specified in Conditions 1.7.a and 1.7.b. You must submit annual reports following the procedure specified in Condition 1.7.c. The initial annual report is due no later than 90 days after the end of the initial compliance period as determined according to 40 CFR 60.5410a. Subsequent annual reports are due no later than same date each year as the initial annual report. If you own or operate more than one affected facility, you may submit one report for multiple affected facilities provided the report contains all of the information required as specified in Conditions 1.7.a and 1.7.b. Annual reports may coincide with title V reports as long as all the required elements of the annual report are included. You may arrange with the Administrator a common schedule on which reports required by 40 CFR 60 may be submitted as long as the schedule does not extend the reporting period.

[40 CFR 71.6(a)(3)]

[40 CFR 60.5420a(b), Subpart OOOOa]

a. The general information specified in 40 CFR 60.5420a(b)(1)(i) through (iv) is required for all reports.

[40 CFR 60.5420a(b)(1), Subpart OOOOa]

b. For the collection of fugitive emissions components at each well site, report the information specified in 40 CFR 60.5420a(b)(7)(i) and (ii), as applicable.

[40 CFR 60.5420a(b)(7), Subpart OOOOa]

c. You must submit reports to the EPA via CEDRI, except as outlined in this condition. (CEDRI can be accessed through the EPA's CDX (https://cdx.epa.gov/).) The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as CBI. Anything submitted using CEDRI cannot later be claimed CBI. You must use the appropriate electronic report in CEDRI for NSPS Subpart OOOOa or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the CEDRI website (https://www.epa.gov/electronic-reporting-air-emissions/cedri/). If the reporting form specific to NSPS Subpart OOOOa is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate address listed in 40 CFR 60.4. Once the form has been available in CEDRI for at least 90 calendar days, you must

begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted.

[40 CFR 60.5420a(b)(11), Subpart OOOOa]

1.8. *Recordkeeping requirements*. You must maintain the records identified as specified in 40 CFR 60.7(f) and in Condition 1.8.a. All records required by NSPS Subpart OOOOa must be maintained either onsite or at the nearest local field office for at least 5 years. Any records required to be maintained by NSPS Subpart OOOOa that are submitted electronically via the EPA's CDX may be maintained in electronic format.

[40 CFR 71.6(a)(3)]

[40 CFR 60.5420a(c), Subpart OOOOa]

a. For each collection of fugitive emissions components at a well site, maintain the records identified in 40 CFR 60.5420a(c)(15)(i) through (vii), as applicable.

[40 CFR 60.5420a(c)(15), Subpart OOOOa]

1.9. Table 3 to NSPS Subpart OOOOa shows which parts of the General Provisions in 40 CFR 60.1 through 60.19 apply to you.

[40 CFR 71.6(a)(1)]

[40 CFR 60.5425a, Subpart OOOOa]

Attachment

Permits

Minor Permit No. AQ0942MSS02

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

AIR QUALITY CONTROL MINOR PERMIT

Minor Permit: **AQ0942MSS02** **Final Date – June 30, 2020**
Rescinds Permits: AQ0942ORL01, AQ0942MSS01

The Alaska Department of Environmental Conservation (Department), under the authority of AS 46.14 and 18 AAC 50, issues Air Quality Control Minor Permit AQ0942MSS02 to the Permittee listed below.

Permittee:	**Hilcorp Alaska, LLC**
	3800 Centerpoint Drive, Suite 1400, Anchorage, AK 99503
Stationary Source:	**Beluga River Unit**
Location:	Northing: 6784798; Easting: 605841; Zone: 5
Project:	Rig 169 POGO Project
Permit Contact:	Julieanna Potter, (907) 777-8444, jupotter@hilcorp.com

The Permittee submitted an application for Minor Permit AQ0942MSS02 under 18 AAC 50.502(c)(2) for the construction or relocation of a portable oil and gas operation.

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.

