DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY CONTROL CONSTRUCTION PERMIT

Permit AQ0934CPT01 **Final – June 30, 2017**
Rescinds AQ0934ORL01

The Alaska Department of Environmental Conservation (Department), under the authority of AS 46.14 and 18 AAC 50, issues Air Quality Control Construction Permit AQ0934CPT01 to the Permittee listed below.

Operator and Permittee:	**Donlin Gold LLC** 4720 Business Park Boulevard, Suite G-25 Anchorage, AK 99503
Owner:	Same as Permittee
Stationary Source	Donlin Gold Project
Location:	Latitude: 62° 1' 12"; Longitude: -158° 11' 59.9"
Physical Address:	Within T22N and 23N/R48W and T22N and 23N/R49W, Seward Meridian
Permit Contact:	Andy Cole, General Manager
Project:	Mine Construction

This permit is classified under 18 AAC 50.306 as a Prevention of Significant Deterioration (PSD) major stationary source for oxides of nitrogen (NOx), carbon monoxide (CO), particulate matter (PM), particulate matter with an aerodynamic diameter not exceeding a nominal 10 micrometers (PM-10), particulate matter with an aerodynamic diameter not exceeding a nominal 2.5 micrometers (PM-2.5), volatile organic compounds (VOC), and greenhouse gases (GHGs). The project is also classified under 18 AAC 50.502(b)(3) for operating a rock crusher; and under 18 AAC 50.508(5) for Owner Requested Limits (ORLs) to avoid PSD classification under 18 AAC 50.306 for sulfur dioxide (SO_2), and to avoid Hazardous Air Pollutants (HAPs) major stationary source classification under 18 AAC 50.316. As required by AS 46.14.120(c) the Permittee shall comply with the terms and conditions of this permit.

for John F. Kuterbach, Manager
Air Permits Program

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Section 1. Emission Unit Inventory

1. **Authorization.** The Permittee is authorized to install and operate the emission units (EUs) listed in Table 1 as described in this permit. Except as noted elsewhere in the permit, the information in Table 1 is for information purposes only. The specific unit descriptions do not restrict the Permittee from replacing an EU identified in Table 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. The Permittee shall commence[1] construction of the modification to the stationary source authorized under Construction Permit AQ0934CPT01 within 18 months of the issuance of Construction Permit AQ0934CPT01 unless granted an extension in writing from the Department.

Table 1 – Permit Emission Unit Inventory

EU ID	EU Description (Model/Engine)	Fuel Type	Rating/size[1]
Power Generation			
1	Wärtsilä 18V50DF #1	ULSD/Natural Gas	17,076 kWe
2	Wärtsilä 18V50DF #2	ULSD/Natural Gas	17,076 kWe
3	Wärtsilä 18V50DF #3	ULSD/Natural Gas	17,076 kWe
4	Wärtsilä 18V50DF #4	ULSD/Natural Gas	17,076 kWe
5	Wärtsilä 18V50DF #5	ULSD/Natural Gas	17,076 kWe
6	Wärtsilä 18V50DF #6	ULSD/Natural Gas	17,076 kWe
7	Wärtsilä 18V50DF #7	ULSD/Natural Gas	17,076 kWe
8	Wärtsilä 18V50DF #8	ULSD/Natural Gas	17,076 kWe
9	Wärtsilä 18V50DF #9	ULSD/Natural Gas	17,076 kWe
10	Wärtsilä 18V50DF #10	ULSD/Natural Gas	17,076 kWe
11	Wärtsilä 18V50DF #11	ULSD/Natural Gas	17,076 kWe
12	Wärtsilä 18V50DF #12	ULSD/Natural Gas	17,076 kWe
13	Airport Generator #1	Diesel	200 kWe
14	Airport Generator #2	Diesel	200 kWe
Boilers			
15	POX Boiler #1	ULSD/Natural Gas	29.29 MMBtu/hr
16	POX Boiler #2	ULSD/Natural Gas	29.29 MMBtu/hr
17	Oxygen Plant Boiler	ULSD/Natural Gas	20.66 MMBtu/hr
18	Carbon Elution Heater	ULSD/Natural Gas	16 MMBtu/hr
19	Power Plant Auxiliary Heater #1	ULSD/Natural Gas	16.5 MMBtu/hr
20	Power Plant Auxiliary Heater #2	ULSD/Natural Gas	16.5 MMBtu/hr
21	SO_2 Burner	Natural Gas	2 MMBtu/hr

[1] Commence has the meaning given in 40 C.F.R. 52.21(b)(9).

EU ID	EU Description (Model/Engine)	Fuel Type	Rating/size[1]
22	Auxiliary SO_2 Burner	ULSD	2 MMBtu/hr
23	Building Heaters (138 units)	Natural Gas	0.175 MMBtu/hr (each unit)
24	Air Handler Heaters 81-HVA-104 to 107, 109, 111 to 113, 126, 201 to 207, 220, 230 (19 units)	Natural Gas	5 MMBtu/hr (each unit)
25	Air Handler Heaters 81-HVA-108, 119,231, 233, 234, 253, 257 (7 units)	Natural Gas	2.5 MMBtu/hr (each unit)
26	Portable Heaters (20 Units)	ULSD	0.86 MMBtu/hr (each unit)
Incinerators			
27	Camp Waste Incinerator		990 lb/hr
28	Sewage Sludge Incinerator		0.058 ton/day
Emergency Equipment			
29	Black Start Generator BEDG1	ULSD	600 kWe
30	Black Start Generator BEDG2	ULSD	600 kWe
31	Camp Site Emergency Generator CEDG1	ULSD	1,500 kWe
32	Camp Site Emergency Generator CEDG2	ULSD	1,500 kWe
33	Camp Site Emergency Generator CEDG3	ULSD	1,500 kWe
34	Camp Site Emergency Generator CEDG4	ULSD	1,500 kWe
35	Mine Site Tank Farm Fire Pump FP1	ULSD	252 hp
36	Mine Site Mill Fire Pump FP2	ULSD	252 hp
37	Camp Site Fire Pump FP3	ULSD	252 hp
Processing Operations			
38	Gyratory Crusher Dump Pocket 11-BIN-100		5,100 ton/hr
39	Gyratory Crusher Circuit		5,100 ton/hr
40	Gyratory Crusher Circuit Dust Collector 81-DCL-100		25,015 ACFM
41	Gyratory Crusher 11-CRU-100		5,100 ton/hr
42	Gyratory Crusher Surge Pocket 11-BIN-150		5,100 ton/hr
43	Gyratory Crusher Apron Feeder 11-FEE-150		5,100 ton/hr
44	Gyratory Crusher Discharge Conveyor 11-CVB-100		5,100 ton/hr
45	Stockpile Feed Conveyor 14-CVB-200		5,100 ton/hr
46	Apron Feeder 14-FEE-200		3,303 ton/hr (all 4 feeders combined)
47	Apron Feeder 14-FEE-200 Dust Collector 81-DCL-200		5,591 ACFM
48	Apron Feeder 14-FEE-210		3,303 ton/hr (all 4 feeders combined)

EU ID	EU Description (Model/Engine)	Fuel Type	Rating/size[1]
49	Apron Feeder 14-FEE-210 Dust Collector 81-DCL-300		5,591 ACFM
50	Apron Feeder 14-FEE-220		3,303 ton/hr (all 4 feeders combined)
51	Apron Feeder 14-FEE-220 Dust Collector 81-DCL-400		5,591 ACFM
52	Apron Feeder 14-FEE-230		3,303 ton/hr (all 4 feeders combined)
53	Apron Feeder 14-FEE-230 Dust Collector 81-DCL-500		5,591 ACFM
54	SAG Mill Feed Conveyor 16-CVB-300		3,303 ton/hr
55	Pebble Crusher 16-CRU-200		660 ton/hr (both pebble crushers combined)
56	Pebble Crusher 16-CRU-300		660 ton/hr (both pebble crushers combined)
57	Pebble Crusher 16-CRU-200, 16-CRU-300 Dust Collector 81-DCL-600		30,017 ACFM
58	Pebble Discharge Conveyor 16-CVB-480		660 ton/hr
59	Lime Hopper 15-HOP-535		121 tons
60	Lime Hopper 15-HOP-535 Dust Collector 15-FIL-535		1,500 ACFM
61	Lime Silo 15-BIN-800		135tons
62	Lime Silo 15-BIN-800 Dust Collector 15-DCL-700		1,500 ACFM
63	Lime Slaker 15-MIL-400		
64	Lime Slaker 15-MIL-400 Wet Scrubber 15-SBW-550		628 ACFM
65	Flocculant Handling and Mixing 15-FLOC		3,662 ton/yr
66	Flocculant Handling and Mixing 15-FLOC Dust Collector 15-DCL-XFL		840 ACFM
67	Caustic Soda Handling and Mixing 15-NAOH		304 ton/yr
68	Caustic Soda Handling and Mixing 15-NAOH Dust Collector 15-DCL-100		1,324 ACFM
69	Copper Sulfate Handling and Mixing 15-CUSO4		2,436 ton/yr
70	Copper Sulfate Handling and Mixing 15-CUSO4 Dust Collector 15-DCL-105		3,002 ACFM
71	Xanthate (PAX) Handling and Mixing 15-PAX		4,306 ton/yr
72	PAX Handling and Mixing 15-PAX		3,002 ACFM

EU ID	EU Description (Model/Engine)	Fuel Type	Rating/size[1]
	Dust Collector 15-DCL-110		
73	Soda Ash Handling 15-SODA1		1,076 ton/yr
74	Soda Ash Handling 15-SODA1 Dust Collector 15-DCL-520		2,000 ACFM
75	Soda Ash Mixing 15-SODA2		1,076 ton/yr
76	Soda Ash Mixing 15-SODA2 Dust Collector 15-DCL-115		3,002 ACFM
77	Autoclave 17-AUT-101		210 ton/hr
78	Autoclave 17-AUT-101 Condenser 17-VEA-103		
79	Autoclave 17-AUT-101 Venturi Scrubber 17-SBW-101		
80	Autoclave 17-AUT-101 VOC/Hg Carbon Filter 17-VEA-104		7,764 WSCFM
81	Autoclave 17-AUT-201		210 ton/hr
82	Autoclave 17-AUT-201 Condenser 17-VEA-203		
83	Autoclave 17-AUT-201 Venturi Scrubber 17-SBW-201		
84	Autoclave 17-AUT-201 VOC/Hg Carbon Filter 17-VEA-204		7,764 WSCFM
85	Hot Cure Tank 17-TNK-302		137 ACFM
86	Hot Cure Tank 17-TNK-303		137 ACFM
87	Hot Cure Tank 17-TNK-304		137 ACFM
88	Carbon Regeneration Kiln 56-KLN-100		1.65 ton/hr
89	Carbon Regeneration Kiln 56-KLN-100 Off Gas Cooler 56-CDO-300		
90	Carbon Regeneration Kiln 56-KLN-100 Carbon Filter 56-FIL-205		2,346 DSCFM
91	Electrowinning Circuit Cell 37-EWN-100		211 gpm (all 4 cells combined)
92	Electrowinning Circuit Cell 37-EWN-200		
93	Electrowinning Circuit Cell 37-EWN-300		
94	Electrowinning Circuit Cell 37-EWN-400		
95	Electrowinning Circuit Cells Demister 37-DEM-XEW		
96	Electrowinning Circuit Cells Carbon Filter 37-FIL-110		4,189 DSCFM
97	Mercury Retort 19-VEZ-100		

EU ID	EU Description (Model/Engine)	Fuel Type	Rating/size[1]
98	Mercury Retort 19-VEZ-100 Condenser 19-CDO-100		
99	Mercury Retort 19-VEZ-100 Carbon Filter 19-COL-100		203 DSCFM
100	Induction Smelting Furnace 19-FUR-100		
101	Induction Smelting Furnace 19-FUR-100 Dust Collector 19-DCL-XFU		
102	Induction Smelting Furnace 19-FUR-100 Carbon Filter 19-FIL-XFU		22,006 DSCFM
103	Sample Receiving and Preparation Drying Ovens (2 Grieve 350 Dryers) 24-LAB1		3,575 lb/day
104	Sample Receiving and Preparation Crushers, Pulverizers, Splitters, and Screens 24-LAB1		3,575 lb/day
105	Sample Receiving and Preparation Crushers, Pulverizers, Splitters, and Screens 24-LAB1 Dust Collector 24-DCL-XL1		5,886 ACFM
106	Assay Furnaces 24-LAB2		3,575 lb/day
107	Assay Furnaces 24-LAB2 Dust Collector 24-DCL-XL2		29,429 ACFM
108	Metallurgical Drying Oven Grieve 350 Dryer 24-LAB3		3,575 lb/day
109	Metallurgical Material Testing Grinding, Rollers, Screens 24-LAB3		3,575 lb/day
110	Metallurgical Material Testing Grinding, Rollers, Screens 24-LAB3 Dust Collector 24-DCL-XL3		5,886 ACFM
111	Water Treatment Plant Water Conditioning 61-COND		
112	Water Treatment Plant Water Conditioning 61-COND Dust Collector 54-DCL-710		1,500 SCFM
Mining Activities			
113	Drilling		21,064-193,629 holes/yr
114	Blasting		236-641 blasts/yr
115	Ore Loading (In-Pit)		4,748,869 – 39,922,756 ton/yr
116	Ore Unloading (Short-Term Stockpile)		2,136,991 - 9,816,777 ton/yr
117	Ore Unloading (Long-Term Stockpile)		0 – 19,288,627 ton/yr
118	Ore Reloading (Long-Term Stockpile)		0 – 21,549,629 ton/yr

EU ID	EU Description (Model/Engine)	Fuel Type	Rating/size[1]
119	Waste Loading (In-Pit)		9,565,683 - 152,286,568 ton/yr
120	Waste Unloading and Reloading		14,302,556 - 155,123,914 ton/yr
121	Water Truck	Diesel	37,090 – 183,604 VMT/yr
122	Dozer	Diesel	39,868 – 77,567 hr/yr
123	Grader	Diesel	3,970 – 45,778 hr/yr
Tanks			
124	Acidulation Tank		
125	Neutralization Tank		
126	Tank Farm Tank #1	ULSD	2,500,000 gal
127	Tank Farm Tank #2	ULSD	2,500,000 gal
128	Tank Farm Tank #3	ULSD	2,500,000 gal
129	Tank Farm Tank #4	ULSD	2,500,000 gal
130	Tank Farm Tank #5	ULSD	2,500,000 gal
131	Tank Farm Tank #6	ULSD	2,500,000 gal
132	Tank Farm Tank #7	ULSD	2,500,000 gal
133	Tank Farm Tank #8	ULSD	2,500,000 gal
134	Tank Farm Tank #9	ULSD	2,500,000 gal
135	Tank Farm Tank #10	ULSD	2,500,000 gal
136	Tank Farm Tank #11	ULSD	2,500,000 gal
137	Tank Farm Tank #12	ULSD	2,500,000 gal
138	Tank Farm Tank #13	ULSD	2,500,000 gal
139	Tank Farm Tank #14	ULSD	2,500,000 gal
140	Tank Farm Tank #15	ULSD	2,500,000 gal
141	Fuel Station 1 Tank	ULSD	25,000 gal
142	Fuel Station 2 Tank	ULSD	25,000 gal
143	ANFO Mixing Plant Tank	ULSD	10,000 gal
144	Mill Fire Pump Tank	ULSD	270 gal
145	Tank Farm Fire Pump Tank	ULSD	270 gal
146	POX Boiler Tank	ULSD	5,000 gal
147	Oxygen Plant Boiler Tank	ULSD	5,000 gal
148	Carbon Elution Heater Tank	ULSD	5,000 gal
149	Auxiliary SO_2 Burner Tank	ULSD	500 gal
150	Power Plant A Tank	ULSD	33,000 gal
151	Power Plant B Tank	ULSD	33,000 gal
152	Camp Emergency Generators Tank	ULSD	25,000 gal

EU ID	EU Description (Model/Engine)	Fuel Type	Rating/size[1]
153	Camp Fire Pump Tank	ULSD	270 gal
154	Jet Fuel Tank #1	Jet A	9,900 gal
155	Jet Fuel Tank #2	Jet A	9,900 gal
156	Aviation Gasoline Tank	100 LL	5,000 gal
157	Airport Generators Tank	ULSD	9,900 gal
Roads			
158	Access Road - Camp to Mine Site		101,367 VMT/yr
159	Access Road - Airport to Camp		60,173 VMT/yr
160	Haul Road		791,227 – 5,024,906 VMT/yr
Wind Erosion			
161	Wind Erosion		
Exploratory Camp			
EG-1	Electric Generator (Caterpillar / C9-230AG)	ULSD	230 kWe
EG-2	Electric Generator (Caterpillar / C9-230AG)	ULSD	230 kWe
WI-1	Waste Incinerator (EWI / ICI06)		0.5 ton per day waste incineration
AG-1	Auxiliary Generator (Kubota / GL7000)	ULSD	7 kWe
SG-1	Standby Generator (Caterpillar / 3404)	ULSD	275 kWe
SG-2	Standby Generator (John Deere / CD6059TF)	ULSD	100 kWe

Table Notes:
[1]Mining activity rates are included in Table 1 as ranges as they vary by year.

Section 2. Emission Fees

3. 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.

4. 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

4.1 the stationary source's assessable potential to emit of 10,906 TPY; or

4.2 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**.**

5. Assessable Emission Estimates. Emission fees will be assessed as follows:

5.1 No later than March 31 of each year, the Permittee may submit an estimate of the stationary source's assessable emissions to ADEC, Air Permits Program, ATTN: Assessable Emissions Estimate, 410 Willoughby Ave., Ste 303, P.O. 111800 Juneau, AK 99811-1800**;** the submittal must include all of the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the Department can verify the estimates; or

5.2 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 forth in Condition 4.1.

Section 3. State Emission Standards and Requirements

6. Visible Emissions (VE) Standards: The Permittee shall not cause or allow visible emissions, excluding water vapor, emitted from any of the EUs listed in Table 1, to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes in any one hour, under 18 AAC 50.055(a)(1).

6.1 For EU IDs 1 through 22, 27 through 38, 40, 44, 45, 47, 49, 51, 53, 54, 57, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 80, 84 through 87, 90, 96, 99, 102, 105, 107, 110, and 112 record the date of initial startup for each EU.

6.2 For EU IDs EU IDs 1 through 22, 27 through 38, 40, 44, 45, 47, 49, 51, 53, 54, 57, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 80, 84 through 87, 90, 96, 99, 102, 105, 107, 110, and 112, verify initial compliance with Condition 6 no later than 90 days after each EU becomes fully operational[2] as follows:

a. Obtain a certified manufacturer's guarantee that shows that each EU will comply with Condition 6; or

b. Conduct a VE source test for each EU as described in 40 C.F.R. 60, Appendix A-4 Method 9.

c. Report in the first operating report required under Condition 53 the manufacturer's guarantee or the VE source test results for each EU required in Condition 6.2a or 6.2b.

7. Particulate Matter (PM) Emission Standards: The Permittee shall not cause or allow PM emitted from EU IDs 1 through 38, 40, 44, 45, 47, 49, 51, 53, 57, 60, 62, 64, 66, 68, 70, 72, 74, 76, 80, 84 through 87, 90, 96, 99, 102, 105, 107, 110, 112 through 120, and EG-1 through SG-2, listed in Table 1, to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours, under 18 AAC 50.055(b).

8. Sulfur Compounds Emission Standards Requirements: The Permittee shall not cause or allow sulfur-compound emissions, expressed as SO_2, from EU IDs 1 through 37, 80, 84, and EG-1 through SG-2 listed in Table 1, to exceed 500 parts per million by volume (ppmv) averaged over three hours, under 18 AAC 50.055(c).

[2] *Fully operational* is defined as completing all testing and commissioning requirements after unit installation. Installation is defined as the point when unit is ready for operational testing. Operational testing and commissioning requirements shall not exceed 60 days after unit installation. The Permittee may request an extension in writing from the Department to this 60 day requirement in circumstances beyond the Permittee's reasonable control.

