

STATE OF NEVADA
Department of Conservation & Natural Resources
DIVISION OF ENVIRONMENTAL PROTECTION

Brian Sandoval, Governor
Leo M. Drozdoff, P.E., Director
Colleen Cripps, Ph.D., Administrator

October 8, 2012

Gerardo Rios, Chief (A-5-1)
New Source Section
Air & Toxics Division
U.S. EPA, Region IX
75 Hawthorne Street
San Francisco, CA 94105

Re: Proposed Minor Revision to Class I (Title V) Air Quality Operating Permit #AP1041-0739.02 for Barrick Goldstrike Mines, Inc.; FIN A0005

Dear Mr. Rios:

Enclosed please find those revised sections of the **PROPOSED** Class I Operating Permit minor revision for the Barrick Goldstrike Mines, Inc. (Barrick) facility located near Carlin, Nevada. Pursuant to Nevada Administrative Code 445B.3425, this information is being provided to you to initiate EPA's 45-day review period.

Please find attached the draft revised permit pages and the NDEP Director's Review. The application for minor revision will be sent via e-mail to EPA. If you have any questions, please contact Pat Mohn of my staff at (775) 687-9345, or pmohn@ndep.nv.gov.

Sincerely,

Jeffrey Kinder, P.E.
Supervisor, Permitting Branch
Bureau of Air Pollution Control

JK/pam

Enclosures: Proposed Revisions to Air Permit and Director's Review.
Certified Mail No. 9171 9690 0935 0011 8866 83

E-Copy: Joseph Giraud, Barrick Goldstrike (via e-mail)
Omer Shalev, U.S. EPA Region 9 (via e-mail)



STATE OF NEVADA
 DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
 DIVISION OF ENVIRONMENTAL PROTECTION-BUREAU OF AIR POLLUTION CONTROL

Director's Review and Preliminary Determination of Permit Issuance for

Barrick Goldstrike Mines, Inc. (BGM)

**P.O. Box 29
 Elko, Nevada 89803
 October 2012**

BGM submitted an application for minor revision of Class I (Title V) Operating Permit, AP1041-0739.02, to the Nevada Division of Environmental Protection – Bureau of Air Pollution Control (BAPC). The project is located in Eureka County, Nevada in all or portions of Sections 1-4, T35N-R49E; Sections 12-15, 21-28, and 33-36, T36N-R49E; and Sections 7-9, 16-21, and 28-32 T36N-R50E (MDB&M).

BGM requested the ability to process ore, in addition to aggregate, in an existing crushing and screening plant, designated as System 95 in BGM's current Title V permit. BGM also proposed ducting some of the existing crushing and screening equipment of System 95 to a new baghouse.

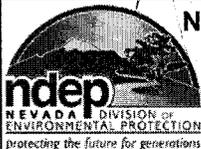
The facility-wide potential-to-emit (PTE) for criteria pollutants at Barrick Goldstrike, including the reconfiguration of System 95, is given in the table below:

Current emission estimates indicate that the Barrick Goldstrike is an existing major stationary source for PM, PM ₁₀ , SO ₂ , NO _x , and CO, with the facility-wide PTE for these pollutants greater than the major PSD source threshold of 250 tpy.	<i>Barrick Goldstrike Potential-to-Emit (PTE) Current Minor Revision and Facility-Wide</i>			
	Pollutant		Minor Revision (TPY)	Facility-Wide (TPY)
	PM	(Particulate Matter)	4.71	467.73
	PM₁₀	(Particulate matter <10 microns in diam.)	6.41	422.23
	SO₂	(Sulfur Dioxide)	N/A	263.19
	NO_x	(Oxides of Nitrogen)	N/A	424.65
	CO	(Carbon monoxide)	N/A	419.11
	VOC	(Volatile Organic Compounds)	N/A	200.00
	H₂S	(Hydrogen Sulfide)	N/A	39.90
	HAPs (single)	(Hazardous Air Pollutants)	N/A	< 10
HAPs (all)	(Hazardous Air Pollutants)	N/A	< 25	

The project is located in Air Quality Hydrographic Area (HA) 61U – the Boulder Flat Area (Upper) of the Humboldt River Basin. HA 61U is unclassified for all criteria pollutants. The current application for revision will not trigger PSD permitting, based on U.S. EPA criteria for making such determinations. Some of the reconfigured crushing, screening, and conveyance equipment is subject to NSPS standards for non-metallic and metallic mineral processing.

Air dispersion modeling conducted by the BAPC demonstrates that continued operation of the Barrick Goldstrike property, after the proposed revisions are made, will not violate any applicable air quality standard.

BGM must comply with all State and Federal air quality requirements and all conditions established within the draft Class I (Title V) Operating Permit.



BUREAU OF AIR POLLUTION CONTROL

Facility ID No. A0005

Permit No. AP1041-0739.02

CLASS I AIR QUALITY OPERATING PERMIT GENERAL REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

Emission Unit List (continued)

Emissions Cap: Systems 90, 91 & 92 - Electric Power Generators (See Section VII.B)

- S 2.311.1 Diesel-fueled engine electric generator #1 (autoclave) (MP-750, Autoclave)
- S 2.311.2 Diesel-fueled engine electric generator #2 (autoclave) (MP-598, Autoclave)
- S 2.311.3 Diesel-fueled engine electric generator #3 (autoclave) (MP-606, Autoclave)
- S 2.311.4 Diesel-fueled engine electric generator #4 (autoclave) (MP-607, Autoclave)
- S 2.312.1 Diesel-fueled engine electric generator #5 (Mill) (MP-608, Mill)
- S 2.312.2 Diesel-fueled engine electric generator #10 (Meikle) (KCG-002, Meikle)
- S 2.313.1 Diesel-fueled engine electric generator #6 (Roaster) (MP-610, Roaster)
- S 2.313.2 Diesel-fueled engine electric generator #7 (Roaster) (MP-705, Roaster)
- S 2.313.3 Diesel-fueled engine electric generator #8 (Roaster) (MP-706, Roaster)
- S 2.313.4 Diesel-fueled engine electric generator #9 (Rodeo) (MP-704, Rodeo)

CPA. System 95A - Backfill Crushing and Screening Plant - Aggregate Handling

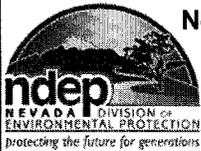
- PF 1.400-.401 Jaw crusher pan feeders 1 and 2 (load)
- PF 1.402-.403 Jaw crusher pan feeders 1 and 2 (discharge)
- PF 1.411 Truck load-out surge bin (discharge)
- PF 1.415-.416 Jaw Crusher outlet conveyors 1 and 2
- PF 1.417-.425 Conveyor transfers
- PF 1.433 Stacker conveyor transfer
- PF 1.434 Conveyor transfer

CPB. System 95B - Backfill Crushing and Screening Plant - Aggregate Crushing

- S 2.358.1 Jaw Crusher 1 and discharge
- S 2.358.2 Jaw Crusher 2 and discharge
- S 2.358.3 Cone Crusher 1 and transfers
- S 2.358.4 Screen 1 and transfer belts
- S 2.358.5 Screen 2 and transfer belts

CPC. System 95C - Backfill Crushing and Screening Plant - Ore Handling - Alternative Op. Scenario