James R. Plosay, Manager
Air Permits Program

Table of Contents

Abbreviations and Acronyms

AAC.....Alaska Administrative Code
ADEC .....Alaska Department of Environmental Conservation
AS .....Alaska Statutes
ASTM .....American Society for Testing and Materials
BACT .....best available control technology
bhp .....brake horsepower
CDX.....Central Data Exchange
CEDRI .....Compliance and Emissions Data Reporting Interface
C.F.R. .....Code of Federal Regulations
CAA.....Clean Air Act
CO .....carbon monoxide
Department .....Alaska Department of Environmental Conservation
dscf .....dry standard cubic foot
EPA .....US Environmental Protection Agency
EU.....emissions unit
gr/dscf.....grain per dry standard cubic foot (1 pound = 7000 grains)
gph .....gallons per hour
HAPs .....hazardous air pollutants [as defined in AS 46.14.990]
hp .....horsepower
ID.....emissions unit identification number
kPa .....kiloPascals
LAER.....lowest achievable emission rate
MACT .....maximum achievable control technology [as defined in 40 C.F.R. 63]
MMBtu/hr.....million British thermal units per hour
MMSCF .....million standard cubic feet
MR&R .....monitoring, recordkeeping, and reporting
NESHAPs.....National Emission Standards for Hazardous Air Pollutants [as contained in 40 C.F.R. 61 and 63]
NOx .....nitrogen oxides
NRE.....nonroad engine
NSPS .....New Source Performance Standards [as contained in 40 C.F.R. 60]
O & M .....operation and maintenance
O_2.....oxygen
PAL .....plantwide applicability limitation
PM-10.....particulate matter less than or equal to a nominal 10 microns in diameter
PM-2.5.....particulate matter less than or equal to a nominal 2.5 microns in diameter
ppm .....parts per million
ppmv, ppmvd.....parts per million by volume on a dry basis
psia .....pounds per square inch (absolute)
PSD .....prevention of significant deterioration
PTE.....potential to emit
SIC.....Standard Industrial Classification
SIP .....State Implementation Plan
SPC.....Standard Permit Condition or Standard Operating Permit Condition
SO_2 .....sulfur dioxide
The Act.....Clean Air Act
TPH .....tons per hour
tpy.....tons per year
VOC .....volatile organic compound [as defined in 40 C.F.R. 51.100(s)]
VOL.....volatile organic liquid [as defined in 40 C.F.R. 60.111b, Subpart Kb]
vol% .....volume percent
wt% .....weight percent
wt%S_{fuel} .....weight percent of sulfur in fuel

Section 1 Emissions Unit Inventory

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

Table 1 – EU Inventory

EU #	EU Description	Make/Model	Fuel	Rating/Max Capacity	Installation Date
1	Turbine Compressor	Solar Taurus 60 Compressor Drive	Natural Gas	7,700 hp	2006
2	Compressor Engine	Wauksha H24GLD	Diesel	530 hp	2005
3	Generator	John Deere Engine	Diesel	420 kW	2008
37	Compressors	Wellsite Compressor Engines	Natural Gas	7,500 hp (cumulative maximum allowable total)	2011
42	Generator	Caterpillar Engine	Diesel	230 kW	2012
R-1	Mud Pump Engine	Detroit Diesel 12V2000	Diesel	850 hp	TBD
R-2	Mud Pump Engine	Detroit Diesel 12V2000	Diesel	850 hp	TBD
R-3	Drawworks/Carrier Engine	Detroit Diesel Series 60	Diesel	665 hp	TBD
R-4	Generator	Detroit Diesel Series 60	Diesel	685 hp	TBD
R-5	Generator	Detroit Diesel Series 60	Diesel	685 hp	TBD
R-6	Boiler	York-Shipley Boiler	Diesel	100 bhp	TBD
R-7	Boiler	York-Shipley Boiler	Diesel	100 bhp	TBD

Notes:

[A] EUs 1 and 37 have already been installed at the stationary source and are not included in this permit action.

