

# Bureau of Air Quality Synthetic Minor Construction Permit

Haile Gold Mine Inc. 6911 Snowy Owl Road Kershaw, South Carolina 29067 Lancaster County

In accordance with the provisions of the Pollution Control Act, Sections 48-1-50(5), 48-1-100(A), and 48-1-110(a), the 1976 Code of Laws of South Carolina, as amended, and South Carolina Regulation 61-62, Air Pollution Control Regulations and Standards, the Bureau of Air Quality authorizes the construction of this facility and the equipment specified herein in accordance with the plans, specifications, and other information submitted in the construction permit application received on August 29, 2022, as amended. All official correspondence, plans, permit applications, and written statements are an integral part of the permit. Any false information or misrepresentation in the application for a construction permit may be grounds for permit revocation.

The construction and subsequent operation of this facility is subject to and conditioned upon the terms, limitations, standards, and schedules contained herein or as specified by this permit and its accompanying attachments.

Permit Number: 1460-0070-CD Issue Date: December 28, 2022

McCal

Steve McCaslin, P. E., Director Air Permitting Division Bureau of Air Quality

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## **RECORD OF REVISIONS**

Date	Description of Changes	

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#### **PROJECT DESCRIPTION**

Permission is hereby granted to expand the mining operations. The expansion includes the addition of underground mining at the Horseshoe Deposit and the optimization of the mill operations to increase the ore throughput capacity to ~14,000 tons per day / 5,100,000 tons per year. The facility will also install a new crushing plant and engines (PT-20a) associated with the Cemented Rock Fill (CRF) Plant (PT-20). The facility also replaced the five-diesel powered pit sump pumps (PT-15) with the same size pumps.

The current Title V permit has PT-7a with a binvent as a control device. However, the source is not equipped with a binvent. Therefore, the facility is requesting to remove the binvent from the Title V permit. Additionally, instead of installing PT-10 and PT-11 (permitted in construction permit 1460-0070-CA but not installed), the facility will create a lime stockpile on the ground and load 40-ton trucks with a loader to deliver the agricultural lime to the pit backfill (Overburden Lime Operations (fugitive source)).

The facility is requesting a synthetic minor limit of less than 250.0 tons per year of PM to avoid PSD.

#### **EQUIPMENT**

Equipment ID	Equipment Description	Control Device ID	Emission Point ID
PT-1	Primary Crusher including Load-In/Load-Out with 3-sided enclosure (100-CR-001) [Modification]	WS	PT-1
PT-2	Crusher Conveyor Transfer to Stockpile Feed Conveyor (150-CV-002) [Modification]	WS	PT-2
PT-2a	Crusher Conveyor to Transfer to Coarse Ore Bin (150-BN-001) [Modification]	PT-2a	PT-2a
PT-3	Stockpile Feed Conveyor Transfer to Coarse Ore Stockpile (150-CV-003) [Modification]	WS	PT-3
PT-3a	Emergency Hopper Load-In (200-HP-001) [Modification]	None	PT-3a
PT-4	Conveyor Transfer to SAG Mill (300-CV-002) [Modification]	WS	PT-4
PT-5a	Carbon Regeneration Kiln Eight (8) - 275,000 Btu/hr Natural Gas Fired Burners (2.2E+06 Btu/hr Total) [Modification]	PT-5a Hg Abatement	PT-5a
PT-5b	Electrowinning Cells, Pregnant and Barren Tanks [Modification]	PT-5b	PT-5b
PT-6	0.25 tph Electric Melting Furnace with Product Recovery Baghouse [Modification]	None	PT-6
PT-7	75-ton Reagent Area Lime Silo (800-FL-001) [Modification]	PT-7	PT-7
PT-7a	Reagent Lime Paste Slaker (800-PK-010) [Modification]	None	PT-7a
PT-15	Five (5) - Diesel Powered Pit Sump Pump Engines 335 Hp (250 kW) Each	None	PT-15

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## **EQUIPMENT**

Equipment ID	Equipment Description	Control Device ID	Emission Point ID
	[Modification]		
PT-16	9.2 million Btu/hr natural gas fired Thermal Fluid	None	PT-16
F 1-10	Heater [Moved to the insignificant activity]	None	F 1-10
	CFR Batch Plant Portable Crushing Operations		
PT-20a	consisting of 342 ton/hr crusher, a 100-kW diesel	WS	PT-20a
	engine and a 300-kW diesel engine [New]		

#### **CONTROL DEVICES**

Control Device ID	Control Device Description	Pollutant(s) Controlled	
WS	Wet Suppression	PM, PM <sub>10</sub> , PM <sub>2.5</sub>	
PT-2a	Coarse Ore Bin Vent Filter	PM, PM <sub>10</sub> , PM <sub>2.5</sub>	
PT-5a	Wet Scrubber PT-5a and Mist Eliminator	PM, PM <sub>10</sub> , PM <sub>2.5</sub>	
Hg	669 scfm Mercury Abatement system consisting of six (6) Sulfur	NH3	
Abatement	Impregnated Carbon (SIC) Storage Tanks	INH3	
PT-5b	Wet Scrubber PT-5b	Mercury	
PT-7	Reagent Area Lime Silo Bin Vent Filter	PM, PM <sub>10</sub> , PM <sub>2.5</sub>	

Condition Number	Conditions		
	Equipment ID: All		
	Control Device ID: All		
1	The owner or operator shall continue to operate under all applicable requirements, including emission limits and standards, testing, monitoring, record keeping, and reporting under the existing Title of Operating Permit (1460-0070) and any unincorporated construction permits that are not changed of contravened by this construction permit.		
	Equipment ID: Facility Wide		
	Control Device ID: Facility Wide		
2	(S.C. Regulation 61-62.1, Section II(E)) This facility is a potential major source for PM emissions. The facility has requested federally enforceable emissions limitations to limit its potential to emit to less than 250.0 tons per year for PM emissions to avoid PSD.		

