

Appendix 8

**NARRATIVE
DESCRIPTION**

-

**PROCESS FLOW
DIAGRAM**

-

PLOT PLAN

-

MAP

-

DUST CONTROL PLAN

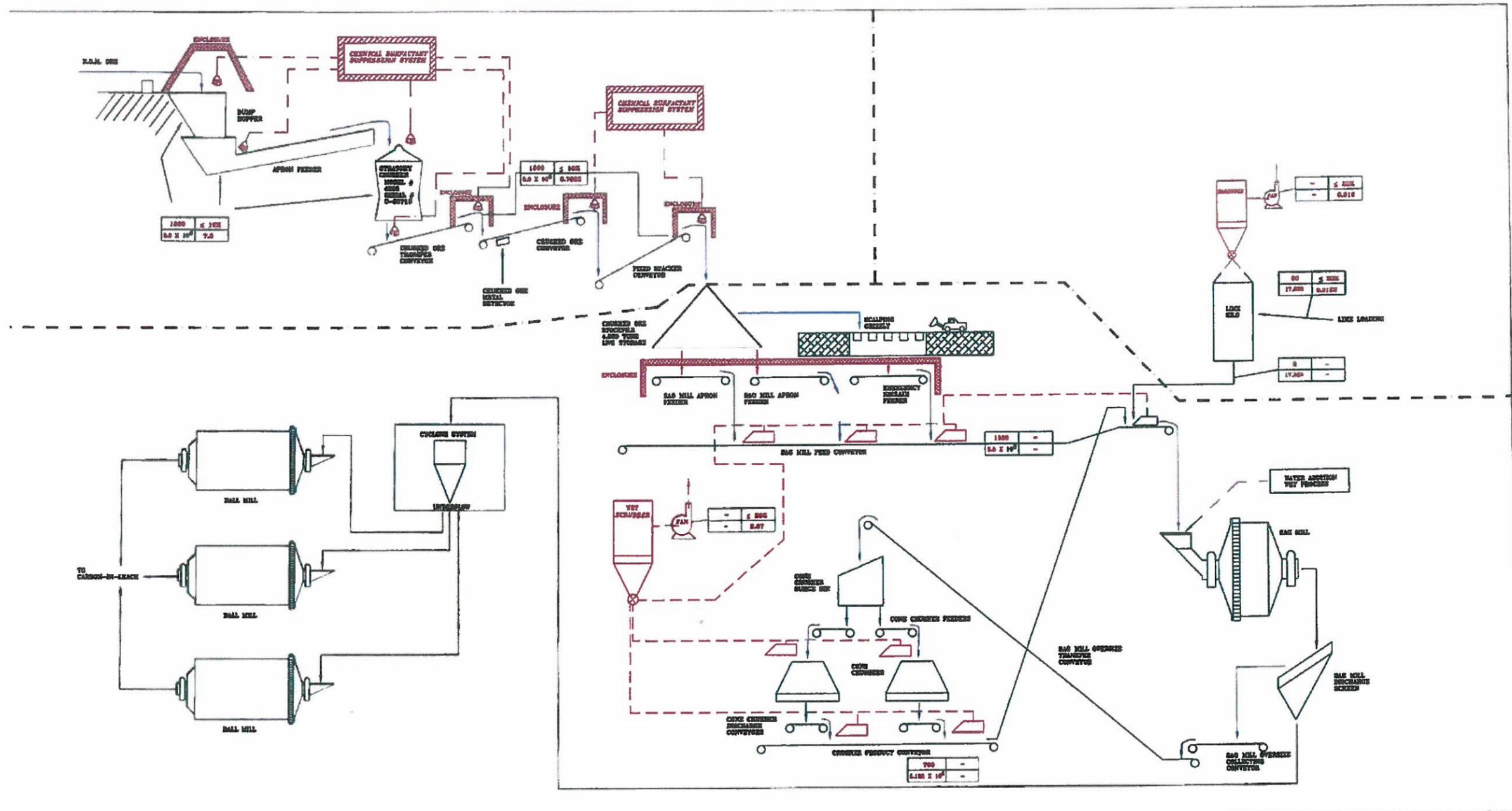
Proposed Project Narrative Description

System 3

The Mill 5 Cone Crusher Building which houses System 3- Mill 5 Ore Reclaim to SAG Mill and Cone Crusher Circuit has experienced an increase in silica concentrations over that last several years. In order to address the employee health and safety risks associated with the elevated silica concentrations, Newmont proposes to replace the Wet Scrubber on System 3 (2300-DC-02.) with a Wet Dynamic Scrubber. The duct work and fan associated with System 3 will also be replaced. The Wet Dynamic Scrubber will have a maximum volume flow rate of 22, 400 dscfm.