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.

2. **Verification of Equipment Specifications and Maintenance of Equipment.** The Permittee shall install and maintain the equipment listed in Table 1 according to the manufacturer's or operator's maintenance procedures. Keep a copy of the manufacturer's or operator's maintenance procedure onsite and make records available to the Department personnel upon request. The records may be kept in electronic format.

3. **Aggregate Capacity Limits.** The Permittee shall limit the aggregate capacity of EU 37 to 7,500 hp.

   3.1 Include the following information regarding EU 37 in the operating report described in the applicable operating permit issued to the stationary source under AS 46.14 and 18 AAC 50.

      a. the number of individual units operated as EU 37 during the reporting period;

      b. the rated capacity of each individual unit;

      c. the aggregate capacity of all EU 37 units; and

      d. the location of each unit.

Section 2 Fee Requirements

4. **Administration Fees.** The Permittee shall pay to the Department all assessed permit administration fees. Administration fee rates are set out in 18 AAC 50.400-403.

5. **Assessable Emissions**. The Permittee shall pay to the Department annual emission fees based on the stationary source's assessable emissions as determined by the Department under 18 AAC 50.410. The assessable emission fee rate is set out in 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 in quantities 10 tons per year or greater. The quantity for which fees will be assessed is the lesser of:

   5.1 the stationary source's assessable potential to emit of 430 tpy; or

   5.2 the stationary source's projected annual rate of emissions that will occur from July 1 to the following June 30, based upon credible evidence of actual annual emissions emitted during the most recent calendar year or another 12 month period approved in writing by the Department, when demonstrated by the most representative of 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;

      d. other methods and calculations approved by the Department, including appropriate vendor-provided emissions factors when sufficient documentation is provided.

6. **Assessable Emission Estimates.** Emission fees will be assessed as follows:

   6.1 no later than March 31 of each year, the Permittee may submit an estimate of the stationary source's assessable emissions via the Department's Air Online Services (AOS) System at http://dec.alaska.gov/applications/air/airtoolsweb using the Permittee Portal option and filling out the Emission Fee Estimate form. Alternatively, the report may be submitted by:

      a. E-mail under a cover letter using dec.aq.airreports@alaska.gov; or

      b. hard copy to the following address: ADEC Air Permits Program, ATTN: Assessable Emissions Estimate, 555 Cordova Street, Anchorage, Alaska 99501.

   6.2 The Permittee shall include with the assessable emissions report all of the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the Department can verify the estimates.

   6.3 If no estimate is submitted on or before March 31 of each year, emission fees for the next fiscal year will be based on the potential to emit set out in Condition 5.1.

Section 3 State Emission Standards

7. **Visible Emissions for Industrial Process and Fuel-Burning Equipment.** The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from EUs R-6 and R-7 to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.

8. **Particulate Matter for Industrial Process and Fuel-Burning Equipment.** The Permittee shall not cause or allow particulate matter emitted from EUs R-6 and R-7 listed in Table 1, to exceed 0.05 grains per dry standard cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

9. **Sulfur Compound Emissions.** The Permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, from EUs R-6 and R-7, to exceed 500 parts per million (ppm) averaged over three hours.

Section 4 Ambient Air Quality Protection Requirements

10. To protect the annual average NO_2 ambient air quality standard, the Permittee shall:

    10.1 Comply with the NSPS Subpart JJJJ NOx emission rate requirements for all EU 37 engines below:

        a. 1.0 grams per horsepower-hour (g/hp-hr) or 82 parts per million dry volume (ppmvd) at 15% O_2 for NOx;

        b. 2.0 g/hp-hr or 270 ppmvd at 15% O_2 for CO; and

        c. 0.7 g/hp-hr or 60 ppmvd at 15% O_2 for VOC.