Section 4. Ambient Air Quality Protection Requirements

Initial Requirements

9. The Permittee shall limit the NOx emissions from EU IDs EG-1, EG-2, WI-1, AG-1, SG-1, and SG-2 to less than 40 tons per year by limiting the hours of operation of EU ID SG-1 and EU ID SG-2 to 500 hours per rolling 12 month period and 120 hours per rolling 12 month period, respectively. Monitor, record and report as follows:

9.1 Install, maintain, and operate an hour meter on EU ID SG-1 and EU ID SG-2;

9.2 Record the hour meter reading for EU ID SG-1 and EU ID SG-2 on the last day of each month;

9.3 By the 15th day of each month, calculate and record:

a. the number of hours that EU ID SG-1 and EU ID SG-2 operated during the previous month, if the meter is not operational assume continuous operation for that period; and

b. the total number of hours per unit that EU ID SG-1 and EU ID SG-2 operated during the previous 12 consecutive months;

9.4 Provide in each operating report required by Condition 53 the following information for each month of the reporting period:

a. the hour meter readings obtained under Condition 9.2 for EU ID SG-1 and EU ID SG-2, and

b. the values determined under Condition 9.3 for EU ID SG-1 and EU ID SG-2; and

9.5 Report as described in Condition 52 whenever an hour limit in Condition 9 is exceeded, or if Conditions 9.1 through 9.4 are not met.

10. The Permittee shall decommission[3] EU IDs EG-1, EG-2, AG-1, SG-1, and SG-2 within 60 days of when any of the following electrical generators become fully operational: EU ID 1 through 12, or EU ID 31 through 34. Record and report as follows:

10.1 Notify the Department in writing within 30 days of decommissioning each of EU ID EG-1, EG-2, AG-1, SG-1, and SG-2; and

10.2 Report as described in Condition 52 if Condition 10 is not met.

11. The Permittee shall remove EU ID WI-1 from the Donlin Gold Project stationary source within 90 days of when EU ID 27 becomes fully operational. Record and report as follows:

11.1 Notify the Department in writing within 30 days of removing EU ID WI-1; and

11.2 Report as described in Condition 52 if Condition 11 is not met.

[3] In this permit *decommission* means the fuel system and generator electrical leads have been disconnected.

General Requirements

12. Construction and operation of EU IDs 1 through 157 is prohibited until all easements or rights-of-way within the Core Operating Area (COA), as illustrated in Figure 3 of the March 2017 Public Access Control Plan (PACP) provided in Section 13 of this permit, have either been extinguished or relocated to areas outside the COA. Monitor, record and report as follows:

12.1 Prior to beginning construction of the stationary source, provide the approval date of the Permittee's public easement plan for relocating/extinguishing the easements/rights-of-ways within the COA, along with a copy of the approval document issued by the Department of Natural Resources (DNR) and/or the Department of Transportation (DOT).

12.2 Provide the date construction started within 30 days of starting construction.

12.3 Report as described in Condition 52 if construction started prior to receiving DNR's/DOT's approval of the Permittee's public easement plan.

13. Upon beginning onsite construction or mining activities, the Permittee shall maintain the ambient air boundary between the public and COA as described in the March 2017 PACP. Monitor, record and report as follows:

13.1 Record all signs of trespass, or actual trespassing events, and what, if any, action was taken to resolve the concern. Records may be kept in electronic format, but must be kept on-site for a minimum of two years.

13.2 Confirm in each operating report required under Condition 53 that the ambient air boundary is being maintained as required by the March 2017 PACP.

13.3 Report as described in Condition 52 if any of the requirements in Condition 13 are not met.

14. The Permittee shall limit the rated capacity of the Gyratory Crusher (EU ID 41) to 5,100 tons per hour. Monitor, record and report as follows:

14.1 Provide within 60 days of installing or replacing EU ID 41 a copy of the manufacturer's specifications; and

14.2 Report as described in Condition 52 if the rated capacity of EU ID 41 exceeds 5,100 tons per hour.

15. The Permittee shall limit the SAG Mill Feed Conveyor (EU ID 54) throughput to 3,303 tons per hour. Monitor, record and report as follows:

15.1 Provide within 60 days of installing or replacing EU ID 54 a copy of the manufacturer's specifications; and

15.2 Report as described in Condition 52 if the rated capacity of EU ID 54 exceeds 3,303 tons per hour.

16. The Permittee shall limit the total rated capacity of the primary power plant generator engines (EU IDs 1 through 12) to 210 megawatts. Monitor, record and report as follows:

16.1 Provide within 60 days of installing or replacing a primary power plant generator engine a copy of the manufacturer's specifications for that EU, along with a tally (in megawatts) of the total installed rated capacity for EU IDs 1 through 12. If the rated capacity varies by fuel for a given EU, use the largest rated capacity in the tally.

16.2 Report as described in Condition 52 if the total installed rated capacity of EU IDs 1 through 12 exceeds 210 megawatts. Do not include the power generated from the combined cycle steam turbine in the tally.

17. The Permittee shall limit the amount of blasting agent to 60,000 metric tons per consecutive 12-month period. Monitor, record and report as follows:

17.1 Record the date of each blast, and the amount of blasting agent used per blast, in a monthly log.

17.2 By the end of each month, calculate and record:

a. the total quantity of blasting agent used during the previous month, and

b. the total quantity of blasting agent used during the previous 12-month period;

17.3 Provide in each operating report required by Condition 53 the values determined under Condition 17.2 for each month of the reporting period; and

17.4 Report as described in Condition 52 whenever the limit in Condition 17 is exceeded.

18. The Permittee shall:

18.1 Construct and maintain vertical, uncapped exhaust stacks for the primary power plant generator engines (EU IDs 1 through 12). This condition does not preclude the use of flapper valve rain covers, or other similar designs, that do not hinder the vertical momentum of the exhaust plume. Monitor, record and report as indicated under Conditions 18.3 and 18.4.

18.2 Construct and maintain a minimum stack height of 49 meters above grade for each primary power plant generator engine (EU IDs 1 through 12). Monitor, record and report as indicated under Conditions 18.3 and 18.4.

18.3 Confirm in the first operating report required under Condition 53 that would be due after installing or replacing a primary power plant generator engine (EU IDs 1 through 12) that the exhaust stack for that EU complies with Conditions 18.1 and 18.2.

18.4 Report as described in Condition 52 if Condition 18.1 or 18.2 are not met.

Pollutant-Specific Requirements

19. To protect the 1-hour nitrogen dioxide (NO_2) Alaska Ambient Air Quality Standard (AAAQS), the annual NO_2 AAAQS, the annual NO_2 Class II increment, the annual particulate matter with an aerodynamic diameter of 10 microns or less (PM-10) Class II increment, the annual particulate matter with an aerodynamic diameter of 2.5 microns or less (PM-2.5) AAAQS, and the annual PM-2.5 Class II increment, the Permittee shall limit the operation of the black start generators (EU IDs 29 through 30), the camp emergency generators (EU IDs 31 through 34) and the fire pump engines (EU IDs 35 through 37) to no more than 500 hours per year per unit. Monitor, record and report as follows:

19.1 Install, maintain, and operate an hour meter on each EU listed in Condition 19;

19.2 Record the hour meter reading for each EU listed in Condition 19 on the last day of each month;

19.3 By the 15th day of each month, calculate and record:

a. the number of hours that each EU listed in Condition 19 operated during the previous month, if the meter is not operational calculate the hours of operation based on the operation logs if available, otherwise assume continuous operation for that period; and

b. the total number of hours each EU operated during the previous 12 consecutive months;

19.4 Provide in each operating report required by Condition 53 the following information for each month of the reporting period:

a. the hour meter reading obtained under Condition 19.2 for each EU listed in Condition 19, and

b. the values determined under Condition 19.3 for each EU listed in Condition 19; and

19.5 Report as described in Condition 52 whenever the limit in Condition 19 is exceeded, or if Conditions 19.1 through 19.4 are not met.

20. To protect the 1-hour NO_2 AAAQS, the annual NO_2 AAAQS, and the annual NO_2 Class II increment, the Permittee shall comply with the NOx Best Available Control Technology (BACT) limits in Section 5 of this permit.

21. To protect the 1-hour CO AAAQS and the 8-hour CO AAAQS, the Permittee shall comply with the CO BACT limits in Section 5 of this permit.

22. To protect the 24-hour PM-10 AAAQS, the 24-hour PM-10 Class II increment, and the annual PM-10 Class II increment, the Permittee shall comply with 18 AAC 50.045(d) and with Conditions 22.1 through 22.4 as follows:

22.1 Comply with the PM-10 BACT limits in Section 5 of this permit.

22.2 Limit the blasting area footprint to 120,000 square feet per blast. Monitor, record and report as described in Conditions 22.2a through 22.2c.

a. Include the size of each blast, in square feet of area blasted, in the monthly log required under Condition 17.1.

b. Provide in each operating report required by Condition 53 the maximum area blasted, in square feet, for each month of the reporting period.

c. Report as described in Condition 52 whenever the limit in Condition 22.2 is exceeded.

22.3 Limit the fugitive particulate matter emissions from all construction and maintenance activities, including, but not limited to road grading, bulldozing, and earth moving, by complying with the best practical methods (BPMs) for Construction and Maintenance specified in Section 2.5 of the Fugitive Dust Control Plan (FDCP) contained in Section 14. Monitor, record and report as described in Condition 22.3a through 22.3c.

a. Perform an inspection at least once per calendar quarter that the mine is in operation of all construction and maintenance activities. If excessive dust is present, apply water spray on the affected area; or otherwise take action to reduce fugitive dust.

b. Keep records describing all inspections and precautions taken to prevent particulate matter from becoming airborne in accordance with Condition 22.2 using the Fugitive Dust Inspection Log in Section 15. Keep the records at the mine site for five years.

c. Report as described in Condition 52 if the requirements of Condition 22.2 were not followed.

22.4 Record and report all fugitive dust complaints as follows:

a. Keep records of any complaints received and any additional precautions that are taken to address the results of Department inspections that found potential dust problems.

b. Maintain records of complaints by utilizing the complaint form in Section 16.

c. For any dust complaints received relating to fugitive emissions that cross the ambient air quality boundary and that are directly attributable to their operations or activities, the Permittee shall review its fugitive dust plan, and submit to the Department the results of the fugitive dust plan review.

d. Submit any completed Section 16 complaint form to the Department per Condition 53 within 30 days after receiving the complaint.

23. To protect the 24-hour PM-2.5 AAAQS, the annual PM-2.5 AAAQS, the 24-hour PM-2.5 Class II increment, and the annual PM-2.5 Class II increment, the Permittee shall comply with the PM-2.5 BACT limits in Section 5 of this permit and with Conditions 22.2 and 22.3.

Section 5. Best Available Control Technology

24. Power Plant BACT Emission Limits: Limit the emissions from the primary power plant generator engines (EU IDs 1 through 12) as specified in Table 2:

Table 2: EU IDs 1 through 12 – BACT Limits

Pollutant	BACT Control	Fuel Type	BACT Emission Limits
CO	Oxidation Catalyst and Good Combustion Practices	ULSD	0.18 g/kW-hr
		Natural Gas	0.12 g/kW-hr
NOx	Selective Catalytic Reduction and Good Combustion Practices	ULSD	0.53 g/kW-hr
		Natural Gas	0.08 g/kW-hr
PM, PM-10, and PM-2.5	Clean Fuel and Good Combustion Practices	ULSD Filterable	0.15 g/kW-hr
		ULSD Filterable and Condensable	0.29 g/kW-hr
		Natural Gas	0.13 g/kW-hr
VOC (as CH_4)	Oxidation Catalyst and Good Combustion Practices	ULSD	0.21 g/kW-hr
		Natural Gas	0.09 g/kW-hr
GHG	Good Combustion Practices	ULSD	1,299,630 tpy
		Natural Gas	869,621 tpy

24.1 For EU IDs 1 through 12, the Permittee shall:

a. Install, maintain, and operate selective catalytic reduction (SCR) and catalytic oxidation emissions controls on EUs 1 through 12, according to the manufacture's specifications, at all times the units are operating.

b. Notify the Department within 60 days of the first of EU IDs 1 through 12 becoming fully operational firing ULSD and firing natural gas, one notification for each fuel type.

c. Perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;

d. Keep records of any maintenance that would have a significant effect on emissions. The records may be kept in electronic format;

e. Keep a copy of either the manufacturer's or the operator's maintenance procedures.

24.2 To show compliance with the CO and VOC emission limits set out in Table 2, the Permittee shall:

a. Submit to the Department vendor verification that the catalytic oxidation control system will comply with the CO and VOC limits established in Table 2 at least 60 days before startup of any of EU IDs 1 through 12.

b. Conduct a source test while firing ULSD on three of EU IDs 1 through 12, within 180 days from the first of EU IDs 1 through 12 becoming fully operational firing ULSD, in accordance with Section 10, to demonstrate initial compliance with the CO and VOC limits listed in Table 2 as described in Conditions 24.2c(i) through 24.2c(v).

c. Conduct a source test while firing natural gas on three of EU IDs 1 through 12, within 180 days from the first of EUs 1 through 12 becoming fully operational firing natural gas, in accordance with Section 10, to demonstrate initial compliance with the CO and VOC limits listed in Table 2 as follows:

(i) Conduct the source test for at least three loads representative of the normal operating range of the EU.

(ii) Use the applicable test method set out in 40 C.F.R. 60, Appendix A. Source test downstream of the catalytic oxidation control system.

(iii) Each source test shall consists of at least three 1-hour or longer valid test runs. Emission results shall be reported as the arithmetic average of all valid test runs and shall be in terms of pounds per hour.

(iv) During each test run, the inlet temperature and pressure drop across the oxidation catalyst shall be measured.

(v) The Permittee shall report the results of the source test to the Department within 60 calendar days after completing the test.

d. Monitor the oxidation catalyst operating parameters as follows:

(i) Install temperature sensing devices to monitor the inlet temperature of each installed oxidation catalyst.

(A) Monitor engine exhaust temperature at the inlet to each oxidation catalyst unit at least once per hour during all periods of operation. Record for each calendar day the minimum and maximum inlet gas temperature of each oxidation catalyst unit. Data capture and recording may be electronic.

(B) Report the minimum and maximum daily inlet gas temperature of each oxidation catalyst unit for each calendar month in the operating report required by Condition 53.

(C) Report in accordance with Condition 52, whenever the inlet gas temperature of an oxidation catalyst unit is outside the acceptable range identified in the manufacturer’s specifications. The report should include any corrective actions taken.

(ii) Install gauges before and after the oxidation catalyst controls to monitor the pressure drop across each installed oxidation catalyst unit.

(A) Maintain the oxidation catalyst such that the pressure drop across each oxidation unit is within the acceptable range identified in the manufacturer's specifications.

(B) If the pressure drop exceeds the acceptable differential identified in the manufacturer's specifications, the oxidation catalyst unit shall be inspected, cleaned, or replaced, as necessary.

(C) Report in accordance with Condition 52, whenever the pressure drop across an oxidation catalyst unit is outside the acceptable range identified in the manufacturer's specifications. The report should include any corrective actions taken.

24.3 To show compliance with the NOx emission limits set out in Table 2, the Permittee shall:

a. Submit to the Department vendor verification that each SCR control system will comply with the NOx limits in Table 2 at least 60 days before startup of any of EU IDs 1 through 12.

b. Conduct a source test while firing ULSD on three of EU IDs 1 through 12, within 180 days of the first of EU IDs 1 through 12 becoming fully operational firing ULSD, in accordance with Section 10, to demonstrate initial compliance with the NOx limit listed in Table 2. Follow the source test procedures described in Conditions 24.3c(i) through 24.3c(v).

c. Conduct a source test while firing natural gas on three of EU IDs 1 through 12, within 180 days of the first of EU IDs 1 through 12 becoming fully operational firing natural gas, in accordance with Section 10, to demonstrate initial compliance with the NOx limit listed in Table 2 as follows:

(i) Conduct the source test for at least three loads representative of the normal operating range of the EU.

(ii) Use the applicable test method set out in 40 C.F.R. 60, Appendix A. Source test downstream of the SCR control system.

(iii) Each source test shall consists of at least three 1-hour or longer valid test runs. Emission results shall be reported as the arithmetic average of all valid test runs and shall be in terms of pounds per hour.

(iv) During each test run, the inlet temperature and pressure drop across the SCR unit shall be measured.

(v) The Permittee shall report the results of the source test to the Department within 60 calendar days after completing the test.

d. Monitor the SCR control system operating parameters as follows:

(i) Install temperature sensing devices to monitor the inlet temperature of each installed SCR control system.

(A) Monitor engine exhaust temperature at the inlet to each SCR unit at least once per hour during all periods of operation. Record for each calendar day the minimum and maximum inlet gas temperature of each SCR unit. Data capture and recording may be electronic.

(B) Report the minimum and maximum daily inlet gas temperature of each SCR control for each calendar month in the operating report required by Condition 53.

(C) Report in accordance with Condition 52, whenever the inlet gas temperature of an SCR unit is outside the acceptable range identified in the manufacturer's specifications. The report should include any corrective actions taken.

24.4 To show compliance with the PM, PM-10, and PM-2.5 emission limits set out in Table 2, the Permittee shall:

a. Submit to the Department, a certified manufacturer's guarantee demonstrating that EU IDs 1 through 12 will comply with the emission limits in Table 2 at least 60 days before startup of any of EU IDs 1 through 12;

b. Conduct a source test while firing ULSD on three of EU IDs 1 through 12, within 180 days of the first of EU IDs 1 through 12 becoming fully operational firing ULSD, in accordance with Section 10; and

c. Conduct a source test while firing natural gas within 180 days of the first of EU IDs 1 through 12 on three of EU IDs 1 through 12, becoming fully operational firing natural gas, in accordance with Section 10.

24.5 To show compliance with the GHG emission limits set out in Table 2, the Permittee shall:

a. Perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;

b. Keep records of any maintenance that would have a significant effect on emissions. The records may be kept in electronic format; and

c. Keep a copy of either the manufacturer's or the operator's maintenance procedures.

24.6 Report in the operating report required by Condition 53, the emission rates determined by the source tests required by Conditions 24.2 through 24.4.

24.7 Report as excess emissions and permit deviation as described in Condition 52 if any of the emission rates determined by the source tests required by Conditions 24.2 through 24.4, exceed the limits in Table 2, or if any of Conditions 24.1 through 24.6 are not met.

25. Ore Crushing and Transfers BACT Emission Limits: Limit the emissions from EU IDs 38, 39, 41 through 46, 48, 50, 52, 54 through 56, and 58 as specified in Table 3:

Table 3: EU IDs 38, 39, 41 through 46, 48, 50, 52, 54 through 56, and 58 – BACT Limits

EU ID	Pollutant	BACT Control	BACT Emission Limits
39, 41 – 43, 46, 48, 50, 52, 55, and 56	PM, PM-10, and PM-2.5	Dust Collector	0.01 gr/dscf
38, 44, 45, 54, and 58	PM, PM-10, and PM-2.5	Enclosures	0.00048 lb/ton

25.1 To show compliance with the emission limits established in Table 3, the Permittee shall:

a. Comply with the BPMs for Ore Crushing in Section 2.4 of the FDCP contained in Section 14.

b. Install, operate, and maintain according to manufacturer's recommendations dust collectors for EU IDs 39, 41 – 43, 46, 48, 50, 52, 55, and 56 at all times its corresponding EU is operating.

c. Verify initial compliance with the PM, PM-10, and PM-2.5 emission limits for EU IDs 39, 41 – 43, 46, 48, 50, 52, 55, and 56 established in Table 3 by either:

(i) Obtaining a certified manufacturer's guarantee that each installed dust collector (EU IDs 40, 47, 49, 51, 53, and 57) will comply with the emission limits in Table 3. Submit the emissions data to the Department in the first operating report required by Condition 53 after its corresponding EU becomes fully operational; or

(ii) Conducting a source test for PM, PM-10, and PM-2.5 within 180 days of each of EU IDs 39, 41 – 43, 46, 48, 50, 52, 55 and 56 becoming fully operational, in accordance with Section 10.

d. Maintain the pressure differential across the bags in the dust collectors as determined during source testing or according to manufacturer's specifications. Observe and record the pressure differential readings once per week.

