



August 28, 2015

Mr. Dan Banghart
Barrick Golden Sunlight
Golden Sunlight Mines Inc.
453 U.S. Highway 2 East
Whitehall, MT 59759

RE: Final Title V Operating Permit #OP1689-00

Dear Mr. Banghart:

The Department of Environmental Quality has prepared the enclosed Final Operating Permit #OP1689-00, for Golden Sunlight Mine, located in Whitehall, Montana. Please review the cover page of the attached permit for information pertaining to the action taking place on Permit #OP1689-00.

If you have any questions, please contact Craig Henrikson, the permit writer, at (406) 444-6711 or by email at chenrikson@mt.gov.

Sincerely,

A handwritten signature in black ink that reads "Julie A. Merkel".

Julie Merkel
Permitting Services Section Supervisor
Air Quality Bureau
(406) 444-3626

A handwritten signature in black ink that reads "Craig Henrikson".

Craig Henrikson, P.E.
Environmental Engineer
Air Quality Bureau
(406) 444-6711

JM: CH:

Enclosure

Cc: Robert Duraski, US EPA Region VIII 8P-AR
Bob Gallagher, US EPA Region 8 – Montana Operations

State of Montana
Department of Environmental Quality
Helena, Montana 59620



AIR QUALITY OPERATING PERMIT NUMBER OP1689-00

Issued to: **Barrick Golden Sunlight Mine - Golden Sunlight Mines Inc.**
NW1/4 Section of NW Section 29 Township 2N, Range 3W, Jefferson County, MT
453 U.S. Highway 2 East
Whitehall, MT 59759

Final Date: August 28, 2015
Expiration Date: August 28, 2020
Renewal Application Due: February 28, 2020

Effective Date: August 28, 2015
Date of Decision: July 28, 2015

New Title V Application Received: April 3, 2014
Application Deemed Administratively Complete: April 17, 2014
Application Deemed Technically Complete: April 17, 2014
AFS Number: 030-043-0002A

Permit Issuance and Appeal Processes: In accordance with Montana Code Annotated (MCA) Sections 75-2-217 and 218 and the Administrative Rules of Montana (ARM), ARM Title 17, Chapter 8, Subchapter 12, Operating Permit Program, this operating permit is hereby issued by the Department of Environmental Quality (Department) as effective and final on August 28, 2015. This permit must be kept on-site at the above named facility.

Montana Air Quality Operating Permit
Department of Environmental Quality

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Terms not otherwise defined in this permit or in the Definitions and Abbreviations Appendix of this permit have the meaning assigned to them in the referenced regulations.

SECTION I. GENERAL INFORMATION

The following general information is provided pursuant to ARM 17.8.1210(1).

Company Name: Barrick Golden Sunlight Mine, Golden Sunlight Mines Inc.

Mailing Address: 453 U.S. Hwy 2 East

City: Whitehall

State: MT

Zip: 59759

Plant Location: Section 29 Township 2N, Range 3W, Jefferson County, MT
453 U.S. Hwy 2 East

Responsible Official: Dan Banghart

Phone: (406)287-2046

Email: dbanghart@barrick.com

Facility Contact Person: Charles Buus

Phone: (406) 287-2018

Email: cbuus@barrick.com

Primary SIC Code: 1041

Nature of Business: Gold Ore Mining

Description of Process:

GSM operates an open pit gold mine and ore processing facility for the beneficiation of gold bearing ore. Ore is extracted from the mine using conventional open pit mining methods involving drilling, blasting, loading and hauling. The ore is delivered to the mill crushing area where it undergoes three stages of crushing, using gyratory and cone crushers followed by wet grinding in rod and ball mills. The ore passes through a leaching process where ore slurry is contacted with dilute sodium cyanide solution to obtain the optimum extraction of gold. The resulting gold bearing solution is sent through a washing circuit. GSM also plans to improve gold recovery through the construction and operation of a Fine Ore Processing unit (FOP).

SECTION II. SUMMARY OF EMISSIONS UNITS

The emissions units regulated by this permit are the following (ARM 17.8.1211):

Emissions Unit ID	Description	Pollution Control Device/Practice
EU001	Carbon Reactivation Kiln	Wet Scrubber #2 followed by Carbon Filter
EU002	Electrowinning Cells	None
EU003	Refinery Furnace	Wet Scrubber #3
EU004	Primary Crushing	Wet Scrubber #1
EU005	Secondary Crushing	Wet Scrubber #1
EU006	Tertiary Crushing	Wet Scrubber #1
EU007	Fine Ore Mill Process including Belt 10	Water Spray/Bag Filters/Wet Scrubber #4
EU008	Fine Ore Processing Unit (FOP)	Filter Baghouse
EU009	Conveyors and Pick-Up Points in the Secondary Crushing Building	Wet Scrubber #1

SECTION III. PERMIT CONDITIONS

The following requirements and conditions are applicable to the facility or to specific emissions units located at the facility (ARM 17.8.1211, 1212, and 1213).

A. Facility-Wide

Conditions	Rule Citation	Rule Description	Pollutant/Parameter	Limit
A.1	ARM 17.8.105	Testing Requirements	Testing Requirements	-----
A.2	ARM 17.8.304(1)	Visible Air Contaminants	Opacity	40%
A.3	ARM 17.8.304(2)	Visible Air Contaminants	Opacity	20%
A.4	ARM 17.8.308(1)	Particulate Matter, Airborne	Fugitive Opacity	20%
A.5	ARM 17.8.308(2)	Particulate Matter, Airborne	Reasonable Precautions	-----
A.6	ARM 17.8.308	Particulate Matter, Airborne	Reasonable Precaution, Construction	20%
A.7	ARM 17.8.309	Particulate Matter, Fuel Burning Equipment	Particulate Matter	$E = 0.882 * H^{-0.1664}$ Or $E = 1.026 * H^{-0.233}$
A.8	ARM 17.8.310	Particulate Matter, Industrial Processes	Particulate Matter	$E = 4.10 * P^{0.67}$ or $E = 55 * P^{0.11} - 40$
A.9	ARM 17.8.322(4)	Sulfur Oxide Emissions, Sulfur in Fuel	Sulfur in Fuel (liquid or solid fuels)	1 lb/MMBtu fired
A.10	ARM 17.8.322(5)	Sulfur Oxide Emissions, Sulfur in Fuel	Sulfur in Fuel (gaseous)	50 gr/100 CF
A.11	ARM 17.8.324(3)	Hydrocarbon Emissions, Petroleum Products	Gasoline Storage Tanks	-----
A.12	ARM 17.8.324	Hydrocarbon Emissions, Petroleum Products	65,000 Gallon Capacity	-----
A.13	ARM 17.8.324	Hydrocarbon Emissions, Petroleum Products	Oil-effluent Water Separator	-----
A.14	ARM 17.8.342	NESHAPs General Provisions	SSM Plans	Submittal
A.15	ARM 17.8.1211(1)(c) and 40 CFR Part 98	Greenhouse Gas Reporting	Reporting	-----
A.16	ARM 17.8.1212	Reporting Requirements	Prompt Deviation Reporting	-----
A.17	ARM 17.8.1212	Reporting Requirements	Compliance Monitoring	-----
A.18	ARM 17.8.1207	Reporting Requirements	Annual Certification	-----

Conditions

- A.1. Pursuant to ARM 17.8.105, any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct test, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

Compliance demonstration frequencies that list “as required by the Department” refer to ARM 17.8.105. In addition, for such sources, compliance with limits and conditions listing “as required by the Department” as the frequency, is verified annually using emission factors and engineering calculations by the Department’s compliance inspectors during the annual emission inventory review; in the case of Method 9 tests, compliance is monitored during the regular inspection by the compliance inspector.

- A.2. Pursuant to ARM 17.8.304(1), GSM shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit.
- A.3. Pursuant to ARM 17.8.304(2), GSM shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit.
- A.4. Pursuant to ARM 17.8.308(1), GSM shall not cause or authorize the production, handling, transportation, or storage of any material unless reasonable precautions to control emissions of particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit.
- A.5. Pursuant to ARM 17.8.308(2), GSM shall not cause or authorize the use of any street, road or parking lot without taking reasonable precautions to control emissions of airborne particulate matter, unless otherwise specified by rule or in this permit.
- A.6. Pursuant to ARM 17.8.308, GSM shall not operate a construction site or demolition project unless reasonable precautions are taken to control emissions of airborne particulate matter. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit.
- A.7. Pursuant to ARM 17.8.309, unless otherwise specified by rule or in this permit, GSM shall not cause or authorize particulate matter caused by the combustion of fuel to be discharged from any stack or chimney into the outdoor atmosphere in excess of the maximum allowable emissions of particulate matter for existing fuel burning equipment and new fuel burning equipment calculated using the following equations:

For existing fuel burning equipment (installed before November 23, 1968):

$$E = 0.882 * H^{-0.1664}$$

For new fuel burning equipment (installed on or after November 23, 1968):

$$E = 1.026 * H^{-0.233}$$

Where H is the heat input capacity in million BTU (MMBtu) per hour and E is the maximum allowable particulate emissions rate in pounds per MMBtu.

A.8. Pursuant to ARM 17.8.310, unless otherwise specified by rule or in this permit, GSM shall not cause or authorize particulate matter to be discharged from any operation, process, or activity into the outdoor atmosphere in excess of the maximum hourly allowable emissions of particulate matter calculated using the following equations:

For process weight rates up to 30 tons per hour:

$$E = 4.10 * P^{0.67}$$

For process weight rates in excess of 30 tons per hour:

$$E = 55.0 * P^{0.11} - 40$$

Where E = rate of emissions in pounds per hour and P = process weight rate in tons per hour.

- A.9. Pursuant to ARM 17.8.322(4), GSM shall not burn liquid or solid fuels containing sulfur in excess of 1 pound per million BTU fired, unless otherwise specified by rule or in this permit.
- A.10. Pursuant to ARM 17.8.322(5), GSM shall not burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions, unless otherwise specified by rule or in this permit.
- A.11. Pursuant to ARM 17.8.324(3), GSM shall not load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device or is a pressure tank as described in ARM 17.8.324(1), unless otherwise specified by rule or in this permit.
- A.12. Pursuant to ARM 17.8.324, unless otherwise specified by rule or in this permit, GSM shall not place, store or hold in any stationary tank, reservoir or other container of more than 65,000 gallon capacity any crude oil, gasoline or petroleum distillate having a vapor pressure of 2.5 pounds per square inch absolute or greater under actual storage conditions, unless such tank, reservoir or other container is a pressure tank maintaining working pressure sufficient at all times to prevent hydrocarbon vapor or gas loss to the atmosphere, or is designed and equipped with a vapor loss control device, properly installed, in good working order and in operation.
- A.13. Pursuant to ARM 17.8.324, unless otherwise specified by rule or in this permit, GSM shall not use any compartment of any single or multiple-compartment oil-effluent water separator, which compartment receives effluent water containing 200 gallons a day or more of any petroleum product from any equipment processing, refining, treating, storing or handling kerosene or other petroleum product of equal or greater volatility than kerosene, unless such compartment is equipped with a vapor loss control device, constructed so as to prevent emission of hydrocarbon vapors to the atmosphere, properly installed, in good working order and in operation.
- A.14. Pursuant to ARM 17.8.342 and 40 CFR 63.6, GSM shall submit to the Department a copy of any startup, shutdown, and malfunction (SSM) plan required under 40 CFR 63.6(e)(3) within 30 days of the effective date of this operating permit (if not previously submitted), within 30 days of the compliance date of any new National Emission Standard for Hazardous Air Pollutants (NESHAPs) or Maximum Achievable Control Technology (MACT) standard, and within 30 days of the revision of any such SSM plan, when applicable. The Department requests submittal of such plans in electronic form, when possible. As of the issuance of OP1689-00, Table 1 of Subpart EEEEEEE did not require an SSM plan but this could change in the future.