    10.2 **Stack Configuration**.

        a. For all EU 37 engines, install and maintain each exhaust stack with a release height that equals or exceeds 16 feet above grade.

        b. Provide as-built drawings and photographs of each exhaust EU 37 stack in the first operating report required by the applicable operating permit issued to the stationary source under AS 46.14 and 18 AAC 50 due after installation of an EU 37 stack.

11. To protect the annual nitrogen dioxide (NO_2); 24-hour particulate matter with an aerodynamic diameter of 10 microns or less (PM-10); annual particulate matter with an aerodynamic diameter of 2.5 microns or less (PM-2.5); and 1-hour, 3-hour, 24-hour, and annual sulfur dioxide (SO_2) Alaskan ambient air quality standards (AAAQS), the Permittee shall operate the stationary source as described below:

    11.1 **Stack Configuration.** Construct and maintain vertical, uncapped exhaust stacks for all EUs listed in Table 1, except as follows:

        a. EU 3 may use a capped releases;

        b. EU 42 may use a horizontal release; and

        c. All EUs may use flapper-style rain covers, or other similar designs, that do not hinder the vertical momentum of their exhaust plume.

        d. Report in the first operating report required by the applicable operating permit issued to the stationary source under AS 46.14 and 18 AAC 50, that would be due after the installation of each EU listed in Table 1, a statement that the exhaust stack for that EU complies with Condition 11.1.

        e. Report as excess emissions and permit deviation as described in the applicable operating permit issued to the stationary source under AS 46.14 and 18 AAC 50 if a requirement under Condition 11.1 is not met.

    11.2 **Nonroad Engines.** The Permittee shall limit the cumulative rated capacity of the nonroad engines at the stationary source to no more than 3,735 brake horsepower (bhp).

a. Any time a change is made to the nonroad engine emission unit inventory, calculate and record the cumulative nonroad engine rated capacity (bhp).

b. Include the cumulative nonroad engine rated capacity (bhp) in each operating report required by the applicable operating permit issued to the stationary source under AS 46.14 and 18 AAC 50.

c. Report as excess emissions and permit deviation as described in the applicable operating permit issued to the stationary source under AS 46.14 and 18 AAC 50 if the cumulative nonroad engine rated capacity (bhp) exceeds the limit in Condition 11.2.

12. **Fuel Limits**. To protect the 1-hour, 3-hour, 24-hour, and annual SO_2 AAAQS, the Permittee shall:

12.1 Combust only liquid fuel that meets the specifications of ultra low sulfur diesel (ULSD) (i.e., less than 0.0015 percent sulfur by weight) in all reciprocating engines.

a. Obtain and keep certified receipts from fuel suppliers that confirm diesel fuel combusted in all reciprocating meets the specifications of ULSD.

b. Include copies of the records specified in Condition 12.1a in the operating report required by the applicable operating permit issued to the stationary source under AS 46.14.14 and 18 AAC 50.

c. Report in each operating report required by the applicable operating permit issued to the stationary source under AS 46.14 and 18 AAC 50 a statement indicating whether all fuel combusted in the reciprocating engines during the reporting period is ULSD.

d. Report as excess emissions and permit deviation as described in the applicable operating permit issued to the stationary source under AS 46.14 and 18 AAC 50 if any fuel combusted in the reciprocating engines exceeds the fuel sulfur content limit required by Condition 12.1, or if Conditions 12.1a and 12.1c are not met.

13. The Permittee shall comply with Conditions 14 and 15 while operating the portable oil and gas operation (POGO) listed in Table 1 at the stationary source.

13.1 Record in the operating report required by the applicable operating permit issued to the stationary source under AS 46.14 and 18 AAC 50 the dates and times the POGO was brought onsite and removed from the stationary source.

14. To protect the 24-hour PM-10 AAAQS, the Permittee shall limit the operation of EU 3 to no more than one non-emergency hour per day.