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Condition Number	Conditions		
	Equipment ID: Facility Wide		
	Control Device ID: Facility Wide		
3	The owner or operator shall maintain any records necessary to determine facility wide PM emissions. PM emissions shall be calculated on a monthly basis, and a twelve month rolling sum shall be calculated for total PM emissions. Facility-wide emission totals must include emissions from insignificant activities. Emissions from malfunctions are required to be quantified and included in the calculations. The twelve month rolling sum shall be less than 250.0 tons. Reports of the calculated values and the twelve-month rolling sum, calculated for each month in the reporting period, shall be submitted semiannually.		
	An algorithm, including example calculations and emission factors, explaining the method used to determine emission rates shall be submitted, postmarked no later than 180 calendar days after source startup Subsequent submittals of the algorithm are required within 30 days of the change if the algorithm or basis for emissions is modified or the Department requests additional information.		
	<b>Equipment ID:</b> PT-2a, PT-5a, PT-5b, PT-7		
	Control Device ID: PT-2a, PT-5a, PT-5b, Hg Abatement, PT-7		
4	The owner/operator shall inspect, calibrate, adjust, and maintain continuous monitoring systems, monitoring devices, and gauges in accordance with manufacturer's specifications or good engineering practices. The owner/operator shall maintain on file all measurements including continuous monitoring system or monitoring device performance measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required in a permanent form suitable for inspection by Department personnel.		
	(S.C. Regulation 61-62.1, Section II(J)(1)(d)) Sources required to have continuous emission monitors shall		
	submit reports as specified in applicable parts of the permit, law, regulations, or standards. <b>Equipment ID:</b> PT-2a, PT-5a, PT-5b, PT-7		
5	Control Device ID: PT-2a, PT-5a, PT-5b, Hg Abatement, PT-7  All gauges shall be readily accessible and easily read by operating personnel and Department personnel (i.e. on ground level or easily accessible roof level). Monitoring parameter readings (e.g., pressure drop readings, flow rates, etc.) and inspection checks shall be maintained in logs (written or electronic), along with any corrective action taken when deviations occur. Each incidence of operation outside the operational ranges, including date and time, cause, and corrective action taken, shall be recorded and kept on site. Exceedance of operational range shall not be considered a violation of an emission limit of this permit, unless the exceedance is also accompanied by other information demonstrating that a violation of an emission limit has taken place.		
	Reports of these incidences shall be submitted semiannually. If no incidences occurred during the reporting period, then documentation shall be submitted to indicate such. Any alternative method for		

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Condition Number	Conditions		
	monitoring control device performance must be preapproved by the Department and shall be incorporated into the permit as set forth in S.C. Regulation 61-62.70.7.		
	Equipment ID: PT-20a Control Device ID: WS		
	All emissions points, duct work and other locations that are required to be tested, shall be designed and constructed in a manner to facilitate testing in accordance with applicable EPA approved source testing methods; including, but not be limited to, methods specifying test port location and sizing criteria.		
	For any source test required under an applicable standard or permit condition, the owner, operator, or representative shall comply with S.C. Regulation 61-62.1, Section IV - Source Tests.		
6	Unless approved otherwise by the Department, the owner, operator, or representative shall ensure that source tests are conducted while the source is operating at the maximum expected production rate or other production rate or operating parameter which would result in the highest emissions for the pollutants being tested. Some sources may have to spike fuels or raw materials to avoid being subjected to a more restrictive feed or process rate. Any source test performed at a production rate less than the rated capacity may result in permit limits on emission rates, including limits on production if necessary.		
	<ul> <li>When conducting source tests subject to this section, the owner, operator, or representative shall provide the following:</li> <li>Department access to the facility to observe source tests;</li> <li>Sampling ports adequate for test methods;</li> <li>Safe sampling site(s);</li> <li>Safe access to sampling site(s);</li> <li>Utilities for sampling and testing equipment; and</li> <li>Equipment and supplies necessary for safe testing of a source.</li> </ul>		
	The owner or operator shall comply with any limits that result from conducting a source test at less than rated capacity. A copy of the most recent Department issued source test summary letter, whether it imposes a limit or not, shall be maintained with the operating permit, for each source that is required to conduct a source test.		
	Site-specific test plans and amendments, notifications, and source test reports shall be submitted to the Department.		
	Equipment ID: PT-6		
7	(S.C. Regulation 61 62.5, Standard No. 4, Section VII) The maximum allowable opacity from any furnace building and/or operations building (including but not limited to pollution control systems, louvers,		

