



STATE OF NEVADA  
BUREAU OF AIR POLLUTION CONTROL

NO. AP1041-0739.01

CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Barrick Goldstrike Mines Inc.

**Section VI. Specific Operating Conditions**

A. Emission Units **S2.001**, **PF1.009** and **PF1.009.1** Location North 4,536.0 km, East 554.7 km, UTM (Zone 11)

**System 01 - Mill 1 Circuit**

S 2.001	Lime silo, 120 ton, loading
PF 1.009	Lime silo, 120 ton, discharge to screw conveyor
PF 1.009.1	Lime silo, 120 ton, screw conveyor transfer to mill conveyor

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **S2.001** will be ducted to a control system consisting of a vent filter with 100% capture.  
Emissions from **PF1.009** will be controlled by an enclosure that completely encloses this transfer point and is sealed.  
Emissions from **PF1.009.1** will be controlled by a conveyor cover, which extends approximately 2/3 of the way around the conveyor with openings at the top and bottom of the cover.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the date of startup of **S2.001**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of the vent filter, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.176 pound per hour, nor more than 0.020 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.176 pound per hour, nor more than 0.020 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from **S2.001** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **S2.001** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. On and after the date of startup of **PF1.009**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.009**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.004 pound per hour, nor more than 0.015 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.004 pound per hour, nor more than 0.015 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from **PF1.009** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **PF1.009** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - c. On and after the date of startup of **PF1.009.1**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.009.1**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.020 pound per hour, nor more than 0.075 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.020 pound per hour, nor more than 0.075 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from **PF1.009.1** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **PF1.009.1** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable loading rate for **S2.001** will not exceed 65.0 tons of lime per any one-hour period.
  - b. The maximum allowable throughput rate for **PF1.009** and **PF1.009.1** will not exceed 2.0 tons of lime per any one-hour period, each.
  - c. Hours  
**S2.001**, **PF1.009** and **PF1.009.1** may operate 8,760 hours per year, each.
  - d. Total annual throughput for **S2.001**, **PF1.009** and **PF1.009.1** will not exceed 15,000 tons of lime per year each, based on a 12-month rolling period.



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**Section VI. Specific Operating Conditions (continued)**

**A. Emission Units S2.001, PF1.009 and PF1.009.1 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

On and after the date of startup, Permittee will:

- a. Monitor and record the amount of lime loaded into **S2.001** each day loading occurs. The amount of lime will be based on purchasing receipts.
- b. Monitor and record the hours of operation for **S2.001** each day loading occurs.
- c. Monitor and record the amount of lime discharged from **PF1.009 and PF1.009.1** each on a monthly basis. The amount of lime will be based on purchasing receipts and measurements of the level of lime in the silo at the beginning and end of the month. Level measurements will be made with sonic level detectors.
- d. Monitor and record the hours of operation of **PF1.009 and PF1.009.1** each on a monthly basis.
- e. Conduct a weekly inspection of the vent filter on **S2.001** in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter material and housing) and any corrective actions taken.
- f. Conduct a monthly inspection of the enclosure on **PF1.009** and the cover on **PF1.009.1** each and record the results and any corrective action taken.
- g. Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vent of **S2.001** and from **PF1.009 and PF1.009.1** each once per month. If visible emissions appear to exceed the opacity limit as established in A.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.001, PF1.009 and PF1.009.1** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.001, PF1.009 and PF1.009.1** not operating or due to poor weather conditions.
- h. The hourly throughput rate in tons per hour for **PF1.009 and PF1.009.1** each will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
- i. The hourly throughput rate in tons per hour for **S2.001** will be determined from the total daily throughput and the total daily hours of operation recorded above.
- j. Record the monthly loading rate of **S2.001** in tons per calendar month, and the corresponding annual loading rate in tons per year, based on a 12-month rolling period. The monthly loading rate will be determined at the end of each calendar month as the sum of each total daily loading rate as determined in 4.a above for each day of the calendar month. The annual loading rate will be determined at the end of each calendar month as the sum of the monthly loading rates for the previous 12 months to determine compliance with 3.d of this Section.
- k. Record the monthly discharge rate of **PF1.009 and PF1.009.1** each in tons per calendar month, and the corresponding annual discharge rate in tons per year, based on a 12-month rolling period. The monthly discharge rate will be determined at the end of each calendar month. The annual discharge rate will be determined at the end of each calendar month as the sum of the monthly discharge rates for the previous 12 months to determine compliance with 3.d of this Section.