- PF 1.400-.401 Jaw crusher pan feeders 1 and 2 (load)
- PF 1.402-.403 Jaw crusher pan feeders 1 and 2 (discharge)
- PF 1.411 Truck load-out surge bin (discharge)
- PF 1.415-.416 Jaw Crusher outlet conveyors 1 and 2
- PF 1.417-.425 Conveyor transfers
- PF 1.433 Stacker conveyor transfer
- PF 1.434 Conveyor transfer



BUREAU OF AIR POLLUTION CONTROL

Facility ID No. A0005

Permit No. AP1041-0739.02

**CLASS I AIR QUALITY OPERATING PERMIT
GENERAL REQUIREMENTS**

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

Emission Unit List (continued)

CPD. System 95D - Backfill Crushing and Screening Plant – Ore Crushing – Alternative Op. Scenario

- S 2.358.1 Jaw Crusher 1 and discharge
- S 2.358.2 Jaw Crusher 2 and discharge
- S 2.358.3 Cone Crusher 1 and transfers
- S 2.358.4 Screen 1 and transfer belts
- S 2.358.5 Screen 2 and transfer belts

CQ. System 96 - Shotcrete Plant with Aggregate Dryer – Removed as part of the Renewal Process



BUREAU OF AIR POLLUTION CONTROL

Facility ID No. A0005

Permit No. AP1041-0739.02

CLASS I AIR QUALITY OPERATING PERMIT GENERAL REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

Section II. General Construction Conditions

A. Notification and Recordkeeping (40 CFR 60.7, NAC 445B.250) – Added February 21, 2012

The Permittee shall provide the Director the following:

1. A notification of the date of construction of **S2.350 – S2.354** and **PF1.510 – PF1.513** is commenced, postmarked no later than 30 days after such date. This requirement shall not apply to mass-produced facilities which are purchased in completed form (40 CFR 60.7(a)(1); NAC 445B.250.1)
2. A notification of the anticipated date of initial startup of **S2.350 – S2.354** and **PF1.510 – PF1.513**, postmarked not more than 60 days nor less than 30 days prior to such date (NAC 445B.250.2).
3. A notification of the actual date of initial startup of **S2.350 – S2.354** and **PF1.510 – PF1.513**, postmarked within 15 days after such date (40 CFR 60.7(a)(3); NAC 445B.250.3).
4. A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in §60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice (40 CFR 60.7(a)(4)).

B. Notification and Recordkeeping (NAC 445B.250) – Added May 9, 2012

The Permittee shall provide the Director the following:

1. A notification of the date of construction of **S2.051.7, S2.074.2, and S2.074.3** is commenced, postmarked no later than 30 days after such date. This requirement shall not apply to mass-produced facilities which are purchased in completed form (NAC 445B.250.1)
2. A notification of the anticipated date of initial startup of **S2.051.7, S2.074.2, and S2.074.3**, postmarked not more than 60 days nor less than 30 days prior to such date (NAC 445B.250.2).
3. A notification of the actual date of initial startup of **S2.051.7, S2.074.2, and S2.074.3**, postmarked within 15 days after such date (NAC 445B.250.3).

C. Notification and Recordkeeping (NAC 445B.250) – Added July 2012

The Permittee shall provide the Director the following:

1. A notification of the date of construction of **S2.357** is commenced, postmarked no later than 30 days after such date. This requirement shall not apply to mass-produced facilities which are purchased in completed form (NAC 445B.250.1)
2. A notification of the anticipated date of initial startup of **S2.357**, postmarked not more than 60 days nor less than 30 days prior to such date (NAC 445B.250.2).
3. A notification of the actual date of initial startup of **S2.357**, postmarked within 15 days after such date (NAC 445B.250.3).

D. Notification and Recordkeeping (40 CFR 60.7, NAC 445B.250) – Added November 2012

The Permittee shall provide the Director the following:

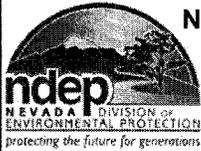
1. A notification of the date of construction of **S2.358.1 – S2.358.5** is commenced, postmarked no later than 30 days after such date. This requirement shall not apply to mass-produced facilities which are purchased in completed form (40 CFR 60.7(a)(1); NAC 445B.250.1)
2. A notification of the anticipated date of initial startup of **S2.358.1 – S2.358.5**, postmarked not more than 60 days nor less than 30 days prior to such date (NAC 445B.250.2).
3. A notification of the actual date of initial startup of **S2.358.1 – S2.358.5**, postmarked within 15 days after such date (40 CFR 60.7(a)(3); NAC 445B.250.3).
4. A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in §60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice (40 CFR 60.7(a)(4)).

E. NAC 445B.3366 Part 70 Program

Expiration

This Operating Permit expires if construction is not commenced within 18 months after the date of issuance thereof or construction of the facility is delayed for 18 months after initiated.

*******End of General Construction Conditions*******



BUREAU OF AIR POLLUTION CONTROL

Facility ID No. A0005

Permit No. AP1041-0739.02

CLASS I AIR QUALITY OPERATING PERMIT

GENERAL REQUIREMENTS

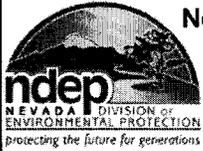
Issued to: **BARRICK GOLDSTRIKE MINES, INC.,** as Permittee

Section IIA. Specific Construction Conditions (continued)

J. **Initial Performance Tests for Emission Unit S2.358.1 – S2.358.5 – Added November 2012**
NAC 445B.3405 (NAC 445B.316); NAC 445B.252 *Part 70 Program*

1. Emissions from **S2.358.1 – S2.358.5** shall be controlled as specified in Section VI of this operating permit.
2. Within 60 days after achieving the maximum production rate at which **S2.358.1 – S2.358.5** will be operated, but no later than 180 days after initial startup, the Permittee shall conduct and record a Method 5 (or 17) performance test for particulate matter consisting of three valid runs (except as provided in Sections I.S.5. and I.T.5. of this Operating Permit). The sample volume for each test run shall be at least 60 DSCF (or be conducted for up to 120 minutes in an effort to collect this sample volume), and the sample time shall be a minimum of 1-hour. The sampling probe and filter holder of Method 5 may be operated without heaters if the gas stream being sampled is at ambient temperature. For gas streams above ambient temperature, the Method 5 sampling train shall be operated with a probe and filter temperature slightly above the effluent temperature (up to a maximum filter temperature of 121 °C (250 °F)) in order to prevent water condensation on the filter.
3. Within 60 days after achieving the maximum production rate at which **S2.358.1 – S2.358.5** will be operated, but no later than 180 days after initial startup, the Permittee shall conduct and record a Method 9 visible emissions test for opacity on the exhaust stack of **S2.358.1 – S2.358.5** while operating. The Method 9 test shall be performed at the same time as the performance test for particulate matter emissions, as required in J.2. above. The total time of visible emission observations shall be 6-minutes (24 consecutive readings at 15-second intervals).
4. The initial performance tests required in J.2. and J.3. above can be performed when either aggregate or precious-metal ore is being processed in **S2.358.1 – S2.358.5**.
5. Tests of performance must be conducted under such conditions as the Director specifies to the operator of the plant based on representative performance of the affected facility. The owner or operator shall make available to the Director such records as may be necessary to determine the conditions of the test of performance. Operations during periods of startup, shutdown and malfunction must not constitute representative conditions of a test of performance unless otherwise specified in the applicable standard (NAC 445B.252.3).
6. The owner of an affected facility shall give notice to the Director 30 days before the test of performance to allow the Director to have an observer present. A written testing procedure for the test of performance must be submitted to the Director at least 30 days before the test of performance to allow the Director to review the proposed testing procedures (NAC 445B.252.4).
7. Permittee shall comply with the requirements of Section I.S.3. through I.S.8. and I.T.3. through I.T.8. of this operating permit for all performance testing.