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Condition Number	Conditions		
	doors, openings, etc.) shall be twenty (20) percent.		
	<b>Equipment ID:</b> PT-1, PT-2, PT-2a, PT-3, PT-3a, PT-4, Pt-5a, PT-5b, PT-7, PT-7a, PT-20a <b>Control Device ID:</b> WS, PT-2a, PT-5a, PT-b, Hg Abatement, PT-7		
8	(S.C. Regulation 61-62.5, Standard No. 4, Section IX) Where construction or modification began after December 31, 1985, emissions from these sources (including fugitive emissions) shall not exhibit an opacity greater than 20%, each.		
	<b>Equipment ID:</b> PT-1, PT-2, PT-2a, PT-3, PT-3a, PT-4, PT-5a, PT-5b, PT-6, PT-7, PT-7a, PT-20a <b>Control Device ID:</b> WS, PT-2a, PT-5a, PT-5b, PT-7, Hg Abatement		
	(S.C. Regulation 61-62.5, Standard No. 4, Section VIII) Particulate matter emissions shall be limited to the rate specified by use of the following equations:		
	For process weight rates less than or equal to 30 tons per hour $E = (F) 4.10P^{0.67}$		
	For process weight rates greater than 30 tons per hour $E = (F) (55.0P^{0.11} - 40)$		
9	Where E = the allowable emission rate in pounds per hour		
	P = process weight rate in tons per hour		
	F = effect factor from Table B in S.C. Regulation 61-62.5, Standard No. 4		
	For the purposes of compliance with this condition, the process boundaries are defined as follows:  • Primary Crushing and Coarse Ore Handling (PT-1, PT-2, PT-2a, PT-3a, PT-3a, PT-4) - Max Process Weight Rate 1000 ton/hr		
	<ul> <li>Gold Extraction Process (PT-5a, PT-5b, and PT-6) - Max Process Weight Rate 600 ton/hr</li> <li>Lime Silo Loading No. 1 (PT-7 and PT-7a) - Max Process Weight Rate 30 ton/hr</li> <li>PT-20a - Max Process Weight Rate 342 ton/hr</li> </ul>		
	Equipment ID: PT-2a, PT-7		
	Control Device ID: PT-2a, PT-7		
10	The owner or operator shall continue to operate and maintain pressure drop gauge(s) on each bin vent. Pressure drop readings shall be recorded daily during source operation. Facilities with automated data collection may collect monitoring data on a more frequent basis and calculate the daily average. Readings collected when the source is shutdown or not operating may not be used in the calculation. The owner or operator must get approval from the Technical Management Section for an increased frequency/averaging plan prior to using averaging for parametric monitoring. The owner/operator shall		
	continue to record daily, the calculated monitoring averages using the approved increased frequency/averaging plan unless prior approval is obtained from the Technical Management Section for changing the plan.		
	Operation and maintenance checks shall be made on at least a weekly basis for the bin vent and all associated equipment for proper operation. The checks and any corrective actions shall be		

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Condition Number	Conditions		
	documented and kept on-site. Each bin vent shall be in place and operational whenever processes		
	controlled by it are running, except during periods of multiclone malfunction or mechanical failure. <b>Equipment ID:</b> All		
	Control Device ID: All		
11	The owner or operator shall perform a visual inspection on a semiannual basis of sources subject to opacity limits. The inspection shall occur during normal source operation Logs shall be kept to record all visual inspections, noting color, duration, density (heavy or light), cause, and corrective action taken for any abnormal emissions. If a source did not operate during the required visual inspection time frame, the log shall indicate such. The owner or operator shall submit semiannual reports. The report shall include records of abnormal emissions, if any, and corrective actions taken. If the unit did not operate during the semiannual period, the report shall state so.		
	Visual inspection means a qualitative observation of opacity during daylight hours. The observer does not need to be certified to conduct valid visual inspections. However, at a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, and observer position relative to lighting, wind, and the presence of uncombined water.		
	Equipment ID: Facility Wide		
	Control Device ID: Facility Wide		
12	(S.C. Regulation 61-62.5, Standard No. 4, Section X) All non-enclosed operations shall be conducted in such a manner that a minimum of particulate matter becomes airborne. In no case shall established ambient air quality standards be exceeded at or beyond the property line. The owner/operator of all such operations shall maintain dust control of the premises and any roadway owned or controlled by the owner/operator by paving or other suitable measures. Oil treatment is prohibited.		
	(S.C. Regulation 61-62.6) Fugitive particulate matter (PM) emissions from material handling, process equipment, control equipment, or storage piles will be minimized to the maximum extent possible. This will include proper maintenance of the control system such as scheduled inspections, replacement of damaged or worn parts, etc. Fugitive emissions from dust buildup will be controlled by proper housekeeping and/or wet suppression.		
	Compliance with non-enclosed operations and fugitive dust requirements shall be demonstrated by developing a facility-wide fugitive dust control plan for controlling fugitive emissions from process operations, truck traffic, storage piles, and any other areas within the permitted facility where fugitive dust emissions can be generated. The plan shall be developed and submitted to the Director of Engineering Services for approval within 180 days from the issue date of this permit. The owner/operator shall implement the plan within 30 days of approval and create a schedule for its periodic review and update as necessary. The plan shall be kept and maintained on-site with a record of revisions. The plan shall address and/or contain at a minimum the following:		