(i) If the pressure differential across the dust collector increases to within 95% of the upper limit established by the manufacturer, within 24 hours take steps to clean the bags of excess trapped dust.

(ii) If the pressure differential across the dust collector drops to less than 5% of the allowed range above the lower limit established by the manufacturer, within 24 hours perform an inspection of the bags and dust collector assembly to ascertain the integrity of the system.

(iii) If any bags are found with holes or tears or deterioration which renders them ineffectual, the bags shall be isolated or replaced within 24 hours.

(iv) If after cleaning the bags of excess dust or replacing torn or deteriorated bags the pressure differential recommended by the manufacturer cannot be maintained, conduct a source test on the affected EU listed in Table 3 for PM, PM-10, and PM-2.5 according to the requirements set out in Section 10 within 120 days of cleaning or replacing torn or deteriorated bags to confirm that the emission limits established in Table 3 are being maintained.

e. Once per week, at the time the dust collector differential pressure readings are taken, perform a visual inspection of the exhaust outlet of the dust collectors.

(i) If no dust is seen during the weekly visual inspections, continue with the weekly inspections.

(ii) If dust is seen during the weekly visual inspection, within 24 hours perform an inspection of the bags and dust collector assembly to ascertain the integrity of the system. Make repairs as necessary.

(iii) If after making repairs, dust is still visible in the exhaust from the unit, conduct a source test on the affected EU listed in Table 3 for PM, PM-10, and PM-2.5 according to the requirements set out in Section 10 within 120 days of making repairs to confirm whether the emission limits established in Table 3 are being maintained.

f. **Recordkeeping for Dust Collectors.** For EU IDs 40, 47, 49, 51, 53, and 57 the Permittee shall:

(i) Maintain maintenance logs detailing the pressure drop across the dust collector, dust collector inspections, and bag replacements. Keep records for five years.

(ii) Keep records of the results of any source testing conducted under Conditions 25.1c(ii), 25.1d(iv), and 25.1e(iii) for five years.

g. **Reporting for Dust Collectors.** For EU IDs 40, 47, 49, 51, 53, and 57, the Permittee shall:

(i) Report all differential pressure and operating hour meter readings when the dust collectors are operating outside the ranges identified in Conditions 25.1d(i) and 25.1d(ii), in the operating reports required by Condition 53.

(ii) Report in the operating report required by Condition 53, the emission rates determined by the source tests required by Conditions 25.1c(ii), 25.1d(iv), and 25.1e(iii).

(iii) Report as excess emissions and permit deviation as described in Condition 52 if any of the emission rates determined by the source tests required by Conditions 25.1c(ii), 25.1d(iv), and 25.1e(iii), exceed the limits in Table 3, or if any of Conditions 25.1a through 25.1g are not met.

26. Autoclave BACT Emission Limits: Limit the emissions from EU IDs 77 and 81 as specified in Table 4:

Table 4: EU ID 77 and 81 – BACT Limits

Pollutant	BACT Control	BACT Emission Limit
CO	Good Operating Practices	88 lb/hr
PM, PM-10, and PM-2.5	Venturi Scrubber	0.22 lb/hr
VOC	Carbon Adsorber	0.04 lb/hr
GHG	Good Operating Practices	37,659 tpy (combined)

26.1 To show compliance with the CO emission limit for EU IDs 77 and 81 in Table 4, the Permittee shall:

a. Verify initial compliance with the CO emission limits for EU IDs 77 and 81 established in Table 4 by either:

(i) Obtaining a certified manufacturer's guarantee that each installed autoclave will comply with the CO emission limit established in Table 4. Submit the emissions data to the Department in the first operating report required by Condition 53 after any of EU IDs 77 and 81 become fully operational; or

(ii) Conducting a source test for CO within 180 days of each of EU IDs 77 and 81 becoming fully operational, in accordance with Section 10.

b. Perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;

c. Keep records of any maintenance that would have a significant effect on emissions. The records may be kept in electronic format;

d. Keep a copy of either the manufacturer's or the operator's maintenance procedures.

26.2 To show compliance with the PM, PM-10, and PM-2.5 emission limits for EU IDs 77 and 81 in Table 4, the Permittee shall:

a. Install, operate, and maintain venturi scrubbers on EU IDs 77 and 81, according to the manufacturer's specifications, at all times the units are operating;

b. Verify initial compliance with the PM, PM-10, and PM-2.5 emission limits for EU IDs 77 and 81 established in Table 4 by either:

(i) Obtaining a certified manufacturer's guarantee that each installed venturi scrubber will comply with the PM, PM-10, and PM-2.5 emission limits established in Table 4. Submit the emissions data to the Department in the first operating report required by Condition 53 after each of EU IDs 77 and 81 become fully operational; or

(ii) Conducting a source test for PM, PM-10, and PM-2.5 within 180 days of each of EU IDs 77 and 81 becoming fully operational, in accordance with Section 10.

c. Perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;

d. Keep records of any maintenance that would have a significant effect on emissions. The records may be kept in electronic format; and

e. Keep a copy of either the manufacturer's or the operator's maintenance procedures.

26.3 To show compliance with the VOC emission limits for EU IDs 77 and 81 in Table 4, the Permittee shall:

a. Install, operate, and maintain carbon adsorption systems on EU IDs 77 and 81, according to the manufacture's specifications, at all times the units are operating;

b. Verify initial compliance with the VOC emission limits for EU IDs 77 and 81 established in Table 4 by either:

(i) Obtaining a certified manufacturer's guarantee that each carbon adsorption system will comply with the VOC emission limits established in Table 4. Submit the emissions data to the Department in the first operating report required by Condition 53 after each of EU IDs 77 and 81 become fully operational; or

(ii) Conducting a source test for VOC within 180 days of each of EU IDs 77 and 81 becoming fully operational, in accordance with Section 10.

c. Perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;

d. Keep records of any maintenance that would have a significant effect on emissions. The records may be kept in electronic format; and

e. Keep a copy of either the manufacturer's or the operator's maintenance procedures.

26.4 To show compliance with the GHG emission limits for EU IDs 77 and 81 in Table 4, the Permittee shall:

a. Perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;

b. Keep records of any maintenance that would have a significant effect on emissions. The records may be kept in electronic format; and

c. Keep a copy of either the manufacturer's or the operator's maintenance procedures.

26.5 Report as a permit deviation described in Condition 52 if any of Conditions 26.1 through 26.4 are not met.

27. Boilers and Heaters BACT Emission Limits: Limit the emissions from EU IDs 15 through 18 and 21 through 26 as specified in Table 5 and from EU IDs 19 and 20 as specified in Table 6:

Table 5: EU IDs 15 through 18 and 21 through 26 – BACT Limits

Pollutant	BACT Control	Fuel Type	BACT Emission Limits
CO	Good Combustion Practices	ULSD	0.0384 lb/MMBtu
		Natural Gas	0.0824 lb/MMBtu
NOx	Good Combustion Practices	ULSD	0.154 lb/MMBtu
		Natural Gas	0.098 lb/MMBtu
PM, PM-10, and PM-2.5	Clean Fuel and Good Combustion Practices	ULSD	0.0254 lb/MMBtu
		Natural Gas	0.0075 lb/MMBtu
VOC	Good Combustion Practices	ULSD	0.00154 lb/MMBtu
		Natural Gas	0.0054 lb/MMBtu
GHG	Good Combustion Practices	ULSD Natural Gas	176,347 tpy (EUs 15 - 26 combined)

27.1 To show compliance with the emission limits for EU IDs 15 through 18 and 21 through 26 in Table 5, the Permittee shall:

a. Verify initial compliance with the CO, NOx, PM, PM-10, PM-2.5, and VOC emission limits for EU IDs 15 through 18 and 21 through 26; established in Table 5 by either:

(i) Obtaining a certified manufacturer's guarantee that each boiler and heater will comply with the CO, NOx, PM, PM-10, PM-2.5, and VOC emission limits established in Table 5. Submit the emissions data to the Department in the first operating report required by Condition 53 after each of EU IDs 15 through 18 and 21 through 26 become fully operational;

(ii) Conducting a source test for CO, NOx, PM, PM-10, PM-2.5, and VOC within 180 days of each of EU IDs 15 through 18 and 21 through 26 becoming fully operational, in accordance with Section 10; or

(iii) If any emission unit's rated capacity is less than 1.0 MMBtu/hr, obtain certification of the emission unit's rating and the fuel type. Submit the certification to the Department in the first operating report required by Condition 53 after each such emission unit becomes fully operational.

b. Perform regular maintenance following the manufacturer's or the operator's maintenance procedures;

c. Keep records of any maintenance that would have a significant effect on emissions. The records may be kept in electronic format; and

d. Keep a copy of either the manufacturer's or the operator's maintenance procedures.

Table 6: EU IDs 19 and 20 – BACT Limits

Pollutant	BACT Control	Fuel Type	BACT Emission Limits
CO	Good Combustion Practices	ULSD	0.0384 lb/MMBtu
		Natural Gas	0.0824 lb/MMBtu
NOx	Low-NOx Burner	ULSD	0.154 lb/MMBtu
		Natural Gas	0.049 lb/MMBtu
PM, PM-10, and PM-2.5	Clean Fuel and Good Combustion Practices	ULSD	0.0254 lb/MMBtu
		Natural Gas	0.0075 lb/MMBtu
VOC	Good Combustion Practices	ULSD	0.00154 lb/MMBtu
		Natural Gas	0.0054 lb/MMBtu
GHG	Good Combustion Practices	ULSD Natural Gas	176,347 tpy (EUs 15 - 26 combined)

27.2 To show compliance with the emission limits for EU IDs 19 and 20 in Table 6, the Permittee shall:

a. Install, operate, and maintain low-NOx burners on EUs 19 and 20, according to the manufacture's specifications, at all times the units are operating.

b. Verify initial compliance with the CO, NOx, PM, PM-10, PM-2.5, and VOC emission limits for EU IDs 19 and 20; established in Table 6 by either:

(i) Obtaining a certified manufacturer's guarantee that each auxiliary heater will comply with the CO, NOx, PM, PM-10, PM-2.5, and VOC emission limits established in Table 6. Submit the emissions data to the Department in the first operating report required by Condition 53 after each of EU IDs 19 and 20 become fully operational; or

(ii) Conducting a source test for CO, NOx, PM, PM-10, PM-2.5, and VOC within 180 days of each of EU IDs 19 and 20 becoming fully operational, in accordance with Section 10.

c. Perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;

d. Keep records of any maintenance that would have a significant effect on emissions. The records may be kept in electronic format; and

e. Keep a copy of either the manufacturer's or the operator's maintenance procedures.

28. Black Start and Emergency Diesel Engine BACT Emission Limits: Limit the emissions from EU IDs 29 through 34 as specified in Table 7 and from EU IDs 35 through 37 as specified in Table 8:

Table 7: EU IDs 29 through 34 – BACT Limits

Pollutant	BACT Control	BACT Emission Limit
CO	Good Combustion Practices	4.38 g/kW-hr
NOx + VOC	Good Combustion Practices	8.00 g/kW-hr
PM, PM-10, and PM-2.5	Clean Fuel and Good Combustion Practices	0.25 g/kW-hr
GHG	Good Combustion Practices	2,781 tpy (combined)

28.1 To show compliance with the emission limits for EU IDs 29 through 34 in Table 7, the Permittee shall:

a. Verify initial compliance with the CO, NOx + VOC, PM, PM-10, and PM-2.5 emission limits for EU IDs 29 through 34; established in Table 7 by either:

(i) Obtaining a certified manufacturer's guarantee that each black start and emergency engine will comply with the CO, NOx + VOC, PM, PM-10, and PM-2.5 emission limits established in Table 7. Submit the emissions data to the Department in the first operating report required by Condition 53 after each of EU IDs 29 through 34 become fully operational; or

(ii) Conducting a source test for CO, NOx + VOC, PM, PM-10, and PM-2.5 within 180 days of each of EU IDs 29 through 34 becoming fully operational, in accordance with Section 10.

b. Perform regular maintenance following the manufacturer's or the operator's maintenance procedures;

c. Keep records of any maintenance that would have a significant effect on emissions. The records may be kept in electronic format; and

d. Keep a copy of either the manufacturer's or the operator's maintenance procedures.

Table 8: EU IDs 35 through 37 – BACT Limits

Pollutant	BACT Control	BACT Emission Limit
CO	Good Combustion Practices	3.30 g/kW-hr
NOx + VOC	Good Combustion Practices	3.70 g/kW-hr
PM, PM-10, and PM-2.5	Clean Fuel and Good Combustion Practices	0.19 g/kW-hr
GHG	Good Combustion Practices	216 tpy (combined)

28.2 To show compliance with the emission limits for EU IDs 35 through 37 in Table 8, the Permittee shall:

a. Verify initial compliance with the CO, NOx + VOC, PM, PM-10, and PM-2.5 emission limits for EU IDs 35 through 37; established in Table 8 by either:

(i) Obtaining a certified manufacturer's guarantee that each fire pump will comply with the CO, NOx + VOC, PM, PM-10, and PM-2.5 emission limits established in Table 8. Submit the emissions data to the Department in the first operating report required by Condition 53 after each of EU IDs 35 through 37 become fully operational; or

(ii) Conducting a source test for CO, NOx + VOC, PM, PM-10, and PM-2.5 within 180 days of each of EU IDs 35 through 37 becoming fully operational, in accordance with Section 10.

b. Perform regular maintenance following the manufacturer's or the operator's maintenance procedures;

c. Keep records of any maintenance that would have a significant effect on emissions. The records may be kept in electronic format;

d. Keep a copy of either the manufacturer's or the operator's maintenance procedures.

29. Small Diesel Engines BACT Emission Limits: Limit the emissions from EU IDs 13 and 14 as specified in Table 9:

Table 9: EU IDs 13 and 14 – BACT Limits

Pollutant	BACT Control	BACT Emission Limit
CO	Good Combustion Practices	4.38 g/kW-hr
NOx	Good Combustion Practices	0.50 g/kW-hr
PM, PM-10, and PM-2.5	Clean Fuel and Good Combustion Practices	0.03 g/kW-hr
VOC	Good Combustion Practices	0.24 g/kW-hr
GHG	Good Combustion Practices	2,700 tpy (combined)

29.1 To show compliance with the emission limits for EU IDs 13 and 14 in Table 9, the Permittee shall:

a. Verify initial compliance with the CO, NOx, PM, PM-10, PM-2.5, and VOC emission limits for EU IDs 13 and 14; established in Table 9 by either:

(i) Obtaining a certified manufacturer's guarantee that each small diesel engine will comply with the CO, NOx, PM, PM-10, PM-2.5, and VOC emission limits established in Table 9. Submit the emissions data to the Department in the first operating report required by Condition 53 after each of EU IDs 13 and 14 become fully operational; or

(ii) Conducting a source test for CO, NOx, PM, PM-10, PM-2.5, and VOC within 180 days of each of EU IDs 13 and 14 becoming fully operational, in accordance with Section 10.

b. Perform regular maintenance following the manufacturer's or the operator's maintenance procedures;

c. Keep records of any maintenance that would have a significant effect on emissions. The records may be kept in electronic format;

d. Keep a copy of either the manufacturer's or the operator's maintenance procedures.

30. Carbon Regeneration Kiln BACT Emission Limits: Limit the emissions from EU ID 88 as specified in Table 10:

Table 10: EU ID 88 – BACT Limits

Pollutant	BACT Control	BACT Emission Limit
CO	Good Operating Practices	0.88 lb/hr
NOx	Good Operating Practices	0.02 lb/hr
PM, PM-10, and PM-2.5	Wet Off-Gas Cooler	0.44 lb/hr
VOC	Good Operating Practices	0.44 lb/hr

30.1 To show compliance with the emission limits for EU ID 88 in Table 10, the Permittee shall:

a. Install, operate, and maintain a wet off-gas cooler (EU ID 89), according to the manufacturer's specifications, at all times the process is in operation.

b. Verify initial compliance with the CO, NOx, PM, PM-10, PM-2.5, and VOC emission limits for EU ID 88; established in Table 10 by either:

(i) Obtaining a certified manufacturer's guarantee that the carbon regeneration kiln will comply with the CO, NOx, PM, PM-10, PM-2.5, and VOC emission limits established in Table 10. Submit the emissions data to the Department in the first operating report required by Condition 53 after EU ID 88 become fully operational; or

(ii) Conducting a source test for CO, NOx, PM, PM-10, PM-2.5, and VOC within 180 days of EU ID 88 becoming fully operational, in accordance with Section 10.

c. Perform regular maintenance following the manufacturer's or the operator's maintenance procedures;

d. Keep records of any maintenance that would have a significant effect on emissions. The records may be kept in electronic format;

e. Keep a copy of either the manufacturer's or the operator's maintenance procedures.

31. Induction Smelting Furnace BACT Emission Limits: Limit the emissions from EU ID 100 as specified in Table 11:

Table 11: EU ID 100 – BACT Limits

Pollutant	BACT Control	BACT Emission Limits
PM, PM-10, and PM-2.5	Dust Collector	0.005 gr/dscf

31.1 To show compliance with the emission limit for EU ID 100 in Table 11, the Permittee shall:

a. Install, operate, and maintain according to manufacturer's recommendations a dust collector for EU ID 100, at all times the unit is operating.

b. Verify the initial compliance with the PM, PM-10, and PM-2.5 emission limits for EU ID 100 established in Table 11 by either:

(i) Obtaining a certified manufacturer's guarantee that the installed dust collector (EU IDs 101) will comply with the emission limits in Table 11. Submit the emissions data to the Department in the first operating report required by Condition 53 after EU ID 100 becomes fully operational; or

(ii) Conducting a source test for PM, PM-10, and PM-2.5 within 180 days of EU ID 100 becoming fully operational, in accordance with Section 10.

c. Maintain the pressure differential across the bags in the dust collectors as determined during source testing or according to manufacturer's specifications. Observe and record the pressure differential readings once per week.

(i) If the pressure differential across the dust collector increases to within 95% of the upper limit established by the manufacturer, within 24 hours take steps to clean the bags of excess trapped dust.

(ii) If the pressure differential across the dust collector drops to less than 5% of the allowed range above the lower limit established by the manufacturer, within 24 hours perform an inspection of the bags and dust collector assembly to ascertain the integrity of the system.

(iii) If any bags are found with holes or tears or deterioration which renders them ineffectual, the bags shall be isolated or replaced within 24 hours.

(iv) If after cleaning the bags of excess dust or replacing torn or deteriorated bags the pressure differential recommended by the manufacturer cannot be maintained, conduct a source test for PM, PM-10, and PM-2.5 according to the requirements set out in Section 10 within 120 days of cleaning or replacing torn or deteriorated bags to confirm that the emission limits established in Table 11 are being maintained.

d. Once per week, at the time the dust collector differential pressure readings are taken, perform a visual inspection of the exhaust outlet of the dust collectors.

(i) If no dust is seen during the weekly visual inspections, continue with the weekly inspections.

(ii) If dust is seen during the weekly visual inspection, within 24 hours perform an inspection of the bags and dust collector assembly to ascertain the integrity of the system. Make repairs as necessary.

(iii) If after making repairs, dust is still visible in the exhaust from the unit, conduct a source test for PM, PM-10, and PM-2.5 according to the requirements set out in Section 10 within 120 days of making repairs to confirm whether the emission limits established in Table 11 are being maintained.

e. **Recordkeeping for Dust Collectors.** For EU ID 101 the Permittee shall:

(i) Maintain maintenance logs detailing the pressure drop across the dust collector, dust collector inspections, and bag replacements. Keep records for five years.

(ii) Keep records of the results of any source testing conducted under Conditions 31.1b(ii), 31.1c(iv), and 31.1d(iii) for five years.

f. **Reporting for Dust Collectors.** For EU ID 101, the Permittee shall:

(i) Report all differential pressure and operating hour meter readings when the dust collector is operating outside the ranges identified in Conditions 31.1c(i) and 31.1c(ii), in the operating reports required by Condition 53.