*******End of Specific Construction Conditions*******



BUREAU OF AIR POLLUTION CONTROL

Facility ID No. A0005

Permit No. AP1041-0739.02

**CLASS I AIR QUALITY OPERATING PERMIT
SPECIFIC OPERATING REQUIREMENTS**

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

Section VI. Specific Operating Conditions (continued)

CPA. Emission Units PF1.400 – PF1.403, PF1.411, PF1.415 – PF1.425, PF1.433 – PF1.434

Location North 4,539.580 km, East 551.999 km, UTM (Zone 11, NAD 83)

System 95A – Backfill Crushing & Screening Plant – Aggregate Handling

PF	1.400 – 1.401	Jaw Crusher Pan Feeders 1 and 2 (Loading)
PF	1.402 – 1.403	Jaw Crusher Pan Feeders 1 and 2 (Discharge)
PF	1.411	Truck Loadout Surge Bin (Discharge)
PF	1.415 – 1.416	Jaw Crusher Outlet Conveyors 1 and 2
PF	1.417 – 1.425	Conveyor Transfers
PF	1.433	Stacker Conveyor Transfer
PF	1.434	Conveyor Transfer

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Air Pollution Equipment

- a. **PF1.400 and PF1.401** have no add-on controls.
- b. Emissions from **PF1.402 – PF1.434**, each, will be controlled by pneumatic fogging water sprays.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Operating Parameters

- a. The maximum allowable throughput of aggregate for **PF1.400 and PF1.401**, combined, will not exceed 1,000 tons per hour, nor more than 3,000,000 tons per 12-month rolling period.
- b. The maximum allowable throughput of aggregate for **PF1.402 and PF1.403**, combined, will not exceed 1,000 tons per hour, nor more than 3,000,000 tons per 12-month rolling period.
- c. The maximum allowable throughput of aggregate for **PF1.411** will not exceed 1,000 tons per hour, nor more than 3,000,000 tons per 12-month rolling period.
- d. The maximum allowable throughput of aggregate for **PF1.415 and PF1.416**, combined, will not exceed 1,000 tons per hour, nor more than 3,000,000 tons per 12-month rolling period.
- e. The maximum allowable throughput of aggregate for **PF1.417 – 1.425, PF1.433 and PF1.434**, each, will not exceed 1,000 tons per hour, nor more than 3,000,000 tons per 12-month rolling period.

f. Hours

Each emission unit of **System 95A** may operate up to 8,760 hours per year.



BUREAU OF AIR POLLUTION CONTROL

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**CLASS I AIR QUALITY OPERATING PERMIT
SPECIFIC OPERATING REQUIREMENTS**

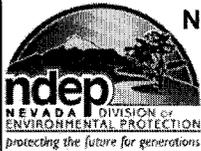
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Section VI. Specific Operating Conditions (continued)

CPA. Emission Units PF1.400 – PF1.403, PF1.411, PF1.415 – PF1.425, PF1.433 – PF1.434 (continued)

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits

- a. On and after the date of startup of **PF1.400 and PF1.401**, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
 - (1) NAC 445B.305 Part 70 Program – The discharge of PM to the atmosphere, combined, will not exceed 0.05 pound per hour, nor more than 0.07 ton per 12-month rolling period.
 - (2) NAC 445B.305 Part 70 Program – The discharge of PM10 to the atmosphere, combined, will not exceed 0.02 pound per hour, nor more than 0.02 ton per 12-month rolling period.
- b. On and after the date of startup of **PF1.402 and PF1.403**, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
 - (1) NAC 445B.305 Part 70 Program – The discharge of PM to the atmosphere, combined, will not exceed 0.15 pound per hour, nor more than 0.23 ton per 12-month rolling period.
 - (2) NAC 445B.305 Part 70 Program – The discharge of PM10 to the atmosphere, combined, will not exceed 0.06 pound per hour, nor more than 0.08 ton per 12-month rolling period.
- c. On and after the date of startup of **PF1.411**, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
 - (1) NAC 445B.305 Part 70 Program – The discharge of PM to the atmosphere will not exceed 0.15 pound per hour, nor more than 0.23 ton per 12-month rolling period.
 - (2) NAC 445B.305 Part 70 Program – The discharge of PM10 to the atmosphere will not exceed 0.06 pound per hour, nor more than 0.08 ton per 12-month rolling period.
- d. On and after the date of startup of **PF1.415 and PF1.416**, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
 - (1) NAC 445B.305 Part 70 Program – The discharge of PM to the atmosphere, combined, will not exceed 0.15 pound per hour, nor more than 0.23 ton per 12-month rolling period.
 - (2) NAC 445B.305 Part 70 Program – The discharge of PM10 to the atmosphere, combined, will not exceed 0.06 pound per hour, nor more than 0.08 ton per 12-month rolling period.
- e. On and after the date of startup of **PF1.415 and PF1.416**, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
 - (1) NAC 445B.305 Part 70 Program – The discharge of PM to the atmosphere, combined, will not exceed 0.15 pound per hour, nor more than 0.23 ton per 12-month rolling period.
 - (2) NAC 445B.305 Part 70 Program – The discharge of PM10 to the atmosphere, combined, will not exceed 0.06 pound per hour, nor more than 0.08 ton per 12-month rolling period.
- f. On and after the date of startup of **PF1.417 – PF1.425, PF1.433 and PF1.434**, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
 - (1) NAC 445B.305 Part 70 Program – The discharge of PM to the atmosphere, each, will not exceed 0.15 pound per hour, nor more than 0.23 ton per 12-month rolling period.
 - (2) NAC 445B.305 Part 70 Program – The discharge of PM10 to the atmosphere, each, will not exceed 0.06 pound per hour, nor more than 0.08 ton per 12-month rolling period.



BUREAU OF AIR POLLUTION CONTROL

Facility ID No. A0005

Permit No. AP1041-0739.02

**CLASS I AIR QUALITY OPERATING PERMIT
SPECIFIC OPERATING REQUIREMENTS**

Issued to: **BARRICK GOLDSTRIKE MINES, INC.**, as Permittee

Section VI. Specific Operating Conditions (continued)

CPA. Emission Units PF1.400 – PF1.403, PF1.411, PF1.415 – PF1.425, PF1.433 – PF1.434 (continued)

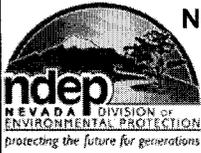
3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits (continued)

- g. NAC 445B.22033 Federally Enforceable SIP Requirement – For each of the emission units of **System 95A**, the maximum allowable discharge of PM₁₀ to the atmosphere will not exceed 77.6 pound per hour in accordance with NAC 445B.22033.
- h. NAC 445B.22017 Federally Enforceable SIP Requirement – For each of the emission units of **System 95A**, the opacity will not equal or exceed 20% in accordance with NAC 445B.22017.
- i. 40 CFR Part 60, Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants.
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, Permittee will not discharge or cause the discharge into the atmosphere fugitive emissions in excess of the following specified limits:
 - (1) Fugitive emissions from **PF1.402, PF1.403, PF1.411, PF1.415 – PF1.425, and PF1.434**, each, will not exceed 10 percent opacity (40 CFR 60.672(b), Table 3 of 40 CFR Part 60, Subpart OOO for affected facilities constructed prior to April 22, 2008).
 - (2) The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard (40 CFR 60.11(c)).
 - (3) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source (40 CFR 60.11(d)).