- A.15. Pursuant to ARM 17.8.1211(1)(c) and 40 CFR Part 98, GSM shall comply with requirements of 40 CFR Part 98 – Mandatory Greenhouse Gas Reporting, as applicable (ARM 17.8.1211(1)(c), NOT an applicable requirement under Title V). GSM is not a listed source in any of the tables in 40 CFR Part 98 as of the date of this permit.
- A.16. GSM shall promptly report deviations from permit requirements including those attributable to upset conditions, as upset is defined in the permit. To be considered prompt, deviations shall be reported to the Department using the schedule and content as described in Section V.E (unless otherwise specified in an applicable requirement) (ARM 17.8.1212).
- A.17. On or before February 15 and August 15 of each year, GSM shall submit to the Department the compliance monitoring reports required by Section V.D. These reports must contain all information required by Section V.D, as well as the information required by each individual emissions unit. For the reports due by February 15 of each year, GSM may submit a single report, provided that it contains all the information required by Sections V.B & V.D. Per ARM 17.8.1207,

any application form, report, or compliance certification submitted pursuant to ARM Title 17, Chapter 8, Subchapter 12 (including semiannual monitoring reports), shall contain certification by a responsible official of truth, accuracy and completeness. This certification and any other certification required under ARM Title 17, Chapter 8, Subchapter 12, shall state that, “based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.”

- A.18. By February 15 of each year, GSM shall submit to the Department the compliance certification required by Section V.B. The annual certification required by Section V.B must include a statement of compliance based on the information available which identifies any observed, documented or otherwise known instance of noncompliance for each applicable requirement. Per ARM 17.8.1207,

any application form, report, or compliance certification submitted pursuant to ARM Title 17, Chapter 8, Subchapter 12 (including annual certifications), shall contain certification by a responsible official of truth, accuracy and completeness. This certification and any other certification required under ARM Title 17, Chapter 8, Subchapter 12, shall state that, “based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.”

B. EU001: Carbon Reactivation Kiln

Condition	Pollutant/Parameter	Permit Limit	Compliance Demonstration		Reporting Requirements
			Method	Frequency	
B.1, B.10, B.19, B.27, B.28, B.29, B.30	Opacity	20%	Method 9 or	Semiannual	Semiannual
			Visual Survey	Weekly	
B.2, B.11, B.27, B.28, B.29, B.30	Particulate Matter	Enclosed Kiln Operation and 0.05 grams/dscm	EPA Method 5, 201 or 201A	Once every 4 years	Semiannual
B.3, B.11, B.27, B.28, B.29, B.30	Particulate Matter	Process Weight Rule	EPA Method 5, 201 or 201A	Initial and then as required by the Department	Semiannual
B.4, B.12, B.12, B.13, B.20, B.21, B.22, B.27, B.28, B.29, B.30	Mercury	0.17 lb Mercury/Ton Concentrate Processed (Combined total from EU001, EU002 and EU003)	Method 29 (or approved alternate) and other supporting methods including Method 1 or 1A, Method 2, 2A, 2C, 2D, 2F or Method 2G, Method 3, 3A, or 3B, and Method 4.	Initial test within 180 days of February 17, 2014, then an annual test.	Semiannual
B.5, B.14, B.26, B.29, B.30	Emission Control Equipment	Operation and Maintenance of Emission Control Equipment	Operation and Maintenance of wet scrubber and carbon filter	Whenever attached Source is in Operation	Semiannual
B.6, B.7, B.12, B.15, B.16, B.23, B.24, B.27, B.28, B.29, B.30	Scrubber Operation	Continuous Monitoring of pressure drop and liquid flowrate	Log	Continuous	Semiannual
B.8, B.17, B.25, B.27, B.28, B.29, B.30	Inlet Temperature to Carbon Filter Monitoring	Inlet Temperature to Carbon Filter	Log	Continuous	Semiannual

Condition	Pollutant/Parameter	Permit Limit	Compliance Method	Demonstration Frequency	Reporting Requirements
B.9, B.18, B.27, B.28, B.29, B.30	Carbon Filter Exhaust Monitoring or Carbon Filter Analytical Testing	Monitoring satisfied by sampling and analyzing the exhaust stream for mercury or testing carbon for reactivity.	Method 30B and for the minimum time required in 30B up to one week during the period of the annual performance test or; Carbon Filter Testing using Method 7471B or another Method approved by the Department	Continuous for sampling and analyzing the exhaust stream or periodic if testing for mercury loading on the carbon	Semiannual

Conditions

- B.1. GSM shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source that exhibit opacity of 20 percent or greater averaged over 6 consecutive minutes (ARM 17.8.304(2)).
- B.2. GSM shall operate the carbon reactivation kiln in a totally enclosed manner and the emissions shall be vented to a wet scrubber (scrubber #2) and not exceed 0.05 grams per dry standard cubic meter (ARM 17.8.749 and ARM 17.8.752).
- B.3. The particulate emissions from process weight shall not exceed the value calculated by $E = 4.10 * P^{0.67}$ for process weight rates up to 30 tons per hour and/or $E = 55.0 * P^{0.11} - 40$ for process weight rates in excess of 30 tons per hour, where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour (ARM 17.8.310).
- B.4. GSM shall limit mercury emissions from the carbon reactivation kiln scrubber, refinery furnace wet scrubber and electrowinning processes to a combined total of 0.17 lb Mercury/ton of concentrate processed (ARM 17.8.749 and 40 CFR 63, Subpart EEEEEEE).
- B.5. GSM shall operate a scrubber and carbon filter on the Carbon Reactivation Kiln whenever the carbon reactivation kiln is in operation (ARM 17.8.749 and 40 CFR 63, Subpart EEEEEEE).
- B.6. GSM shall continuously measure the change in pressure of the gas stream through scrubber #2 (ARM 17.8.749).

- B.7. GSM shall continuously measure the scrubbing liquid flow rate to scrubber #2 (ARM 17.8.749).
- B.8. GSM shall measure the inlet temperature to the carbon filter on the carbon reactivation kiln once per shift (ARM 17.8.749).
- B.9. GSM shall continuously monitor the performance of the carbon reactivation kiln carbon filter through one of the compliance demonstration options in Section III. B.18 (ARM 17.8.749 and 40 CFR 63, Subpart EEEEEEE).

Compliance Demonstration

- B.10. GSM shall conduct either a semiannual Method 9 source test or a weekly visual survey of visible emissions for emitting units listed in this section. Under the visual survey option, once per calendar week, during daylight hours, GSM shall visually survey the emitting units listed in this section for any visible emissions. If visible emissions are observed during the visual survey, GSM must conduct a Method 9 source test. The Method 9 source test must begin within one hour of any observation of visible emissions. If visible emissions meet or exceed 20% opacity based on the Method 9 source test according to the particular source limit, GSM shall immediately take corrective action to contain or minimize the source of emissions. If corrective actions are taken, then GSM shall immediately conduct a subsequent visual survey (and subsequent Method 9 source test if visible emissions remain) to monitor compliance. The person conducting the visual survey shall record the results of the survey (including the results of any Method 9 source test performed) in a log, including any corrective action taken. Conducting a visual survey does not relieve GSM of the liability for a violation determined using Method 9 (ARM 17.8.101(27)).

If the visual surveys are not performed once per calendar week as specified above during the reporting period, then GSM shall perform the Method 9 source tests on the emitting units listed in this section for that reporting period.

Method 9 source tests must be performed in accordance with the Montana Source Test Protocol and Procedures Manual, except that prior notification of the test is not required. Each observation period must be a minimum of 6 minutes unless any one reading is 20% or greater, then the observation period must be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time (ARM 17.8.1213).

- B.11. GSM shall monitor compliance with the particulate emission limitation contained in Sections III. B.2 and III.B.3 by performing an initial EPA Method 201, 201 A or Method 5 test, if appropriate, and then every 4 years thereafter, or as required by the Department and Section III.A.1. The test methods and procedures shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual. All source tests shall be performed at over 90% of the maximum rated capacity of the source. These tests shall include determination of total mass particulate and particulate matter with an aerodynamic diameter of ten microns or less (PM_{10}). The source tests shall be conducted in accordance with the applicable test methods listed in 40 CFR Part 60, General Provisions, Appendix A (Total Particulate), Part 51 Method 201 or 201A (PM_{10}) (ARM 17.8.105, ARM 17.8.106 and ARM 17.8.1213).

- B.12. As required by the Department and Section III.B.4, GSM shall complete an initial mercury performance test within 180 days of February 17, 2014 according to 40 CFR 63 Subpart EEEEEEE, and then annually thereafter, and for each performance test establish parameters for pressure drop across the wet scrubber and liquid flowrate required to be monitored for Sections III.B.6 and III.B.7 according to 40 CFR 63.11647(h). No two consecutive annual compliance tests may occur less than 3 months apart or more than 15 months apart. After initial compliance test, subsequent tests all use 12 full months of production data preceding subsequent test (ARM 17.8.749 and 40 CFR 63, Subpart EEEEEEE).
- B.13. GSM shall combine the total mercury from the carbon reactivation kiln scrubber, the refinery furnace scrubber and from the electrowinning cells along with the total tons of concentrate processed to demonstrate compliance with the limit in Section III.B.4 (ARM 17.8.749, 40 CFR 63, Subpart EEEEEEE and ARM 17.8.1213).
- B.14. GSM shall record the time periods of scrubber operation, carbon filter operation and carbon reactivation kiln as required in Section III.B.5 (ARM 17.8.1213).
- B.15. GSM shall install, calibrate, maintain, and operate monitoring devices for the continuous measurement of the change in pressure of the gas stream through scrubber #2 as required in Section III.B.6. Monitoring must be done at least once during each 12-hour shift. These monitoring devices must be certified by the manufacturer to be accurate within ± 1 inch of water gauge pressure and must be calibrated on an annual basis in accordance with the manufacturer's instructions. If any daily average is less than the established operating limit, GSM shall take corrective action within 24 hours and if the parameters are not in range within 72 hours, the owners shall report the deviation to the Department and perform a new compliance test within 40 days (ARM 17.8.1213).
- B.16. GSM shall install, calibrate, maintain and operate monitoring devices for the continuous measurement of the scrubbing liquid flow rate to scrubber #2 as required in Section III.B.7. Monitoring must be done at least once during each 12-hour shift. These monitoring devices must be certified by the manufacturer to be accurate within $\pm 5\%$ of design liquid scrubbing flow rate and must be calibrated on at least an annual basis in accordance with the manufacturer's instructions. If any daily average is less than the established operating limit, GSM shall take corrective action within 24 hours and if the parameters are not in range within 72 hours, the owners shall report the deviation to the Department and perform a new compliance test within 40 days (ARM 17.8.1213.)
- B.17. GSM shall monitor the inlet temperature to the carbon filter on the carbon reactivation kiln once per shift. If an inlet temperature exceeds the temperature operating limit, GSM must take corrective actions to get the temperature back within the parameter operating limit within 48 hours. If the exceedance persists, within 144 hours of the exceedance, GSM must sample and analyze the exhaust stream from the carbon filter using Method 30B (40 CFR part 60, appendix A-8) and compare to an operating limit (calculated pursuant to Section III.B.18(1) or must conduct carbon sampling pursuant to Section III B(18)(2). If the concentration measured with Method 30B is below 90 percent of the operating limit or the carbon sampling results are below 90 percent of the carbon loading capacity, GSM may set a new temperature operating limit 10 °F above the previous operating limit or at an alternative level approved by the Department. If the concentration is above 90 percent of the operating limit or above 90 percent of the carbon loading capacity GSM must change the carbon in the

filter within 30 days and report the event to the Department and reestablish an appropriate maximum temperature limit based on approval of the Department ARM 17.8.749 and 40 CFR 63, Subpart EEEEEEE).