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Condition Number	Conditions		
	1. Water Trucks		
	a. Weekly operation and maintenance checks of water trucks		
	b. Operating scenarios for water truck failures or inadequacies		
	c. Dates the water trucks did not operate and the alternative(s) dust control method used 2. Truck Traffic		
	a. Road speed limits		
	b. Vehicle loading, off-loading, transportation or dumping of material procedures		
	c. Spillage and residual materials clean-up procedures		
	d. Weekly operation and maintenance checks of sprinklers		
	e. Signage with respect to SC Code of Laws Sections 56-5-4100 and 56-5-4110 (which		
	requires haul trucks transporting aggregate from all quarries to prevent the escape of materials loaded onto the vehicles)		
	3. Storage Piles		
	a. Material stock piling procedures		
	4. Process Equipment		
	a. Weekly operation and maintenance checks of all plant equipment and enclosures		
	b. Spillage and residual materials clean-up procedures		
	c. Written guidelines on how to handle opacity problems d. Fines collected by the air pollution control equipment shall be handled in a manner that		
	minimizes fugitive emissions to the maximum extent possible.		
	The owner/operator shall develop logs or use other approved methods to comply with the requirements of the plan.		
	Equipment ID: PT-20a		
	Control Device ID: WS		
13	This facility is subject to the provisions of 40 CFR Part 60, New Source Performance Standards General		
13	Provisions, Subparts A and Standards of Performance for Nonmetallic Mineral Processing Plants,		
	Subpart OOO. Existing affected sources shall comply with the applicable provisions by the compliance		
	date specified in Subparts OOO. Any new affected sources shall comply with the requirements of these		
	Subparts upon initial start-up unless otherwise noted.		
	Equipment ID: PT-20a Control Device ID: WS		
	Control Device ID. W3		
	40 CFR 60.670		
14	(a)		
	(1) Except as provided in paragraphs (a)(2), (b), (c), and (d) of this section, the provisions of this subpart		
	are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing		
	plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging		
	operation, storage bin, enclosed truck or railcar loading station.(2) The provisions of this subpart do		

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Condition	Conditions			
Number				
	not apply to the following operations: All facilities located in underground mines; plants witho crushers or grinding mills above ground; and wet material processing operations (as defined in 40 CF 60.671).			
	(b) An affected facility that is subject to the provisions of subparts F or I of this part or that follows in the plant process any facility subject to the provisions of subparts F or I of this part is not subject to the provisions of this subpart.			
	(c) Facilities at the following plants are not subject to the provisions of this subpart: (1) Fixed sand and gravel plants and crushed stone plants with capacities, as defined in 40 CFR 60.671, of 23 megagrams per hour (25 tons per hour) or less; (2) Portable sand and gravel plants and crushed stone plants with capacities, as defined in 40 CFR			
	60.671, of 136 megagrams per hour (150 tons per hour) or less; and (3) Common clay plants and pumice plants with capacities, as defined in 40 CFR 60.671, of 9 megagrams per hour (10 tons per hour) or less.			
	(d)  (e) An affected facility under paragraph (a) of this section that commences construction, modification or reconstruction after August 31, 1983, is subject to the requirements of this part.			
	(f) Table 1 of this subpart specifies the provisions of subpart A of this part 60 that do not apply to owners and operators of affected facilities subject to this subpart or that apply with certain exceptions.			
	Equipment ID: PT-20a Control Device ID: WS			
	(40 CFR 60.671)			
15	(40 CFR 60.672(a))			
	(40 CFR 60.672(b)) Affected facilities must meet the fugitive emission limits and compliance requirements in Table 3 of this subpart within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under 40 CFR 60.11. The requirements in Table 3 of this subpart apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems.			
	(40 CFR 60.672(c))			
	(40 CFR 60.672(d)) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.			

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Condition Number	Conditions		
	The owner or operator must meet the following fugitive emissions limit and must demonstrate compliance with these limits by conducting performance tests as listed below for:		
	Screening operations, bucket elevators, transfer points on belt conveyors, bagging operations storage bins, enclosed truck or railcar loading stations or from any other affected facility.  Affected facilities that commence  Affected facilities that commence		
	construction, modification, or reconstruction	construction, modification, or reconstruct on	
	after	or after	
	August 31, 1983 but before April 22, 2008	April 22, 2008	
		7 percent opacity	
		An initial performance test according to 40 CFR 60.11 and 40 CFR 60.675; and Periodic inspections of water sprays according to 40CFR 60.674(b) and 60.676(b);	
	The owner or operator must meet the following fugitive emissions limit and must demonstrated compliance with these limits by conducting performance tests as listed below for:  Crushers at which a capture system is not used.  Affected facilities that commenced  Affected facilities that commence		
	construction, modification, or reconstruction	construction, modification, or reconstruct on	
	after	or after	
	August 31, 1983 but before April 22, 2008	April 22, 2008	
		12 percent opacity  An initial performance test according to 40 CFR 60.11 and 40 CFR 60.675; and Periodic inspections of water sprays according to 40CFR 60.674(b) and 60.676(b);	
	(40 CFR 60.672(e)) - (40 CFR 60.672(f))		
	(40 CFR 60.673)		
	Equipment ID: PT-20a Control Device ID: WS		
16	(40 CFR 60.675)(a) - (40 CFR 60.675)(b))		
	(40 CFR 60.675(c)(1)) In determining compliance	with the particulate matter standards in 40 CFR	