Dust Control Plan

The Dust Control Plan was included in the Gold Quarry Operations Area Updated Renewal Application that was submitted in December 2010.



LEGEND

- Material Flow - Dry
- Material Flow - Wet
- Airflow
- Water Flow
- Air Permit Boundary

Permit	Limit
Min. TYP	Spacity
Max. TYP	PM ₁₀ lbs/hr

NO.	DATE	REVISIONS	BY	CHKD	DESIGN	DATE	APPR
20	FEB 1988	REVISED AS NOTED		DLM	DLM	DLM	
14	FEB 1988	REVISED AS NOTED	G.L.				

ENGR RECORD		CURRENT DRAWING STATUS	
BY	DATE	BY	DATE
LEWIS	8/24/76	LEWIS	8/24/76
LEWIS		LEWIS	

NEWMONT GOLD COMPANY
CARLIN, NEVADA

PROJECT: HILL 5 ORE RECEIVING & CRUSHING

TITLE: PROCESS FLOW DIAGRAM

COMPUTER GENERATED DRAWING NO MANUAL REVISIONS ALLOWED.

SCALE: 1" = 100'

JOB No. HILL 5/88/06/2300.DWG

PLT BOX: HILL 5/88/06/2300.DWG

DATE: 8/24/76

REV: 2

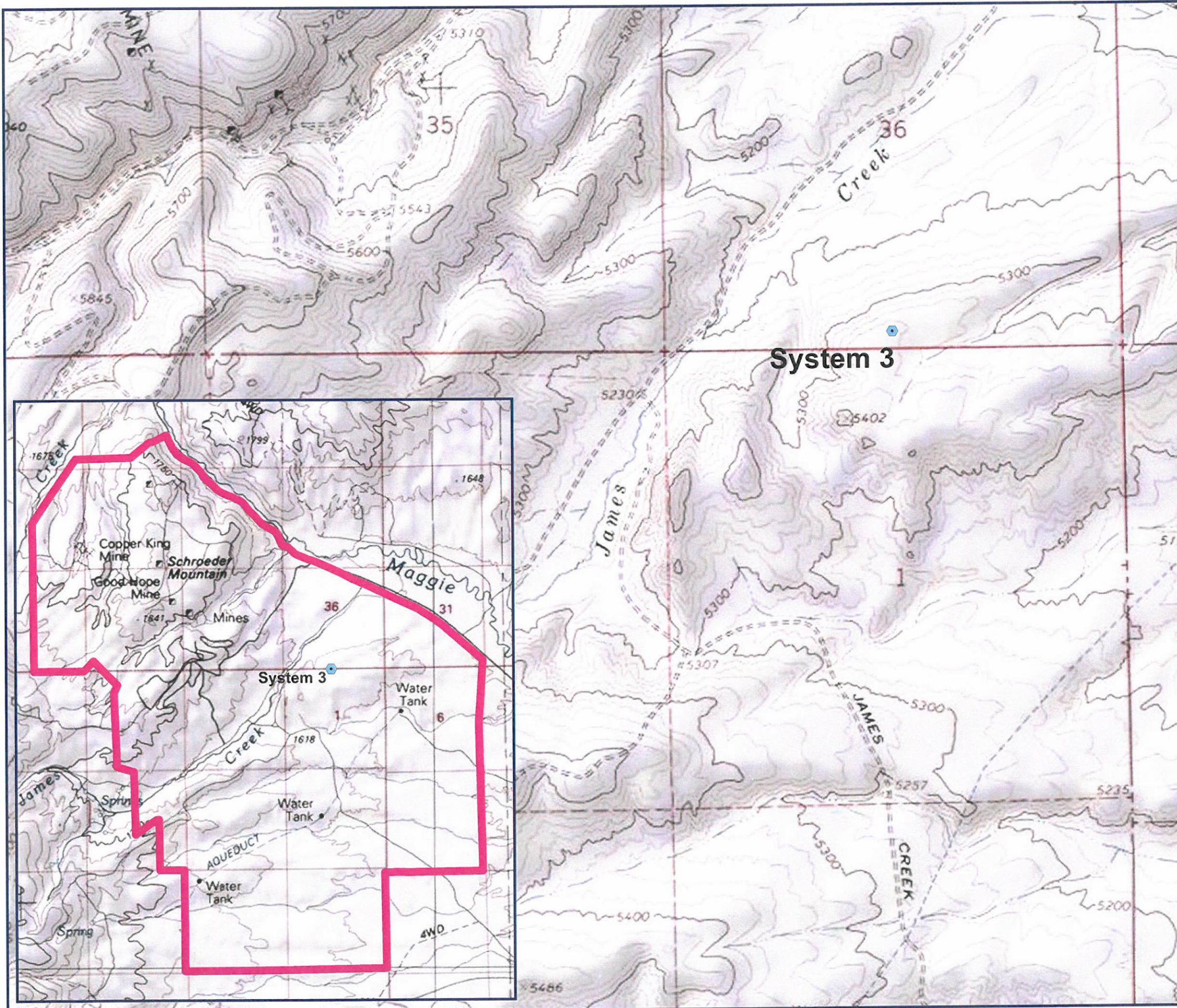


Gold Quarry Operations

Legend

-  Emissions System
-  Boundary/Fence Line





Gold Quarry Operations

Legend

-  Emissions System
-  Boundary/Fence Line



Appendix 9

ENVIRONMENTAL EVALUATION AND DISPERSION MODELING FILES

Please Attach Modeling Files and Supporting Information

An environmental assessment and dispersion modeling is not required for this revision application since the modification emissions of regulated air pollutants are less than 10 tons/year. [NAC445B.310]

Appendix 10

OPERATING PERMIT TEMPLATE

Section VI. Specific Operating Conditions

C. Emission Units #'s S2.001 – S2.013 location North 4512.62 km, East 568.12 km, UTM (Zone 11)

C. System 03 - Mill 5 Ore Reclaim Transfer to SAG Mill and Cone Crusher Circuit		
S	2.001	Reclaim Feeder (2300-FE-09) discharge/transfer to SAG Mill Conveyor (2300-CV-14)
S	2.002	Reclaim Feeder (2300-FE-10) discharge/transfer to SAG Mill Conveyor (2300-CV-14)
S	2.003	Reclaim Feeder (2300-FE-11) discharge/transfer to SAG Mill Conveyor (2300-CV-14)
S	2.004	Conveyor (2300-FE-14) discharge/transfer to Secondary Cone Crusher (2300-CR-02)
S	2.005	Conveyor (2300-FE-15) discharge/transfer to Secondary Cone Crusher (2300-CR-03)
S	2.006	Secondary Cone Crusher (2300-CR-02)
S	2.007	Secondary Cone Crusher (2300-CR-03)
S	2.008	Secondary Cone Crusher (2300-CR-02) discharge/transfer to Conveyor (2300-CV-20)
S	2.009	Secondary Cone Crusher (2300-CR-03) discharge/transfer to Conveyor (2300-CV-21)