B.18. GSM shall continuously monitor the performance of the carbon reactivation kiln carbon filter through one of the compliance demonstration options below (ARM 17.8.749 and 40 CFR 63, Subpart EEEEEEE).

(1) Continuously sample and analyze the exhaust stream from the carbon filter for mercury using Method 30B (40 CFR part 60, appendix A-8) for a duration of at least the minimum sampling time specified in Method 30B and up to one week that includes the period of the annual performance test.

(a) Establish an upper operating limit for the process as determined using the mercury concentration measurements from the sorbent trap (Method 30B) as calculated from the equation of this section

$$OLC = C_{\text{trap}} * (EL/CT)$$

Where:

OLC = mercury concentration operating limit for the carbon filter control device on the process as measured using the sorbent trap, (micrograms per cubic meter);

C_{trap} = average mercury concentration measured using the sorbent trap during the week that includes the compliance performance test, (micrograms per cubic meter);

EL = emission standard for the affected sources (lb/ton of concentrate);

CT = compliance test results for the affected sources (lb/ton of concentrate).

(b) Sample and analyze the exhaust stream from the carbon filter for mercury at least monthly using Method 30B (40 CFR part 60, appendix A-8). When the mercury concentration reaches 75 percent of the operating limit, begin weekly sampling and analysis. When the mercury concentration reaches 90 percent of the operating limit, replace the carbon in the carbon filter within 30 days. If mercury concentration exceeds the operating limit, change the carbon in the carbon filter within 30 days and report the deviation to the Department.

(2) Conduct an initial sampling of the carbon in the carbon bed for mercury 90 days after the replacement of the carbon. A representative sample must be collected from the inlet of the bed and the exit of the bed and analyzed using SW-846 Method 7471B (incorporated by reference—see 40 CFR 63.14). The depth to which the sampler is inserted must be recorded. The design capacity is established by calculating the average carbon loading from the inlet and outlet measurements. Sampling and analysis of the carbon bed for mercury must be performed quarterly thereafter. When the carbon loading reaches 50 percent of the design capacity of the carbon, monthly sampling must be performed until 90 percent of the carbon loading capacity is reached. The carbon must be removed and replaced with fresh carbon no later than 30 days after reaching 90 percent of capacity. For carbon designs where there may be multiple carbon columns or beds, a representative sample may be collected

from the first and last column or bed instead of the inlet or outlet. If the carbon loading exceeds the design capacity of the carbon, change the carbon within 30 days and report the deviation to the Department.

Recordkeeping

- B.19. If visual surveys are performed, GSM shall maintain a log to verify that the visual surveys were performed as specified in Section III.B.10. Each log entry must include the date, time, results of survey (and results of subsequent Method 9, if applicable), and observer's initials if any corrective action is required, the time, date, observer's initials, and any preventive or corrective action taken must be recorded in the log (ARM 17.8.1212).
- B.20. GSM shall maintain records of the number of one-hour periods that the kiln operates during each day and for each calendar month (ARM 17.8.1212 and 40 CFR 63 Subpart EEEEEEE).
- B.21. GSM shall maintain records of the weight of each batch of concentrate for each calendar month (ARM 17.8.1212).
- B.22. GSM shall maintain records of the total mercury from the carbon reactivation kiln scrubber, the refinery furnace scrubber and from the electrowinning cells along with the total tons of concentrate processed as required in Section III.B.13 (ARM 17.8.749, 40 CFR 63, Subpart EEEEEEE and ARM 17.8.1212).
- B.23. GSM shall maintain a log of the differential pressure monitoring and annual calibration required in Section III.B.15 (ARM 17.8.1212).
- B.24. GSM shall maintain a log of the scrubber liquid flow rate monitoring and annual calibration required in Section III.B.16 (ARM 17.8.1212).
- B.25. GSM shall maintain records documenting the inlet temperature to the carbon filter were taken once per shift. Any corrective actions take must also be recorded (ARM 17.8.749 and ARM 17.8.1212).
- B.26. GSM shall maintain records of all inspection and maintenance activities performed on Scrubber #2. All inspection and maintenance records must be available to the Department for inspection and must be submitted to the Department upon request (ARM 17.8.1212).
- B.27. All compliance source test recordkeeping shall be performed in accordance with the test method used and the Montana Source Test Protocol and Procedures Manual, shall be maintained on site, and shall be submitted to the Department upon request (ARM 17.8.106 and ARM 17.8.1212).

Reporting

- B.28. Any compliance source test reports must be submitted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1212).
- B.29. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).

- B.30. The semiannual monitoring report shall provide (ARM 17.8.1212):
- a. A summary of results of any source testing that was performed during that semiannual period; and
 - b. Details of any deviation occurrences, corrective action and maintenance as required under 40 CFR 63.11648; and
 - c. Any compliance demonstration calculations performed to satisfy conditions in Sections III.B.10 through B.18.
 - d. Summary of (any) record keeping logs required in Sections III.B.19 through B.27.

C. EU002: Electrowinning Cells

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration		Reporting Requirements
			Method	Frequency	
C.1, C.4, C.7, C.11, C.12, C.13	Opacity	20%	Method 9 or	As Required by the Department and Section III.A.1	Semiannual
			Visual Survey	Weekly	
C.2, C.5, C.8, C.10, C.11, C.12, C.13	PM	Process Weight Rule	EPA Method 5, 201 or 201A	Once every 4 years	Semiannual
C.3, C.6, C.8, C.9, C.10, C.11, C.12, C.13	Mercury	0.17 lb Mercury/Ton Concentrate Processed (Combined total from EU001, EU002 and EU003) (Same condition as noted in Section III B.4)	Method 29 and other supporting methods including Method 1 or 1A, Method 2, 2A, 2C, 2D, 2F or Method 2G, Method 3, 3A, or 3B, and Method 4.	Initial test within 180 days of February 17, 2014, then an annual test	Semiannual

Conditions

- C.1. GSM shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source that exhibit opacity of 20 percent or greater averaged over 6 consecutive minutes (ARM 17.8.304(2)).
- C.2. The particulate emissions from process weight shall not exceed the value calculated by $E = 4.10 * P^{0.67}$ for process weight rates up to 30 tons per hour and/or $E = 55.0 * P^{0.11} - 40$ for process weight rates in excess of 30 tons per hour, where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour (ARM 17.8.310).
- C.3. GSM shall limit mercury emissions from the carbon reactivation kiln scrubber, refinery furnace wet scrubber and electrowinning processes to a combined total of 0.17 lb Mercury/ton of concentrate processed (ARM 17.8.749 and 40 CFR 63, Subpart EEEEEEE).

Compliance Demonstration

- C.4. GSM shall conduct either a semiannual Method 9 source test or a weekly visual survey of visible emissions for emitting units listed in this section. Under the visual survey option, once per calendar week, during daylight hours, GSM shall visually survey the emitting units listed in this section for any visible emissions. If visible emissions are observed during the visual survey, GSM must conduct a Method 9 source test. The Method 9 source test must

begin within one hour of any observation of visible emissions. If visible emissions meet or exceed 20% opacity based on the Method 9 source test according to the particular source limit, GSM shall immediately take corrective action to contain or minimize the source of emissions. If corrective actions are taken, then GSM shall immediately conduct a subsequent visual survey (and subsequent Method 9 source test if visible emissions remain) to monitor compliance. The person conducting the visual survey shall record the results of the survey (including the results of any Method 9 source test performed) in a log, including any corrective action taken. Conducting a visual survey does not relieve GSM of the liability for a violation determined using Method 9 (ARM 17.8.101(27)).

If the visual surveys are not performed once per calendar week as specified above during the reporting period, then GSM shall perform the Method 9 source tests on the emitting units listed in this section for that reporting period.

Method 9 source tests must be performed in accordance with the Montana Source Test Protocol and Procedures Manual, except that prior notification of the test is not required. Each observation period must be a minimum of 6 minutes unless any one reading is 20% or greater, then the observation period must be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time (ARM 17.8.1213).

- C.5. GSM shall monitor compliance with the particulate emission limitation contained in Section III. C.2 by performing an initial EPA Method 201, 201 A or Method 5, if appropriate test and then every 4 years thereafter, or another test method approved by the Department, as required by the Department and Section III.A.1. The test methods and procedures shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM17.8.106 and ARM 17.8.1213).
- C.6. As required by the Department and Section III.C.3, GSM shall complete an initial mercury performance test within 180 days of February 17, 2014 according to 40 CFR 63 Subpart EEEEEEE, and then annually thereafter. GSM shall combine the total mercury from the carbon reactivation kiln, the refinery furnace and from the electrowinning cells along with the total tons of concentrate processed to demonstrate compliance with the limit in Section III.B.4 and Section III.C.3. After initial compliance test, subsequent tests all use 12 full months of production data preceding subsequent test. (ARM 17.8.1213 and 40 CFR 63, Subpart EEEEEEE).

Recordkeeping

- C.7. If visual surveys are performed, GSM shall maintain a log to verify that the visual surveys were performed as specified in Section III.C.4. Each log entry must include the date, time, results of survey (and results of subsequent Method 9, if applicable), and observer's initials. If any corrective action is required, the time, date, observer's initials, and the details of the corrective action taken must be recorded in the log (ARM 17.8.1212).
- C.8. GSM shall maintain records of the weight of each batch of concentrate for each calendar month and shall also record daily and by calendar month, the number of one hour periods in which the electrowinning cells operate. (ARM 17.8.1212).

- C.9. GSM shall maintain records of the total mercury from the carbon reactivation kiln scrubber, the refinery furnace scrubber and from the electrowinning cells along with the total tons of concentrate processed as also required in Section III.B.15 (ARM 17.8.749, 40 CFR 63, Subpart EEEEEEE and ARM 17.8.1212).
- C.10. All compliance source test recordkeeping shall be performed in accordance with the test method used and the Montana Source Test Protocol and Procedures Manual, shall be maintained on site, and shall be submitted to the Department upon request (ARM 17.8.106 and ARM 17.8.1212).