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Condition Number	Conditions			
Number	60.672(b), the owner or operator shall use Method 9 of Appendix A-4 of this part and the procedures in 40 CFR 60.11, with the following additions:			
	(i) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).			
	(ii) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources ( <i>e.g.,</i> road dust). The required observer position relative to the sun (Method 9 of Appendix A-4 of this part, Section 2.1) must be followed.			
	(iii) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.			
	(40 CFR 60.675(c)(2))			
	(40 CFR 60.675(c)(3)) When determining compliance with the fugitive emissions standard for any affected facility described under 40 CFR 60.672(b), the duration of the Method 9 (40 CFR part 60, Appendix A-4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of this subpart must be based on the average of the five 6-minute averages.			
	(40 CFR 60.675(d) - (40 CFR 60.675(i))			
	Equipment ID: PT-20a Control Device ID: WS			
	(40 CFR 60.674)(a))			
17	(40 CFR 60.674(b)) The owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under 40 CFR 60.676(b).			
	(1) (2) If an affected facility that routinely uses wet suppression water sprays ceases operation of			

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Condition Number	Conditions		
	the water sprays or is using a control mechanism to reduce fugitive emissions other than water sprays during the monthly inspection (for example, water from recent rainfall), the logbook entry required under 40 CFR 60.676(b) must specify the control mechanism being used instead of the water sprays.		
	(40 CFR 60.674)(c) - (40 CFR 60.674)(e))		
	(40 CFR 60.676(b)(1)) Owners or operators of affected facilities for which construction, modification, or reconstruction commenced on or after April 22, 2008, must record each periodic inspection required under 40 CFR 60.674(b), including dates and any corrective actions taken, in a logbook (in written or electronic format). The owner or operator must keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Department upon request. (40 CFR 60.676(b)(2))		
	Equipment ID: PT-20a Control Device ID: WS		
	(40 CFR 60.670(d))  (1) When an existing facility is replaced by a piece of equipment of equal or smaller size, as defined in 40 CFR 60.671, having the same function as the existing facility, and there is no increase in the amount of emissions, the new facility is exempt from the provisions of 40 CFR 60.672, 60.674, and 60.675 except as provided for in paragraph (d)(3) of this section.		
	(2) An owner or operator complying with paragraph (d)(1) of this section shall submit the information required in 40 CFR 60.676(a).		
18	(3) An owner or operator replacing all existing facilities in a production line with new facilities does not qualify for the exemption described in paragraph (d)(1) of this section and must comply with the provisions of 40 CFR 60.672, 60.674 and 60.675.		
	(40 CFR 60.676(a)) Each owner or operator seeking to comply with 40 CFR 60.670(d) shall submit to the Department the following information about the existing facility being replaced and the replacement piece of equipment.		
	<ul> <li>(1) For a crusher, bucket elevator, bagging operation, or enclosed truck or railcar loading station:</li> <li>(i) The rated capacity in megagrams or tons per hour of the existing facility being replaced.</li> <li>(ii) The rated capacity in tons per hour of the replacement equipment.</li> </ul>		
	(2) For a screening operation:  (i) The total surface area of the top screen of the existing screening operation being replaced  (ii) The total surface area of the top screen of the replacement screening operation.		

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Condition Number	Conditions				
	(3) For a conveyor belt:  (i) The width of the existing belt being replaced  (ii) The width of the replacement conveyor belt.				
	(4) For a storage bin: (i) The rated capacity in megagrams or tons of the existing storage bin being replaced and(ii) The rated capacity in megagrams or tons of replacement storage bins.				
	Equipment ID: PT-20a Control Device ID: WS				
	(40 CFR 60.676(c)) - (40 CFR 60.676(e)) (40 CFR 60.676(e)) (40 CFR 60.676(f) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in 40 CFR 60.672 of this subpart, including reports of opacity observations made using Method 9 (40 CFR part 60, Appendix A-4) to demonstrate compliance with 40 CFR 60.672(b).				
	40 CFR 60.676(g))				
19	(40 CFR 60.676(h)) The subpart A requirement under 40 CFR 60.7(a)(1) for notification of the date construction or reconstruction commenced is waived for affected facilities under this subpart.				
	(40 CFR 60.676(i)) A notification of the actual date of initial startup of each affected facility shall be submitted to the Department				
	(1) For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Department. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.				
	(2) For portable aggregate processing plants, the notification of the actual date of initial startup shall include both the home office and the current address or location of the portable plant.				
	Equipment ID: PT-15, PT-20a				
20	This source is subject to New Source Performance Standards (NSPS), 40 CFR 60 Subpart A, General Provisions and Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, and S.C. Regulation 61-62.60 Subparts A and IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, as applicable. This source shall comply with all applicable requirements of Subparts A and IIII.				

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#### **NESHAP (40 CFR 61 AND 40 CFR 63) PERIODIC REPORTING SCHEDULE SUMMARY**

NESHAP Part	NESHAP Subpart	Compliance Monitoring Report Submittal Frequency	Reporting Period	Report Due Date
63	ZZZZ (Non- Emergency Engines)	Semi-Annual	January 1 through June 30 July 1 through December 31	For semiannual reports, first report postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date.
63	EEEEEEE	Semi-Annual3	January 1 through June 30 July 1 through December 31	January 31 July 31

- 1. This table summarizes only the periodic compliance reporting schedule. Additional reports may be required. See specific NESHAP Subpart for additional reporting requirements and associated schedule.
- 2. This reporting schedule does not supersede any other reporting requirements including but not limited to 40 CFR Part 60, 40 CFR Part 61, 40 CFR Part 63, and/or Title V. The MACT reporting schedule may be adjusted to coincide with the Title V reporting schedule with prior approval from the Department in accordance with 40 CFR 63.10(a)(5). This request may be made 1 year after the compliance date for the associated MACT standard.
- 3. Only when deviations occur during the reporting period.