(ii) In each operating report required by Condition 53, include a summary of the emission rates determined by the source tests required by Conditions 31.1b(ii), 31.1c(iv), and 31.1d(iii).

(iii) Report as excess emissions and permit deviation as described in Condition 52 if any of the emission rates determined by the source tests required by Conditions 31.1b(ii), 31.1c(iv), and 31.1d(iii), exceed the limits in Table 11, or if any of Conditions 31.1a through 31.1f are not met.

32. Pressure Oxidation Hot Cure BACT Emission Limits: Limit the emissions from EU IDs 85 through 87 as specified in Table 12:

Table 12: EU IDs 85 through 87 – BACT Limits

Pollutant	BACT Control	BACT Emission Limits
PM, PM-10, and PM-2.5	Good Operating Practices	0.4 lb/hr

32.1 To show compliance with the emission limits for EU IDs 85 through 87 in Table 12, the Permittee shall:

a. Verify initial compliance with the PM, PM-10, and PM-2.5 emission limits for EU IDs 85 through 87 established in Table 12 by obtaining a certified manufacturer's guarantee or demonstrable engineering calculations that each installed pressure oxidation hot cure unit will comply with the PM, PM-10, and PM-2.5 emission limits established in Table 12. Submit the emissions data to the Department in the first operating report required by Condition 53 after any of EU IDs 85 through 87 become fully operational;

b. Perform regular maintenance following the manufacturer's or the operator's maintenance procedures;

c. Keep records of any maintenance that would have a significant effect on emissions. The records may be kept in electronic format;

d. Keep a copy of either the manufacturer's or the operator's maintenance procedures.

33. Electrowinning Cells BACT Emission Limits: Limit the emissions from EU IDs 91 through 94 as specified in Table 13:

Table 13: EU IDs 91 through 94 – BACT Limits

Pollutant	BACT Control	BACT Emission Limits
PM, PM-10, and PM-2.5	Good Operating Practices	0.19 lb/hr

33.1 To show compliance with the emission limits for EU IDs 91 through 94 in Table 13, the Permittee shall:

a. Verify initial compliance with the PM, PM-10, and PM-2.5 emission limits for EU IDs 91 through 94 established in Table 13 by either:

(i) Obtaining a certified manufacturer's guarantee that each electrowinning cell will comply with the PM, PM-10, and PM-2.5 emission limits established in Table 13. Submit the emissions data to the Department in the first operating report required by Condition 53 after any of EU IDs 91 through 94 become fully operational; or

(ii) Conducting a source test for PM, PM-10, and PM-2.5 within 180 days of each of EU IDs 91 through 94 becoming fully operational, in accordance with Section 10.

b. Perform regular maintenance following the manufacturer's or the operator's maintenance procedures;

c. Keep records of any maintenance that would have a significant effect on emissions. The records may be kept in electronic format;

d. Keep a copy of either the manufacturer's or the operator's maintenance procedures.

34. Mercury Retort BACT Emission Limits: Limit the emissions from EU ID 97 as specified in Table 14:

Table 14: EU ID 97 – BACT Limits

Pollutant	BACT Control	BACT Emission Limits
PM, PM-10, and PM-2.5	Good Operating Practices	0.03 lb/hr

34.1 To show compliance with the emission limits for EU ID 97 in Table 14, the Permittee shall:

a. Verify initial compliance with the PM, PM-10, and PM-2.5 emission limit for EU ID 97 established in Table 14 by either:

(i) Obtaining a certified manufacturer's guarantee that the mercury retort will comply with the PM, PM-10, and PM-2.5 emission limits established in Table 14. Submit the emissions data to the Department in the first operating report required by Condition 53 after EU ID 97 becomes fully operational; or

(ii) Conducting a source test for PM, PM-10, and PM-2.5 within 180 days of EU ID 97 becoming fully operational, in accordance with Section 10.

b. Perform regular maintenance following the manufacturer's or the operator's maintenance procedures;

c. Keep records of any maintenance that would have a significant effect on emissions. The records may be kept in electronic format;

d. Keep a copy of either the manufacturer's or the operator's maintenance procedures.

35. Laboratories BACT Emission Limits: Limit the emissions from EU ID 104 as specified in Table 15, from EU ID 106 as specified in Table 16, and from EU IDs 108 and 109 as specified in Table 17:

Table 15: EU ID 104 – BACT Limits

Pollutant	BACT Control	BACT Emission Limits
PM, PM-10, and PM-2.5	Dust Collector	0.009 gr/scf

35.1 To show compliance with the emission limits for EU ID 104 in Table 15, the Permittee shall:

a. Install, operate, and maintain according to manufacturer's recommendations dust collectors for EU ID 104, at all times its corresponding EU is operating.

b. Verify initial compliance with the PM, PM-10, and PM-2.5 emission limits for EU ID 104 established in Table 15 by either:

(i) Obtaining a certified manufacturer's guarantee that the installed dust collector (EU ID 105) will comply with the emission limits in Table 15. Submit the emissions data to the Department in the first operating report required by Condition 53 after its corresponding EU becomes fully operational; or

(ii) Conducting a source test for PM, PM-10, and PM-2.5 within 180 days of each of EU ID 104 becoming fully operational, in accordance with Section 10.

c. Maintain the pressure differential across the bags in the dust collector as determined during source testing or according to manufacturer's specifications. Observe and record the pressure differential readings once per week.

(i) If the pressure differential across the dust collector increases to within 95% of the upper limit established by the manufacturer, within 24 hours take steps to clean the bags of excess trapped dust.

(ii) If the pressure differential across the dust collector drops to less than 5% of the allowed range above the lower limit established by the manufacturer, within 24 hours perform an inspection of the bags and dust collector assembly to ascertain the integrity of the system.

(iii) If any bags are found with holes or tears or deterioration which renders them ineffectual, the bags shall be isolated or replaced within 24 hours.

(iv) If after cleaning the bags of excess dust or replacing torn or deteriorated bags the pressure differential recommended by the manufacturer cannot be maintained, conduct a source test on the affected EU listed in Table 15 for PM, PM-10, and PM-2.5 according to the requirements set out in Section 10 within 120 of cleaning or replacing torn or deteriorated bags to confirm that the emission limits established in Table 15 are being maintained.

d. Once per week, at the time the dust collector differential pressure readings are taken, perform a visual inspection of the exhaust outlet of the dust collectors.

(i) If no dust is seen during the weekly visual inspections, continue with the weekly inspections.

(ii) If dust is seen during the weekly visual inspection, within 24 hours perform an inspection of the bags and dust collector assembly to ascertain the integrity of the system. Make repairs and necessary.

(iii) If after making repairs, dust is still visible in the exhaust from the unit, conduct a source test on the affected EU listed in Table 15 for PM, PM-10, and PM-2.5 according to the requirements set out in Section 10 within 120 days of making repairs to confirm whether the PM, PM-10 and PM-2.5 emission limits in Table 15 are being maintained.

e. **Recordkeeping for Dust Collectors.** For EU ID 105 the Permittee shall:

(i) Maintain maintenance logs detailing the pressure drop across the dust collector, dust collector inspections, and bag replacements. Keep records for five years.

(ii) Keep records of the results of any source testing conducted under Conditions 35.1b(ii), 35.1c(iv), and 35.1d(iii) for five years.

f. **Reporting for Dust Collectors.** For EU ID 105, the Permittee shall report as follows:

(i) Report all differential pressure and operating hour meter readings when the dust collector is operating outside the ranges identified in Conditions 35.1c(i) and 35.1c(ii), in the operating reports required by Condition 53.

(ii) In each operating report required by Condition 53, include a summary of the emission rates determined by the source tests required by Conditions 35.1b(ii), 35.1c(iv), and 35.1d(iii).

(iii) Report as excess emissions and permit deviation as described in Condition 52 if any of the emission rates determined by the source tests required by Conditions 35.1b(ii), 35.1c(iv), and 35.1d(iii), exceed the limits in Table 15, or if any of Conditions 35.1a through 35.1f are not met.

Table 16: EU ID 106 – BACT Limits

Pollutant	BACT Control	BACT Emission Limits
PM, PM-10, and PM-2.5	Dust Collector	0.004 gr/scf

35.2 To show compliance with the emission limits for EU ID 106 in Table 16, the Permittee shall:

a. Install, operate, and maintain according to manufacturer's recommendations a dust collector for EU ID 106, at all times EU ID 106 is operating.

b. Verify the initial compliance with the PM, PM-10, and PM-2.5 emission limits for EU ID 106 established in Table 16 by either:

(i) Obtaining a certified manufacturer's guarantee that the installed dust collector (EU ID 107) will comply with the emission limits in Table 16. Submit the emissions data to the Department in the first operating report required by Condition 53 after EU ID 106 becomes fully operational; or

(ii) Conducting a source test for PM, PM-10, and PM-2.5 within 180 days of EU ID 106 becoming fully operational, in accordance with Section 10.

c. Maintain the pressure differential across the bags in the dust collector as determined during source testing or according to manufacturer's specifications. Observe and record the pressure differential readings once per week.

(i) If the pressure differential across the dust collector increases to within 95% of the upper limit established by the manufacturer, within 24 hours take steps to clean the bags of excess trapped dust.

(ii) If the pressure differential across the dust collector drops to less than 5% of the allowed range above the lower limit established by the manufacturer, within 24 hours perform an inspection of the bags and dust collector assembly to ascertain the integrity of the system.

(iii) If any bags are found with holes or tears or deterioration which renders them ineffectual, the bags shall be isolated or replaced within 24 hours.

(iv) If after cleaning the bags of excess dust or replacing torn or deteriorated bags the pressure differential recommended by the manufacturer cannot be maintained, conduct a source test on EU ID 106 for PM, PM-10, and PM-2.5 according to the requirements set out in Section 10 within 120 days of cleaning or replacing torn or deteriorated bags to confirm whether or not the PM, PM-10, and PM-2.5 emission limits established in Table 16 are being maintained.

d. Once per week, at the time the dust collector differential pressure readings are taken, perform a visual inspection of the exhaust outlet of the dust collectors.

(i) If no dust is seen during the weekly visual inspections, continue with the weekly inspections.

(ii) If dust is seen during the weekly visual inspection, within 24 hours perform an inspection of the bags and dust collector assembly to ascertain the integrity of the system. Make repairs as necessary.

(iii) If after making repairs, dust is still visible in the exhaust from the unit, conduct a source test on EU ID 106 for PM, PM-10, and PM-2.5 according to the requirements set out in Section 10 within 120 days of making repairs to confirm whether the PM, PM-10, and PM-2.5 emission limits in Table 16 are being maintained.

e. **Recordkeeping for Dust Collectors.** For EU ID 107 the Permittee shall:

(i) Maintain maintenance logs detailing the pressure drop across the dust collector, dust collector inspections, and bag replacements. Keep records for five years.

(ii) Keep records of the results of any source testing conducted under Conditions 35.2b(ii),35.2c(iv), and 35.2d(iii) for five years.

f. **Reporting for Dust Collectors.** For EU ID 107, the Permittee shall report as follows:

(i) Report all differential pressure and operating hour meter readings when the dust collector is operating outside the ranges identified in Conditions 35.2c(i) and 35.2c(ii), in the operating reports required by Condition 53.

(ii) In each operating report required by Condition 53, include a summary of the emission rates determined by the source tests required by Conditions 35.2b(ii),35.2c(iv), and 35.2d(iii).

(iii) Report as excess emissions and permit deviation as described in Condition 52 if any of the emission rates determined by the source tests required by Conditions 35.2b(ii), 35.2c(iv), and 35.2d(iii), exceed the limits in Table 16, or if any of Conditions 35.2a through 35.2f are not met.

Table 17: EU ID 109 – BACT Limits

Pollutant	BACT Control	BACT Emission Limits
PM, PM-10, and PM-2.5	Dust Collector	0.009 gr/scf

35.3 To show compliance with the emission limits for EU ID 109 in Table 17, the Permittee shall:

a. Install, operate, and maintain according to manufacturer's recommendations a dust collector for EU ID 109, at all times its corresponding EU is operating.

b. Verify the initial compliance with the PM, PM-10, and PM-2.5 emission limits for EU ID 109 established in Table 17 by either:

(i) Obtaining a certified manufacturer's guarantee that the installed dust collector (EU ID 110) will comply with the emission limits in Table 17. Submit the emissions data to the Department in the first operating report required by Condition 53 after its corresponding EU becomes fully operational; or

(ii) Conduct a source test for PM, PM-10, and PM-2.5 within 180 days of each of EU ID 109 becoming fully operational, in accordance with Section 10.

c. Maintain the pressure differential across the bags in the dust collector as determined during source testing or according to manufacturer's specifications. Observe and record the pressure differential readings once per week.

(i) If the pressure differential across the dust collector increases to within 95% of the upper limit established by the manufacturer, within 24 hours take steps to clean the bags of excess trapped dust.

(ii) If the pressure differential across the dust collector drops to less than 5% of the allowed range above the lower limit established by the manufacturer, within 24 hours perform an inspection of the bags and dust collector assembly to ascertain the integrity of the system.

(iii) If any bags are found with holes or tears or deterioration which renders them ineffectual, the bags shall be isolated or replaced within 24 hours.

(iv) If after cleaning the bags of excess dust or replacing torn or deteriorated bags the pressure differential recommended by the manufacturer cannot be maintained, conduct a source test on the affected EU listed in Table 17 for PM, PM-10, and PM-2.5 according to the requirements set out in Section 10 within 120 days of cleaning or replacing torn or deteriorated bags to confirm whether or not the PM, PM-10, and PM-2.5 emission limits established in Table 17 are being maintained.

d. Once per week, at the time the dust collector differential pressure readings are taken, perform a visual inspection of the exhaust outlet of the dust collectors.

(i) If no dust is seen during the weekly visual inspections, continue with the weekly inspections.

(ii) If dust is seen during the weekly visual inspection, within 24 hours perform an inspection of the bags and dust collector assembly to ascertain the integrity of the system. Make repairs as necessary.

(iii) If after making repairs, dust is still visible in the exhaust from the unit, conduct a source test on the affected EUs listed in Table 17 for PM, PM-10, and PM-2.5 according to the requirements set out in Section 10 within 120 days of making repairs to confirm whether the PM, PM-10, and PM-2.5 emission limits in Table 17 are being maintained.

e. **Recordkeeping for Dust Collectors.** For EU ID 110, the Permittee shall:

(i) Maintain maintenance logs detailing the pressure drop across the dust collector, dust collector inspections, and bag replacements. Keep records for five years.

(ii) Keep records of the results of any PM source testing conducted under Conditions 35.3b(ii), 35.3c(iv), and 35.3d(iii) for five years.

f. **Reporting for Dust Collectors.** For EU ID 110, the Permittee shall report as follows:

(i) Report all differential pressure and operating hour meter readings when the dust collector is operating outside the ranges identified in Conditions 35.3c(i) and 35.3c(ii), in the operating reports required by Condition 53.

(ii) In each operating report required by Condition 53, include a summary of the emission rates determined by the source tests required by Conditions 35.3b(ii), 35.3c(iv), and 35.3d(iii).

(iii) Report as excess emissions and permit deviation as described in Condition 52 if any of the emission rates determined by the source tests required by Conditions 35.3b(ii), 35.3c(iv), and 35.3d(iii), exceed the limits in Table 17, or if any of Conditions 35.3a through 35.3f are not met.

36. Reagent Handling for Water Treatment BACT Emission Limits: Limit the emissions from EU ID 111 as specified in Table 18:

Table 18: EU ID 111 – BACT Limits

Pollutant	BACT Control	BACT Emission Limits
PM, PM-10, and PM-2.5	Dust Collector	0.02 gr/scf

36.1 To show compliance with the emission limits for EU ID 111 in Table 18, the Permittee shall:

a. Install, operate, and maintain a dust collector system on EU ID 111, according to the manufacture's specifications, at all times the unit is operating.

b. Verify the initial compliance with the PM, PM-10, and PM-2.5 emission limits for EU ID 111 established in Table 18 by either:

(i) Obtaining a certified manufacturer's guarantee that the installed dust collector (EU ID 112) will comply with the PM, PM-10, and PM-2.5 emission limits established in Table 18. Submit the emissions data to the Department in the first operating report required by Condition 53 after EU ID 111 becomes fully operational; or

(ii) Conducting a source test for PM, PM-10, and PM-2.5 within 180 days of EU ID 111 becoming fully operational, in accordance with Section 10.

c. Maintain the pressure differential across the bags in the dust collector as determined during source testing or according to manufacturer's specifications. Observe and record the pressure differential readings once per week.

(i) If the pressure differential across the dust collector increases to within 95% of the upper limit established by the manufacturer, within 24 hours take steps to clean the bags of excess trapped dust.

(ii) If the pressure differential across the dust collector drops to less than 5% of the allowed range above the lower limit established by the manufacturer, within 24 hours perform an inspection of the bags and dust collector assembly to ascertain the integrity of the system.

(iii) If any bags are found with holes or tears or deterioration which renders them ineffectual, the bags shall be isolated or replaced within 24 hours.

(iv) If after cleaning the bags of excess dust or replacing torn or deteriorated bags the pressure differential recommended by the manufacturer cannot be maintained, conduct a source test on EU 111 for PM, PM-10, and PM-2.5 according to the requirements set out in Section 10 within 120 days of cleaning or replacing torn or deteriorated bags to confirm whether or not the PM, PM-10, and PM-2.5 emission limits in Table 18 are being maintained.

d. Once per week, at the time the dust collector differential pressure readings are taken, perform a visual inspection of the exhaust outlet of the dust collectors.

(i) If no dust is seen during the weekly visual inspections, continue with the weekly inspections.

(ii) If dust is seen during the weekly visual inspection, within 24 hours perform an inspection of the bags and dust collector assembly to ascertain the integrity of the system. Make repairs as necessary.

(iii) If after making repairs, dust is still visible in the exhaust from the unit, conduct a source test on EU ID 111 for PM, PM-10, and PM-2.5 according to the requirements set out in Section 10 within 120 days of making repairs to confirm whether the emission limits established in Table 18 are being maintained.

e. **Recordkeeping for Dust Collectors.** For EU ID 112, the Permittee shall:

(i) Maintain maintenance logs detailing the pressure drop across the dust collector, dust collector inspections, and bag replacements. Keep records for five years.

(ii) Keep records of the results of any PM source testing conducted under Conditions 36.1b(ii), 36.1c(iv), and 36.1d(iii) for five years.

f. **Reporting for Dust Collectors.** For EU ID 112, the Permittee shall report as follows:

(i) Report all differential pressure and operating hour meter readings when the dust collector is operating outside the ranges identified in Conditions 36.1c(i) and 36.1c(ii), in the operating reports required by Condition 53.

(ii) In each operating report required by Condition 53, include a summary of the emission rates determined by the source tests required by Conditions 36.1b(ii), 36.1c(iv), and 36.1d(iii).

(iii) Report as excess emissions and permit deviation as described in Condition 52 if any of the emission rates determined by the source tests required by Conditions 36.1b(ii), 36.1c(iv), and 36.1d(iii), exceed the limits in Table 18, or if any of Conditions 36.1a through 36.1f are not met.

37. Mill Reagents Handling BACT Emission Limits: Limit the emissions from EU IDs 59, 61, 65, 67, 69, 71, 73, and 75 as specified in Table 19 and from EU ID 63 as specified in Table 20:

Table 19: EU IDs 59, 61, 65, 67, 69, 71, 73, and 75 - BACT Limits

Pollutant	BACT Control	BACT Emission Limits
PM, PM-10, and PM-2.5	Dust Collector	0.02 gr/scf

37.1 To show compliance with the emission limits for EU IDs 59, 61, 65, 67, 69, 71, 73, and 75 in Table 19, the Permittee shall:

a. Install, operate, and maintain according to the manufacture's specifications, dust collectors for EU IDs 59, 61, 65, 67, 69, 71, 73, and 75, at all times its corresponding EU is operating.

b. Verify the initial compliance with the PM, PM-10, and PM-2.5 emission limits established in Table 19 by either:

(i) Obtaining a certified manufacturer's guarantee that each installed dust collector (EU IDs 60, 62, 66, 68, 70, 72, 74, and 76) will comply with the emission limits in Table 19. Submit the emissions data to the Department in the first operating report required by Condition 53 after its corresponding EU becomes fully operational; or

(ii) Conducting a source test for PM, PM-10, and PM-2.5 within 180 days of each of EU IDs 59, 61, 65, 67, 69, 71, 73 and 75 becoming fully operational, in accordance with Section 10.

c. Maintain the pressure differential across the bags in the dust collector as determined during source testing or according to manufacturer's specifications. Observe and record the pressure differential readings once per week.