S	2.010	Conveyor (2300-CV-20) discharge/transfer to Conveyor (2300-CV-22)
S	2.011	Conveyor (2300-CV-21) discharge/transfer to Conveyor (2300-CV-22)
S	2.012	Conveyor (2300-CV-22) discharge/transfer to Mill Feed Conveyor (2300-CV-14)
S	2.013	Lime Silo - Unloading (2600-BN-02) discharge/transfer to Conveyor (2300-CV-14)

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

Air Pollution Equipment

Emissions from S2.001 - S2.013 each, shall be ducted to a control system consisting of a **Wet Scrubber (2300-DC-02)** with 100% capture and a maximum volume flow rate of **22,400** dry standard cubic feet per minute (DSCFM). The volumetric flow rate may be determined by utilizing Method 2 - *Determination of Stack Gas Velocity and Volumetric Flow Rate as referenced in 40 CFR Part 60, Appendix A.*

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

Emission Limits

- a. On and after the date of startup of S2.001 - S2.013, the permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **Wet Scrubber (2300-DC-02)**, the following pollutants in excess of the following specified limits:
 - i. NAC 445B.305 Part 70 Program - The discharge of PM10 (particulate matter less than 10microns in diameter) to the atmosphere will not exceed **3.84** pounds per hour combined, nor more than **16.82** tons per year combined, based on a 12-month rolling period. This limit is less than the **746.55** pounds per hour combined maximum allowable emission limit as determined from NAC 445B.22033 and the combined maximum allowable throughput as limited by C.3.a. of this section.
 - ii. NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere will not exceed **3.84** pounds per hour combined, nor more than **16.82** tons per year combined, based on a 12-month rolling period. This limit is less than the **663.60** pounds per hour combined maximum allowable emission limit as determined from SIP 445.732 and the combined maximum allowable throughput as limited by C.3.a. of this section.
 - iii. SIP 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from the exhaust stack of **Wet Scrubber (2300-DC-02)** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any one hour.
 - iv. NAC 445B.22017 (*State Only Requirement*) – The opacity from the exhaust stack of **Wet Scrubber (2300-DC-02)** will not equal or exceed 20%.