#### **NESHAP (40 CFR 61 AND 40 CFR 63)**

Condition Number	Conditions		
1	All NESHAP notifications and reports shall be sent to the Manager of the Air Toxics Section, South		
	Carolina Department of Health and Environmental Control - Bureau of Air Quality.		
	All NESHAP notifications and the cover letter to periodic reports shall be sent to the United States Environmental Protection Agency (US EPA) at the following address or electronically as required by the specific subpart:		
2	US EPA, Region 4		
	Air, Pesticides and Toxics Management Division		
	61 Forsyth Street SW		
	Atlanta, GA 30303		
	Affected sources: All Stationary IC Engines: This facility is subject to the provisions of 40 CFR Part 63,		
3	National Emission Standards for Hazardous Air Pollutants, Subparts A and NESHAP for Stationary		
	Reciprocating Internal Combustion Engines. Existing affected sources shall comply with the		
	applicable provisions by the compliance date specified in Subpart ZZZZ. Any new affected sources		
	shall comply with the requirements of this Subpart upon initial start-up unless otherwise noted.		

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## **NESHAP (40 CFR 61 AND 40 CFR 63)**

Condition Number	Conditions		
4	This facility has processes subject to the provisions of S.C. Regulation 61-62.63 and 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants, Subparts A and EEEEEEE, Gold Mine Ore Processing And Production Area. The owner or operator shall comply with all applicable requirements of these Subparts; which are incorporated by reference as if fully repeated herein. Existing affected sources shall be in compliance with the requirements of these Subparts by the compliance date, unless otherwise noted. Any new affected sources shall comply with the requirements of these Subparts upon initial start-up unless otherwise noted.		

#### **GENERAL FACILITY WIDE**

Condition Number	Conditions		
1	The permittee shall pay permit fees to the Department in accordance with the requirements of S.C. Regulation 61-30, Environmental Protection Fees.		
2	In the event of an emergency, as defined in S.C. Regulation 61-62.1, Section II(L), the owner or operator may document an emergency situation through properly signed, contemporaneous operating logs, and other relevant evidence that verify:  1. An emergency occurred, and the owner or operator can identify the cause(s) of the emergency;  2. The permitted source was at the time the emergency occurred being properly operated;  3. During the period of the emergency, the owner or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and  4. The owner or operator gave a verbal notification of the emergency to the Department within 24 hours of the time when emission limitations were exceeded, followed by a written report within 30 days. The written report shall include, at a minimum, the information required by S.C. Regulation 61-62.1, Section II(J)(1)(c)(i) through (J)(1)(c)(viii). The written report shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.  This provision is in addition to any emergency or upset provision contained in any applicable requirement.		
3	<ul> <li>(S.C. Regulation 61-62.1, Section II(O)) Upon presentation of credentials and other documents as may be required by law, the owner or operator shall allow the Department or an authorized representative to perform the following: <ol> <li>Enter the facility where emissions-related activity is conducted, or where records must be kept under the conditions of the permit.</li> <li>Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit.</li> <li>Inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.</li> </ol> </li></ul>		

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## **GENERAL FACILITY WIDE**

Condition Number	Conditions		
	4. As authorized by the Federal Clean Air Act and/or the S.C. Pollution Control Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.		
4	(S.C. Regulation 61-62.1, Section II(J)(1)(a)) No applicable law, regulation, or standard will be contravened.		
5	(S.C. Regulation 61-62.1, Section II(J)(1)(e)) Any owner or operator who constructs or operates a source or modification not in accordance with the application submitted pursuant to this regulation or with the terms of any approval to construct, or who commences construction after the effective date of these regulations without applying for and receiving approval hereunder, shall be subject to enforcement action.		

#### **GENERAL RECORD KEEPING AND REPORTING**

Condition Number	Conditions		
1	(S.C. Regulation 61-62.1, Section II(J)(1)(g)) A copy of the Department issued construction and/or operating permit must be kept readily available at the facility at all times. The owner or operator shall maintain such operational records; make reports; install, use, and maintain monitoring equipment or methods; sample and analyze emissions or discharges in accordance with prescribed methods at locations, intervals, and procedures as the Department shall prescribe; and provide such other information as the Department reasonably may require. All records required to demonstrate compliance with the limits established under this permit shall be maintained on site for a period of at least five (5) years from the date the record was generated and shall be made available to a Department representative upon request.		
2	Reporting required in this permit, shall be submitted in a timely manner as directed in the Periodic Reporting Schedule of this permit.		
3	All reports and notifications required under this permit shall be submitted to the person indicated in the specific condition at the following address:  2600 Bull Street  Columbia, SC 29201  The contact information for the local Environmental Affairs Regional office can be found at:  http://www.scdhec.gov		
4	(S.C. Regulation 61-62.1, Section II(A)(3)) The owner/operator shall submit written notification to the Director of Air Permitting of the date construction is commenced, postmarked within thirty (30) days after such date.		
5	Unless elsewhere specified within this permit, all reports required under this permit shall be submitted to the Manager of the Technical Management Section, Bureau of Air Quality.		
6	(S.C. Regulation 61-62.1, Section II(J)(1)(c)) For sources not required to have continuous emission monitors, any malfunction of air pollution control equipment or system, process upset, or other equipment failure which results in discharges of air contaminants lasting for one (1) hour or more		