(i) If the pressure differential across the dust collector increases to within 95% of the upper limit established by the manufacturer, within 24 hours take steps to clean the bags of excess trapped dust.

(ii) If the pressure differential across the dust collector drops to less than 5% of the allowed range above the lower limit established by the manufacturer, within 24 hours perform an inspection of the bags and dust collector assembly to ascertain the integrity of the system.

(iii) If any bags are found with holes or tears or deterioration which renders them ineffectual, the bags shall be isolated or replaced within 24 hours.

(iv) If after cleaning the bags of excess dust or replacing torn or deteriorated bags the pressure differential recommended by the manufacturer cannot be maintained, conduct a source test on the affected EU listed in Table 19 for PM, PM-10, and PM-2.5 according to the requirements set out in Section 10 within 120 days of cleaning or replacing torn or deteriorated bags to confirm that the emission limits established in Table 19 are being maintained.

d. Once per week, at the time the dust collector differential pressure readings are taken, perform a visual inspection of the exhaust outlet of the dust collectors.

(i) If no dust is seen during the weekly visual inspections, continue with the weekly inspections.

(ii) If dust is seen during the weekly visual inspection, within 24 hours perform an inspection of the bags and dust collector assembly to ascertain the integrity of the system.

(iii) If after making repairs, dust is still visible in the exhaust from the unit, conduct a source test on the affected EUs listed in Table 19 for PM, PM-10, and PM-2.5 according to the requirements set out in Section 10 within 120 days of making repairs to confirm whether the PM, PM-10 and PM-2.5 emission limits in Table 19 are being maintained.

e. **Recordkeeping for Dust Collectors.** For EU IDs 60, 62, 66, 68, 70, 72, 74, and 76, the Permittee shall:

(i) Maintain maintenance logs detailing the pressure drop across the dust collector, dust collector inspections, and bag replacements. Keep records for five years.

(ii) Keep records of the results of any PM source testing conducted under Conditions 37.1b(ii), 37.1c(iv), and 37.1d(iii) for five years.

f. **Reporting for Dust Collectors.** For EU IDs 60, 62, 66, 68, 70, 72, 74, and 76, the Permittee shall report as follows:

(i) Report all differential pressure and operating hour meter readings when the dust collectors are operating outside the ranges identified in Conditions 37.1c(i) and 37.1c(ii), in the operating reports required by Condition 53.

(ii) In each operating report required by Condition 53, include a summary of the emission rates determined by the source tests required by Conditions 37.1b(ii), 37.1c(iv), and 37.1d(iii).

(iii) Report as excess emissions and permit deviation as described in Condition 52 if any of the emission rates determined by the source tests required by Conditions 37.1b(ii), 37.1c(iv), and 37.1d(iii), exceed the limits in Table 19, or if any of Conditions 37.1b through 37.1f are not met.

Table 20: EU ID 63 – BACT Limits

Pollutant	BACT Control	BACT Emission Limits
PM, PM-10, and PM-2.5	Wet Scrubber	0.02 gr/scf

37.2 To show compliance with the emission limits for EU ID 63 in Table 20, the Permittee shall:

a. Install, operate, and maintain a wet scrubber on EU ID 63, according to the manufacturer's specifications, at all times unit is operating.

b. Verify the initial compliance with the PM, PM-10, and PM-2.5 emission limits established in Table 20 by either:

(i) Obtaining a certified manufacturer's guarantee that the installed wet scrubber (EU ID 64) will comply with the emission limits in Table 20. Submit the emissions data to the Department in the first operating report required by Condition 53 after EU ID 63 becomes fully operational; or

(ii) Conducting a source test for PM, PM-10, and PM-2.5 within 180 days of EU ID 63 becoming fully operational, in accordance with Section 10.

c. Report in the operating report required in Condition 53 the emission rates determined in the source tests required by Condition 37.2b(ii).

d. Report as excess emissions and permit deviation as described in Condition 52 if any of the emission rates determined in the source tests required by Condition 37.2b(ii) exceed the limit in Table 20, or if any of Conditions 37.2a through 37.2c are not met.

38. Fuel Tank BACT Emission Limits: Limit the emissions from EU IDs 126 through 157 as specified in Table 21:

Table 21: EU IDs 126 through 157 – BACT Limit

Pollutant	BACT Control	BACT Emission Limits
VOC	Submerged Fill	1.7 tpy (combined)

38.1 To show compliance with the VOC emission limits set out in Table 21, the Permittee shall install, operate, and maintain tanks with submerged fill design for EU IDs 126 through 157.

38.2 Compliance with the VOC limit in Table 21 shall be demonstrated by submitting a certification of compliance with Condition 38.1, with each operating report required under Condition 53.

39. Incinerator BACT Emission Limits: Limit the emissions from EU ID 27 as specified in Table 22 and from EU ID 28 as specified in Table 23:

Table 22: EU ID 27 – BACT Limits

Pollutant	BACT Control	BACT Emission Limit
CO	Good Combustion Practices	13 ppmvd at 7% O_2
NOx	Good Combustion Practices	170 ppmvd at 7% O_2
PM, PM-10, and PM-2.5	Good Combustion Practices	270 mg/dscm at 7% O_2
GHG	Good Combustion Practices	3,934 tpy (combined with EU ID 28)

39.1 To show compliance with the emission limits for EU ID 27 in Table 22, the Permittee shall:

a. Conduct a source test within 180 days from EU ID 27 becoming fully operational, in accordance with Section 10, to demonstrate initial compliance with the CO, NOx, PM, PM-10, and PM-2.5 emission limits in Table 22.

b. Perform regular maintenance following the manufacturer's or the operator's maintenance procedures;

c. Keep records of any maintenance that would have a significant effect on emissions. The records may be kept in electronic format;

d. Keep a copy of either the manufacturer's or the operator's maintenance procedures.

Table 23: EU ID 28 – BACT Limits

Pollutant	BACT Control	BACT Emission Limit
CO	Good Combustion Practices	52 ppmvd at 7% O_2
NOx	Good Combustion Practices	210 ppmvd at 7% O_2
PM, PM-10, and PM-2.5	Good Combustion Practices	60 mg/dscm at 7% O_2

Pollutant	BACT Control	BACT Emission Limit
GHG	Good Combustion Practices	3,934 tpy (combined with EU ID 27)

39.2 To show compliance with the emission limits for EU ID 28 in Table 23, the Permittee shall:

a. Conduct a source test within 180 days from EU ID 28 becoming fully operational, in accordance with Section 10, to demonstrate initial compliance with the CO, NOx, PM, PM-10, and PM-2.5 emission limits in Table 23.

b. Perform regular maintenance following the manufacturer's or the operator's maintenance procedures;

c. Keep records of any maintenance that would have a significant effect on emissions. The records may be kept in electronic format;

d. Keep a copy of either the manufacturer's or the operator's maintenance procedures.

40. Acidulation and Neutralization Tanks BACT Emission Limit: Limit the emissions from EU IDs 124 and 125 as specified in Table 24:

Table 24: EU IDs 124 and 125 – BACT Limit

Pollutant	BACT Control	BACT Emission Limit
GHG	Good Operating Practices	273,175 tpy CO_2 (combined)

40.1 To show compliance with the emissions limit for EU IDs 124 and 125 in Table 24, the Permittee shall:

a. Perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;

b. Keep records of any maintenance that would have a significant effect on emissions. The records may be kept in electronic format;

c. Keep a copy of either the manufacturer's or the operator's maintenance procedures.

41. Fugitive Dust from Unpaved Roads BACT Emission Limits: Limit the emissions from EU IDs 158, 159, and 160 as specified in Table 25:

Table 25: EU IDs 158 through 160 – BACT Limit

Pollutant	BACT Control	BACT Emission Limits
PM, PM-10, and PM-2.5	Water and Chemical Suppressant Spray	3,500 tpy

41.1 To show compliance with the fugitive particulate matter emission limits for EU IDs 158, 159, and 160 in Table 25, the Permittee shall:

a. Comply with the BPMs for Haul Roads and Access Roads specified in Section 2.3 of the FDCP contained in Section 14.

b. Control fugitive particulate matter emissions from EU IDs 158, 159, and 160 as follows:

(i) At least once each calendar year, as soon as road and weather conditions allow, but in no case later than June 15, apply water and chemical dust suppressants to the road surface in sufficient quantities to control fugitive dust. Measure the effectiveness of dust control application as outlined in Condition 41.1b(ii).

(ii) At least once per calendar quarter[4] that the mine is in operation, when the road surface does not exhibit visible surface moisture, determine and record the duration of particulate matter emissions resulting from road traffic, as follows:

(A) in accordance with the procedures specified in 40 C.F.R. 60, Appendix A, Reference Method 22;

(1) record the vehicle type for each reading (haul truck or not);

(2) initiate observations as the time when the observed vehicle passes the observer; and

(3) continue observations for a minimum of six minutes.

(B) maintain records in accordance with Condition 41.2.

(C) if the duration of particulate matter emissions is greater than two minutes, then apply additional water and chemical dust suppressants to the road surface to reduce particulate matter emissions as soon as practicable. After the application of additional water and chemical dust suppressants, determine and record the duration of vehicle particulate matter emissions as described in Condition 41.1b(ii).

41.2 **Recordkeeping and Reporting.** The Permittee shall record and report the following fugitive dust related information:

[4] Calendar Quarter is defined as follows; 1st Calendar Quarter is January 1st through March 31st; 2nd Calendar Quarter is April 1st through June 30th; 3rd Calendar Quarter is July 1st through September 30th; 4th Calendar Quarter is October 1st through December 31st.

a. Keep records describing all inspections and precautions taken to prevent particulate matter from becoming airborne in accordance with Condition 41.1b using the Fugitive Dust Inspection Log in Section 15. Keep records at the mine site for five years.

b. Report per Condition 52 whenever a visual survey performed in accordance with Condition 41.1b reveals that particulate matter emissions are leaving the property.

42. Material Loading and Unloading BACT Emission Limits: Limit the emissions from the 115 through 120 as specified in Table 26:

Table 26: EU IDs 115 through 120 – BACT Limits

Pollutant	BACT Control	BACT Emission Limits
PM, PM-10, and PM-2.5	Best Practical Methods/Fugitive Dust Control Plan	530 tpy

42.1 To show compliance with the emissions limit for EU IDs 115 through 120 in Table 26, the Permittee shall:

a. Comply with the BPMs for Material Loading and Unloading specified in Section 2.2 of the FDCP contained in Section 14.

b. Perform an inspection at least once per calendar quarter that the mine is in operation of EU IDs 115 through 120. If excessive dust is present, apply water spray on the affected area; or otherwise take action to reduce fugitive dust.

42.2 **Recordkeeping and Reporting.** The Permittee shall record and report as required under Condition 41.2.

43. Drilling and Blasting BACT Emission Limits: Limit the emissions from EU IDs 113 and 114 as specified in Table 27:

Table 27: EU IDs 113 and 114 – BACT Limits

Pollutant	BACT Control	BACT Emission Limit
CO	Good Combustion Practices	1,900 tpy
NOx	Good Combustion Practices	50 tpy
PM, PM-10, and PM-2.5	Best Practical Methods	273 tpy (combined)
GHG	Good Combustion Practices	11,800 tpy

43.1 To show compliance with the CO, NOx, fugitive particulate matter emission limits for EU IDs 113 and 114 in Table 27, the Permittee shall:

a. comply with the BPMs for Drilling and Blasting specified in Section 2.1 of the FDCP contained in Section 14;

b. comply with the limit in Conditions 17 and 22.2.

43.2 **Recordkeeping and Reporting.** The Permittee shall record and report as required under Conditions 17, 22.2, and 41.2.

44. Fugitive Dust from Wind Erosion BACT Emission Limits: Limit the emissions from EU ID 161 as specified Table 28:

Table 28: EU ID 161 – BACT Limits

Pollutant	BACT Control	BACT Emission Limits
PM, PM-10, and PM-2.5	Best Practical Methods / Fugitive Dust Control Plan	32 tpy

44.1 To show compliance with the emissions limit for wind erosion in Table 28, the Permittee shall:

a. Comply with the BPMs for Reducing Wind Erosion specified in Section 2.6 of the FDCP contained in Section 14.

b. Perform an inspection at least once per calendar quarter that the mine is in operation of the tailings storage facility, waste rock dump, run-of-mine ore and overburden stockpiles, and the haul and access roads. If excessive dust is present, apply water spray on the affected area; or otherwise take action to reduce fugitive dust.

44.2 **Recordkeeping and Reporting.** The Permittee shall record and report as required under Condition 41.2.

Section 6. Owner Requested Limits to Avoid Prevention of Significant Deterioration (PSD) Review Under 18 AAC 50.306

SO_2 PSD Avoidance Limit

45. The Permittee shall limit the total combined SO_2 emissions from the EUs listed in Table 1 (excluding non-road engines (NREs)) to no more than 25.5 tons per year.

45.1 Limit the sulfur content of the liquid fuel consumed in the EUs listed in Table 1 (excluding NREs) to no greater than 0.0015 weight percent (wt%) (Also known as Ultra Low Sulfur Diesel or ULSD).

a. Monitor, record and report as follows:

(i) For each shipment of fuel:

(A) if the fuel grade requires a sulfur content no greater than 0.0015 wt%, keep receipts (or vendor contracts) that specify fuel grade or amount; or

(B) if the fuel grade does not require a sulfur content no greater than 0.0015 wt%, keep receipts that specify fuel grade and amount; and

(1) test the fuel for sulfur content using an appropriate method listed in 18 AAC 50.035 or another method approved in writing by the Department; or

(2) obtain test results showing the sulfur content of the fuel from the supplier or refinery, the test results must include a statement signed by the supplier or refinery of what fuel they represent.

(ii) Reporting.

(A) Include in the operating report required by Condition 53 the records required by Condition 45.1a(i).

(B) If the fuel sulfur content exceeds the limit in Condition 45.1, report as excess emissions and permit deviations under Condition 52.

Section 7. Owner Requested Limit to Avoid HAPs Major Source Classification Under 18 AAC 50.316

HAPs Major Avoidance Limits

46. The Permittee shall limit the total formaldehyde from EU IDs 1 through 12 to no more than 9.7 tons per 12-month rolling period. To show compliance with the formaldehyde limit the Permittee shall:

46.1 Operate and maintain, according to the manufacturer's recommendation, an oxidation catalyst control for EU IDs 1 through 12 for removing formaldehyde to less than or equal to 0.184 lb/hr per engine .

a. The Permittee shall submit to the Department vendor verification of the 0.184 lb/hr per engine formaldehyde emission rate at least 60 days before initial startup of any of EU IDs 1 through 12.

b. The Permittee shall conduct an initial formaldehyde source test on any three of EU IDs 1 through 12, within 365 days of any of EU IDs 1 through 12 becoming fully operational on natural gas as outlined in Conditions 46.1b(i) through 46.1b(vi).

(i) Conduct each source test while firing natural gas.

(ii) Conduct each source test downstream of each oxidation catalyst.

(iii) Use the applicable test method set out in 40 C.F.R. 60, Appendix A. The Permittee shall source test downstream of the oxidation catalyst.

(iv) Each source test shall consists of at least three 1-hour or longer valid test runs. Emission results shall be reported as the arithmetic average of all valid test runs and shall be in terms of pounds per hour.

(v) During each test run, the inlet temperature and pressure drop across each of the oxidation catalyst units shall be measured.

(vi) The Permittee shall report the results of the source test(s) to the Department within 60 calendar days after completing the test(s).

c. Conduct a source test for formaldehyde on a replacement engine that is not an identical make/model for the engine being replaced for any of EU IDs 1 through 12 according to Conditions 46.1b(i) through 46.1b(vi) and within 120 days of initial startup of a replacement engine.

d. Conduct a source test for formaldehyde on a replacement oxidation catalyst unit that is not an identical make/model for the oxidation catalyst being replaced for any of EU IDs 1 through 12 according to Conditions 46.1b(i) through 46.1b(vi) an within 120 days of the oxidation catalyst unit replacement.

e. In the source test report required by Condition 46.1b(vi) compare the annual formaldehyde emissions assuming continuous operation of EU IDs 1 through 12 to the maximum 9.7 tons per year specified in Condition 46. If the annual formaldehyde emissions is greater than 9.7 tons per year report as excess emissions and permit deviations under Condition 52.

46.2 Monitor the oxidation catalyst operating parameters as follows:

a. Install temperature sensing devices to monitor the inlet temperature of each installed oxidation catalyst unit.

(i) Monitor engine exhaust temperature at the inlet to each oxidation catalyst unit at least once per hour during all periods of operation. Record for each calendar day the minimum and maximum inlet gas temperature of each oxidation catalyst unit. Data capture and recording may be electronic.

(ii) Report the minimum and maximum daily inlet gas temperature of each oxidation catalyst unit for each calendar month in the operating report required by Condition 53.

(iii) Report in accordance with Condition 52, whenever the inlet gas temperature of an oxidation catalyst unit is outside the acceptable range identified in the manufacturer's specifications. The report should include any corrective actions taken.

b. Install gauges before and after the oxidation catalyst controls to monitor the pressure drop across each installed oxidation catalyst unit.

(i) Maintain the oxidation catalyst controls such that the pressure drop across each oxidation unit is within the acceptable range identified in the manufacturer's specifications.

(ii) If the pressure drop exceeds the acceptable differential identified in the manufacturer's specifications, the oxidation catalyst unit shall be inspected, cleaned, or replaced, as necessary.

(iii) Report in accordance with Condition 52, whenever the pressure drop across an oxidation catalyst unit is outside the acceptable range identified in the manufacturer's specifications. The report should include any corrective actions taken.

Section 8. General Record Keeping, Reporting, and Certification Requirements

47. Good Air Pollution Control Practice. Maintain and operate EUs 101 through 103, 105, 107, 110, and 112 according to the manufacturer recommendations or the operator's operation and maintenance procedures. Keep a copy of either the manufacturer's or the operator's procedures on-site.

48. 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 emission 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.

48.1 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 48.1a, that the person accepts or agrees to be bound by an electronic record executed or adopted with that signature.

49. Submittals. Unless otherwise directed by the Department or this permit, the Permittee shall send an original of reports, compliance certifications, and other submittals required by this permit to **ADEC, Air Permits Program, 610 University Ave., Fairbanks, AK 99709-3643, ATTN: Compliance Technician**. The Permittee may, upon consultation with the Compliance Technician regarding software compatibility, provide electronic copies of data reports, emission source test reports, or other records under a cover letter certified in accordance with Condition 48.

50. Information Requests. The Permittee shall furnish to the Department, within a reasonable time, any information the Department requests in writing to determine whether cause exists to modify, revoke and reissue, or terminate the permit or to determine compliance with the permit. Upon request, the Permittee shall furnish to the Department copies of records required to be kept by the permit. The Department may require the Permittee to furnish copies of those records directly to the federal administrator.

51. Recordkeeping Requirements. The Permittee shall keep all records required by this permit for at least five years after the date of collection, including:

51.1 copies of all reports and certifications submitted pursuant to this section of the permit; and

51.2 records of all monitoring required by this permit, and information about the monitoring including:

a. calibration and maintenance records, original strip chart or computer-based recordings for continuous monitoring instrumentation;

b. sampling dates, location and times of sampling or measurements;

c. the operating conditions that existed at the time of sampling or measurement;

d. the date analyses were performed;

e. the company or entity that performed the sampling and analyses;

f. the analytical techniques or methods used in the analyses; and

g. the results of the analyses.