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Monitoring

On and after the date of startup, Permittee will:

- a. Monitor and record the combined throughput of aggregate (in tons) for **PF1.400 and PF1.401** on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
- b. Monitor and record the combined throughput of aggregate (in tons) for **PF1.402 and PF1.403** on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
- c. Monitor and record the throughput of aggregate (in tons) for **PF1.411** on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
- d. Monitor and record the combined throughput of aggregate (in tons) for **PF1.415 and PF1.416** on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
- e. Monitor and record the throughput of aggregate (in tons) for **PF1.417 – PF1.425, PF1.433, and PF1.434**, each, on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.



BUREAU OF AIR POLLUTION CONTROL

Facility ID No. A0005

Permit No. AP1041-0739.02

**CLASS I AIR QUALITY OPERATING PERMIT
SPECIFIC OPERATING REQUIREMENTS**

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

Section VI. Specific Operating Conditions (continued)

CPA. Emission Units PF1.400 – PF1.403, PF1.411, PF1.415 – PF1.425, PF1.433 – PF1.434 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Monitoring (continued)

- f. Monitor and record the hours of operation for each of the emission units of **System 95A**, for each day of operation.
- g. On a daily basis, monitor and record the average hourly throughput rate of aggregate for each of the emission units specified in 4.a. through 4.e. above. The average hourly throughput rate (in tons per hour) will be determined using the daily throughput and the daily hours of operation, as recorded in 4.a. through 4.f. above.
- h. Once per month, inspect the pneumatic fogging water sprays installed for **System 95A** to confirm that water is flowing to the discharge spray nozzles and that the nozzles are functioning properly. If water is not flowing to each of the nozzles or if any nozzle is not functioning properly, the Permittee must initiate corrective action within 24 hours to return the water sprays to proper operation.

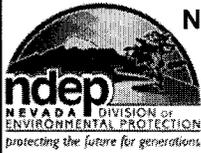
5. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Recordkeeping

- a. Permittee will maintain, in a contemporaneous log, the monitoring required in CPA.4. above, so as to include the calendar date of the required monitoring and any corrective actions taken.
- b. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative (40 CFR 60.7(a)).

6. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Reporting

The Permittee will:

- a. Promptly report to the Director all deviations from the requirements of this Operating Permit; and
- b. Report to the Director the probable cause of all deviations and any action taken to correct the deviations. For this Operating Permit, prompt is defined as submittal of a report within 15 days of the deviation. This definition does not alter any reporting requirements as established for reporting of excess emissions as required under NAC 445B.232 and under **Section III.B** of this permit, or for reporting of an emergency (as defined by NAC 445B.326) under **Section I.I.** of this permit; and
- c. Submit reports of any required monitoring every 6 months, within 8 weeks after June 30 and December 31 of each calendar year. The reports must contain a summary of the data collected as required by all monitoring, recordkeeping and compliance requirements and as specified in sections **VI** and **VII** of this operating permit.



BUREAU OF AIR POLLUTION CONTROL

Facility ID No. A0005

Permit No. AP1041-0739.02

**CLASS I AIR QUALITY OPERATING PERMIT
SPECIFIC OPERATING REQUIREMENTS**

Issued to: **BARRICK GOLDSTRIKE MINES, INC.**, as Permittee

Section VI. Specific Operating Conditions (continued)

CPB. Emission Units S2.358.1 – S2.358.5

Location North 4,539.580 km, East 551.999 km, UTM (Zone 11, NAD 83)

System 95B – Backfill Crushing & Screening Plant – Aggregate Crushing		
S	2.358.1	Jaw Crusher 1 and discharge
S	2.358.2	Jaw Crusher 2 and discharge
S	2.358.3	Cone Crusher 1 and transfers
S	2.358.4	Screen 1 and transfer belts
S	2.358.5	Screen 2 and transfer belts

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Air Pollution Equipment

Emissions from **S2.358.1 – S2.358.5** shall be ducted to a single control system consisting of a baghouse (Tarmac International, Inc.) with 100% capture.

Stack Parameters

Stack Height (ft): 31

Stack Diameter (ft): 4

Stack Temperature (°F): Ambient

Exhaust Flow (DSCFM): 65,000

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Operating Parameters

a. The maximum allowable throughput of aggregate for **System 95B** will not exceed 1,000 tons per hour, nor more than 3,000,000 tons per 12-month rolling period.

b. Hours

Each emission unit of **System 95B** may operate up to 8,760 hours per year.

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Emission Limits

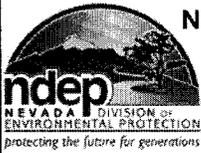
On and after the date of startup of **S2.358.1 – S2.358.5**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.358.1 – S2.358.5**, the following pollutants in excess of the following specified limits:

a. NAC 445B.305 Part 70 Program - The discharge of PM to the atmosphere will not exceed 1.67 pound per hour, nor more than 7.32 ton per year.

b. NAC 445B.305 Part 70 Program - The discharge of PM₁₀ to the atmosphere will not exceed 1.67 pound per hour, nor more than 7.32 ton per year.

c. NAC 445B.22033 Federally Enforceable SIP Requirement – The maximum allowable discharge of PM₁₀ to the atmosphere from **S2.358.1 – S2.358.5**, each, will not exceed 77.6 pound per hour in accordance with NAC 445B.22033.

d. NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from the exhaust stack of **S2.358.1 – S2.358.5** will not equal or exceed 20% in accordance with NAC 445B.22017.



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**CLASS I AIR QUALITY OPERATING PERMIT
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Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

Section VI. Specific Operating Conditions (continued)

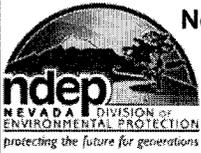
CPB. Emission Units S2.358.1 – S2.358.5 (continued)

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits (continued)

e. 40 CFR Part 60, Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants.

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, Permittee will not discharge or cause the discharge into the atmosphere stack emissions in excess of the following specified limits:

- (1) Stack emissions from the baghouse for **S2.358.1 – S2.358.5** will not exceed 0.05 g/dscm (0.022 gr/dscf). (40 CFR 60.672(a), Table 2 of 40 CFR Part 60, Subpart OOO for affected facilities constructed prior to April 22, 2008).
- (2) Stack emissions from the baghouse for **S2.358.1 – S2.358.5** will not exceed 7 percent opacity (40 CFR 60.672(a), Table 2 of 40 CFR Part 60, Subpart OOO for affected facilities constructed prior to April 22, 2008).
- (3) The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard (40 CFR 60.11(c)).
- (4) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source (40 CFR 60.11(d)).