Monitor, record and report as follows:

14.1 Install, maintain, and operate an hour meter on EU 3;

14.2 Record the hour meter reading for EU 3 every time the EU is started and stopped to operate as non-emergency engine;

14.3 Calculate and record the total hours of operation for EU 3 each day the EU is operated as a non-emergency engine;

14.4 Report in each operating report required by the applicable operating permit issued to the stationary source under AS 46.14 and 18 AAC 50 the hour meter readings obtained under Condition 14.2 and daily total cacluated under Condition 14.3 for EU 3.

14.5 Report as excess emissions and permit deviation as described in the applicable operating permit issued to the stationary source under AS 46.14 and 18 AAC 50, whenever the limit in Condition 13 is exceeded, or if Conditions 14.1 through 14.4 are not met.

15. To protect the annual and 24-hour PM-10 AAAQS, the Permittee shall limit the operation of EU 42 to no more than seven non-emergency hour per day.

Monitor, record and report as follows:

15.1 Install, maintain, and operate an hour meter on EU 42;

15.2 Record the hour meter reading for EU 42 every time the EU is started and stopped to operate as a non-emergency engine;

15.3 Calculate and record the total hours of operation for EU 42 each day the EU is operated as a non-emergency engine;

15.4 Report in each operating report required by the applicable operating permit issued to the stationary source under AS 46.14 and 18 AAC 50 the hour meter readings obtained under Condition 15.2 and daily total operation calculated under Condition 15.2 for EU 42.

15.5 Report as excess emissions and permit deviation as described in the applicable operating permit issued to the stationary source under AS 46.14 and 18 AAC 50, whenever the limit in Condition 15 is exceeded, or if Conditions 15.1 through 15.4 are not met.

Section 5 ORLs to Avoid Permit Classifications

PSD Avoidance Limits for CO:

16. The Permittee shall limit the emissions of CO from EU 1 to less than 73.5 tpy as follows:

    16.1 The Permittee shall limit operation of EU 1 out of SoLoNOx mode not to exceed 400 hours per any consecutive 12-month period.

        a. Continuously monitor and record the EU 1 pilot fuel valve position. All periods during which the pilot valve is in the low position represents operation in SoLoNOx mode. All periods during which the pilot fuel valve is not in the low setting represents operation out of SoLoNOx mode.

        b. Maintain records for each calendar month and consecutive 12-month total hours of operation out of SoLoNOx mode for EU 1.

        c. Maintain records for each calendar month and consecutive 12-month total hours of operation in SoLoNOx mode for EU 1.

        d. Report in the operating report required by the applicable operating permit issued to the stationary source under AS 46.14 and 18 AAC 50 each calendar month hours of operation and consecutive 12-month total hours of operation for both, in and out of SoLoNOx mode for EU 1.

        e. Report any failure to comply with the operating hours limit in Condition 16.1 or the monitoring, recordkeeping and reporting requirements as excess emissions and permit deviation as described in the applicable operating permit issued to the stationary source under AS 46.14 and 18 AAC 50.

Section 6 Recordkeeping, Reporting, and Certification Requirements

17. **Certification.** The Permittee shall certify any permit application, report, affirmation, or compliance certification submitted to the Department and required under the permit by including the signature of a responsible official for the permitted stationary source following the statement: "*Based on 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.*" Excess emissions reports must be certified either upon submittal or with an operating report required for the same reporting period. All other reports and other documents must be certified upon submittal.

    17.1 The Department may accept an electronic signature on an electronic application or other electronic record required by the Department if

        a. A certifying authority registered under AS 09.25.510 verifies that the electronic signature is authentic; and

        b. The person providing the electronic signature has made an agreement with the certifying authority described in Condition 17.1a that the person accepts or agrees to be bound by an electronic record executed or adopted with that signature.