Reporting

- C.11. Any compliance source test reports must be submitted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1212).
- C.12. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).
- C.13. The semiannual monitoring report shall provide (ARM 17.8.1212):
 - a. A summary of results of any source testing that was performed during that semiannual period; and
 - b. Details of any deviation occurrences, corrective action and maintenance as required under 40 CFR 63.11648; and
 - c. Any compliance demonstration calculations performed to satisfy conditions in Sections III.C.1) though C.3

D. EU003: Refinery Furnace

Condition	Pollutant/Parameter	Permit Limit	Compliance Method	Demonstration Frequency	Reporting Requirements
D.1, D.8, D.14, D.22, D.23, D.24, D.25	Opacity	20%	Method 9 or	Semiannual	Semiannual
			Visual Survey	Weekly	
D.2, D.9, D.22, D.23, D.24, D.25	Particulate Matter	Enclosed Refinery Furnace Operation and 0.05 grams/dscm	EPA Method 5, 201 or 201A	Once every 4 years	Semiannual
D.3, D.9, D.22, D.23, D.24, D.25	Particulate Matter	Process Weight Rule	EPA Method 5, 201 or 201A	Initial and then as required by the department	Semiannual
D.4, D.10, D.15, D.18, D.19, D.22, D.23, D.24, D.25	Mercury	0.17 lb Mercury/Ton Concentrate Processed (Combined total from EU001, EU002 and EU003) (Same condition as noted in Section III B.4)	Method 29 (or approved alternate) and other supporting methods including Method 1 or 1A, Method 2, 2A, 2C, 2D, 2F or Method 2G, Method 3, 3A, or 3B, and Method 4.	Initial test within 180 days of February 17, 2014, then an annual test.	Semiannual
D.5, D.11, D.20, D.21, D.24, D.25	Emission Control Equipment	Operation and Maintenance of Emission Control Equipment	Operation and Maintenance of Wet Scrubber	Whenever attached Source is in Operation	Semiannual
D.6, D.10, D.12, D.16, D.23, D.24, D.24, D.25	Scrubber #3 Differential Flowrate	Continuous Monitoring	Log	Continuous	Semiannual
D.7, D.10, D.13, D.17, D.23, D.24, D.24, D.25	Scrubber #3 Liquid Flowrate	Continuous Monitoring	Log	Continuous	Semiannual

Conditions

- D.1. GSM shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source that exhibit opacity of 20 percent or greater averaged over 6 consecutive minutes (ARM 17.8.304(2)).

- D.2. GSM shall operate the refinery furnace in a totally enclosed manner and the emissions shall be vented to a wet scrubber (scrubber #3) and not exceed 0.05 grams of particulate matter per dry standard cubic meter (PM₁₀) (ARM 17.8.105 and ARM 17.8.749 and ARM 17.8.752).
- D.3. The particulate emissions from process weight shall not exceed the value calculated by $E = 4.10 * P^{0.67}$ for process weight rates up to 30 tons per hour and/or $E = 55.0 * P^{0.11} - 40$ for process weight rates in excess of 30 tons per hour, where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour (ARM 17.8.310).
- D.4. GSM shall limit mercury emissions from the refinery carbon reactivation kiln wet scrubber, refinery furnace wet scrubber and electrowinning processes to a combined total of 0.17 lb Mercury/ton of concentrate processed (ARM 17.8.749 and 40 CFR 63, Subpart EEEEEEE).
- D.5. GSM shall operate the Refinery Furnace scrubber whenever attached source is in operation (ARM 17.8.749).
- D.6. GSM shall continuously measure the change in pressure of the gas stream through scrubber #3 (ARM 17.8.749).
- D.7. GSM shall continuously measure the scrubbing liquid flow rate to scrubber # 3 (ARM 17.8.749).

Compliance Demonstration

- D.8. GSM shall conduct either a semiannual Method 9 source test or a weekly visual survey of visible emissions for emitting units listed in this section. Under the visual survey option, once per calendar week, during daylight hours, GSM shall visually survey the emitting units listed in this section for any visible emissions. If visible emissions are observed during the visual survey, GSM must conduct a Method 9 source test. The Method 9 source test must begin within one hour of any observation of visible emissions. If visible emissions meet or exceed 20% opacity based on the Method 9 source test according to the particular source limit, GSM shall immediately take corrective action to contain or minimize the source of emissions. If corrective actions are taken, then GSM shall immediately conduct a subsequent visual survey (and subsequent Method 9 source test if visible emissions remain) to monitor compliance. The person conducting the visual survey shall record the results of the survey (including the results of any Method 9 source test performed) in a log, including any corrective action taken. Conducting a visual survey does not relieve GSM of the liability for a violation determined using Method 9 (ARM 17.8.101(27)).

If the visual surveys are not performed once per calendar week as specified above during the reporting period, then GSM shall perform the Method 9 source tests on the emitting units listed in this section for that reporting period.

Method 9 source tests must be performed in accordance with the Montana Source Test Protocol and Procedures Manual, except that prior notification of the test is not required. Each observation period must be a minimum of 6 minutes unless any one reading is 20% or greater, then the observation period must be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time (ARM 17.8.1213).

- D.9. GSM shall monitor compliance with the particulate emission limitation contained in Sections III. D.2 and III.D.3 by performing an initial EPA Method 201, 201 A or Method 5 test, if appropriate and then 4 years thereafter, as required by the Department and Section III.A.1. The test methods and procedures shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual. All source tests shall be performed at over 90% of the maximum rated capacity of the refinery furnace. These tests shall include determination of total mass particulate and particulate matter with an aerodynamic diameter of ten microns or less (PM10). The source tests shall be conducted in accordance with the applicable test methods listed in 40 CFR Part 60, General Provisions, Appendix A (Total Particulate), Part 51 Method 201 or 201A (PM10) (17.8.106 and 17.8.1213).
- D.10. As required by the Department and Section III.D.4, GSM shall complete an initial mercury performance test within 180 days of February 17, 2014, according to 40 CFR 63 Subpart EEEEEEE, and then annually thereafter, and for each performance test establish parameters for pressure drop across the wet scrubber and liquid flowrate According to 40 CFR 63.11647 (h). Existing sources may use a previous emission test for their initial compliance determination in lieu of conducting a new test if the test was conducted within one year of the compliance date using specified methods in 40 CFR 63.11646(a)(1) through (a)(4) and tests were representative of the current operating processes and conditions (ARM 17.8.1213 and 40 CFR 63, Subpart EEEEEEE).
- D.11. GSM shall record the time periods of refinery furnace and scrubber operation (ARM 17.8.1213).
- D.12. GSM shall install, calibrate, maintain, and operate monitoring devices for the continuous measurement of the change in pressure of the gas stream through wet scrubber #3. Monitoring must be done at least once during each 12-hour shift. These monitoring devices must be certified by the manufacturer to be accurate within ± 1 inch of water gauge pressure and must be calibrated on an annual basis in accordance with the manufacturer's instructions. If any daily average is less than the established operating limit, GSM shall take corrective action within 24 hours and if the parameters are not in range within 72 hours, the owners shall report the deviation to the Department and perform a new compliance test within 40 days (ARM 17.8.1213).
- D.13. GSM shall install, calibrate, maintain and operate monitoring devices for the continuous measurement of the scrubbing liquid flow rate to wet scrubber #3. Monitoring must be done at least once during each 12-hour shift. These monitoring devices must be certified by the manufacturer to be accurate within $\pm 5\%$ of design liquid scrubbing flow rate and must be calibrated on at least an annual basis in accordance with the manufacturer's instructions. If any daily average is less than the established operating limit, GSM shall take corrective action within 24 hours and if the parameters are not in range within 72 hours, the owners shall report the deviation to the Department and perform a new compliance test within 40 days (ARM 17.8.1213).

Recordkeeping

- D.14. If visual surveys are performed, GSM shall maintain a log to verify that the visual surveys were performed as specified in Section III.D.8. Each log entry must include the date, time, results of survey (and results of subsequent Method 9, if applicable), and observer's initials if any corrective action is required, the time, date, observer's initials, and any preventive or corrective action taken must be recorded in the log (ARM 17.8.1212).

- D.15. GSM shall maintain records of the number of one-hour periods that the furnace operates during each day and for each calendar month (ARM 17.8.1212 and 40 CFR 63 Subpart EEEEEEE).
- D.16. GSM shall maintain a log of the differential pressure monitoring and annual calibration required in Section III.D.8 (ARM 17.8.1212).
- D.17. GSM shall maintain a log of the scrubber liquid flow rate monitoring and annual calibration required in Section III.D.9 (ARM 17.8.1212).
- D.18. GSM shall maintain records of the weight of each batch of concentrate for each calendar month (ARM 17.8.1212).
- D.19. GSM shall maintain records of the total mercury from the carbon reactivation kiln scrubber, the refinery furnace scrubber and from the electrowinning cells along with the total tons of concentrate processed to demonstrate compliance with the mercury to tons of concentrate limit in Section III.D.4 (ARM 17.8.1212 and 40 CFR 63, Subpart EEEEEEE).
- D.20. GSM shall maintain a record of any hours where the source was operated without scrubber control (ARM 17.8.1212).
- D.21. GSM shall maintain records of all inspection and maintenance activities performed on Scrubber #3. All inspection and maintenance records must be available to the Department for inspection and must be submitted to the Department upon request (ARM 17.8.1212).
- D.22. All compliance source test recordkeeping shall be performed in accordance with the test method used and the Montana Source Test Protocol and Procedures Manual, shall be maintained on site, and shall be submitted to the Department upon request (ARM 17.8.106 and ARM 17.8.1212).

Reporting

- D.23. Any compliance source test reports must be submitted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1212).
- D.24. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).
- D.25. The semiannual monitoring report shall provide (ARM 17.8.1212):
 - a. A summary of results of any source testing that was performed during that semiannual period; and
 - b. Details of any deviation occurrences, corrective action and maintenance as required under 40 CFR 63.11648; and
 - c. Any compliance demonstration calculations performed to satisfy conditions in Section III.D.1 through D.7.
 - d. Summary of (any) record keeping logs required in Sections III.D.14 through D.22.

E. EU004, EU005, EU006, EU007 and EU009– Primary, Secondary, Tertiary Crushing, Fine Ore Mill Process & Conveyors and Pick Up Points in the Secondary Crushing Building

Condition	Pollutant/Parameter	Permit Limit	Compliance Demonstration		Reporting Requirements
			Method	Frequency	
E.1, E.7, E.12, E.17, E.19, E.20	Opacity	20%	Method 9 or	Semiannual	Semiannual
			Visual Survey	Weekly	
E.2, E.8, E.17, E.18, E.19, E.20	Particulate Matter	Enclosed Operation and 0.05 grams/dscm	EPA Method 5, 201 or 201A	Once every 4 years	Semiannual
E.3, E.8, E.17, E.18, E.19, E.20	Particulate Matter	Process Weight Rule	EPA Method 5 or EPA Method 201 or 201A	Initial and then as required by the Department	Semiannual
E.4, E.9, E.13, E.16, E.19, E.20	Emission Control Equipment	Operation and Maintenance of Emission Control Equipment	Operation and Maintenance of Wet Scrubber (Note: There are two scrubbers associated with this grouping of emitting units)	Whenever attached Source is in Operation	Semiannual
E.5, E.10, E.14, E.19, E.20	Scrubber Differential Flowrate (Scrubber 1 and Scrubber 4)	Continuous Monitoring	Log	Continuous	Semiannual
E.6, E.11, E.15, E.19, E.20	Scrubber Liquid Flowrate (Scrubber 1 and Scrubber 4)	Continuous Monitoring	Log	Continuous	Semiannual

Conditions

- E.1. GSM shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source that exhibit opacity of 20 percent or greater averaged over 6 consecutive minutes (ARM 17.8.304(2)).
- E.2. GSM shall vent the emitting units within this section to either Scrubber #1 or Scrubber #4 and not exceed 0.05 grams of particulate matter per dry standard cubic meter) (ARM 17.8.105 and ARM 17.8.749 and ARM 17.8.752).
- E.3. The particulate emissions from process weight shall not exceed the value calculated by $E = 4.10 * P^{0.67}$ for process weight rates up to 30 tons per hour and/or $E = 55.0 * P^{0.11} - 40$ for process weight rates in excess of 30 tons per hour, where E is the rate of emissions in pounds per hour and P is the process weight rate in tons per hour (ARM 17.8.310).