BUREAU OF AIR POLLUTION CONTROL

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CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

Section VI. Specific Operating Conditions (continued)

CPB. Emission Units S2.358.1 – S2.358.5 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program Performance Testing

The Permittee will perform the following periodic compliance tests on the exhaust stack of **S2.358.1 – S2.358.5**. The compliance tests listed below will be conducted no later than 90 days before the expiration date of this Operating Permit, but no more than 365 days before the expiration date of this Operating Permit:

- a. Conduct and record a Method 5 (or 17) performance test for particulate matter consisting of three valid runs. The Method 5 (or 17) performance tests shall be conducted in accordance with procedures specified in 40 CFR Part 60, Appendix A. The sample volume for each test run shall be at least 60 DSCF (or be conducted for up to 120 minutes in an effort to collect this sample volume), and the sample time shall be a minimum of 1-hour. The sampling probe and filter holder of Method 5 may be operated without heaters if the gas stream being sampled is at ambient temperature. For gas streams above ambient temperature, the Method 5 sampling train shall be operated with a probe and filter temperature slightly above the effluent temperature (up to a maximum filter temperature of 121 °C (250 °F)) in order to prevent water condensation on the filter.
- b. Conduct and record a Method 9 visible emissions test for opacity on the exhaust stack of **S2.358.1 – S2.358.5** while operating. The Method 9 test shall be performed at the same time as the performance test for PM emissions, as required in 4.a. above. The total time of observations shall be 6 minutes (24 consecutive observations recorded at 15-second intervals). Visible emissions readings will use the procedures contained in 40 CFR Part 60, Appendix A, Method 9.
- c. Permittee will monitor and record the throughput of aggregate, in tons, during each test run.
- d. Permittee shall comply with the requirements in Sections I.S.3 through I.S.8 and I.T.3. through I.T.8. of this operating permit for all performance testing.

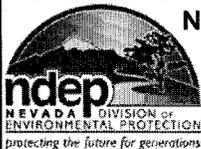
5. NAC 445B.3405 (NAC 445B.316) Part 70 Program Monitoring

On and after the date of startup of **S2.358.1 – S2.358.5**, Permittee will:

- a. Monitor and record the daily weight of aggregate processed in **System 95B** for each day of operation.
- b. Monitor and record the hours of operation for each emission unit of **System 95B** for each day of operation.
- c. On a daily basis, monitor and record the average hourly throughput rate of aggregate for **System 95B**. The average hourly throughput rate (in tons per hour) will be determined using the daily throughput and the daily hours of operation, as recorded in 5.a. and 5.b. above.
- d. At the end of each calendar month, record the total monthly throughput of aggregate for **System 95B**, and record the total throughput for the previous 12 months.
- e. Monitor and record the pressure drop across the baghouse control once daily for each day of operation.

6. NAC 445B.3405 (NAC 445B.316) Part 70 Program Recordkeeping

- a. Permittee will maintain, in a contemporaneous log, the monitoring required in A.5. above, so as to include the calendar date of the required monitoring.
- b. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative (40 CFR 60.7(a)).



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**CLASS I AIR QUALITY OPERATING PERMIT
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Issued to: **BARRICK GOLDSTRIKE MINES, INC.**, as Permittee

Section VI. Specific Operating Conditions (continued)

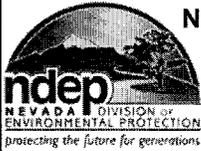
CPB. Emission Units S2.358.1 – S2.358.5 (continued)

7. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Reporting

The Permittee will:

- a. Promptly report to the Director all deviations from the requirements of this Operating Permit; and
- b. Report to the Director the probable cause of all deviations and any action taken to correct the deviations. For this Operating Permit, prompt is defined as submittal of a report within 15 days of the deviation. This definition does not alter any reporting requirements as established for reporting of excess emissions as required under NAC 445B.232 and under **Section III.B** of this permit, or for reporting of an emergency (as defined by NAC 445B.326) under **Section I.I.** of this permit; and
- c. Submit reports of any required monitoring every 6 months, within 8 weeks after June 30 and December 31 of each calendar year. The reports must contain a summary of the data collected as required by all monitoring, recordkeeping and compliance requirements and as specified in sections **VI** and **VII** of this operating permit.



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**CLASS I AIR QUALITY OPERATING PERMIT
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Issued to: **BARRICK GOLDSTRIKE MINES, INC.**, as Permittee

Section VI. Specific Operating Conditions (continued)

CPC. Emission Units PF1.400 – PF1.403, PF1.411, PF1.415 – PF1.425, PF1.433 – PF1.434

Location North 4,539.580 km, East 551.999 km, UTM (Zone 11, NAD 83)

System 95C – Backfill Crushing & Screening Plant – Ore Handling – Alternative Op. Scenario

PF	1.400 – 1.401	Jaw Crusher Pan Feeders 1 and 2 (Loading)
PF	1.402 – 1.403	Jaw Crusher Pan Feeders 1 and 2 (Discharge)
PF	1.411	Truck Loadout Surge Bin (Discharge)
PF	1.415 – 1.416	Jaw Crusher Outlet Conveyors 1 and 2
PF	1.417 – 1.425	Conveyor Transfers
PF	1.433	Stacker Conveyor Transfer
PF	1.434	Conveyor Transfer

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Air Pollution Equipment

- a. Emissions from **PF1.400 – PF1.434**, each, will be controlled by pneumatic fogging water sprays when operating under this scenario.

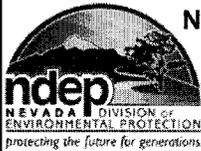
2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Operating Parameters

- a. **System 95C** processes ore, and it is the alternative operating scenario for **System 95A**, which processes aggregate.
- b. The maximum allowable throughput of ore for **PF1.400 and PF1.401**, combined, will not exceed 1,000 tons per hour, nor more than 3,000,000 tons per 12-month rolling period.
- c. The maximum allowable throughput of ore for **PF1.402 and PF1.403**, combined, will not exceed 1,000 tons per hour, nor more than 3,000,000 tons per 12-month rolling period.
- d. The maximum allowable throughput of ore for **PF1.411** will not exceed 1,000 tons per hour, nor more than 3,000,000 tons per 12-month rolling period.
- e. The maximum allowable throughput of ore for **PF1.415 and PF1.416**, combined, will not exceed 1,000 tons per hour, nor more than 3,000,000 tons per 12-month rolling period.
- f. The maximum allowable throughput of ore for **PF1.417 – 1.425, PF1.433 and PF1.434**, each, will not exceed 1,000 tons per hour, nor more than 3,000,000 tons per 12-month rolling period.

g. Hours

Each emission unit of **System 95C** may operate up to 8,760 hours per year.