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## **GENERAL RECORD KEEPING AND REPORTING**

Condition Number	Conditions			
	and which are greater than those discharges described for normal operation in the permit application, shall be reported to the Department within twenty-four (24) hours after the beginning of the occurrence and a written report shall be submitted to the Department within thirty (30) days. The written report shall include, at a minimum, the following:			
	<ol> <li>The identity of the stack and/or emission point where the excess emissions occurred;</li> <li>The magnitude of excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the excess emissions;</li> <li>The time and duration of excess emissions;</li> <li>The identity of the equipment causing the excess emissions;</li> <li>The nature and cause of such excess emissions;</li> <li>The steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunction;</li> <li>The steps taken to limit the excess emissions; and,</li> <li>Documentation that the air pollution control equipment, process equipment, or processes were at all times maintained and operated, to the maximum extent practicable, in a manner consistent with good practice for minimizing emissions.</li> </ol>			
	The initial twenty-four (24) hour notification should be made to the Department's local Environmental Affairs Regional office.			
	The written report should be sent to the Manager of the Technical Management Section, Bureau of Air Quality and the local Environmental Affairs Regional office.			

## **REPORTING SCHEDULES**

Compliance Monitoring Report Submittal Frequency	Reporting Period (Begins on the startup date of the source)	Report Due Date
	January-March	April 30
Quartarly	April-June	July 30
Quarterly	July-September	October 30
	October-December	January 30
	January-June	July 30
Semiannual	April-September	October 30
Semidiffual	July-December	January 30
	October-March	April 30

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#### **REPORTING SCHEDULES**

Compliance Monitoring Report Submittal Frequency	Reporting Period (Begins on the startup date of the source)	Report Due Date
	January-December	January 30
Annual	April-March	April 30
Ailliudi	July-June	July 30
	October-September	October 30

Note: This reporting schedule does not supersede any federal reporting requirements including but not limited to 40 CFR Part 60, 40 CFR Part 61, and 40 CFR Part 63. All federal reports must meet the reporting time frames specified in the federal standard unless the Department or EPA approves a change.

#### PERMIT EXPIRATION AND EXTENSION

Condition Number	Conditions
	(S.C. Regulation 61-62.1, Section II(A)(4) and (5) and S.C. Regulation 61-62.1, Section II(J)(1)(f)) Approval to construct shall become invalid if construction:  a. is not commenced within 18 months after receipt of such approval;  b. is discontinued for a period of 18 months or more; or
1	c. is not completed within a reasonable time as deemed by the Department.  The Department may extend the construction permit for an additional 18-month period upon a satisfactory showing that an extension is justified. This request must be made prior to the permit expiration.
	This provision does not apply to the time period between construction of the approved phases of a phased construction project; each phase must commence construction within eighteen (18) months of the projected and approved commencement date.

#### **PERMIT TO OPERATE**

Condition Number	Conditions
1	(S.C. Regulation 61-62.1 Section II(F)(3)) When a Department issued construction permit includes engineering and/or construction specifications, the owner/operator or professional engineer in charge of the project shall certify that, to the best of his/her knowledge and belief and as a result of periodic observation during construction, the construction under application has been completed in accordance with the specifications agreed upon in the construction permit issued by the Department. If construction is certified as provided above, the owner or operator may operate the source in compliance with the terms and conditions of the construction permit until the operating permit is issued by the Department. If construction is not built as specified in the permit application and

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## PERMIT TO OPERATE

Condition Number	Conditions
	associated construction permit(s), the owner/operator must submit to the Department a complete description of modifications that are at variance with the documentation of the construction permitting determination prior to commencing operation. Construction variances that would trigger additional requirements that have not been addressed prior to start of operation shall be considered construction without a permit.
2	(S.C. Regulation 61-62.1, Section II(F)(1)) The owner or operator shall submit written notification to the Department of the actual date of initial startup of each new or altered source, postmarked within fifteen (15) days after such date. Any source that is required to obtain an air quality construction permit issued by the Department must obtain an operating permit when the new or altered source is placed into operation and shall comply with the requirements of this section.
3	(S.C. Regulation 61-62.1, Section II(F)(4)(a)) For sources covered by an effective Title V operating permit, the modification request required by Regulation 61-62.70 shall serve as the request to operate for the purposes of S.C. Regulation 61-62.1, Section II(F). The request should be made using the appropriate Title V modification form.