- E.4. GSM shall operate Scrubber #1 and Scrubber #4 whenever attached source(s) are in operation (ARM 17.8.749).
- E.5. GSM shall continuously measure the change in pressure of the gas stream through Scrubber #1 and Scrubber #4 (ARM 17.8.749).
- E.6. GSM shall continuously measure the scrubbing liquid flow rate to Scrubber #1 and Scrubber #4 (ARM 17.8.749).

Compliance Demonstration

- E.7. GSM shall conduct either a semiannual Method 9 source test or a weekly visual survey of visible emissions on the primary, secondary and tertiary crushers. Under the visual survey option, once per calendar week, during daylight hours, GSM shall visually survey the crushing exhaust for any visible emissions. If visible emissions are observed during the visual survey, GSM must conduct a Method 9 source test. The Method 9 source test must begin within one hour of any observation of visible emissions. If visible emissions meet or exceed 20% opacity based on the Method 9 source test according to the particular source limit, GSM shall immediately take corrective action to contain or minimize the source of emissions. If corrective actions are taken, then GSM shall immediately conduct a subsequent visual survey (and subsequent Method 9 source test if visible emissions remain) to monitor compliance. The person conducting the visual survey shall record the results of the survey (including the results of any Method 9 source test performed) in a log, including any corrective action taken. Conducting a visual survey does not relieve GSM of the liability for a violation determined using Method 9.

If the visual surveys are not performed once per calendar week as specified above during the reporting period, then GSM shall perform the Method 9 source tests on the emitting units listed in this section for that reporting period.

Method 9 source tests must be performed in accordance with the Montana Source Test Protocol and Procedures Manual, except that prior notification of the test is not required. Each observation period must be a minimum of 6 minutes unless any one reading is 20% or greater, then the observation period must be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time (ARM 17.8.101(27) and ARM 17.8.1213).

- E.8. GSM shall test each scrubber at a minimum of once every 4 years. All source tests shall be performed at over 90% of the maximum rated capacity of the source. These tests shall include determination of total mass particulate and particulate matter with an aerodynamic diameter of ten microns or less (PM10). The source tests shall be conducted in accordance with the applicable test methods listed in 40 CFR Part 60, General Provisions, Appendix A) (ARM 17.8.105 and ARM 17.8.749).
- E.9. GSM shall record the time periods of equipment operation and scrubber operation (ARM 17.8.749).
- E.10. GSM shall install, calibrate, maintain, and operate monitoring devices for the continuous measurement of the change in pressure of the gas stream through each wet scrubber. Monitoring must be done at least once during each 12-hour shift. These monitoring devices

must be certified by the manufacturer to be accurate within ± 1 inch of water gauge pressure and must be calibrated on an annual basis in accordance with the manufacturer's instructions (ARM 17.8.749).

- E.11. GSM shall install, calibrate, maintain and operate monitoring devices for the continuous measurement of the scrubbing liquid flow rate to each wet scrubber. Monitoring must be done at least once during each 12-hour shift. These monitoring devices must be certified by the manufacturer to be accurate within $\pm 5\%$ of design liquid scrubbing flow rate and must be calibrated on at least an annual basis in accordance with the manufacturer's instructions (ARM 17.8.749).

Recordkeeping

- E.12. If visual surveys are performed, GSM shall maintain a log to verify that the visual surveys were performed as specified in Section III.E.7. Each log entry must include the date, time, results of survey (and results of subsequent Method 9, if applicable), and observer's initials. If any corrective action is required, the time, date, observer's initials, and any preventive or corrective action taken must be recorded in the log (ARM 17.8.1212).
- E.13. GSM shall maintain the records where the source was operated without scrubber control (ARM 17.8.1212).
- E.14. GSM shall maintain the records of the differential pressure monitoring and annual calibration required in Section III.E.10 (ARM 17.8.1212).
- E.15. GSM shall maintain the records of the scrubber liquid flow rate monitoring and annual calibration required in Section III.E.11 (ARM 17.8.1212).
- E.16. GSM shall maintain records of all inspection and maintenance activities performed on Scrubbers #1 and #4. All inspection and maintenance records must be available to the Department for inspection and must be submitted to the Department upon request (ARM 17.8.1212).
- E.17. All compliance source test recordkeeping shall be performed in accordance with the test method used and the Montana Source Test Protocol and Procedures Manual, and shall be maintained on site (ARM 17.8.106 and ARM 17.8.1212).

Reporting

- E.18. Any compliance source test reports must be submitted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1212).
- E.19. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).
- E.20. The semiannual monitoring report shall provide (ARM 17.8.1212):
- a. A summary of the visual surveys or Method 9 source tests performed and test results logged as specified by Section III.E.7; and
 - b. A summary of the corrective actions taken as specified by Section III.E.12; and

- c. Any compliance demonstration calculations performed to satisfy conditions in Section III.E.7 through E.11; and
- d. Summary of (any) record keeping logs required in Sections III.E.12 through E.17.

F. EU008 – Fine Ore Processing Unit (FOP)

The below conditions only become applicable after construction and startup of the FOP unit.

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration		Reporting Requirements
			Method	Frequency	
F.1, F.5, F.10, F.15, F.16	NSPS Requirements 40 CFR 60, Subpart LL	Applicable Requirements	Recordkeeping	Ongoing	Semiannual
F.2, F.6, F.7, F.12, F.13, F.14, F.15, F.16	Particulate Matter	0.05 grams/dscm or 0.022 grains per dry standard cubic foot (gr/dscf)	EPA Method 5, 201 or 201A	As Required by the Department and Section III.A.1	Semiannual
			Fabric Filter Baghouse	Whenever process equipment is operating	
F.3, F.8, F.11, F.14, F.15, F.16	Opacity	7% (stack/point source)	Method 9 or	Semiannual	Semiannual
			Visual Surveys	Weekly	
F.4, F.9, F.11, F.14, F.15, F.16	Opacity	10% (fugitive source)	Method 9 or	Semiannual	Semiannual
			Visual Surveys	Weekly	

Conditions

- F.1. GSM shall comply with all applicable requirements of 40 CFR 60, Subpart LL (Standards of Performance for Metallic Mineral Processing Plants) (ARM 17.8.340, ARM 17.8.749, and 40 CFR Part 60, Subpart LL).
- F.2. GSM shall utilize a fabric filter baghouse to control particulate emissions whenever the FOP Unit is in operation and shall not cause or authorize to be discharged into the outdoor atmosphere from the FOP Unit baghouse, particulate matter in excess of 0.05 grams per dry standard cubic meter or 0.022 grains per dry standard cubic foot (gr/dscf) (ARM 17.8.749 and 40 CFR 60, Subpart LL).
- F.3. GSM shall not cause or authorize to be discharged into the outdoor atmosphere from any stack/point source that exhibits an opacity of 7% or greater averaged over 6 consecutive minutes (ARM 17.8.749, and 40 CFR 60, Subpart LL).
- F.4. GSM shall not cause or authorize to be discharged into the outdoor atmosphere from any fugitive source that exhibits an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749 and 40 CFR 60, Subpart LL).

Compliance Demonstration

- F.5. GSM shall comply with all applicable reporting, recordkeeping and notification requirements of 40 CFR 60, Subpart LL (Standards of Performance for Metallic Mineral Processing Plants) (ARM 17.8.340, ARM 17.8.1213, and 40 CFR Part 60, Subpart LL).

- F.6. As required by the Department and Section III.A.1, GSM shall perform a Method 5 source test to monitor compliance with the emission limitations in Section III. F.3. The test shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.105 and ARM 17.8.749).
- F.7. GSM shall operate the baghouse whenever the FOP unit is in operation (ARM 17.8.1213).
- F.8. GSM shall conduct either a semiannual Method 9 source test or a weekly visual survey of visible emissions on the FOP Unit. Under the visual survey option, once per calendar week, during daylight hours, GSM shall visually survey the FOP Unit for any visible emissions. If visible emissions are observed during the visual survey, GSM must conduct a Method 9 source test. The Method 9 source test must begin within one hour of any observation of visible emissions. If visible emissions meet or exceed 7% opacity based on the Method 9 source test, GSM shall immediately take corrective action to contain or minimize the source of emissions. If corrective actions are taken, then GSM shall immediately conduct a subsequent visual survey (and subsequent Method 9 source test if visible emissions remain) to monitor compliance. The person conducting the visual survey shall record the results of the survey (including the results of any Method 9 source test performed) in a log, including any corrective action taken. Conducting a visual survey does not relieve GSM of the liability for a violation determined using Method 9.

If the visual surveys are not performed once per calendar week as specified above during the reporting period, then GSM shall perform the Method 9 source tests on GSM for that reporting period.

Method 9 source tests must be performed in accordance with the Montana Source Test Protocol and Procedures Manual, except that prior notification of the test is not required. Each observation period must be a minimum of 6 minutes unless any one reading is 7% or greater, then the observation period must be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time (ARM 17.8.101(27), ARM 17.8.1213 and 40 CFR 60 Subpart LL.

- F.9. GSM shall conduct either a semiannual Method 9 source test or a weekly visual survey of visible fugitive emissions on equipment associated with the FOP Unit. Under the visual survey option, once per calendar week, during daylight hours, GSM shall visually survey for fugitive emissions for any visible emissions. If visible emissions are observed during the visual survey, GSM must conduct a Method 9 source test. The Method 9 source test must begin within one hour of any observation of visible emissions. If visible emissions meet or exceed 10% opacity based on the Method 9 source test, GSM shall immediately take corrective action to contain or minimize the source of emissions. If corrective actions are taken, then GSM shall immediately conduct a subsequent visual survey (and subsequent Method 9 source test if visible emissions remain) to monitor compliance. The person conducting the visual survey shall record the results of the survey (including the results of any Method 9 source test performed) in a log, including any corrective action taken. Conducting a visual survey does not relieve GSM of the liability for a violation determined using Method 9.

If the visual surveys are not performed once per calendar week as specified above during the reporting period, then GSM shall perform the Method 9 source tests on GSM for that reporting period.

Method 9 source tests must be performed in accordance with the Montana Source Test Protocol and Procedures Manual, except that prior notification of the test is not required. Each observation period must be a minimum of 6 minutes unless any one reading is 10% or greater, then the observation period must be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time (ARM 17.8.101(27), ARM 17.8.1213) and 40 CFR 60 Subpart LL.