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**CLASS I AIR QUALITY OPERATING PERMIT
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Section VI. Specific Operating Conditions (continued)

CPC. Emission Units PF1.400 – PF1.403, PF1.411, PF1.415 – PF1.425, PF1.433 – PF1.434 (continued)

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits

- a. On and after the date of startup of **PF1.400 and PF1.401**, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
 - (1) NAC 445B.305 Part 70 Program – The discharge of PM to the atmosphere, combined, will not exceed 0.10 pound per hour, nor more than 0.15 ton per 12-month rolling period.
 - (2) NAC 445B.305 Part 70 Program – The discharge of PM₁₀ to the atmosphere, combined, will not exceed 0.05 pound per hour, nor more than 0.07 ton per 12-month rolling period.
- b. On and after the date of startup of **PF1.402 and PF1.403**, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
 - (1) NAC 445B.305 Part 70 Program – The discharge of PM to the atmosphere, combined, will not exceed 0.10 pound per hour, nor more than 0.15 ton per 12-month rolling period.
 - (2) NAC 445B.305 Part 70 Program – The discharge of PM₁₀ to the atmosphere, combined, will not exceed 0.05 pound per hour, nor more than 0.07 ton per 12-month rolling period.
- c. On and after the date of startup of **PF1.411**, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
 - (1) NAC 445B.305 Part 70 Program – The discharge of PM to the atmosphere will not exceed 0.10 pound per hour, nor more than 0.15 ton per 12-month rolling period.
 - (2) NAC 445B.305 Part 70 Program – The discharge of PM₁₀ to the atmosphere will not exceed 0.05 pound per hour, nor more than 0.07 ton per 12-month rolling period.
- d. On and after the date of startup of **PF1.415 and PF1.416**, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
 - (1) NAC 445B.305 Part 70 Program – The discharge of PM to the atmosphere, combined, will not exceed 0.10 pound per hour, nor more than 0.15 ton per 12-month rolling period.
 - (2) NAC 445B.305 Part 70 Program – The discharge of PM₁₀ to the atmosphere, combined, will not exceed 0.05 pound per hour, nor more than 0.07 ton per 12-month rolling period.
- e. On and after the date of startup of **PF1.415 and PF1.416**, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
 - (1) NAC 445B.305 Part 70 Program – The discharge of PM to the atmosphere, combined, will not exceed 0.10 pound per hour, nor more than 0.15 ton per 12-month rolling period.
 - (2) NAC 445B.305 Part 70 Program – The discharge of PM₁₀ to the atmosphere, combined, will not exceed 0.05 pound per hour, nor more than 0.07 ton per 12-month rolling period.
- f. On and after the date of startup of **PF1.417 – PF1.425, PF1.433 and PF1.434**, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
 - (1) NAC 445B.305 Part 70 Program – The discharge of PM to the atmosphere, each, will not exceed 0.10 pound per hour, nor more than 0.15 ton per 12-month rolling period.
 - (2) NAC 445B.305 Part 70 Program – The discharge of PM₁₀ to the atmosphere, each, will not exceed 0.05 pound per hour, nor more than 0.07 ton per 12-month rolling period.



BUREAU OF AIR POLLUTION CONTROL

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CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

Section VI. Specific Operating Conditions (continued)

CPC. Emission Units PF1.400 – PF1.403, PF1.411, PF1.415 – PF1.425, PF1.433 – PF1.434 (continued)

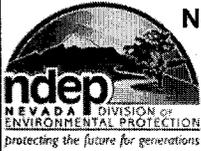
3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits (continued)

- g. NAC 445B.22033 Federally Enforceable SIP Requirement – For each of the emission units of **System 95C**, the maximum allowable discharge of PM₁₀ to the atmosphere will not exceed 77.6 pound per hour in accordance with NAC 445B.22033.
- h. NAC 445B.22017 Federally Enforceable SIP Requirement – For each of the emission units of **System 95C**, the opacity will not equal or exceed 20% in accordance with NAC 445B.22017.
- i. 40 CFR Part 60, Subpart LL – Standards of Performance for Metallic Mineral Processing Plants.
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, Permittee will not discharge or cause the discharge into the atmosphere fugitive emissions in excess of the following specified limits:
 - (1) Fugitive emissions from **PF1.402, PF1.403, PF1.411, PF1.415 – PF1.425, and PF1.434**, each, will not exceed 10 percent opacity (40 CFR 60.382(b)).
 - (2) The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard (40 CFR 60.11(c)).
 - (3) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source (40 CFR 60.11(d)).

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Monitoring

On and after the date of startup, Permittee will:

- a. Monitor and record the combined throughput of ore (in tons) for **PF1.400 and PF1.401** on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
- b. Monitor and record the combined throughput of ore (in tons) for **PF1.402 and PF1.403** on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
- c. Monitor and record the throughput of ore (in tons) for **PF1.411** on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
- d. Monitor and record the combined throughput of ore (in tons) for **PF1.415 and PF1.416** on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
- e. Monitor and record the throughput of ore (in tons) for **PF1.417 – PF1.425, PF1.433, and PF1.434**, each, on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.



BUREAU OF AIR POLLUTION CONTROL

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**CLASS I AIR QUALITY OPERATING PERMIT
SPECIFIC OPERATING REQUIREMENTS**

Issued to: **BARRICK GOLDSTRIKE MINES, INC.**, as Permittee

Section VI. Specific Operating Conditions (continued)

CPC. Emission Units PF1.400 – PF1.403, PF1.411, PF1.415 – PF1.425, PF1.433 – PF1.434 (continued)

4. **NAC 445B.3405 (NAC 445B.316) Part 70 Program
Monitoring (continued)**

- f. Monitor and record the hours of operation for each of the emission units of **System 95C**, for each day of operation.
- g. On a daily basis, monitor and record the average hourly throughput rate of ore for each of the emission units specified in 4.a. through 4.e. above. The average hourly throughput rate (in tons per hour) will be determined using the daily throughput and the daily hours of operation, as recorded in 4.a. through 4.f. above.
- h. Once per month, (1) conduct a six-minute visible emissions inspection using EPA Method 22 on each of the emission units of **System 95C**, while operating; and (2) inspect the pneumatic fogging water spray nozzles installed on the emission units of **System 95C** to confirm that water is flowing to the discharge spray nozzles and that the nozzles are functioning properly. The Method 22 tests shall be conducted as set forth in 40 CFR Part 60, Appendix A. If any visible emissions are observed, or if water is not flowing to each nozzle or if any nozzle is not functioning properly, the Permittee must initiate corrective action within 24 hours to ensure that the water sprays are operating properly.

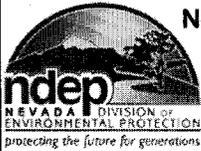
5. **NAC 445B.3405 (NAC 445B.316) Part 70 Program
Recordkeeping**

- a. Permittee will maintain, in a contemporaneous log, the monitoring required in CPC.4. above, so as to include the calendar date of the required monitoring, and any corrective actions taken.
- b. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative (40 CFR 60.7(a)).

6. **NAC 445B.3405 (NAC 445B.316) Part 70 Program
Reporting**

The Permittee will:

- a. Promptly report to the Director all deviations from the requirements of this Operating Permit; and
- b. Report to the Director the probable cause of all deviations and any action taken to correct the deviations. For this Operating Permit, prompt is defined as submittal of a report within 15 days of the deviation. This definition does not alter any reporting requirements as established for reporting of excess emissions as required under NAC 445B.232 and under **Section III.B** of this permit, or for reporting of an emergency (as defined by NAC 445B.326) under **Section I.I.** of this permit; and
- c. Submit reports of any required monitoring every 6 months, within 8 weeks after June 30 and December 31 of each calendar year. The reports must contain a summary of the data collected as required by all monitoring, recordkeeping and compliance requirements and as specified in sections **VI** and **VII** of this operating permit.