52. Excess Emissions and Permit Deviation Reports.

52.1 Except as provided in Condition 55 the Permittee shall report all emissions or operations that exceed or deviate from the requirements of this permit as follows:

a. In accordance with 18 AAC 50.240(c), as soon as possible after the event commenced or is discovered, report

(i) emissions that present a potential threat to human health or safety; and

(ii) excess emissions that the Permittee believes to be unavoidable;

b. in accordance with 18 AAC 50.235(a), within two working days after the event commenced or was discovered, report an unavoidable emergency, malfunction, or nonroutine repair that caused emissions in excess of a technology based emissions standard;

c. report all other excess emissions and permit deviations

(i) within 30 days of the end of the month in which the emissions or deviation occurs or is discovered, except as provided in Conditions 52.1c(ii) and 52.1c(iii);

(ii) if a continuous or recurring excess emissions is not corrected within 48 hours of discovery, within 72 hours of discovery unless the Department provides written permission to report under Condition 52.1c(i); and

(iii) for failure to monitor, as required in other applicable conditions.

52.2 When reporting either excess emissions or permit deviations, the Permittee must report using either the Department's on-line form, which can be found at http://www.dec.state.ak.us/air/ap/site.htm or http://dec.alaska.gov/applications/air/airtoolsweb or if the Permittee prefers, the form contained in Section 12 of this permit. The Permittee must provide all information called for by the form that is used.

52.3 If requested by the Department, the Permittee shall provide a more detailed written report as requested to follow up an excess emissions report.

53. Operating Reports. The Permittee shall submit to the Department an operating report by August 1 for the period January 1 through June 30 of the current year and by February 1 for the period July 1 through December 31 of the previous year.

53.1 The operating report must include all information required to be in operating reports by other conditions of this permit, for the period covered by the report.

53.2 When excess emissions or permit deviations that occurred during the reporting period are not included with the operating report under Condition 53.1, the Permittee shall identify:

a. the date of the deviation;

b. the equipment involved;

c. the permit condition affected;

d. a description of the excess emissions or permit deviation; and

e. any corrective action or preventative measures taken and the date(s) of such actions.

53.3 When excess emissions or permit deviations have already been reported under Condition 52 the Permittee shall cite the date or dates of those reports.

54. Inspections. 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

54.1 enter upon the premises where a emission unit subject to the permit is located or where records required by the permit are kept;

54.2 have access to and copy any records required by the permit;

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

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

55. Air Pollution Prohibited. No person may permit any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property.

55.1 If emissions present a potential threat to health or safety, the Permittee shall report any such emissions according to Condition 52.

55.2 As soon as practicable after becoming aware of a complaint that is attributable to emissions from the stationary source, the Permittee shall investigate the complaint to identify emissions that the Permittee believes have caused or are causing a violation of Condition 55.

55.3 The Permittee shall initiate and complete corrective action necessary to eliminate any violation identified by a complaint or investigation as soon as practicable if

a. after investigation because of complaint or other reason, the Permittee believes that emissions from the stationary source have caused or are causing a violation of Condition 55; or

b. the Department notifies the Permittee it has found a violation of Condition 55.

55.4 The Permittee shall keep records of

a. the date and time, and nature of all emissions complaints received;

b. the name of the person or persons that complained, if known;

c. a summary of any investigation, including reasons the Permittee does or does not believe the emissions have caused a violation of Condition 55; and

d. any corrective actions taken or planned for complaints attributable to emissions from the stationary source.

55.5 With each operating report under Condition 53 and for the period covered by the report, the Permittee shall include a brief summary report which must include

a. the number of complaints received;

b. the number of times the Permittee or the Department found corrective action necessary;

c. the number of times action was taken on a complaint within 24 hours; and

d. the status of corrective actions the Permittee or Department found necessary that were not taken within 24 hours.

55.6 The Permittee shall notify the Department of a complaint that is attributable to emissions from the stationary source within 24 hours after receiving the complaint, unless the Permittee has initiated corrective action within 24 hours of receiving the complaint.

Section 9. Standard Permit Conditions

56. 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

56.1 an enforcement action;

56.2 permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280; or

56.3 denial of an operating permit renewal application.

57. 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.

58. 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.

59. 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.

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

Section 10. General Source Test and Monitoring Requirements

61. Operation Conditions: Unless otherwise specified by an applicable requirement or test method, the Permittee shall conduct source testing:

61.1 At a point or points that characterize the actual discharge into the ambient air; and

61.2 At the maximum rated burning or operating capacity of the source or another rate determined by the Department to characterize the actual discharge into the ambient air.

62. Reference Test Methods: The Permittee shall use the following as reference test methods when conducting source testing for compliance with this permit:

62.1 Conduct source testing for compliance with requirements adopted by reference in 18 AAC 50.040(a) in accordance with the methods and procedures specified in 40 CFR 60.

62.2 Conduct source testing for compliance with requirements adopted by reference in 18 AAC 50.040(b) in accordance with the methods and procedures specified in 40 CFR 61.

62.3 Conduct source testing for compliance with requirements adopted by reference in 18 AAC 50.040(c) in accordance with the methods and procedures specified in 40 CFR 63.

62.4 Conduct source testing for the reduction in visibility through the exhaust effluent in accordance with Method 9. Visibility source testing is exempt from the requirements listed in Conditions 64 through 67.

62.5 Conduct source testing for emissions of PM, PM-10, sulfur compounds, CO, lead, VOC, fluorides, sulfuric acid mist, municipal waste combustor organics, metals, and acid gases in accordance with the methods and procedures specified in 40 CFR 60, Appendix A.

62.6 Conduct source testing for emissions of PM-2.5 in accordance with EPA Method 202 or another method approved by the Department.

62.7 Source testing for emissions of any air pollutant may be determined using an alternative method approved by the Department in accordance with Method 301 in Appendix A to 40 CFR 60.

63. Requested Source Tests. In addition to any source testing explicitly required by this permit, the Permittee shall conduct source testing as requested by the Department to determine compliance with applicable permit requirements.

64. Test Deadline Extension. The Permittee may request an extension to a source test deadline established by the Department. The Permittee may delay a source test beyond the original deadline only if the extension is approved in writing by the Department's appropriate division director or designee.

65. **Test Plans.** Except as provided in Condition 68, before conducting any source tests, the Permittee shall submit a plan to the Department. The plan must include the methods and procedures to be used for sampling, testing, and quality assurance, and must specify how the emission unit will operate during the test and how the Permittee will document that operation. The Permittee shall submit a complete plan within 60 days after receiving a request under Condition 61 and at least 30 days before the scheduled date of any test unless the Department agrees in writing to some other time period. Retesting may be done without resubmitting the plan.

66. **Test Notification.** Except as provided in Condition 68, at least 10 days before conducting a source test, the Permittee shall give the Department written notice of the date and the time the source test will begin.

67. **Test Reports.** Except as provided in Condition 68, within 60 days after completing a source test, the Permittee shall submit a copy of the results in the format set out in the *Source Test Report Outline*, adopted by reference in 18 AAC 50.030. The Permittee shall certify the results in the manner set out in Condition 48. If requested in writing by the Department, the Permittee must provide preliminary results in a shorter period of time specified by the Department.

68. **Test Exemption.** The Permittee is not required to comply with Conditions 65, 66, and 67 (Test Plans, Test Notification and Test Reports) when exhaust is observed for visible emissions using Method 9.

Section 11. Permit Documentation

Date	Description
October 16, 2015	Construction Permit application received.
January 19, 2016	Response to ADEC's December 10, December 29, 2015, and January 6, 2016, Requests for Information Regarding the Donlin Project Construction Permit Application.
March 3, 2017	Revised modeling analysis provided as an addendum to the permit application.
March 6, 2017	Core Operating Area Public Access Control Plan – March 2017 (Revision 4).

Section 12. ADEC Notification Form[5]

Stationary Source (Facility) Name **Air Quality Permit Number**

Company Name

When did you discover the Excess Emissions/Permit Deviation?

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

When did the event/deviation occur?

Begin Date: _____ / _____ / _____ Time: _____ : _____ (please use 24hr clock)

End Date: _____ / _____ / _____ Time: _____ : _____ (please use 24hr 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 Condition - Complete Section 2 and Certify

☐ Deviations from COBC, CO, or Settlement Agreement - Complete Section 2 and Certify

Section 1. Excess Emissions

(a) Was the exceedance: ☐ Intermittent ☐ Continuous

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

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

☐ Control Equipment Failure ☐ Scheduled Maintenance/Equipment Adjustment

☐ 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) Emissions Units Involved:

Identify the emission unit 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.

Unit ID	Emission Unit Name	Permit Condition Exceeded/Limit/Potential Exceedance

[5] Revised as of August 20, 2008.

(e) Type of Incident (Please Check only one).

☐ Opacity _____ % ☐ Venting _____ (gas/scf) ☐ Control Equipment Down

☐ Fugitive Emissions ☐ Emission Limit Exceeded ☐ Other:

☐ Marine Vessel Opacity ☐ Flaring

_____

(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 one only box, corresponding with the section in the permit).

☐ Source Specific

☐ Failure to monitor/report

☐ General Source Test/Monitoring Requirements

☐ Recordkeeping/Reporting/Compliance Certification

☐ Standard Conditions Not Included in Permit

☐ Generally Applicable Requirements

☐ Reporting/Monitoring for Diesel Engines

☐ Record Keeping Failure

☐ Insignificant Source

☐ Facility Wide

☐ Other Section _____ (title of section and section number of your permit).

(b) Emission Unit Involved.

Unit ID	Emission Unit Name	Permit Condition / Potential Deviation

Identify the emission unit involved in the event, using the same identification number and name as in the permit. List the corresponding permit conditions and the 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. Fax to: 907-451-2187;

Or

2. Email to: DEC.AQ.Airreports@alaska.gov - *if faxed or emailed, the report must be certified within the Operating Report required for the same reporting period per Condition* 48.

Or

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

Or

4. Phone Notification: 907-451-5173

Phone notifications require a written follow-up report.

Or

5. Submission of information contained in this report can be made electronically at the following website:

http://dec.alaska.gov/Applications/Air/airtoolsweb/

If submitted online, report must be submitted by an authorized E-Signer for the Stationary Source.

Section 13. Public Access Control Plan

Core Operating Area
Public Access Control Plan
Donlin Gold Project

March 2017

(Revision 4)

4720 Business Park Blvd. Suite G-25
Anchorage, Alaska 99503

TABLE OF CONTENTS

APPENDICES

TABLES

Acronyms

AAAQS	Alaska Ambient Air Quality Standards
ADF&G	Alaska Department of Fish and Game
ANCSA	Alaska Native Claims Settlement Act
BLM	Bureau of Land Management
Calista	Calista Corporation
COA	Core Operating Area
Donlin Gold	Donlin Gold LLC
EIN	Easement Identification Number
FAS	Federal-Aid Secondary
MSHA	Mine Safety Health Administration
PSD	Prevention of Significant Deterioration
ROW(s)	Right-of-Way/Rights-of-Way
RS	Revised Statute
RST	Revised Statute Trail
TKC	The Kuskokwim Corporation

UNITS OF MEASURE

ft	foot/feet
km	kilometer(s)
m	meter(s)
mi	mile(s)

1.0 INTRODUCTION

Donlin Gold LLC (Donlin Gold) is proposing the development of an open pit, hardrock gold mine, 277 miles (mi) (446 kilometers [km]) west of Anchorage, 145 mi (233 km) northeast of Bethel, and 10 mi (16 km) north of the village of Crooked Creek, Alaska.

The proposed mine would be an active industrial site where hazardous activities would occur such as explosives handling, blasting, drilling, and heavy equipment operation. To mitigate hazards from these activities most areas at the mine will require strict safety protocols and controlled access. Donlin Gold has established a Core Operating Area (COA) boundary to identify the area where public access would be excluded. Donlin Gold has legal authority under lease/surface use agreements with the owners of the lands in this area to restrict the public from access to these facilities.

This Public Access Control Plan describes measures to be employed at the boundaries of the Project site facilities to protect the general public from possible health and safety hazards from mining and related support activities and maintaining required security at transportation facilities. This plan also describes the means to delineate the area within the COA in which air quality is protected by occupational health and safety regulations from the area outside this boundary that is open to public access and in which Alaska Ambient Air Quality Standards (AAAQS) and Prevention of Significant Deterioration (PSD) increments are applicable.

The plan covers the following relevant regulatory requirements:

1. The Alaska Department of Environmental Conservation - Division of Air Quality, requires that an ambient air boundary be established and a public access control plan be implemented in order to protect members of the public.
2. The Mine Safety Health Administration (MSHA) has authority for the mine site under 30 Code of Federal Regulation Chapter I. MSHA regulations describe training requirements for all personnel at the mine site and escort requirements for visitors.

The intent and scope of the plan are consistent with private and public land management policies and practices of the entities holding surface or subsurface land ownership upon which the project intends to operate. These include:

- Alaska Native Claims Settlement Act (ANCSA) lands, including lands owned by:
  - The Kuskokwim Corporation (TKC) (surface use agreement, surface land ownership)
  - Calista Corporation (Calista) (land lease agreement, partial surface and subsurface land ownership)
- Lyman Resources in Alaska, Inc. (land lease agreement)

In addition, public access would be controlled at the Jungjuk Port and Airstrip. Public access control plans for these areas will be under separate cover.

2.0 DONLIN GOLD MINE AREA

The past and present land use in the mine area and the proposed Donlin Gold facilities are described below.

2.1 Past and Present Land Use

Subsistence and commercial land use has taken place within the COA. A permanent settlement was established in 1909 as a way station at what is now the Village of Crooked Creek. The settlement was the southern end of a portage trail extended from the Kuskokwim up Crooked Creek to the Iditarod mining district (Alaska Department of Fish and Game [ADF&G] 2012). In 1922 the Alaska Road Commission cut a trail from the Kuskokwim River at Crooked Creek to the Flat mining area, following Crooked Creek to its headwaters. This trail, designated Route 32D, remained active in supplying the Flat area until approximately 1956 (ADF&G 2012). The community of Flat is now accessed only by air, and the segment of Route 32D in the area of the COA is now part of the Federal-Aid Secondary (FAS) 231 easement. FAS 231 is the most direct route from the Village of Crooked Creek to the mine area, and follows the Crooked Creek valley. The most recent known commercial use of FAS 231 is for transportation of equipment and supplies to the Lyman placer mining operation, which was on lands now leased by Donlin Gold, and for conveyance of heavy equipment to the Donlin Gold exploration camp. FAS 231 is not used as a transportation route for the community of Flat or any other community north of the COA. There are no current seasonal or year-around settlements within, or accessed through, the COA.

Subsistence hunting, fishing and gathering has taken place within the COA, as indicated by a survey of harvest use areas from 1964 to 1986 (Brelsford et al 1987). However in recent years these activities have taken place south of the COA in the areas adjacent to the Crooked Creek and Bev Creek valleys, as indicated by an ADF&G survey of areas used for resource harvesting in 2009 (ADF&G 2012).

2.2 Donlin Gold Facilities

The proposed mine operations include the open pit, tailings storage facility, waste rock facility, mill, personnel camp, and associated support facilities, and roadways connecting the port, mine site, camp and airport facilities. The location of the mine facilities, ownership of the mine site lands, extent of Donlin Gold's land lease, and the COE boundary are shown on Figure 1.

The proposed mine would be an active industrial site where hazardous activities would occur such as explosives handling, blasting, drilling, and heavy equipment operation. To mitigate hazards from these activities most areas at the mine will require strict safety protocols and controlled access as established by the COA. The COA also serves as the ambient air boundary and is located entirely on private lands leased to Donlin Gold.

3.0 POTENTIAL ACCESS

Donlin Gold is in the process of securing complete control over public access to the Core Operating Area. Once this process is complete, public access within the COA will be under the full legal control of Donlin Gold LLC and any person within the COA will be a trespasser unless authorized by Donlin Gold. The discussion below describes the general avenues for members of the public to gain access to the COA. Section 4 describes the measures that Donlin Gold will employ to restrict access, and Section 5 describes implementation of these measures around the COA perimeter.

3.1 Recognized Easements

There are currently 13 publicly recognized access easements and/or rights-of-way (ROWs) (together referred to in this Public Access Control Plan as "public easements" or "easements") that intersect or exist within the COA, as shown on Figure 2. Some of these easements have trails associated with them.

3.2 Overland Travel

Overland travel to mine facilities outside of the recognized easements is difficult, but possible. Overland access would likely begin at points where existing trails meet mine facilities such as access roads. Air photography of the COA showing overland conditions is included on Figure 3.

3.3 Air

Donlin Gold will have an airstrip facility associated with the mine operation, located as shown on Figure 1, but it is outside of the COA and will be closed to the public. Several smaller former airstrips exist within the COA, and these former airstrips will be reclaimed in a manner that will make them unusable for fixed wing aircraft.

3.4 Roadways

Donlin Gold will establish roadways for mine facility access and cargo transportation, as described in Section 2.2. Access to the COA will be limited to persons approved by Donlin Gold. No other roadways will exist within the project footprint.

3.5 Waterways

Creeks in the COA are not navigable waters (Bureau of Land Management [BLM] 2005), and consequently are not recognized routes for public access routes. Moreover, there is no history of public use of the creeks in the COA vicinity.

4.0 ACCESS CONTROL AUTHORITY AND MEASURES

4.1 Legal Authority for Restricting Access

Land ownership in the project area is shown on Figure 1. Lands within the COA are private lands predominantly owned by Calista and TKC through conveyances under ANCSA. A small parcel of surface land within the COA is owned by Lyman Resources in Alaska, Inc. et al. ("Lymans"). Donlin Gold has lease agreements with Calista and the Lymans and a surface use agreement with TKC that provide Donlin Gold with legal control and authority to exclude the general public from the lands within the COA on lands owned by these entities for regulatory, safety, or other Project operational needs. As further described in Section 5.1 and Table 1, Donlin Gold in cooperation with the private landowners is in the process of eliminating and re-routing some existing public easements within the COA that are not needed in their current alignments for access to public lands.

In addition, TKC, who owns surface rights to lands along Crooked Creek to the south of the COA, has the authority to restrict all public access to their lands. TKC allows public access only by permit (TKC 2015).

4.2 Measures to Exclude Access

4.2.1 Fencing

Fencing is one of the measures that will be used at selected locations. For locations where fencing is used, chain link fence will extend along the property boundary for a minimum of 100-feet (ft) (30.3 m) in each direction from the edge of a roadway, trail or easement that crosses a controlled boundary.

4.2.2 Signage

Signage is another measure that will be used to control access. Warning signs will be posted on the fenced controlled boundaries of all roadways, trails, easements, and other identified access points to the COA where necessary to provide barriers or impediments to access. The immediate area around each sign will be cleared of vegetation to provide unrestricted public visibility. Additional strategically located signs will also be posted along facility boundaries, with special attention to potential overland routes or observed newly established trails. Each sign will be inspected semi-annually and will be repaired or replaced, as necessary. The sign specifications and text are included in Appendix B.

4.2.3 Natural Barriers

Streams and creeks, wetlands, steep slopes, and areas of thick vegetation and undergrowth around the proposed COA will, in certain instances, serve as natural barriers or impediments to access. These features make cross country travel in many areas very difficult, especially in the summer months when the ground is thawed, streams are flowing and the vegetation is in full bloom.

4.2.4 Surveillance

Mine security will routinely patrol the mine facilities and roadways. Mine security will also periodically observe the perimeter of the COA in areas where patrols are necessary to control access, as summarized in Table 2. Monitoring of areas that can be observed from mine roadways with binoculars will be conducted daily. Overflights with rotary and fixed wing aircraft would be combined with other site tasks including environmental monitoring and personnel transport. Periodic patrols off of roadways would generally be in response to observed or reported activity in the core operating area.

If signs of trespass are found, security will follow up as appropriate to determine if trespassers were currently in the core operating area, including notifying other Donlin Gold employees in the area to be aware there may be trespassers present and conducting additional patrols in these areas. The situation of each incident would be assessed to determine if additional measures were necessary, which may include, but would not be limited to, additional public outreach and signage.