Recordkeeping

- F.10. GSM shall comply with all applicable recordkeeping and notification requirements of 40 CFR 60, Subpart LL (Standards of Performance for Metallic Mineral Processing Plants) (ARM 17.8.340, ARM 17.8.1212, and 40 CFR Part 60, Subpart LL).
- F.11. If visual surveys are performed, GSM shall maintain a log to verify that the visual surveys were performed as specified in Section III.F.8 and F.9. Each log entry must include the date, time, results of survey (and results of subsequent Method 9, if applicable), and observer's initials. If any corrective action is required, the time, date, observer's initials, and any preventive or corrective action taken must be recorded in the log (ARM 17.8.1212).
- F.12. GSM shall maintain a log monitoring compliance with the requirement to operate a fabric filter baghouse to control emissions from the FOP Unit. The log shall include any maintenance activities associated with Section III.E.4 including the date, time, action taken, and the initials of the documenting personnel (ARM 17.8.1212).
- F.13. All compliance source test recordkeeping shall be performed in accordance with the test method used and the Montana Source Test Protocol and Procedures Manual, and shall be maintained on site (ARM 17.8.106 and ARM 17.8.1212).

Reporting

- F.14. All compliance source test reports shall be submitted to the Department in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1212).
- F.15. The annual compliance certification required by Section V.B shall contain a certification statement for the above applicable requirements (ARM 17.8.1212).
- F.16. The semiannual monitoring report shall provide (ARM 17.8.1212):
 - a. a summary of the results of any source testing conducted during the reporting period; and
 - b. a summary of the visual surveys or Method 9 source tests performed and test results logged as specified by Section III.F.8 and F.9; and
 - c. a summary of corrective actions taken as specified in Section III.F.8 and F.9; and
 - d. a summary of maintenance activities associated with operation of the baghouse as specified in Section III.F.12; and
 - e. a summary of recordkeeping kept in accordance with 40 CFR Part 60, Subpart LL, as applicable.

SECTION IV. NON-APPLICABLE REQUIREMENTS

Air Quality Administrative Rules of Montana (ARM) and Federal Regulations identified as not applicable to the facility or to a specific emissions unit at the time of the permit issuance are listed below (ARM 17.8.1214). The following list does not preclude the need to comply with any new requirements that may become applicable during the permit term.

A. Facility-Wide

The following table contains non-applicable requirements which are administrated by the Air Resources Management Bureau of the Department of Environmental Quality.

Rule Citation		Reason
State	Federal	
ARM 17.8.320 ARM 17.8.321 ARM 17.8.326 ARM 17.8.331 ARM 17.8.332 ARM 17.8.333 ARM 17.8.334 ARM 17.8.335		These rules are not applicable because the facility is not listed in the source category cited in the rules.
ARM 17.8.316		These rules are not applicable because the facility does not have the specific emission unit cited in the rules or is excluded by rule.
	40 CFR 57 40 CFR 62 40 CFR 72 40 CFR 73 40 CFR 75 40 CFR 76 40 CFR 77 40 CFR 82	These requirements are not applicable because the facility is not an affected source as defined in these regulations.

B. Emissions Units

The permit application identified applicable requirements: non-applicable requirements for individual or specific emissions units were not listed. The Department has listed all non-applicable requirements in Section IV.A, these requirements relate to each specific unit, as well as facility wide.

SECTION V. GENERAL PERMIT CONDITIONS

A. Compliance Requirements

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(a)-(c)&(e), §1206(6)(c)&(b)

1. The permittee must comply with all conditions of the permit. Any noncompliance with the terms or conditions of the permit constitutes a violation of the Montana Clean Air Act, and may result in enforcement action, permit modification, revocation and reissuance, or termination, or denial of a permit renewal application under ARM Title 17, Chapter 8, Subchapter 12.
2. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
3. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. If appropriate, this factor may be considered as a mitigating factor in assessing a penalty for noncompliance with an applicable requirement if the source demonstrates that both the health, safety or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations, and that such health, safety or environmental impacts were unforeseeable and could not have otherwise been avoided.
4. The permittee shall furnish to the Department, within a reasonable time set by the Department (not to be less than 15 days), any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Department copies of those records that are required to be kept pursuant to the terms of the permit. This subsection does not impair or otherwise limit the right of the permittee to assert the confidentiality of the information requested by the Department, as provided in 75-2-105, MCA.
5. Any schedule of compliance for applicable requirements with which the source is not in compliance with at the time of permit issuance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it was based.
6. For applicable requirements that will become effective during the permit term, the source shall meet such requirements on a timely basis unless a more detailed plan or schedule is required by the applicable requirement or the Department.

B. Certification Requirements

ARM 17.8, Subchapter 12, Operating Permit Program §1207 and §1213(7)(a)&(c)-(d)

1. Any application form, report, or compliance certification submitted pursuant to ARM Title 17, Chapter 8, Subchapter 12, shall contain certification by a responsible official of truth, accuracy and completeness. This certification and any other certification required under ARM Title 17, Chapter 8, Subchapter 12, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

2. Compliance certifications shall be submitted by February 15 of each year, or more frequently if otherwise specified in an applicable requirement or elsewhere in the permit. Each certification must include the required information for the previous calendar year (i.e., January 1 – December 31).
3. Compliance certifications shall include the following:
 - a. The identification of each term or condition of the permit that is the basis of the certification;
 - b. The identification of the method(s) or other means used by the owner or operator for determining the status of compliance with each term and condition during the certification period, consistent with ARM 17.8.1212;
 - c. The status of compliance with each term and condition for the period covered by the certification, *including whether compliance during the period was continuous or intermittent* (based on the method or means identified in ARM 17.8.1213(7)(c)(ii), as described above); and
 - d. Such other facts as the Department may require to determine the compliance status of the source.
4. All compliance certifications must be submitted to the Environmental Protection Agency, as well as to the Department, at the addresses listed in the Notification Addresses Appendix of this permit.

C. Permit Shield

ARM 17.8, Subchapter 12, Operating Permit Program §1214(1)-(4)

1. The applicable requirements and non-federally enforceable requirements are included and specifically identified in this permit and the permit includes a precise summary of the requirements not applicable to the source. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements and any non-federally enforceable requirements as of the date of permit issuance.
2. The permit shield described in 1 above shall remain in effect during the appeal of any permit action (renewal, revision, reopening, or revocation and reissuance) to the Board of Environmental Review (Board), until such time as the Board renders its final decision.
3. Nothing in this permit alters or affects the following:
 - a. The provisions of Sec. 7603 of the FCAA, including the authority of the administrator under that section;
 - b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
 - c. The applicable requirements of the Acid Rain Program, consistent with Sec. 7651g(a) of the FCAA;

- d. The ability of the administrator to obtain information from a source pursuant to Sec. 7414 of the FCAA;
 - e. The ability of the Department to obtain information from a source pursuant to the Montana Clean Air Act, Title 75, Chapter 2, MCA;
 - f. The emergency powers of the Department under the Montana Clean Air Act, Title 75, Chapter 2, MCA; and
 - g. The ability of the Department to establish or revise requirements for the use of reasonably available control technology (RACT) as defined in ARM Title 17, Chapter 8. However, if the inclusion of a RACT into the permit pursuant to ARM Title 17, Chapter 8, Subchapter 12, is appealed to the Board, the permit shield, as it applies to the source's existing permit, shall remain in effect until such time as the Board has rendered its final decision.
4. Nothing in this permit alters or affects the ability of the Department to take enforcement action for a violation of an applicable requirement or permit term demonstrated pursuant to ARM 17.8.106, Source Testing Protocol.
 5. Pursuant to ARM 17.8.132, for the purpose of submitting a compliance certification, nothing in these rules shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance. However, when compliance or noncompliance is demonstrated by a test or procedure provided by permit or other applicable requirements, the source shall then be presumed to be in compliance or noncompliance unless that presumption is overcome by other relevant credible evidence.
 6. The permit shield will not extend to minor permit modifications or changes not requiring a permit revision (see Sections I & J).
 7. The permit shield will extend to significant permit modifications and transfer or assignment of ownership (see Sections K & O).

D. Monitoring, Recordkeeping, and Reporting Requirements

ARM 17.8, Subchapter 12, Operating Permit Program §1212(2)&(3)

1. Unless otherwise provided in this permit, the permittee shall maintain compliance monitoring records that include the following information:
 - a. The date, place as defined in the permit, and time of sampling or measurement;
 - b. The date(s) analyses were performed;
 - c. The company or entity that performed the analyses;
 - d. The analytical techniques or methods used;
 - e. The results of such analyses; and
 - f. The operating conditions at the time of sampling or measurement.

2. The permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. All monitoring data, support information, and required reports and summaries may be maintained in computerized form at the plant site if the information is made available to Department personnel upon request, which may be for either hard copies or computerized format. Strip-charts must be maintained in their original form at the plant site and shall be made available to Department personnel upon request.
3. The permittee shall submit to the Department, at the addresses located in the Notification Addresses Appendix of this permit, reports of any required monitoring by February 15 and August 15 of each year, or more frequently if otherwise specified in an applicable requirement or elsewhere in the permit. The monitoring report submitted on February 15 of each year must include the required monitoring information for the period of July 1 through December 31 of the previous year. The monitoring report submitted on August 15 of each year must include the required monitoring information for the period of January 1 through June 30 of the current year. All instances of deviations from the permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official, consistent with ARM 17.8.1207.

E. Prompt Deviation Reporting

ARM 17.8, Subchapter 12, Operating Permit Program §1212(3)(b)

The permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. To be considered prompt, deviations shall be reported to the Department within the following timeframes (unless otherwise specified in an applicable requirement):

1. For deviations which may result in emissions potentially in violation of permit limitations:
 - a. An initial phone notification (or faxed or electronic notification) describing the incident within 24 hours (or the next business day) of discovery; and,
 - b. A follow-up written, faxed, or electronic report within 30 days of discovery of the deviation that describes the probable cause of the reported deviation and any corrective actions or preventative measures taken.
2. For deviations attributable to malfunctions, deviations shall be reported to the Department in accordance with the malfunction reporting requirements under ARM 17.8.110; and
3. For all other deviations, deviations shall be reported to the Department via a written, faxed, or electronic report within 90 days of discovery (as determined through routine internal review by the permittee).

Prompt deviation reports do not need to be resubmitted with regular semiannual (or other routine) reports, but may be referenced by the date of submittal.

F. Emergency Provisions

ARM 17.8, Subchapter 12, Operating Permit Program §1201(13) and §1214(5), (6)&(8)

1. An “emergency” means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation and causes the source to exceed a technology-based emission limitation under this permit due to the unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of reasonable preventive maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the permittee demonstrates through properly signed, contemporaneous logs, or other relevant evidence, that:
 - a. An emergency occurred and the permittee can identify the cause(s) of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in the permit; and
 - d. The permittee submitted notice of the emergency to the Department within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice fulfills the requirements of ARM 17.8.1212(3)(b). This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
3. These emergency provisions are in addition to any emergency, malfunction or upset provision contained in any applicable requirement.