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**CLASS I AIR QUALITY OPERATING PERMIT
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Issued to: **BARRICK GOLDSTRIKE MINES, INC.**, as Permittee

Section VI. Specific Operating Conditions (continued)

CPD. Emission Units S2.358.1 – S2.358.5

Location North 4,539.580 km, East 551.999 km, UTM (Zone 11, NAD 83)

System 95D – Backfill Crushing & Screening Plant – Ore Crushing – Alternative Op. Scenario

S	2.358.1	Jaw Crusher 1 and discharge
S	2.358.2	Jaw Crusher 2 and discharge
S	2.358.3	Cone Crusher 1 and transfers
S	2.358.4	Screen 1 and transfer belts
S	2.358.5	Screen 2 and transfer belts

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Air Pollution Equipment

Emissions from **S2.358.1 – S2.358.5** shall be ducted to a single control system consisting of a baghouse (Tarmac International, Inc.) with 100% capture.

Stack Parameters

Stack Height (ft): 31

Stack Diameter (ft): 4

Stack Temperature (°F): Ambient

Exhaust Flow (DSCFM): 65,000

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Operating Parameters

a. **System 95D** processes ore, and it is the alternative operating scenario for **System 95B**, which processes aggregate.

b. The maximum allowable throughput of ore for **System 95D** will not exceed 1,000 tons per hour, nor more than 3,000,000 tons per 12-month rolling period.

c. Hours

Each emission unit of **System 95D** may operate up to 8,760 hours per year.

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Emission Limits

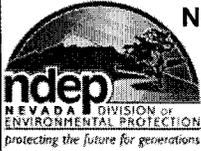
On and after the date of startup of **S2.358.1 – S2.358.5**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.358.1 – S2.358.5**, the following pollutants in excess of the following specified limits:

a. NAC 445B.305 Part 70 Program - The discharge of PM to the atmosphere will not exceed 1.67 pound per hour, nor more than 7.32 ton per year.

b. NAC 445B.305 Part 70 Program - The discharge of PM₁₀ to the atmosphere will not exceed 1.67 pound per hour, nor more than 7.32 ton per year.

c. NAC 445B.22033 Federally Enforceable SIP Requirement – The maximum allowable discharge of PM₁₀ to the atmosphere from **S2.358.1 – S2.358.5**, each, will not exceed 77.6 pound per hour in accordance with NAC 445B.22033.

d. NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from the exhaust stack of **S2.358.1 – S2.358.5** will not equal or exceed 20% in accordance with NAC 445B.22017.



BUREAU OF AIR POLLUTION CONTROL

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**CLASS I AIR QUALITY OPERATING PERMIT
SPECIFIC OPERATING REQUIREMENTS**

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Section VI. Specific Operating Conditions (continued)

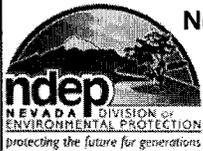
CPD. **Emission Units S2.358.1 – S2.358.5 (continued)**

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits (continued)

d. 40 CFR Part 60, Subpart LL – Standards of Performance for Metallic Mineral Processing Plants.

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, Permittee will not discharge or cause the discharge into the atmosphere stack emissions in excess of the following specified limits:

- (1) Stack emissions from the baghouse for **S2.358.1 – S2.358.5** will not exceed 0.05 g/dscm (0.022 gr/dscf). (40 CFR 60.382(a)(1)).
- (2) Stack emissions from the baghouse for **S2.358.1 – S2.358.5** will not exceed 7 percent opacity (40 CFR 60.382(a)(2)).
- (3) The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard (40 CFR 60.11(c)).
- (4) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source (40 CFR 60.11(d)).



BUREAU OF AIR POLLUTION CONTROL

Facility ID No. A0005

Permit No. AP1041-0739.02

**CLASS I AIR QUALITY OPERATING PERMIT
SPECIFIC OPERATING REQUIREMENTS**

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

Section VI. Specific Operating Conditions (continued)

CPD. Emission Units S2.358.1 – S2.358.5 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Performance Testing

The Permittee will perform the following periodic compliance tests on the exhaust stack of **S2.358.1 – S2.358.5**. The compliance tests listed below will be conducted no later than 90 days before the expiration date of this Operating Permit, but no more than 365 days before the expiration date of this Operating Permit:

- a. Conduct and record a Method 5 (or 17) performance test for particulate matter consisting of three valid runs. The Method 5 (or 17) performance tests shall be conducted in accordance with procedures specified in 40 CFR Part 60, Appendix A. The sample volume for each test run shall be at least 60 DSCF (or be conducted for up to 120 minutes in an effort to collect this sample volume), and the sample time shall be a minimum of 1-hour. The sampling probe and filter holder of Method 5 may be operated without heaters if the gas stream being sampled is at ambient temperature. For gas streams above ambient temperature, the Method 5 sampling train shall be operated with a probe and filter temperature slightly above the effluent temperature (up to a maximum filter temperature of 121 °C (250 °F)) in order to prevent water condensation on the filter.
- b. Conduct and record a Method 9 visible emissions test for opacity on the exhaust stack of **S2.358.1 – S2.358.5** while operating. The Method 9 test shall be performed at the same time as the performance test for PM emissions, as required in 4.a. above. The total time of observations shall be 6 minutes (24 consecutive observations recorded at 15-second intervals). Visible emissions readings will use the procedures contained in 40 CFR Part 60, Appendix A, Method 9.
- c. Permittee will monitor and record the throughput of aggregate, in tons, during each test run.
- d. Performance tests conducted when processing aggregate in **S2.358.1 – S2.358.5**, as required in CPB.4.a. and 4.b. of **System 95B**, will satisfy the testing requirements required in 4.a. and 4.b. of this section when ore is processed.
- e. Permittee shall comply with the requirements in Sections I.S.3 through I.S.8 and I.T.3. through I.T.8. of this operating permit for all performance testing.

5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Monitoring

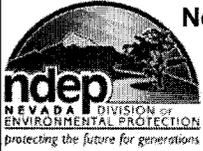
On and after the date of startup of **S2.358.1 – S2.358.5**, Permittee will:

- a. Monitor and record the daily weight of ore processed in **System 95D** for each day of operation.
- b. Monitor and record the hours of operation for each emission unit of **System 95D** for each day of operation.
- c. On a daily basis, monitor and record the average hourly throughput rate of ore for **System 95D**. The average hourly throughput rate (in tons per hour) will be determined using the daily throughput and the daily hours of operation, as recorded in 5.a. and 5.b. above.
- d. At the end of each calendar month, record the total monthly throughput of ore for **System 95D**, and record the total throughput for the previous 12 months.
- e. Monitor and record the pressure drop across the baghouse control once daily for each day of operation.

6. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Recordkeeping

- a. Permittee will maintain, in a contemporaneous log, the monitoring required in CPD.5. above, so as to include the calendar date of the required monitoring.
- b. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative (40 CFR 60.7(a)).