In addition to patrols by dedicated security personnel, all on-site personnel will be briefed on the necessity of restricting public access to areas within the COA. Personnel will be asked to watch for suspected trespass as they conduct their regular duties, and will be trained in procedures to respond to suspected trespassers. Any suspected trespass by unauthorized individual(s) will also be immediately reported to security and mine management.

If a mine employee, including Security, observes a suspected unauthorized individual(s) within restricted project areas, appropriate measures will be taken by the employee to address potential health and safety concerns. If it is safe to approach the individual(s), mine employees will be instructed to use the following protocol when dealing with unauthorized entry.

- Approach the person (or persons), and request that they leave the restricted area immediately.
- In the case of the COA, if the unauthorized individual(s) refuse to leave the area after the above request, the individuals(s) will be informed that they are in a restricted area and that applicable laws require Donlin Gold to restrict entry to the posted area to authorized personnel only. The unauthorized person or persons will again be asked to leave the restricted area.
- If the unauthorized individual(s) still refuse to leave, the individual(s) will be informed that Donlin Gold will not be liable or responsible for any harm they may encounter by being in a restricted entry area.
- In the event the Donlin Gold employee (other than Security) believes the individual(s) health and safety may be at risk by being within the restricted area, or that the person is a risk to safety or security in the area, the employee will call security. Security will then take charge of the trespass incident and may call law enforcement authorities to have the individual(s) removed from the area. The mine personnel will also request the name or names of the unauthorized individual(s) at that time. Calista and/or TKC will be notified if the individual is believed to be a shareholder or trespassing on their respective lands.

- The mine employee will log the encounter with the unauthorized individual(s) on a surveillance monitoring form (Appendix C).

4.2.5 External Communications

Donlin Gold will, at least annually, conduct outreach with TKC and Calista to inform and update shareholders on access restrictions for the COA. Donlin Gold will also provide briefings to the Alaska Department of Natural Resources and the BLM to inform them of these restrictions to allow these agencies to convey this information in their resources to the public.

5.0 ACCESS CONTROL IMPLEMENTATION

The measures to control access by easements and trails and overland travel are described below.

5.1 Rerouting of Easements

The rights to public access provided by easements would conflict with Donlin Gold's need to protect the public from the potential hazards of developing and operating a mine and associated facilities. Additionally, in many cases the proposed land improvements would either block or overlay the footprint of an easement. Consequently, Donlin Gold has submitted a Public Easement Plan (Donlin Gold 2016) describing the affected public easements and the proposed plan to both protect public safety and ensure that public access to lands outside the COA is supported by alternate means. The Public Easement Plan details the basis of each easement and the rerouting of the easements around the COA. The easements, the characteristics of the easement (presence of absence of evidence of current or past use), and measures proposed to prevent public access by means of these easements and re-direct the public to rerouted easements, are summarized in Table 1.

The COA has traditionally been accessed from the south from communities on the Kuskokwim River. Access is concentrated around the existing winter trail (FAS 231) connecting the village of Crooked Creek to Iditarod. The land that FAS 231 passes through immediately to the south of the COA is owned by TKC, and a permit is required from TKC for access to TKC lands from persons who are not TKC shareholders or immediate family members (TKC 2015).

5.2 Overland Travel

Overland travel to the COA will be excluded by a number of measures. Former easements and existing trails will be fenced as described in Section 4.2.1 and signed as described in Section 4.2.2. In many areas travel is restricted by natural features including topographic relief, vegetative cover, and terrain. In other areas, including but not limited to ridgetop areas without vegetation and creek valleys, other measures such as signage and visual surveillance from land or air will be implemented. Finally, if new or previously unrecognized trails are identified, additional fencing may be required.

The conditions along the perimeter are described by segment in Table 2. The locations of the segments, air photography, and topography are shown on Figure 4.

Table 1 – Public Easements Affected by the Project

Re-directed Easement	Description	Access Control Measures
FAS 231	Winter trail connecting Village of Crooked Creek with Iditarod. Trail is used seasonally and is the primary land access to the area.	Re-routed easement/trail will be marked with signs. Chain link fence will be erected across the former easement and any associated trail outside of the easement at the north and south COA boundary and signs will be posted. Patrols, primarily during winter, will monitor for public access.
Revised Statute Trail (RST) 545	Former trail from Return Creek to Crooked Creek, public use is not known and the trail is not visible in the area it is mapped.	Chain link fence will be erected across the former easement at the COA boundary and signs will be posted.
RST 546	Tractor trail from the junction of Crooked Creek and Grouse Creek to Return Creek. Trail is present but does not appear to have been used in recent years.	Re-routed easement will be marked with signs. Chain link fence will be erected across the trail/former easement and any associated trail outside of the easement at the COA boundary and signs will be posted.
RST 547	Easement from the junction of Dome Creek, Donlin Creek, and the Willow Creek – Flat Creek Trail, and extending to the junction of Omega Gulch and the Flat – Crooked Creek Trail.	This easement is entirely within the COA and does not cross the boundary. The easement will be extinguished. No additional access control measures are required for this easement.
RST 548	Dome Creek – Anaconda – Bell Creek Trail. There is no known purpose for, or recent public use of, this trail.	Chain link fence will be erected across the former easement at the COA boundary and signs will be posted.
RST 549	Snow Gulch – Anaconda Creek Trail. There is no known recent public use of this trail.	This easement is entirely within the COA and does not cross the boundary. The easement will be extinguished. No additional access control measures are required for this easement.
RST 550	Crooked Creek Cabin – American Creek Trail. There is no evidence of current use of this trail.	This easement is entirely within the COA and does not cross the boundary. The easement will be extinguished. No additional access control measures are required for this easement.
RST 1475	Willow Creek-Flat Creek Trail. A trail is visible but based on aerial inspection does not appear to have been used in recent years.	Re-routed easement will be marked with signs. Chain link fence will be erected across the former easement and any associated trail outside of the easement at the COA boundary and signs will be posted.

Table 1 – Public Easements Affected by the Project (continued)

Re-directed Easement	Description	Access Control Measures
Easement Identification Number (EIN) 8 C3 L	Easement to allow access to federal public lands from FAS 231 through ANCSA lands. Trail is present but does not appear to have been used in recent years. This easement overlaps the segment of RST 546 (above) on ANSCA lands and the point at which it crosses the COA boundary.	Re-routed easement will be marked with signs. Chain link fence will be erected across the trail/former easement and any associated trail outside of the easement at the COA boundary and signs will be posted.
EIN 9 D1 L	Easement to allow access to federal public lands from FAS 231 through ANCSA lands. This easement follows various segments of RST 1475, RST 547, and RST 548. Trail is not visible in air photo at the point it crosses the COA (co-located with RST 548 at this location).	Re-routed easement will be marked with signs. Chain link fence will be erected across the former easement at the COA boundary and signs will be posted.
EIN 10 D1	Easement for an existing access trail from FAS 231 eastward to public land. A trail is visible.	Chain link fence will be erected across the trail/former easement and any associated trail outside of the easement at the COA boundary and signs will be posted.
EIN 11 D1	Easement to provide public access through ANCSA land, co-located with RST 76.	Re-routed easement will be marked with signs. Chain link fence will be erected across the former easement crossings of the COA boundary and signs will be posted.
EIN 15 D1	Easement for a proposed access trail from FAS 231 to former federal (now state) public lands to the west. No trail visible.	Chain link fence will be erected across the former easement at the COA boundary and signs will be posted.

Table 2 – Access Control Measures on the COA Boundary

Segment	Physical Description	Access Control
1	Area of ridgetops and narrow valleys on southeastern perimeter of the COA. No known easements or trails are located in this area.	Terrain, vegetation, and posted signs are the primary physical barriers or impediments to access. Verification will be done by periodic patrols, overflights and routine monitoring with binoculars for areas relatively close to mine facilities and roadways.
2	Area of generally east-to-west valleys, potential routes to Crooked Creek drainage. Former Dome Creek – Anaconda – Bell Creek trail (RST 548) crosses this segment.	Potential travel in this area is in valleys and on hilltops with sparse vegetation. Chain link fencing of historical easement RST 548 (see Table 1) and posted signs will be the primary physical barriers or impediments to access. Verification will be done by periodic patrols and overflights.
3	Area of ridgetops on northeast perimeter of the COA. No known easements or trails are located in this area.	Posted signs, terrain and vegetation will be the primary physical barriers or impediments to access. Verification will be done by periodic patrols and overflights.
4	Donlin Creek valley area, formerly crossed by the Willow Creek – Flat Creek trail (RST 1475).	Potential travel would be in valleys and on hilltops with sparse vegetation. Posted signs and fencing of easement RST 1475 location will be the primary physical barriers or impediments to access. Verification will be done by periodic patrols and overflights.
5	Area of ridgetops on northwest perimeter of the COA. No known easements or trails are located in this area.	Posted signs, terrain and vegetation are the primary physical barriers or impediments to access. Verification will be done by periodic patrols and overflights.
6	Flat Creek valley area, formerly crossed by the Crooked Creek – Iditarod winter trail (FAS 231).	Potential travel would be on the former winter road. Posted signs and chain link fencing across the former FAS 231 easement will be the physical barriers or impediments to access. Verification will be done by periodic patrols and overflights.
7	Area of ridgetops on northwest perimeter of the COA. No known easements or trails are located in this area.	Terrain and vegetation are the primary physical barriers or impediments to access. Verification will be done by periodic patrols and overflights.

Table 2 – Access Control Measures on the COA Boundary (continued)

Segment	Physical Description	Access Control
8	Grouse Creek valley area, formerly the location of a tractor trail from Crooked Creek to Return Creek (RST 546).	Potential travel would be on the former tractor trail. Posted signs and chain link fencing of the RST 546 easement location will be the primary physical barriers or impediments to access. Verification will be done by periodic patrols, overflights, and routine monitoring with binoculars for areas relatively close to mine facilities and roadways.
9	Area of ridgetops on southwestern perimeter of the COA. No known easements or trails are located in this area.	Posted signs, terrain, and vegetation are the primary physical barriers or impediments to access. Verification will be done by periodic patrols, overflights, and routine monitoring with binoculars for areas relatively close to mine facilities and roadways.
10	Crooked Creek/Eagle Creek valley area, formerly crossed by the Crooked Creek – Iditarod winter trail (FAS 231) and an easement to public lands to the west (EIN 15 D1).	Potential travel would be on the former winter road. Fencing of across the former easements and verification will be done by periodic patrols, overflights, and routine monitoring with binoculars for areas relatively close to mine facilities and roadways.

5.3 Roadways

The roadways are not open to public use, except at crossing point(s) where required to maintain public easement connectivity. The section of the roadway from the intersection of the spur road south to the port would be used seasonally during the barging season, but would be unmaintained during winter months. A gate and fencing will be installed at the point the port road crosses the COA boundary.

Access to the roadways will be controlled by signage and patrols. In addition, employees or contractors using the roads will be instructed to report unauthorized persons on roadways to security. An example roadway warning sign is included in Appendix B.

6.0 REFERENCES

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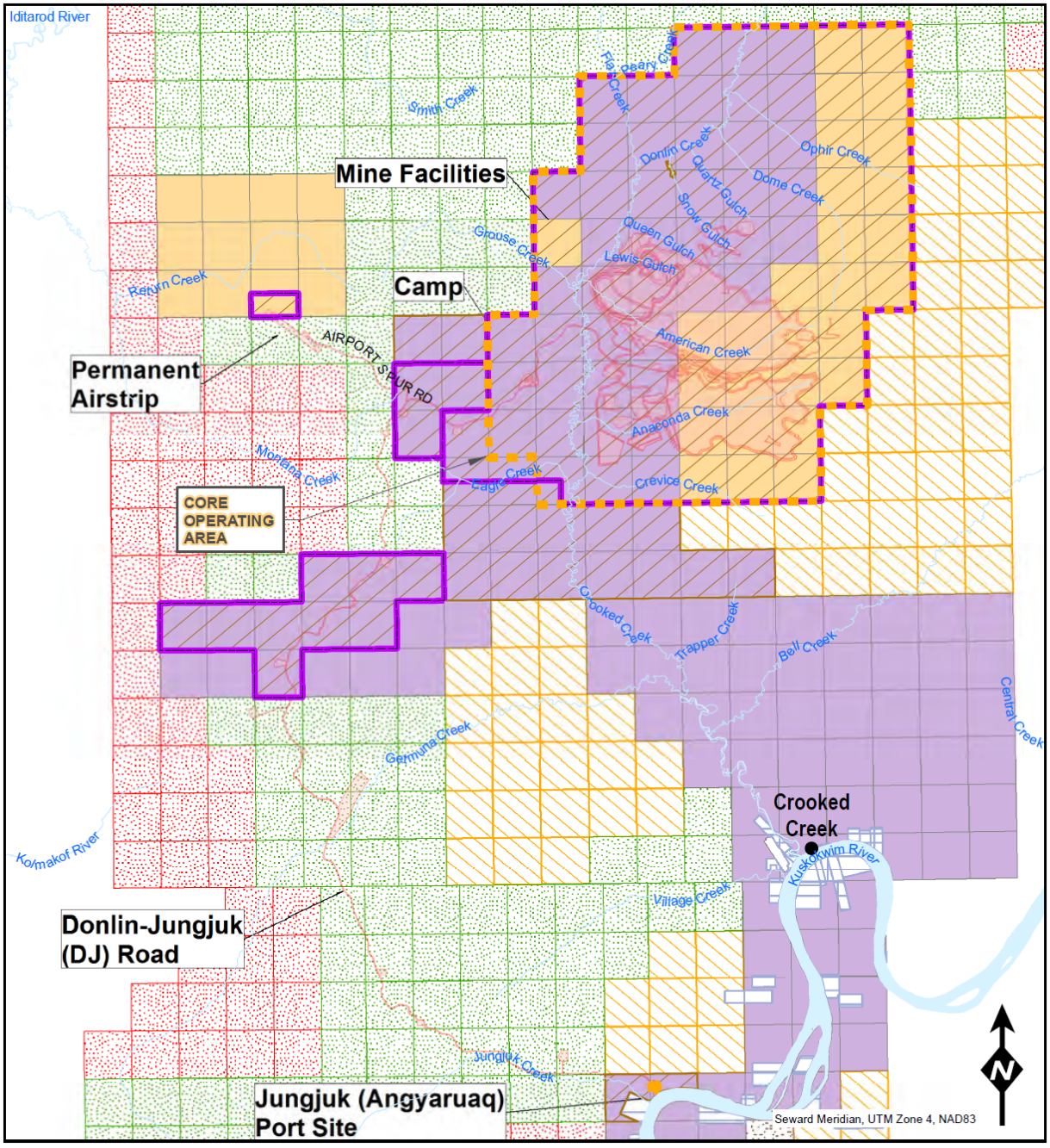
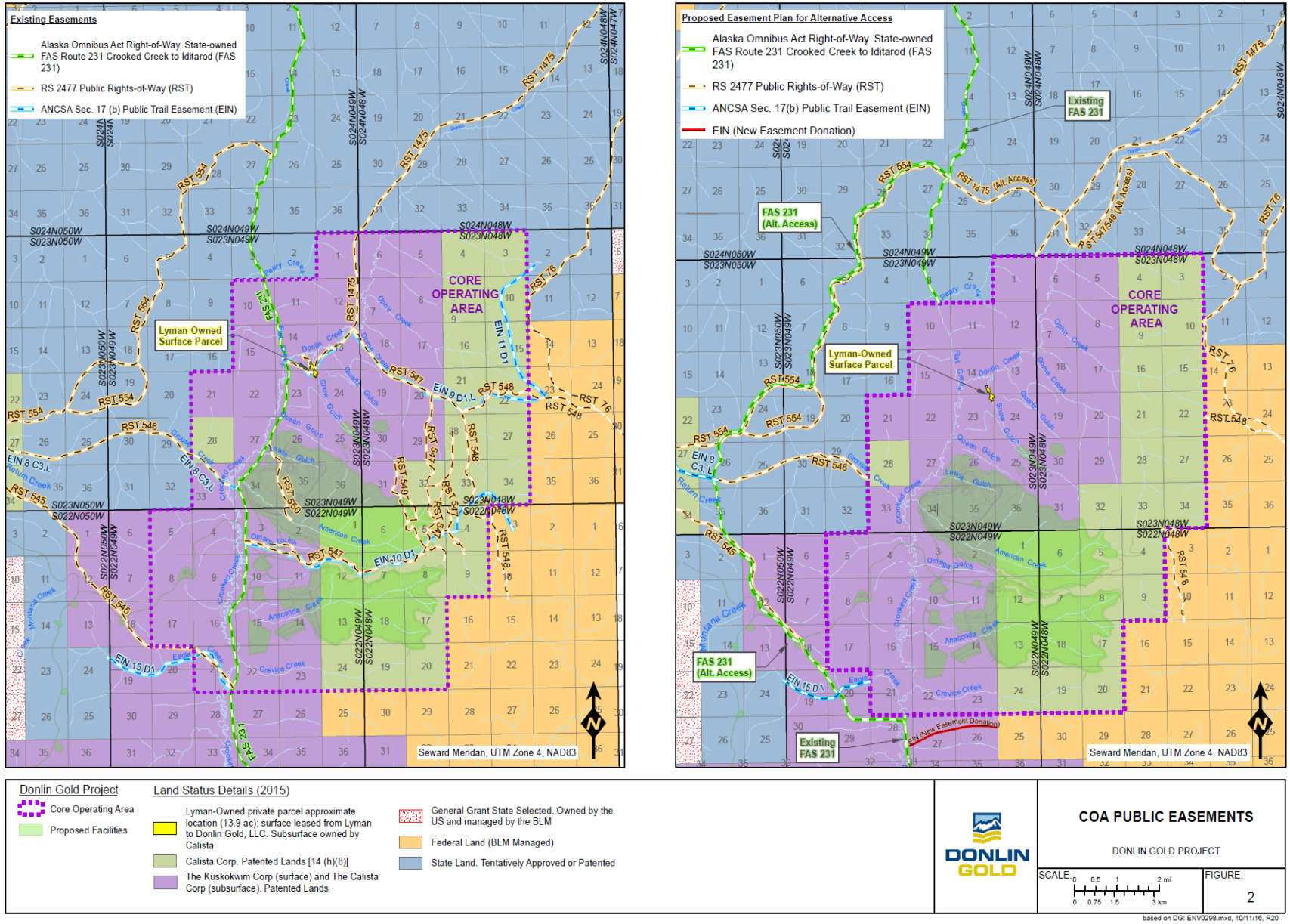
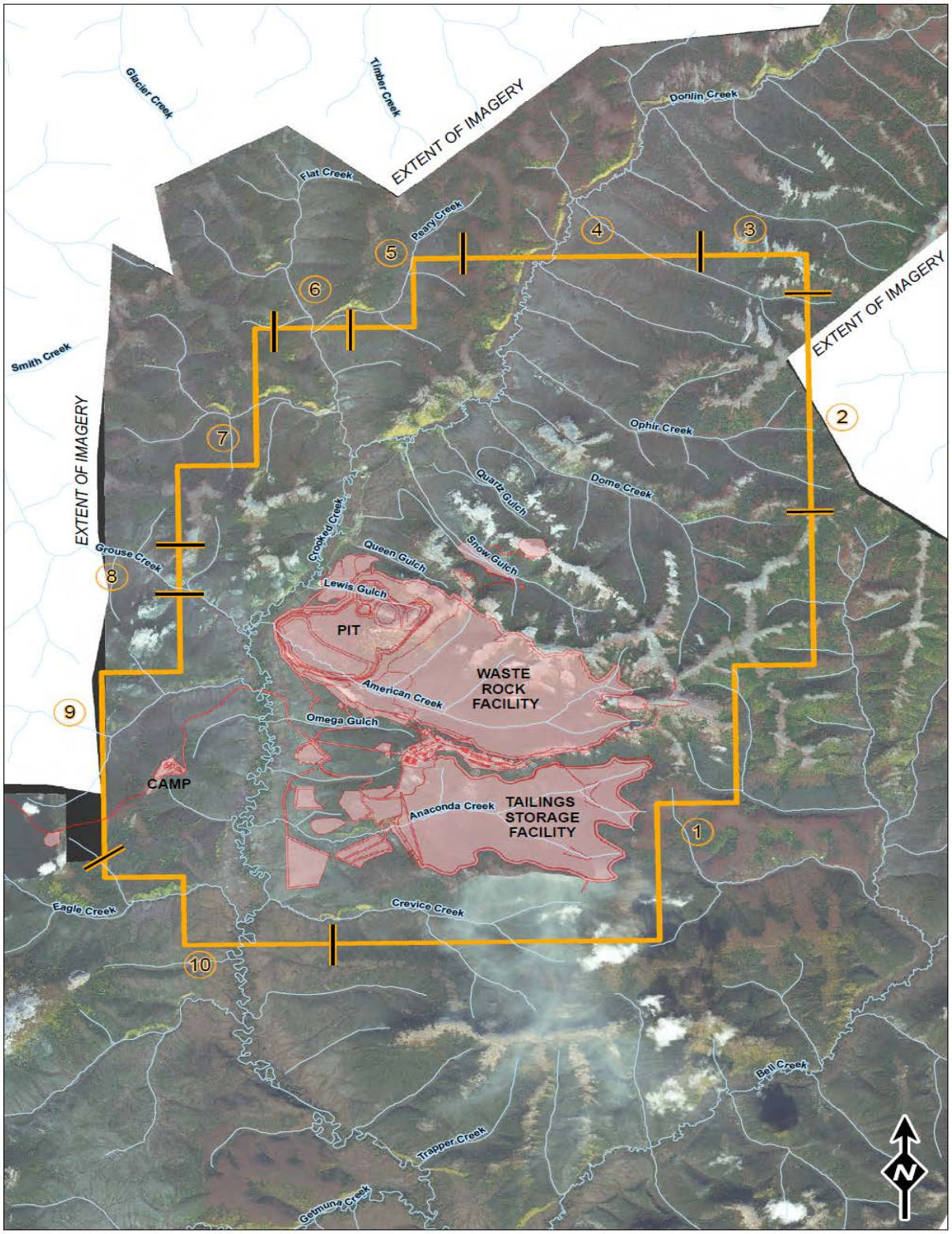
Appendix A