18. **Submittals.** Unless otherwise directed by the Department or this permit, the Permittee shall submit reports, compliance certifications, and/or other submittals required by this permit, via the Department's Air Online Services (AOS) System at http://dec.alaska.gov/applications/air/airtoolsweb using the Permittee Portal option.

    18.1 Alternatively, the documents may be certified in accordance with Condition 17 and submitted either by:

        a. E-mail under a cover letter using dec.aq.airreports@alaska.gov; or

        b. Certified mail to the following address: ADEC Air Permits Program, ATTN: Compliance Technician, 610 University Ave., Fairbanks, AK 99709-3643.

Section 7 Standard Permit Conditions

19. The Permittee must comply with each permit term and condition. Noncompliance 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

    19.1 an enforcement action; or

    19.2 permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280.

20. 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.

21. 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.

22. 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.

23. The permit does not convey any property rights of any sort, nor any exclusive privilege.

24. 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

    24.1 enter upon the premises where an emissions unit subject to this permit is located or where records required by the permit are kept;

    24.2 have access to and copy any records required by this permit;

    24.3 inspect any stationary source, equipment, practices, or operations regulated by or referenced in the permit; and

    24.4 sample or monitor substances or parameters to assure compliance with the permit or other applicable requirements.

Section 8 Permit Documentation

Date	Document Details
February 28, 2020	Application Received

Section 9 Complaint Form

COMPLAINT FORM

Date Time:

Activities Involved:

Provide a description of reported complaint. Attach sheets as necessary.

If applicable, operational conditions which contributed to the complaint:

If applicable, ambient conditions which contributed to the complaint:

If applicable, describe measures taken to immediately address the complaint.

If applicable, describe measures taken to address preventing the condition which generated the complaint.

If applicable, describe any reason that you feel the complaint may not be a violation:

Based on 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.

_____	_____	_____
Printed Name	Signature	Date

Attachment 1 – Visible Emissions Form

VISIBLE EMISSION OBSERVATION FORM

This form is designed to be used in conjunction with EPA Method 9, "Visual Determination of the Opacity of Emissions from Stationary Sources." Temporal changes in emission color, plume water droplet content, background color, sky conditions, observer position, etc. should be noted in the comments section adjacent to each minute of readings. Any information not dealt with elsewhere on the form should be noted under additional information. Following are brief descriptions of the type of information that needs to be entered on the form: for a more detailed discussion of each part of the form, refer to "Instructions for Use of Visible Emission Observation Form."

- Source Name: full company name, parent company or division or subsidiary information, if necessary.
- Address: street (not mailing or home office) address of facility where VE observation is being made.
- Phone (Key Contact): number for appropriate contact.
- Source ID Number: number from NEDS, agency file, etc.
- Process Equipment, Operating Mode: brief description of process equipment (include type of facility) and operating rate, % capacity, and/or mode (e.g. charging, tapping, shutdown).
- Control Equipment, Operating Mode: specify type of control device(s) and % utilization, control efficiency.
- Describe Emission Point: for identification purposes, stack or emission point appearance, location, and geometry; and whether emissions are confined (have a specifically designed outlet) or unconfined (fugitive).
- Height Above Ground Level: stack or emission point height relative to ground level; can use engineering drawings, Abney level, or clineometer.
- Height Relative to Observer: indicate height of emission point relative to the observation point.
- Distance from Observer: distance to emission point; can use rangefinder or map.
- Direction from Observer: direction plume is traveling from observer.
- Describe Emissions and Color: include physical characteristics, plume behavior (e.g., looping, lacy, condensing, fumigating, secondary particle formation, distance plume visible, etc.), and color of emissions (gray, brown, white, red, black, etc.). Note color changes in comments section.
- Visible Water Vapor Present?: check "yes" if visible water vapor is present.
- If Present, is Plume…: check "attached" if water droplet plume forms prior to exiting stack, and "detached" if water droplet plume forms after exiting stack.
- Point in Plume at Which Opacity was Determined: describe physical location in plume where readings were made (e.g., 1 ft above stack exit or 10 ft. after dissipation of water plume).
- Describe Plume Background: object plume is read against, include texture and atmospheric conditions (e.g., hazy).
- Background Color: sky blue, gray-white, new leaf green, etc.
- Sky Conditions: indicate cloud cover by percentage or by description (clear, scattered, broken, overcast).
- Wind Speed: record wind speed; can use Beaufort wind scale or hand-held anemometer to estimate.
- Wind Direction From: direction from which wind is blowing; can use compass to estimate to eight points.
- Ambient Temperature: in degrees Fahrenheit or Celsius.