G. Inspection and Entry

ARM 17.8, Subchapter 12, Operating Permit Program §1213(3)&(4)

1. Upon presentation of credentials and other requirements as may be required by law, the permittee shall allow the Department, the administrator, or an authorized representative (including an authorized contractor acting as a representative of the Department or the administrator) to perform the following:
 - a. Enter the premises where a source required to obtain a permit is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
 - c. Inspect at reasonable times any facilities, emission units, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

- d. As authorized by the Montana Clean Air Act and rules promulgated thereunder, sample or monitor, at reasonable times, any substances or parameters at any location for the purpose of assuring compliance with the permit or applicable requirements.
2. The permittee shall inform the inspector of all workplace safety rules or requirements at the time of inspection. This section shall not limit in any manner the Department's statutory right of entry and inspection as provided for in 75-2-403, MCA.

H. Fee Payment

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(f) and ARM 17.8, Subchapter 5, Air Quality Permit Application, Operation, and Open Burning Fees §505(3)-(5) (STATE ONLY)

1. The permittee must pay application and operating fees, pursuant to ARM Title 17, Chapter 8, Subchapter 5.
2. Annually, the Department shall provide the permittee with written notice of the amount of the fee and the basis for the fee assessment. The air quality operation fee is due 30 days after receipt of the notice, unless the fee assessment is appealed pursuant to ARM 17.8.511. If any portion of the fee is not appealed, that portion of the fee that is not appealed is due 30 days after receipt of the notice. Any remaining fee, which may be due after the completion of an appeal, is due immediately upon issuance of the Board's decision or upon completion of any judicial review of the Board's decision.
3. If the permittee fails to pay the required fee (or any required portion of an appealed fee) within 90 days of the due date of the fee, the Department may impose an additional assessment of 15% of the fee (or any required portion of an appealed fee) or \$100, whichever is greater, plus interest on the fee (or any required portion of an appealed fee), computed at the interest rate established under 15-31-510(3), MCA.

I. Minor Permit Modifications

ARM 17.8, Subchapter 12, Operating Permit Program §1226(3)&(11)

1. An application for a minor permit modification need only address in detail those portions of the permit application that require revision, updating, supplementation, or deletion, and may reference any required information that has been previously submitted.
2. The permit shield under ARM 17.8.1214 will not extend to any minor modifications processed pursuant to ARM 17.8.1226.

J. Changes Not Requiring Permit Revision

ARM 17.8, Subchapter 12, Operating Permit Program §1224(1)-(3), (5)&(6)

1. The permittee is authorized to make changes within the facility as described below, provided the following conditions are met:
 - a. The proposed changes do not require the permittee to obtain a Montana Air Quality Permit under ARM Title 17, Chapter 8, Subchapter 7;

- b. The proposed changes are not modifications under Title I of the FCAA, or as defined in ARM Title 17, Chapter 8, Subchapters 8, 9, or 10;
 - c. The emissions resulting from the proposed changes do not exceed the emissions allowable under this permit, whether expressed as a rate of emissions or in total emissions;
 - d. The proposed changes do not alter permit terms that are necessary to enforce applicable emission limitations on emission units covered by the permit; and
 - e. The facility provides the administrator and the Department with written notification at least 7 days prior to making the proposed changes.
2. The permittee and the Department shall attach each notice provided pursuant to 1.e above to their respective copies of this permit.
3. Pursuant to the conditions above, the permittee is authorized to make Section 502(b)(10) changes, as defined in ARM 17.8.1201(30), without a permit revision. For each such change, the written notification required under 1.e above shall include a description of the change within the source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.
4. The permittee may make a change not specifically addressed or prohibited by the permit terms and conditions without requiring a permit revision, provided the following conditions are met:
 - a. Each proposed change does not weaken the enforceability of any existing permit conditions;
 - b. The Department has not objected to such change;
 - c. Each proposed change meets all applicable requirements and does not violate any existing permit term or condition; and
 - d. The permittee provides contemporaneous written notice to the Department and the administrator of each change that is above the level for insignificant emission units as defined in ARM 17.8.1201(22) and 17.8.1206(3), and the written notice describes each such change, including the date of the change, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.
5. The permit shield authorized by ARM 17.8.1214 shall not apply to changes made pursuant to ARM 17.8.1224(3) and (5), but is applicable to terms and conditions that allow for increases and decreases in emissions pursuant to ARM 17.8.1224(4).

K. Significant Permit Modifications

ARM 17.8, Subchapter 12, Operating Permit Program §1227(1), (3)&(4)

1. The modification procedures set forth in 2 below must be used for any application requesting a significant modification of this permit. Significant modifications include the following:
 - a. Any permit modification that does not qualify as either a minor modification or as an administrative permit amendment;
 - b. Every significant change in existing permit monitoring terms or conditions;
 - c. Every relaxation of permit reporting or recordkeeping terms or conditions that limit the Department's ability to determine compliance with any applicable rule, consistent with the requirements of the rule; or
 - d. Any other change determined by the Department to be significant.
2. Significant modifications shall meet all requirements of ARM Title 17, Chapter 8, including those for applications, public participation, and review by affected states and the administrator, as they apply to permit issuance and renewal, except that an application for a significant permit modification need only address in detail those portions of the permit application that require revision, updating, supplementation or deletion.
3. The permit shield provided for in ARM 17.8.1214 shall extend to significant modifications.

L. Reopening for Cause

ARM 17.8, Subchapter 12, Operating Permit Program §1228(1)&(2)

This permit may be reopened and revised under the following circumstances:

1. Additional applicable requirements under the FCAA become applicable to the facility when the permit has a remaining term of 3 or more years. Reopening and revision of the permit shall be completed not later than 18 months after promulgation of the applicable requirement. No reopening is required under ARM 17.8.1228(1)(a) if the effective date of the applicable requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms or conditions have been extended pursuant to ARM 17.8.1220(12) or 17.8.1221(2);
2. Additional requirements (including excess emission requirements) become applicable to an affected source under the Acid Rain Program. Upon approval by the administrator, excess emission offset plans shall be deemed incorporated into the permit;
3. The Department or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms or conditions of the permit; or
4. The administrator or the Department determines that the permit must be revised or revoked and reissued to ensure compliance with the applicable requirements.

M. Permit Expiration and Renewal

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(g), §1220(11)&(12), and §1205(2)(d)

1. This permit is issued for a fixed term of 5 years.
2. Renewal of this permit is subject to the same procedural requirements that apply to permit issuance, including those for application, content, public participation, and affected state and administrator review.
3. Expiration of this permit terminates the permittee's right to operate unless a timely and administratively complete renewal application has been submitted consistent with ARM 17.8.1221 and 17.8.1205(2)(d). If a timely and administratively complete application has been submitted, all terms and conditions of the permit, including the application shield, remain in effect after the permit expires until the permit renewal has been issued or denied.
4. For renewal, the permittee shall submit a complete air quality operating permit application to the Department not later than 6 months prior to the expiration of this permit, unless otherwise specified. If necessary to ensure that the terms of the existing permit will not lapse before renewal, the Department may specify, in writing to the permittee, a longer time period for submission of the renewal application. Such written notification must be provided at least 1 year before the renewal application due date established in the existing permit.

N. Severability Clause

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(i)&(l)

1. The administrative appeal or subsequent judicial review of the issuance by the Department of an initial permit under this subchapter shall not impair in any manner the underlying applicability of all applicable requirements, and such requirements continue to apply as if a final permit decision had not been reached by the Department.
2. If any provision of a permit is found to be invalid, all valid parts that are severable from the invalid part remain in effect. If a provision of a permit is invalid in one or more of its applications, the provision remains in effect in all valid applications that are severable from the invalid applications.

O. Transfer or Assignment of Ownership

ARM 17.8, Subchapter 12, Operating Permit Program §1225(2)&(4)

1. If an administrative permit amendment involves a change in ownership or operational control, the applicant must include in its request to the Department a written agreement containing a specific date for the transfer of permit responsibility, coverage and liability between the current and new permittee.
2. The permit shield provided for in ARM17.8.1214 shall not extend to administrative permit amendments.

P. Emissions Trading, Marketable Permits, Economic Incentives

ARM 17.8, Subchapter 12, Operating Permit Program §1226(2)

Notwithstanding ARM 17.8.1226(1) and (7), minor air quality operating permit modification procedures may be used for permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, to the extent that such minor permit modification procedures are explicitly provided for in the Montana State Implementation Plan or in applicable requirements promulgated by the administrator.

Q. No Property Rights Conveyed

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(d)

This permit does not convey any property rights of any sort, or any exclusive privilege.

R. Testing Requirements

ARM 17.8, Subchapter 1, General Provisions §105

The permittee shall comply with ARM 17.8.105.

S. Source Testing Protocol

ARM 17.8, Subchapter 1, General Provisions §106

The permittee shall comply with ARM 17.8.106.

T. Malfunctions

ARM 17.8, Subchapter 1, General Provisions §110

The permittee shall comply with ARM 17.8.110.

U. Circumvention

ARM 17.8, Subchapter 1, General Provisions §111

The permittee shall comply with ARM 17.8.111.

V. Motor Vehicles

ARM 17.8, Subchapter 3, Emission Standards §325

The permittee shall comply with ARM 17.8.325.

W. Annual Emissions Inventory

ARM 17.8, Subchapter 5, Air Quality Permit Application, Operation and Open Burning Fees §505 (STATE ONLY)

The permittee shall supply the Department with annual production and other information for all emission units necessary to calculate actual or estimated actual amount of air pollutants emitted during each calendar year. Information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request, unless otherwise specified in this permit. Information shall be in the units required by the Department.

X. Open Burning

ARM 17.8, Subchapter 6, Open Burning §604, 605 and 606

The permittee shall comply with ARM 17.8.604, 605 and 606.

Y. Montana Air Quality Permits

ARM 17.8, Subchapter 7, Permit, Construction and Operation of Air Contaminant Sources §745 and 764

1. Except as specified, no person shall construct, install, modify or use any air contaminant source or stack associated with any source without first obtaining a permit from the Department or Board. A permit is not required for those sources or stacks as specified by ARM 17.8.744(1)(a)-(k).
2. The permittee shall comply with ARM 17.8.743, 744, 745, 748, and 764.
3. ARM 17.8.745(1) specifies de minimis changes as construction or changed conditions of operation at a facility holding a Montana Air Quality Permit (MAQP) issued under Chapter 8 that does not increase the facility's potential to emit by more than 5 tons per year of any pollutant, except:
 - a. Any construction or changed condition that would violate any condition in the facility's existing MAQP or any applicable rule contained in Chapter 8 is prohibited, except as provided in ARM 17.8.745(2);
 - b. Any construction or changed conditions of operation that would qualify as a major modification under Subchapters 8, 9 or 10 of Chapter 8;
 - c. Any construction or changed condition of operation that would affect the plume rise or dispersion characteristic of emissions that would cause or contribute to a violation of an ambient air quality standard or ambient air increment as defined in ARM 17.8.804;
 - d. Any construction or improvement project with a potential to emit more than 5 tons per year may not be artificially split into smaller projects to avoid Montana Air Quality Permitting; or
 - e. Emission reductions obtained through offsetting within a facility are not included when determining the potential emission increase from construction or changed conditions of operation, unless such reductions are made federally enforceable.
4. Any facility making a de minimis change pursuant to ARM 17.8.745(1) shall notify the Department if the change would include a change in control equipment, stack height, stack diameter, stack gas temperature, source location or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit. The notice must be submitted, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1).