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Section VI. Specific Operating Conditions (continued)

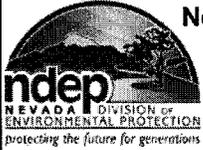
CPD. **Emission Units S2.358.1 – S2.358.5 (continued)**

7. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Reporting

The Permittee will:

- a. Promptly report to the Director all deviations from the requirements of this Operating Permit; and
- b. Report to the Director the probable cause of all deviations and any action taken to correct the deviations. For this Operating Permit, prompt is defined as submittal of a report within 15 days of the deviation. This definition does not alter any reporting requirements as established for reporting of excess emissions as required under NAC 445B.232 and under **Section III.B** of this permit, or for reporting of an emergency (as defined by NAC 445B.326) under **Section I.I.** of this permit; and
- c. Submit reports of any required monitoring every 6 months, within 8 weeks after June 30 and December 31 of each calendar year. The reports must contain a summary of the data collected as required by all monitoring, recordkeeping and compliance requirements and as specified in sections **VI** and **VII** of this operating permit.



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CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

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Section X. Amendments

June 30, 2008 - Minor Revision. Add specific operating conditions for pressure relief vents in System 19, Section VI.S. Remove "lime" from System 63 description. Add soda ash as a material that can be used in System 63, Section VIIA. Add new autoclave mixing tank, System 106, emission unit S2.319. PM and PM₁₀ emission limits will increase by 1.88 tons per year as a result of the addition of System 106. (Air Case #08AP0248).

October 17, 2008 - Minor Revision. Change description for System 97 from "Intermediate Crushing System (Mill #1)" to "Intermediate Crushing System (Mill #1 & #2)". Change screen description for PF1.459 and PF1.460 (System 97) from double-deck screen to multi-deck screen. Remove 3 minute opacity requirement for System 97. Replace initial compliance demonstration in Section VI.DC.4 for PF1.483 through PF1.485 (System 103A) from 40 CFR Part 60 Subpart OOO requirements to 40 CFR Part 60 Subpart LL requirements (System 103A is subject to Subpart LL and not Subpart OOO). Add new crushing plant to permit, System 107, emission units PF1.486 through PF1.490. PM emission limits will increase by 8.10 tons per year and PM₁₀ emission limits will increase by 3.11 tons per year as a result of the addition of System 107. (Air Case #09AP0082).

January 15, 2010 - Minor Revision: Update OP to include three notifications of change; add two inline coal size reduction equipment to System 17 - Roaster Circuit; add two crushers to System 71 - Metallurgical Laboratory Sample Preparation

May 4, 2010 - Minor Revision (Air Case #10AP0226). Update OP to add two sulfur screw conveyors (S2.208.21 and S2.208.22) to System 17 (Roaster Circuit); allow addition of sulfur to System 18 - (Roaster Circuit); add six new systems for addition of sulfur prill to roasters (Systems 108 through 113).

October 7, 2010 - Change of location for Systems 49, 50, 59, 60, and 100. Description change for PF1.477 and PF1.478 (System 100). Air Case # 11AP0112

October 11, 2010 - Minor Revision (Air Case #11AP0001). Add System 114 (Autoclave Circuit, emission units S2.321 through S2.323) to allow for processing ore under revised control system. Add System 115 (Cooling Tower, emission unit S2.324) to support System 114. PM emission limits will increase by 3.20 tons per year and PM₁₀ emission limits will increase by 3.20 tons per year.

January 4, 2011 - Minor Revision (Air Case #11AP0090). Update language in Sections I-II-III-V of OP. Update OP to revise Roaster Sulfur Prill Addition System (revise Systems 108-110-111-112, remove System 109, add System 116). PM emission limits will decrease by 0.47 tons per year and PM₁₀ emission limits will decrease by 0.17 tons per year.

March 2, 2012 - Minor Revisions, Air Cases 12AP0031 & 12AP0032 processed concurrently:

- (1) Add System 133A Paste Backfill Plant Cement Silo Loading.
- (2) Add System 133B Paste Backfill Plant Flyash Silo Loading.
- (3) Add System 134 Paste Backfill Plant Material Transfers.
- (4) Add System 135 Paste Backfill Plant Emergency Diesel Generator.
- (5) Add System 136 Rodeo Shotcrete Silo #2 Loading and Discharges
- (6) Add System 137 Rodeo Shotcrete Loadout Station.
- (7) Add System 138 - Contractor Fuel Bay and Ledcor Gasoline Dispensing Facilities (GDF's), including the NESHAP Subpart CCCCC.
- (8) Revise System 75, S2.082 (Gasoline Storage Tank) to include NESHAP Subpart CCCCC provisions.
- (9) Revise the H₂S hourly and annual emission limits for the autoclaves, Systems 66 and 114.
- (10) Amend and clarify certain provisions for CEMS required in System 18.

May 9, 2012 - Minor Revision, Air Case 12AP0283:

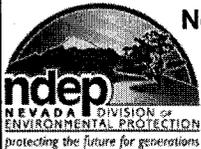
- (1) Add emission unit S2.051.7 - Tumbler #2 to System 70. Correct error in hourly emission limit for System 70 from 2.47 lb/hr PM/PM₁₀ to 2.54 lb/hr.
- (2) Add emission units S2.074.2 - Two Crushers and S2.074.3 - Pulverizer to System 72. No change in the short-term emission limit of PM/PM₁₀.
- (3) Change the name of existing emission unit S2.051.2 (System 70) from "Tumbler" to "Tumbler #1."
- (4) Change the emission unit number of the Bench Top Roaster (System 72) from S2.074 to S2.074.1.

July 18, 2012 - Minor Revision, Air Case 12AP0482:

- (1) Add System 139, S2.357 - Pilot Roaster.

November XX, 2012 - Minor Revision, Air Case ID 6987:

- (1) Barrick requested the ability to process ore in System 95, in addition to aggregate. Therefore, replace System 95 with Systems 95A - 95D. Emission units PF1.404-405, PF1.406, and PF1.408-409 will now be controlled using a baghouse, designated as emission unit S2.358.
- (2) Systems 95A (PF1.400-PF1.434) and 95B (S2.358) will process aggregate. Systems 95C (PF1.400 - PF1.434) and 95D (S2.358) are the alternative scenarios that will process ore.



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Section X. Amendments (continued)

This permit:

1. **Is non-transferable. (NAC 445B.287.4) Part 70 Program**
2. **Will be posted conspicuously at or near the stationary source. (NAC 445B.318)(State Only Requirement)**
3. **Will expire and be subject to renewal five (5) years from July 17, 2007.**
(NAC 445B.315 and 3443.1) Part 70 Program
4. **A complete application for renewal of an operating permit must be submitted to the director on the form provided by him with the appropriate fee at least 240 calendar days before the expiration date of this operating permit. (NAC 445B.3443.2) Part 70 Program**
5. **Any party aggrieved by the Department's decision to issue this permit may appeal to the State Environmental Commission (SEC) within ten days after the date of notice of the Department's action. (NRS 445B.340)(State Only Requirement)**

THIS PERMIT EXPIRES ON: July 17, 2012

Signature _____

Issued by: Jeffrey Kinder, P.E.
Supervisor, Permitting Branch
Bureau of Air Pollution Control

Phone: (775) 687-9475 **Date:** November XX, 2012