  Wet Bulb Temperature: can be measured using a sling psychrometer

  RH Percent: relative humidity measured using a sling psychrometer; use local US Weather Bureau measurements only if nearby.
- Source Layout Sketch: include wind direction, sun position, associated stacks, roads, and other landmarks to fully identify location of emission point and observer position.

  Draw North Arrow: to determine, point line of sight in direction of emission point, place compass beside circle, and draw in arrow parallel to compass needle.

  Sun's Location: point line of sight in direction of emission point, move pen upright along sun location line, mark location of sun when pen's shadow crosses the observer's position.
- Observation Date: date observations conducted.
- Start Time, End Time: beginning and end times of observation period (e.g., 1635 or 4:35 p.m.).
- Data Set: percent opacity to nearest 5%; enter from left to right starting in left column. Use a second (third, etc.) form, if readings continue beyond 30 minutes. Use dash (-) for readings not made; explain in adjacent comments section.

  Comments: note changing observation conditions, plume characteristics, and/or reasons for missed readings.

  Range of Opacity: note highest and lowest opacity number.
- Observer's Name: print in full.

  Observer's Signature, Date: sign and date after performing VE observation.
- Organization: observer's employer.
- Certified By, Date: name of "smoke school" certifying observer and date of most recent certification.

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY DIVISION - VISIBLE EMISSIONS OBSERVATION FORM

Page No._____

Source Name	Type of Source			Observation Date		Start Time		End Time
Address				Sec / Min	0	15	30	45	Comments
City	State	Zip		1					
Phone # (Key Contact)	Source ID Number			2					
Process Equipment	Operating Mode			3					
Control Equipment	Operating Mode			4					
Describe Emission Point				5					
Height above ground level	Height relative to observer	Inclinometer Reading		6					
Distance From Observer	Direction From Observer Start	End		7					
Describe Emissions & Color Start	End			8					
Visible Water Vapor Present? If yes, determine approximate distance from the stack exit to where the plume was read				9					
No Yes				10					
Point in Plume at Which Opacity Was Determined				11					
Describe Plume Background	Background Color			12					
Start	Start			13					
End	End			14					
Sky Conditions: Start				15					
Wind Speed	Wind Direction From Start	End		16					
Ambient Temperature	Wet Bulb Temp	RH percent		17					
NOTES: 1 Stack or Point Being Read	2 Wind Direction From			18					
3 Observer Location 4 Sun Location 5 North Arrow 6 Other Stacks				19					
				20					
				21					
				22					
				23					
				24					
				25					
				26					
				27					
				28					
				29					
				30					
				Range of Opacity					
				Minimum			Maximum		
I have received a copy of these opacity observations				Print Observer's Name					
Print Name:				Observer's Signature			Date		
Signature:									
Title	Date			Organization					
				Certified By:			Date		

Attachment 2 - ADEC Notification Form

Excess Emissions and Permit Deviation Reporting
State of Alaska Department of Environmental Conservation
Division of Air Quality

Beluga River Unit	AQ0942MSS02
Stationary Source Name	**Air Quality Permit**
Hilcorp Alaska, LLC	
Company Name	**Date**

When did you discover the Excess Emissions/Permit Deviation?

Date: _____ / _____ / _____ Time: _____ :/ _____

When did the event/deviation?