Z. National Emission Standard for Asbestos

40 CFR, Part 61, Subpart M

The permittee shall not conduct any asbestos abatement activities except in accordance with 40 CFR 61, Subpart M (National Emission Standard for Hazardous Air Pollutants for Asbestos).

AA. Asbestos

ARM 17.74, Subchapter 3, General Provisions and Subchapter 4, Fees

The permittee shall comply with ARM 17.74.301, *et seq.*, and ARM 17.74.401, *et seq.* (State only)

BB. Stratospheric Ozone Protection – Servicing of Motor Vehicle Air Conditioners

40 CFR, Part 82, Subpart B

If the permittee performs a service on motor vehicles and this service involves ozone-depleting substance/refrigerant in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR 82, Subpart B.

CC. Stratospheric Ozone Protection – Recycling and Emission Reductions

40 CFR, Part 82, Subpart F

The permittee shall comply with the standards for recycling and emission reductions in 40 CFR 82, Subpart F, except as provided for MVACs in Subpart B:

1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156;
2. Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158;
3. Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technical certification program pursuant to §82.161;
4. Persons disposing of small appliances, MVACs and MVAC-like (as defined at §82.152) appliances must comply with recordkeeping requirements pursuant to §82.166;
5. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156; and
6. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

DD. Emergency Episode Plan

The permittee shall comply with the requirements contained in Chapter 9.7 of the State of Montana Air Quality Control Implementation Plan.

Each major source emitting 100 tons per year located in a Priority I Air Quality Control Region, shall submit to the Department a legally enforceable Emergency Episode Action Plan (EEAP) that details how the source will curtail emissions during an air pollutant emergency episode. The industrial EEAP shall be in accordance with the Department's EEAP and shall be submitted according to a timetable developed by the Department, following Priority I reclassification.

EE. Definitions

Terms not otherwise defined in this permit or in the Definitions and Abbreviations Appendix of this permit, shall have the meaning assigned to them in the referenced regulations.

APPENDICES

Appendix A INSIGNIFICANT EMISSIONS UNITS

Disclaimer: The information in this appendix is not State or Federally enforceable, but is presented to assist GSM, the permitting authority, inspectors, and the public.

Pursuant to ARM 17.8.1201(22)(a), an insignificant emission unit means any activity or emissions unit located within a source that: (i) has a potential to emit less than five tons per year of any regulated pollutant; (ii) has a potential to emit less than 500 pounds per year of lead; (iii) has a potential to emit less than 500 pounds per year of hazardous air pollutants listed pursuant to section 7412 (b) of the FCAA; and (iv) is not regulated by an applicable requirement, other than a generally applicable requirement that applies to all emission units subject to Subchapter 12.

List of Insignificant Activities:

Emissions Unit ID	Description

GSM did not provide a list of in significant sources and/or activities. Therefore, no insignificant activities are identified by this permit.

Appendix B DEFINITIONS and ABBREVIATIONS

"Act" means the Clean Air Act, as amended, 42 U.S. 7401, *et seq.*

"Administrative permit amendment" means an air quality operating permit revision that:

- (a) corrects typographical errors;
- (b) identifies a change in the name, address or phone number of any person identified in the air quality operating permit, or identifies a similar minor administrative change at the source;
- (c) requires more frequent monitoring or reporting by GSM;
- (d) requires changes in monitoring or reporting requirements that the Department deems to be no less stringent than current monitoring or reporting requirements;
- (e) allows for a change in ownership or operational control of a source if the Department has determined that no other change in the air quality operating permit is necessary, consistent with ARM 17.8.1225; or
- (f) incorporates any other type of change which the Department has determined to be similar to those revisions set forth in (a)-(e), above.

"Applicable requirement" means all of the following as they apply to emissions units in a source requiring an air quality operating permit (including requirements that have been promulgated or approved by the Department or the administrator through rule making at the time of issuance of the air quality operating permit, but have future-effective compliance dates, provided that such requirements apply to sources covered under the operating permit):

- (a) any standard, rule, or other requirement, including any requirement contained in a consent decree or judicial or administrative order entered into or issued by the Department, that is contained in the Montana state implementation plan approved or promulgated by the administrator through rule making under Title I of the FCAA;
- (b) any federally enforceable term, condition or other requirement of any Montana Air Quality Permit issued by the Department under Subchapters 7, 8, 9 and 10 of this chapter, or pursuant to regulations approved or promulgated through rule making under Title I of the FCAA, including parts C and D;
- (c) any standard or other requirement under Section 7411 of the FCAA, including Section 7411(d);
- (d) any standard or other requirement under Section 7412 of the FCAA, including any requirement concerning accident prevention under Section 7412(r)(7), but excluding the contents of any risk management plan required under Section 7412(r);
- (e) any standard or other requirement of the acid rain program under Title IV of the FCAA or regulations promulgated thereunder;
- (f) any requirements established pursuant to Section 7661c(b) or Section 7414(a)(3) of the FCAA;
- (g) any standard or other requirement governing solid waste incineration, under Section 7429 of the FCAA;
- (h) any standard or other requirement for consumer and commercial products, under Section 7511b(e) of the FCAA;
- (i) any standard or other requirement for tank vessels, under Section 7511b(f) of the FCAA;

- (j) any standard or other requirement of the regulations promulgated to protect stratospheric ozone under Title VI of the FCAA, unless the administrator determines that such requirements need not be contained in an air quality operating permit;
- (k) any national ambient air quality standard or increment or visibility requirement under part C of Title I of the FCAA, but only as it would apply to temporary sources permitted pursuant to Section 7661c(e) of the FCAA; or
- (l) any federally enforceable term or condition of any air quality open burning permit issued by the Department under Subchapter 6.

"Department" means the Montana Department of Environmental Quality.

"Emissions unit" means any part or activity of a stationary source that emits or has the potential to emit any regulated air pollutant or any pollutant listed under Section 7412(b) of the FCAA. This term is not meant to alter or affect the definition of the term "unit" for purposes of Title IV of the FCAA.

"FCAA" means the Federal Clean Air Act, as amended.

"Federally enforceable" means all limitations and conditions which are enforceable by the administrator, including those requirements developed pursuant to 40 CFR Parts 60 and 61, requirements within the Montana state implementation plan, and any permit requirement established pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51, Subpart I, including operating permits issued under an EPA approved program that is incorporated into the Montana state implementation plan and expressly requires adherence to any permit issued under such program.

"Fugitive emissions" means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

"General air quality operating permit" or "general permit" means an air quality operating permit that meets the requirements of ARM 17.8.1222, covers multiple sources in a source category, and is issued in lieu of individual permits being issued to each source.

"Hazardous air pollutant" means any air pollutant listed as a hazardous air pollutant pursuant to Section 112(b) of the FCAA.

"Non-federally enforceable requirement" means the following as they apply to emissions units in a source requiring an air quality operating permit:

- (a) any standard, rule, or other requirement, including any requirement contained in a consent decree, or judicial or administrative order entered into or issued by the Department, that is not contained in the Montana state implementation plan approved or promulgated by the administrator through rule making under Title I of the FCAA;
- (b) any term, condition or other requirement contained in any Montana Air Quality Permit issued by the Department under Subchapters 7, 8, 9 and 10 of this chapter that is not federally enforceable;
- (c) does not include any Montana ambient air quality standard contained in Subchapter 2 of this chapter.

"Permittee" means the owner or operator of any source subject to the permitting requirements of this subchapter, as provided in ARM 17.8.1204, that holds a valid air quality operating permit or has submitted a timely and complete permit application for issuance, renewal, amendment, or modification pursuant to this subchapter.

"Regulated air pollutant" means the following:

- (a) nitrogen oxides or any volatile organic compounds;
- (b) any pollutant for which a national ambient air quality standard has been promulgated;
- (c) any pollutant that is subject to any standard promulgated under Section 7411 of the FCAA;
- (d) any Class I or II substance subject to a standard promulgated under or established by Title VI of the FCAA; or
- (e) any pollutant subject to a standard or other requirement established or promulgated under Section 7412 of the FCAA, including but not limited to the following:
 - (i) any pollutant subject to requirements under Section 7412(j) of the FCAA. If the administrator fails to promulgate a standard by the date established in Section 7412(e) of the FCAA, any pollutant for which a subject source would be major shall be considered to be regulated on the date 18 months after the applicable date established in Section 7412(e) of the FCAA;
 - (ii) any pollutant for which the requirements of Section 7412(g)(2) of the FCAA have been met but only with respect to the individual source subject to Section 7412(g)(2) requirement.

"Responsible official" means one of the following:

- (a) For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
 - (i) the facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or
 - (ii) the delegation of authority to such representative is approved in advance by the Department.
- (b) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.
- (c) For a municipality, state, federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a regional administrator of the environmental protection agency).
- (d) For affected sources: the designated representative in so far as actions, standards, requirements, or prohibitions under Title IV of the FCAA or the regulations promulgated thereunder are concerned, and the designated representative for any other purposes under this subchapter.

Abbreviations:

ARM	Administrative Rules of Montana
ASTM	American Society of Testing Materials
BACT	Best Available Control Technology
BDT	bone dry tons
BTU	British Thermal Unit
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
dscf	dry standard cubic foot
dscfm	dry standard cubic foot per minute
EEAP	Emergency Episode Action Plan
EPA	U.S. Environmental Protection Agency
EPA Method	Test methods contained in 40 CFR 60, Appendix A
EU	emissions unit
FCAA	Federal Clean Air Act
gr	grains
HAP	hazardous air pollutant
IEU	insignificant emissions unit
Mbdft	thousand board feet
Method 5	40 CFR 60, Appendix A, Method 5
Method 9	40 CFR 60, Appendix A, Method 9
MMbdft	million board feet
MMBTU	million British Thermal Units
NO _x	oxides of nitrogen
NO ₂	nitrogen dioxide
O ₂	oxygen
Pb	lead
PM	particulate matter
PM10	particulate matter less than 10 microns in size
psi	pounds per square inch
scf	standard cubic feet
SIC	Source Industrial Classification
SO ₂	sulfur dioxide
SO _x	oxides of sulfur
tpy	tons per year
U.S.C.	United States Code
VE	visible emissions
VOC	volatile organic compound

Appendix C NOTIFICATION ADDRESSES

Compliance Notifications:

Montana Department of Environmental Quality
Permitting and Compliance Division
Air Resources Management Bureau
P.O. Box 200901
Helena, MT 59620-0901

United States EPA
Air Program Coordinator
Region VIII, Montana Office
10 W. 15th Street, Suite 3200
Helena, MT 59626

Permit Modifications:

Montana Department of Environmental Quality
Permitting and Compliance Division
Air Resources Management Bureau
P.O. Box 200901
Helena, MT 59620-0901

Office of Partnerships and Regulatory Assistance
Air and Radiation Program
US EPA Region VIII 8P-AR
1595 Wynkoop Street
Denver, CO 80202-1129

Appendix D AIR QUALITY INSPECTOR INFORMATION

Disclaimer: The information in this appendix is not State or Federally enforceable, but is presented to assist GSM, permitting authority, inspectors, and the public (none provided).

- 1. Direction to Plant:**
- 2. Safety Equipment Required:**
- 3. Facility Plot Plan:**