C. Emission Units #'s S2.001 – S2.013 (continued)

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

Emission Limits (Continued)

- b. New Source Performance Standards - Subpart LL-Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part 60.380)
On and after the sixtieth day after achieving the maximum production rate at which System 03 will be operated, but not later than 180 days after initial startup, the permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **Wet Scrubber (2300-DC-02)**, the following pollutants in excess of the following specified limits:
 - i. Emissions of particulate matter in excess of 0.05 grams per dry standard cubic meter (40 CFR Part 60.382(a)(1)).

- ii. At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate S2.001 - S2.013 each including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions (40 CFR Part 60.11(d)).
3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
- Operating Parameters
- a. The maximum allowable throughput rate for S2.001 - S2.013 each, will not exceed 1500.0 tons of as fed ore per any one-hour period.
 - b. Hours
S2.001 - S2.013 each, may operate a total of 8760 hours per year.
4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
- a. Monitoring, Record keeping and Compliance
The Permittee, upon issuance of this operating permit will:
 - i. Monitor and record the throughput rate of as fed ore for S2.001 - S2.013 each, on a daily basis.
 - ii. Monitor and record the hours of operation for S2.001 - S2.013 each, on a daily basis.
 - iii. Conduct and record a weekly visible emission survey on the exhaust stack of **Wet Scrubber (2300-DC-02)**; record the time of the survey and indicate whether any visible emissions that are not normal for the process, were observed. If any visible emissions are observed, conduct and record a Method 9 visible emissions test within 24 hours and perform any necessary corrective actions. The Method 9 visible emissions test will be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, Method 9.
 - iv. The required monitoring established in (i.) through (iii.) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that S2.001 - S2.013 each, are operating:
 - (a) The calendar date of any required monitoring.
 - (b) The total daily throughput rate of as fed ore, in tons, for the corresponding date.
 - (c) The total daily hours of operation for the corresponding date.
 - (d) The corresponding average hourly throughput rate of as fed ore, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in (b) and (c) above.
 - (e) Results and verification of the weekly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
 - (f) Records required in VI.4.c. and d. of this section.

C. Emission Units #'s S2.001 – S2.013 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (Continued)
- b. Performance/Compliance Testing
Within 60 days from the date of expiration of this permit, but no earlier than 365 days from the date of expiration of this permit, the permittee will:
 - i. Conduct and record the following performance tests on the exhaust stack of **Wet Scrubber (2300-DC-02)** consisting of three valid runs at the maximum throughput rate subject to C.3.a. of this section.
 - (1) A Method 201A and Method 202 test in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the director) for PM10.
 - (2) A Method 5 or 17 test in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the director). The sample volume for each run shall be at least 1.70 dscm (60 dscf). 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 1210C (2500F)) in order to prevent water condensation on the filter.
 - ii. The Method 201A and Method 202 tests required in C.4.b.i. of this section may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 tests with back-half performed under this provision shall be considered PM10 emissions for determination of compliance with the emission limitations established in C.2. of this section.
 - iii. Performance tests required under C.4.b.i. of this section that are conducted below the maximum allowable throughput, as established in C.3.a. of this section, shall be subject to the director's

review to determine if the throughput during the performance tests were sufficient to provide adequate compliance demonstration. Should the director determine that the performance tests do not provide adequate compliance demonstration then, the director may order additional performance testing for the purpose of a compliance demonstration.

- iv. Conduct and record a Method 9 visible emissions reading on the exhaust stack of **Wet Scrubber (2300-DC-02)** concurrent with one of the three required Method 5 or Method 201A and Method 202 performance tests. Visible emissions reading shall use the procedures contained in 40 CFR Part 60, Appendix A, Method 9. The visible emissions reading must be conducted by a certified visible emissions reader for a period of 6-minutes. The opacity readings must be averaged such that compliance with both a 6-minute average, and a 3-minute average is determined.
- v. Tests of performance and visible emissions readings must be conducted under such conditions as the director specifies to the permittee based on representative performance of the affected facility. The permittee shall make available to the director such records as may be necessary to determine the conditions of the tests of performance and visible emissions readings. Operations during periods of start-up, shutdown and malfunction must not constitute representative conditions of tests of performance and visible emissions readings unless otherwise specified in the application standard (NAC 445B.252.3).
- vi. The permittee shall give notice to the director 30 days before the tests of performance and visible emissions readings to allow the director to have an observer present. A written testing procedure for the tests of performance and visible emissions reading must be submitted to the director at least 30 days before the tests of performance and visible emissions readings to allow the director to review the proposed testing procedures (NAC.445B.252.4).