Begin Date: _____ / _____ / _____ Time: _____ : _____ (Use 24-hr clock.)

End Date _____ / _____ / _____ Time: _____ : _____ (Use 24-hr clock.)

What was the duration of the event/deviation? ____ : ____ (hrs:min) or _____ days

(total # of hrs, min, or days, if intermittent then include only the duration of the actual emissions/deviation)

Reason for notification: (please check only 1 box and go to the corresponding section)

☐ Excess Emissions Complete Section 1 and Certify

☐ Deviation from permit conditions complete Section 2 and certify

☐ Deviation from COBC, CO, or Settlement Agreement Complete Section 2 and certify

Section 1. Excess Emissions

(a) **Was the exceedance** ☐ Intermittent or ☐ Continuous

(b) **Cause of Event (Check one that applies):**

☐ Start Up/Shut Down ☐ Natural Cause (weather/earthquake/flood)

☐ Control Equipment Failure ☐ Scheduled Maintenance/Equipment Adjustments

☐ Bad fuel/coal/gas ☐ Upset Condition ☐ Other

(c) **Description**

Describe briefly, what happened and the cause. Include the parameters/operating conditions exceeded, limits, monitoring data and exceedance.

(d) **Emission unit(s) Involved:**

Identify the emission units involved in the event, using the same identification number and name as in the permit. Identify each emission standard potentially exceeded during the event and the exceedance.

EU ID	EU Name	Permit Condition Exceeded/Limit/Potential Exceedance

(e) **Type of Incident** (please check only one):

☐ Opacity % ☐ Venting (gas/scf) ☐ Control Equipment Down
☐ Fugitive Emissions ☐ Emission Limit Exceeded ☐ Record Keeping Failure
☐ Marine Vessel Opacity ☐ Failure to monitor/report ☐ Flaring
☐ Other:

(f) **Unavoidable Emissions:**

Do you intend to assert that these excess emissions were unavoidable? ☐ YES ☐ NO
Do you intend to assert the affirmative defense of 18 AAC 50.235? ☐ YES ☐ NO

Certify Report (go to end of form)

Section 2. Permit Deviations

(a) **Permit Deviation Type** (check only one box corresponding with the section in the permit)

☐ Emission Unit Specific
☐ General Source Test/Monitoring Requirements
☐ Recordkeeping/Reporting/Compliance Certification
☐ Standard Conditions Not Included in Permit
☐ Generally Applicable Requirements
☐ Reporting/Monitoring for Diesel Engines
☐ Insignificant Emission Unit
☐ Stationary Source-Wide
☐ Other Section: (title of section and section # of your permit)

(b) **Emission unit(s) Involved:**

Identify the emission unit involved in the event, using the same identification number and name as in the permit. List the corresponding Permit condition and the deviation.

EU ID	Emission Unit Name	Permit Condition /Potential Deviation

(c) **Description of Potential Deviation:**

Describe briefly, what happened and the cause. Include the parameters/operating conditions and the potential deviation.

(d) **Corrective Actions:**

Describe actions taken to correct the deviation or potential deviation and to prevent future recurrence.

Certification:

Based on 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.

Printed Name: _____ Title: _____ Date: _____

Signature: _____ Phone Number: _____

NOTE: *This document must be certified in accordance with 18 AAC 50.345(j)*

To submit this report:

1. Department's Air Online Services using the Permittee Portal option:
   http://dec.alaska.gov/applications/air/airtoolsweb
   If submitted online, report must be submitted by an authorized E-Signer for the stationary source.

Or

2. Fax to: 907-451-2187

Or

3. Email to: DEC.AQ.Airreports@alaska.gov

Or

4. Mail to: ADEC
   Air Permits Program
   610 University Avenue
   Fairbanks, AK 99709-3643

Or

5. Phone Notifications: 907-451-5173
   Phone notifications require a written follow-up report.

Electronic Copy of Application