## AMBIENT AIR STANDARDS REQUIREMENTS

Condition Number	Conditions
1	Air dispersion modeling (or other method) has demonstrated that this facility's operation will not interfere with the attainment and maintenance of any state or federal ambient air standard. Any changes in the parameters used in this demonstration may require a review by the facility to determine continuing compliance with these standards. These potential changes include any decrease in stack height, decrease in stack velocity, increase in stack diameter, decrease in stack exit temperature, increase in building height or building additions, increase in emission rates, decrease in distance between stack and property line, changes in vertical stack orientation, and installation of a rain cap that impedes vertical flow. Parameters that are not required in the determination will not invalidate the demonstration if they are modified. The emission rates used in the determination are listed in Attachment - Emission Rates for Ambient Air Standards of this permit. Higher emission rates may be administratively incorporated into Attachment - Emission Rates for Ambient Air Standards of this permit provided a demonstration using these higher emission rates shows the attainment and maintenance of any state or federal ambient air quality standard or with any other applicable requirement. Variations from the input parameters in the demonstration shall not constitute a violation unless the maximum allowable ambient concentrations identified in the standard are exceeded.  The owner/operator shall maintain this facility at or below the emission rates as listed in Attachment
	- Emission Rates for Ambient Air Standards, not to exceed the pollutant limitations of this permit.
	Should the facility wish to increase the emission rates listed in Attachment - Emission Rates for Ambient Air Standards, not to exceed the pollutant limitations in the body of this permit, it may do

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## AMBIENT AIR STANDARDS REQUIREMENTS

Condition Number	Conditions
	so by the administrative process specified above. This is a State Only enforceable requirement.

#### **ATTACHMENT - Emission Rates for Ambient Air Standards**

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The emission rates listed herein are not considered enforceable limitations but are used to evaluate ambient air quality impact. Until the Department makes a determination that a facility is causing or contributing to an exceedance of a state or federal ambient air quality standard, increases to these emission rates are not in themselves considered violations of these ambient air quality standards (see Ambient Air Standards Requirements).

AMBIENT AIR QUALITY STANDARDS – STANDARD NO. 2						
Emission Doint ID	Emission Rates (lbs/hr)					
Emission Point ID	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NOx	СО	Lead
PT-1	2.565	0.39				
PT-2	0.380	0.06				
PT-2A	0.05	0.01				
PT-3	0.192	0.03				
PT-3A	0.30	0.05				
PT-4	0.144	0.035				
PT-5A	0.19	0.19				
PT-6	0.60	0.60				
PT-7	0.02	0.002				
PT-7A	0.13	0.02				
PT-9	0.24	0.24	0.30	0.90	1.16	
PT-10	0.34	0.34				
PT-11	0.20	0.03				
PT-15A	0.059	0.01	0.77	2.208	1.92	
PT-15B	0.059	0.01	0.77	2.208	1.92	
PT-15C	0.059	0.01	0.77	2.208	1.92	
PT-15D	0.059	0.01	0.77	2.208	1.92	
PT-15E	0.059	0.01	0.77	2.208	1.92	
PT-16	0.095	0.07	0.006	1.250	0.77	
PT-18	0.868	0.222	0.62	0.2	1.72	
PT-20A	1.484	0.264				5.26E-06
PT-20B	0.60	0.09	0.89	0.29	2.81	
Fugitives	0.47	0.07				
Pebble Crusher	0.19	0.03				

TOXIC AIR POLLUTANTS – STANDARD NO. 8						
	Emission Rates (lbs/hr)					
Emission Point ID	Hydrogen Cyanide	Arsenic	Beryllium	Cadmium		
	74-90-8	7440-38-2	7440-41-7	7440-43-9		
PT-5B	0.176	-				
T-1	0.143					
Pebble Crusher		1.79E-05				

## **ATTACHMENT - Emission Rates for Ambient Air Standards**

# Haile Gold Mine 1460-0070-CD Page 2 of 3

TOXIC AIR POLLUTANTS – STANDARD NO. 8					
	Emission Rates (lbs/hr)				
Emission Point ID	Hydrogen Cyanide	Arsenic	Beryllium	Cadmium	
	74-90-8	7440-38-2	7440-41-7	7440-43-9	
PT-1		2.44E-04			
PT-2		3.62E-05			
PT-2A		4.76E-06			
PT-3		1.83E-05			
PT-3A		2.89E-05			
PT-4		2.17E-05			
PT-5A		4.40E-07	2.64E-08	2.42E-06	
PT-6		5.71E-05			
PT-16		1.84E-06	1.10E-07	1.01E-05	
PT-20A		1.98E-05	5.59E-07	3.39E-08	

TOXIC AIR POLLUTANTS – STANDARD NO. 8						
	Emission Rates (lbs/hr)					
Emission Point ID	Carbon Disulfide	Chromium (+6) Compounds	Hydrochloric Acid	Manganese Compounds		
	75-15-0		7647-01-0			
T-5	0.040					
PT-5A		3.08E-06		8.36E-07		
PT-16		1.29E-05		3.50E-06		
PT-20A		1.43E-05		1.81E-04		
T-2			4.32E-05			

TOXIC AIR POLLUTANTS – STANDARD NO. 8						
	Emission Rates (lbs/hr)					
Emission Point ID	Mercury	Nickel	Phosphorus	Selenium Compounds		
	7439-97-6	7440-02-0	7723-14-0			
PT-16	2.39E-06	-	-			
PT-5A		4.62E-06		5.28E-08		
PT-16		1.93E-05		2.21E-07		
PT-20A		2.67E-05	7.65E-05	4.32E-07		

## **ATTACHMENT - Emission Rates for Ambient Air Standards**

# Haile Gold Mine 1460-0070-CD Page 3 of 3

TOXIC AIR POLLUTANTS – STANDARD NO. 8					
	Emission Rates (lbs/hr)				
Emission Point ID	Sodium Hydroxide	Sulfuric Acid			
	1310-73-2	7664-93-9			
PT-4	1.90E-05				
T-3		2.12E-05			