Figures


Iditarod River
Mine Facilities
Camp
Permanent Airstrip
AIRPORT SPUR RD
CORE OPERATING AREA
Donlin-Jungjuk (DJ) Road
Jungjuk (Angyaruaq) Port Site
Crooked Creek
Kuskokwim River
Kolmakof River
Seward Meridian, UTM Zone 4, NAD83
Core Operating Area
Calista Subsurface Lease
TKC Surface Lease
Private Land
Lyman-Owned Surface Parcel (Approximate Location). Subsurface owned by Calista Corp (13.91 ac)
Native Allotment
Native Allotment (Approximate Location)
ANCSA Conveyances
TKC (Surface) and Calista (Subsurface) Patented or IC Land [12(a)]
Calista Interim Conveyance [14(h) (8)]
State Land
State Land, State-Owned. Tentatively Approved (TA) or Patented Land
State Land, Community Grant Application
Federal Land
State-selected land owned by the United States and managed by the Bureau of Land Management until conveyed to the State
Federal Land, Closed [ANCSA Sec. 17(d)(1) withdrawal for classification and study]
DONLIN GOLD
PROJECT FACILITY LOCATIONS LAND OWNERSHIP
DONLIN GOLD PROJECT
SCALE:
0 0.5 1 2 mi
0 0.751.5 3km
FIGURE:
1
DG: PER0501.mxd, 09/10/15, R01


Existing Easements
Alaska Omnibus Act Right-of-Way. State-owned FAS Route 231 Crooked Creek to Iditarod (FAS 231)
RS 2477 Public Rights-of-Way (RST)
ANCSA Sec. 17 (b) Public Trail Easement (EIN)
CORE OPERATING AREA
Lyman-Owned Surface Parcel
Seward Meridian, UTM Zone 4, NAD83
Proposed Easement Plan for Alternative Access
Alaska Omnibus Act Right-of-Way. State-owned FAS Route 231 Crooked Creek to Iditarod (FAS 231)
RS 2477 Public Rights-of-Way (RST)
ANCSA Sec. 17(b) Public Trail Easement (EIN)
EIN (New Easement Donation)
Existing FAS 231
FAS 231 (Alt. Access)
CORE OPERATING AREA
Lyman-Owned Surface Parcel
Seward Meridian, UTM Zone 4, NAD83
Donlin Gold Project
Core Operating Area
Proposed Facilities
Land Status Details (2015)
Lyman-Owned private parcel approximate location (13.9 ac); surface leased from Lyman to Donlin Gold, LLC. Subsurface owned by Calista
Calista Corp. Patented Lands [14 (h)(8)]
The Kuskokwim Corp (surface) and The Calista Corp (subsurface). Patented Lands
General Grant State Selected. Owned by the US and managed by the BLM
Federal Land (BLM Managed)
State Land. Tentatively Approved or Patented
DONLIN GOLD
COA PUBLIC EASEMENTS
DONLIN GOLD PROJECT
SCALE: 0 0.5 1 2 mi
0 0.75 1.5 3 km
FIGURE: 2
based on DG: ENV0298.mxd, 10/11/16, R20



Proposed Infrastructure Layout
Core Operating Area (COA)
Perimeter Segment

Orthophotography 2012
Seward Meridian, UTM Zone 4, NAD83

DONLIN GOLD

COA AIR PHOTO AND ACCESS CONTROL AREAS

DONLIN GOLD PROJECT

SCALE: 0 0.25 0.5 1 mi / 0 0.375 0.75 1.5 km

FIGURE: 3

DG: PER0502.mxd, 10/14/15, R01

Appendix B

Example Warning Signs

The warning sign specifications will be as follows:

- Each sign will be 2 ft by 4 ft and will be mounted on posts
- The base of each sign will be a minimum of 3 ft and a maximum of 6 ft above the surrounding ground surface

The warning signs for the different operational areas will read as follows:

Core Operating Area Warning Sign

DANGER
DONLIN GOLD LLC MINE OPERATIONS
AMBIENT AIR QUALITY BOUNDARY
NO UNAUTHORIZED VISITORS BEYOND THIS POINT

For information please contact:
Donlin Gold Project Security, (907) XXX-XXXX
Donlin Gold Environmental, (907) XXX-XXXX

Roadway Warning Sign

PRIVATE ROADWAY
DONLIN GOLD LLC

DANGER
FREQUENT TRUCK TRAFFIC AND MACHINERY USE
NO UNAUTHORIZED VISITORS BEYONG THIS POINT

For information please contact:
Donlin Gold Project Security, (907) XXX-XXXX
Donlin Gold Environmental, (907) XXX-XXXX

Appendix C

Surveillance Monitoring Form

Surveillance Monitoring Form

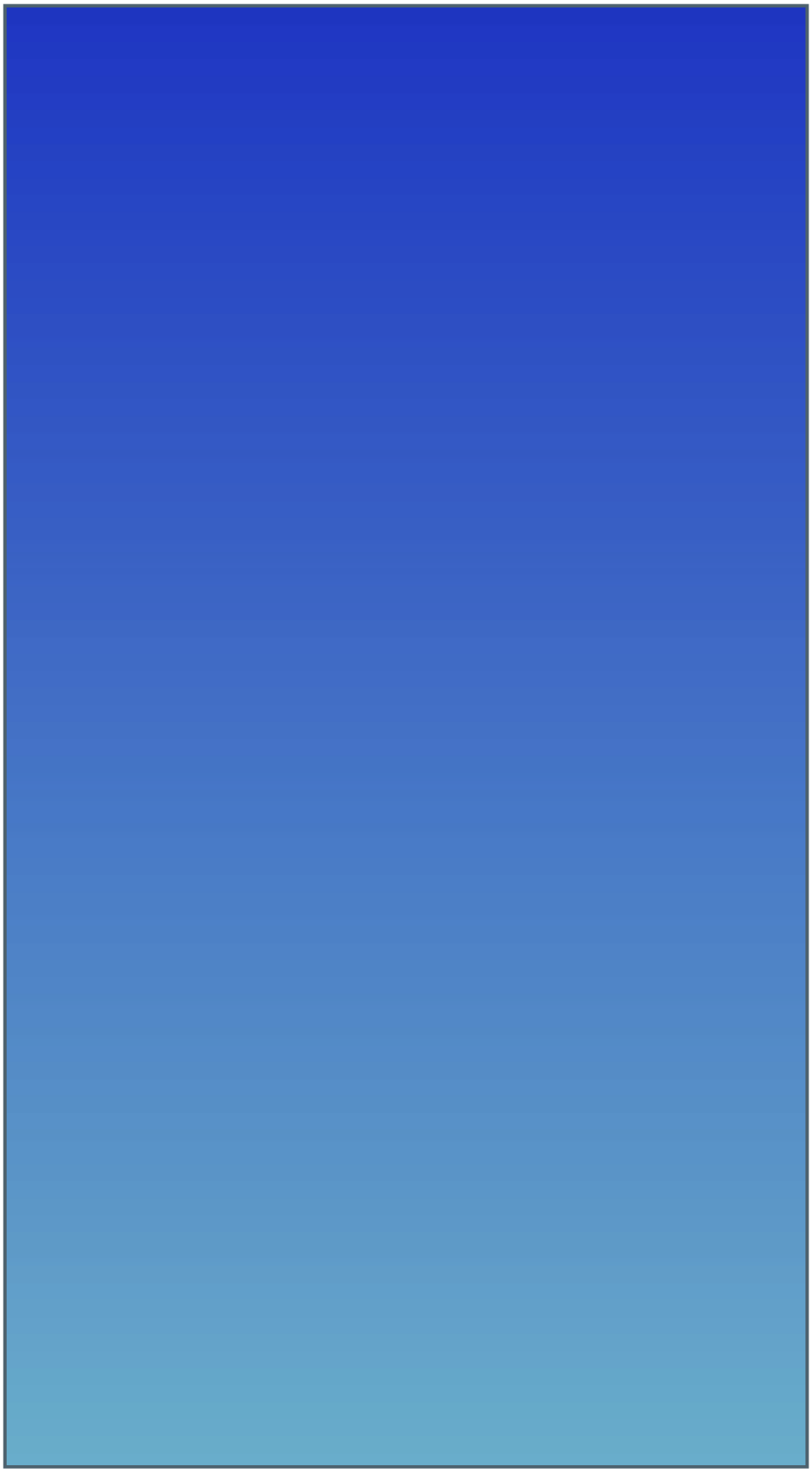
Date and Time	Surveillance Conducted by	Surveillance Comments

Instructions:

Information to be gathered, to the extent possible, includes:

1) Day and time;
2) The name of the individual(s) (if known or otherwise provided);
3) The method of entry into the property (e.g. by foot, snow machine, etc.);
4) Duration of unauthorized presence within the restricted area; and
5) Other pertinent information as appropriate.

Section 14. Fugitive Dust Control Plan



AIR SCIENCES INC.

DENVER • PORTLAND

Fugitive Dust Control Plan

Donlin Gold Project, Alaska

PREPARED FOR:
DONLIN GOLD LLC

PROJECT NO. 281-15-2
OCTOBER 2015

TABLE OF CONTENTS

1.0 INTRODUCTION

Donlin Gold LLC is proposing to construct and operate the Donlin Gold (Donlin) project in southwestern Alaska, approximately 280 miles west of Anchorage. The project has the potential to generate fugitive dust emissions. This document provides a Fugitive Dust Control Plan (FDCP) for minimizing fugitive dust emissions.

1.1 Objective and Best Practical Methods

The objective of the FDCP is to ensure that fugitive dust generated from the project will be controlled to minimize its potential to adversely affect local air quality. Best practical methods (BPMs) will be used to limit controllable fugitive dust emissions. The BPMs utilized at any time will depend on site conditions and will not compromise the safe operation of the mine.

The project also incorporates design features that minimize dust emissions from ore processing activities (i.e., ore crushing, ore conveying, and stockpiling of crushed ore) through a combination of emissions capture and control, and enclosures.

Donlin's goal is to keep the fugitive dust emissions resulting from project activities within air quality compliance standards through the diligent use of BPMs for fugitive dust control, personnel training, and performance assessments.

2.0 FUGITIVE DUST CONTROL PLAN

Donlin project activities and areas contributing to fugitive dust will include drilling and blasting, material loading and unloading, haul roads, access roads (airstrip, camp, and Jungjuk Port), ore crushing, construction and maintenance, and wind erosion from exposed areas such as tailings, waste rock storage, and ore and overburden stockpiles. As practicable, measures will be taken to control fugitive dust during the course of the project, and surface disturbances will be limited to those areas that are reasonably necessary.

Employees, contractors, and visitors on the project site will be informed of their responsibility to control and report fugitive dust, as discussed in Section 3.0, Training and Compliance. Donlin area supervisors, construction managers, or appointed equivalents will be authorized to temporarily cease operations in an event of adverse wind or other meteorological conditions that cause excessive dust. All Donlin employees and contractors are empowered to report dusty conditions.

The following sections of this FDCP identify the BPMs that will be used as needed and when practical to minimize fugitive dust emissions from the Donlin project activities.

2.1 Drilling and Blasting

The BPMs for controlling fugitive dust from drilling and blasting in the pits are as follows:

1. Allow natural conditions such as wet weather (rain and snow) or inherent material moisture content to maintain dust control until the use of conventional dust control methods is necessary.

2. Avoid drilling and blasting during adverse wind or other meteorological conditions that cause excessive dust.

3. When practical, utilize drilling and blasting techniques that minimize dust generation, such as the following:

    a. Good-quality blast hole stemming to confine blast energy

    b. Wet and/or shrouded drilling

2.2 Material Loading and Unloading

Material loading and unloading activities generate dust emissions from the handling of materials (e.g., loading of haul trucks via a shovel, truck dumping, etc.). The BPMs for controlling these emissions are as follows:

1. Allow natural conditions such as wet weather (rain and snow) or inherent material moisture content to maintain dust control until the use of conventional dust control methods is necessary.

2. Avoid material handling activities during adverse wind or other meteorological conditions that cause excessive dust.

3. Use water trucks to apply water in working areas.

2.3 Haul Roads and Access Roads

Haul trucks and light vehicles traveling on unpaved roads (haul roads and access roads) can generate fugitive dust emissions. The BPMs for controlling these emissions are as follows:

1. Allow natural conditions such as wet weather (rain and snow) or inherent material moisture content to maintain dust control until the use of conventional dust control methods is necessary.

2. Use large-capacity haul trucks (400-ton) to minimize haul road travel, where practical.

3. Limit the speed of the haul trucks and light vehicles.

4. Apply water and chemical dust suppressants on road surfaces.

5. During winter, use graders to blade snow over road surfaces where this may be done safely.

As described above, Donlin will employ a combination of water (or snow, as applicable) and chemical dust suppressant application to control dust from unpaved roads. The application frequency will depend on the natural moisture condition of the road surfaces due to ice, rain, or snow; maintaining safe driving conditions; and visible observations of dust levels from the road surfaces.

2.4 Ore Crushing

The Donlin project ore crushing circuit includes run-of-mine ore gyratory crushing, coarse ore transfers, and recycle pebble crushing. Particulate emissions are generated by the crushing and handling of the ore.

Mined ore is loaded through a dump pocket (with a rock breaker) to the gyratory crusher (GC). The GC discharges through a surge pocket and apron feeder to a conveyor system. Ore is carried by conveyor to the coarse ore stockpile. The coarse ore stockpile is reclaimed by four apron feeders and transferred to the semi-autogenous grinding (SAG) mill feed conveyor. The SAG mill is a wet process and does not generate particulate emissions.

Material discharged from the SAG mill is washed and screened, and the oversized material is sent to the pebble crushers. After crushing, the ore is discharged to the pebble discharge conveyor, which transfers to the SAG mill feed conveyor.

The crushing and handling of ore will generate dust emissions. Each emission point in these circuits will be controlled by a dust collector or enclosure as described below:

1. An enclosure will be installed at the dump pocket. The enclosure will have openings to allow haul trucks to enter and dump ore into the dump pocket from two sides.

2. Dust emissions from gyratory crushing (including ore transfers out of the crusher) will be captured and controlled by a dust collection system.

3. Enclosures will be installed at the transfers to and from the coarse ore stockpile feed conveyor.

4. Dust emissions from the coarse ore stockpile reclaim apron feeders will be captured and controlled by dust collection systems.

5. An enclosure will be installed at the SAG mill feed conveyor discharge.

6. Dust emissions from the pebble crushers (including ore transfers in and out of the crushers) will be captured and controlled by a dust collection system.

7. An enclosure will be installed at the transfer from the pebble discharge conveyor.

2.5 Construction and Maintenance

Construction and maintenance activities such as road grading, bulldozing, and earth moving can generate dust emissions. The BPMs for controlling these emissions are as follows:

1. Allow natural conditions such as wet weather (rain and snow) or inherent material moisture content to maintain dust control until the use of conventional dust control methods is necessary.

2. Avoid construction and maintenance activities during adverse wind or other meteorological conditions that cause excessive dust.

3. Use water trucks to apply water in working areas.

4. Apply water and chemical dust suppressants to haul roads and access roads as discussed in Section 2.3, Haul Roads and Access Roads, to control dust from these surfaces during grading.

2.6 Reducing Wind Erosion

Wind erosion can generate dust emissions from exposed and active mining areas such as the tailings impoundment beach, waste rock dump, run-of-mine ore and overburden stockpiles, and the haul and access roads. The BPMs for controlling these emissions are as follows:

1. Allow natural conditions such as wet weather (rain and snow) or inherent material moisture content to maintain dust control until the use of conventional dust control methods is necessary.

2. Use a phased approach to surface disturbance rather than disturbing the entire area all at once, and, concurrent with operations, reclaim disturbed areas once they are no longer required for active mining or other operations.

3. Use dozers to maintain the waste facility surfaces.

4. Use water trucks to apply water in working areas.

5. Promote encrustation of exposed areas by applying chemical dust suppressants.

6. Apply water and chemical dust suppressants to haul roads and access roads as discussed in Section 2.3 to control windblown dust from these surfaces.

7. Install a cover over the coarse ore stockpile.

3.0 TRAINING AND ASSESSMENTS

3.1 Personnel Training

Donlin will provide its employees, contractors, and visitors with the necessary training to meet the objective set forth in this FDCP. Dust control and dusty condition reporting training will be provided to all employees and contractors. Site visitors will receive instructions on reporting dusty conditions during visitor orientation.

3.2 Performance Assessments

The FDCP will be reviewed periodically to evaluate if the BPMs employed are sufficient to meet the plan's objective. These performance assessments will be accomplished through routine inspections by Donlin environmental staff and by follow-up on observations reported by Donlin staff, contractors, and visitors. Donlin staff will observe each of the fugitive dust sources listed herein and determine whether the appropriate dust control is being achieved. Changes will be made to the FDCP as appropriate based on the findings of the performance assessments.

Section 15. Fugitive Dust Inspection Log

Inspection		Inspector Name	Inspection Criteria	Okay	Not Okay	Findings	Actions	Completion Date
Date	Hour							
			Mine Area					
			Topsoil/Overburden Stockpile Area					
			Ore Stockpile Area					
			Mill Area					
			Conveyor System					
			Truck Dump					
			Truck and Support Vehicle Traffic					

Inspection		Inspector Name	Inspection Criteria	Okay	Not Okay	Findings	Actions	Completion Date
Date	Hour							
			Mine Area					
			Topsoil/Overburden Stockpile Area					
			Ore Stockpile Area					
			Mill Area					
			Conveyor System					
			Truck Dump					
			Truck and Support Vehicle Traffic					

How to fill out this Fugitive Dust Inspection Log:

Steps:

1 Fill out the inspection “date”, “hour”, and “inspector name” columns

2 Inspect each location listed under the “inspection criteria” column

3 If excessive dust is not present, check “okay” column and fill out completion date

4 If excessive dust is present, check “not okay” column and write dust present in “findings” column then list mitigative action taken under “actions” column

After mitigative action is taken, repeat Steps 1 through 4 and fill out “completion date” column (list additional comments as necessary)

Section 16. 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