C. Emission Units #'s S2.001 – S2.013 (continued)

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

c. New Source Performance Standards (NSPS) - Notification and Record Keeping (40 CFR Part 60.7(b))

The permittee, upon the issuance date of this permit shall:

- i. During the initial performance test of **Wet Scrubber (2300-DC-02)**, and at least weekly thereafter, the permittee shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate (40 CFR Part 60.385 (b)).
- ii. After the initial performance test of **Wet Scrubber (2300-DC-02)**, the permittee shall submit semiannual reports to the director of occurrences when the measurement of the scrubber pressure loss (or gain) and liquid flow rate differ by more than +/- 30 percent from the average obtained during the most recent performance test. The reports shall postmarked within 30 days following the end of the second and fourth quarters (40 CFR Part 60.385(c) and (d)).
- iii. To comply with C.4.a., the permittee shall use the monitoring devices in C.5.a. and C.5.b. of this section to determine the pressure loss of the gas stream through the scrubber and scrubbing liquid flow rate at any time during each particulate matter run, and the average of the three determinations shall be computed (40 CFR Part 60.386(c)).
- iv. 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.

d. New Source Performance Standards (NSPS) – Notification and Record Keeping (40 CFR Part 60.7(b)) (Continued)

The permittee, upon issuance date of this permit, shall:

- i. 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.

5. Monitoring of Operations (40 CFR Part 60.384)

- a. The permittee shall install, calibrate, maintain, and operate a monitoring device for the continuous measurement of the change in pressure of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within +/- 250 pascals (+/- 1 inch water) gage pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.
- b. The permittee shall install, calibrate, maintain, and operate a monitoring device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within +/- 5 percent of the design scrubbing liquid flow rate and must be calibrated on at least an annual basis in accordance with manufacturer's instructions.

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

No Shielded Requirements

Appendix 11

APPLICATION CERTIFICATION

APPLICATION CERTIFICATION

Certification of application content consisting of the following:

(Please check each of the appropriate boxes to indicate the information provided in your application submittal)

General Company Information

General Company Information Form

Emission Unit Application Forms (Appendix 1)

- Industrial Process Application Form(s)
 Combustion Equipment Application Form(s)
 Storage Silos Application Form(s)
 Liquid Storage Tank Application Form(s)
 Surface Area Disturbance Form(s)

Insignificant Emissions Unit Information (Appendix 2)

Insignificant Emissions Unit Information Form(s)

Facility-Wide Applicable Requirements (Appendix 3)

Table 1 - Facility-Wide Applicable Requirements

Streamlining and Shield Allowance (Appendix 4)

Streamlining Demonstration

Facility-Wide Potential To Emit Tables (Appendix 5)

- Table 1 - Facility-Wide Potential To Emit
 Table 2 - Insignificant Activities Potential To Emit

Detailed Emissions Calculations (Appendix 6)

Detailed Emissions Calculations Provided

Emissions Cap Information (Appendix 7)

Emissions Cap Information Provided

Process Narrative, Process Flow Diagram, Plot Plan, Map, Dust Control Plan (Appendix 8)

- Process Narrative Provided
 Flow Diagram Provided
 Plot Plan Provided
 Map Provided
 Dust Control Plan Provided

Dispersion Modeling Files (Appendix 9)

Dispersion Modeling Provided

Draft Operating Permit (Appendix 10)

Draft Operating Permit Provided

Application Certification (Appendix 11)

Application Certification

Additional Information Requested by the Director

Any Additional Information Required by the Director

PLEASE NOTE THE FOLLOWING REQUIREMENTS WHICH APPLY TO PERMIT APPLICANTS DURING THE APPLICATION PROCESS:

- A. A permit applicant must submit supplementary facts or corrected information upon discovery [NAC 445B.297.1(b)].
- B. A permit applicant is required to provide any additional information which the Director requests in writing within the time specified in the Director's request [NAC 445B.297.1(c)].
- C. Submission of fraudulent data or other information may result in prosecution for an alleged criminal offense (NRS 445B.470).

CERTIFICATION: I certify that, based on information and belief formed after reasonable inquiry, the statements contained in this application are true, accurate and complete.

Mike Schaffner

Signature of Responsible Official

Mike Schaffner, Manager Carlin Process Operations

Print or Type Name **and** Title

3-12-13

Date