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

Compliance with conditions A.1 through A.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

B. Emission Units **S2.080**, **PF1.027** and **PF1.028** Location North 4,533.1 km, East 547.3 km, UTM (Zone 11)

**System 02 – Boulder Valley Water Treatment Plant Lime Silo**

S 2.080	Lime silo, 500 ton, loading
PF 1.027	Lime silo, 500 ton, discharge to screw conveyor
PF 1.028	Lime silo, 500 ton, screw conveyor transfer to mill conveyor

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Emissions from **S2.080** will be ducted to a control system consisting of a vent filter with 100% capture.  
Emissions from **PF1.027** will be controlled by an enclosure that completely encloses this transfer point and is sealed.  
Emissions from **PF1.028** will be controlled by a conveyor cover, which extends approximately 2/3 of the way around the conveyor with openings at the top and bottom of the cover.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. On and after the date of startup of **S2.080**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of the vent filter, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.176 pound per hour, nor more than 0.030 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.176 pound per hour, nor more than 0.030 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (*State Only Requirement*) - The opacity from **S2.080** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from **S2.080** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. On and after the date of startup of **PF1.027**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.027**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.005 pound per hour, nor more than 0.022 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.005 pound per hour, nor more than 0.022 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (*State Only Requirement*) - The opacity from **PF1.027** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from **PF1.027** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - c. On and after the date of startup of **PF1.028**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.028**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.026 pound per hour, nor more than 0.113 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.026 pounds per hour, nor more than 0.113 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (*State Only Requirement*) - The opacity from **PF1.028** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from **PF1.028** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. The maximum allowable loading rate for **S2.080** will not exceed 65.0 tons of lime per any one-hour period.
  - b. The maximum allowable throughput rate for **PF1.027** and **PF1.028** will not exceed 2.6 tons of lime per any one-hour period, each.
  - c. Hours  
**S2.080**, **PF1.027** and **PF1.028** may operate 8,760 hours per year, each.
  - d. Total annual throughput for **S2.080**, **PF1.027** and **PF1.028** will not exceed 22,500 tons of lime per year each, based on a 12-month rolling period.



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**Section VI. Specific Operating Conditions (continued)**

**B. Emission Units S2.080, PF1.027 and PF1.028 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

On and after the date of startup, Permittee will:

- a. Monitor and record the amount of lime loaded into **S2.080** each day loading occurs. The amount of lime will be based on purchasing receipts.
- b. Monitor and record the hours of operation for **S2.080** each day loading occurs.
- c. Monitor and record the amount of lime discharged from **PF1.027 and PF1.028** each on a monthly basis. The amount of lime will be based on purchasing receipts and measurements of the level of lime in the silo at the beginning and end of the month. Level measurements will be made with sonic level detectors.
- d. Monitor and record the hours of operation of **PF1.027 and PF1.028** each on a monthly basis.
- e. Conduct a weekly inspection of the vent filter on **S2.080** in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter material and housing) and any corrective actions taken.
- f. Conduct a monthly inspection of the enclosure on **PF1.027** and the cover on **PF1.028** each and record the results and any corrective action taken.
- g. Conduct and record an assessment of the visible emissions from the exhaust vent of **S2.080** and from **PF1.027 and PF1.028** each once per month. If visible emissions appear to exceed the opacity limit as established in B.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.080, PF1.027 and PF1.028** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.080, PF1.027 and PF1.028** not operating or due to poor weather conditions.
- h. The hourly throughput rate in tons per hour for **PF1.027 and PF1.028** each will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
- i. The hourly throughput rate in tons per hour for **S2.080** will be determined from the total daily throughput and the total daily hours of operation recorded above.
- j. Record the monthly loading rate of **S2.080** in tons per calendar month, and the corresponding annual loading rate in tons per year, based on a 12-month rolling period. The monthly loading rate will be determined at the end of each calendar month as the sum of each total daily loading rate as determined in 4.a above for each day of the calendar month. The annual loading rate will be determined at the end of each calendar month as the sum of the monthly loading rates for the previous 12 months to determine compliance with 3.d of this Section.
- k. Record the monthly discharge rate of **PF1.027 and PF1.028** each in tons per calendar month, and the corresponding annual discharge rate in tons per year, based on a 12-month rolling period. The monthly discharge rate will be determined at the end of each calendar month. The annual discharge rate will be determined at the end of each calendar month as the sum of the monthly discharge rates for the previous 12 months to determine compliance with 3.d of this Section.

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

Compliance with conditions B.1 through B.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

C. **System 03** – Removed from the permit as part of the renewal process.

**System 03 - Removed**

S 2.021 Boiler No. 1; Cleaver-Brooks model No. D-68-LH; S/N W-3515



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**Section VI. Specific Operating Conditions (continued)**

D. Emission Units **S2.022** and **S2.023** Location North 4,535.8 km, East 554.8 km, UTM (Zone 11)

**System 04 - Autoclave Circuit**

S 2.022 Boiler No. 2, Foster Wheeler model No. AG-5110B, S/N 6937  
S 2.023 Boiler No. 3, Foster Wheeler model No. AG-5110B, S/N 6983

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Control system consisting of operating the Coen low-NO<sub>x</sub> burners on **S2.022** and **S2.023** in accordance with the manufacturer's specifications and in a manner that minimizes emissions.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
On and after the date of startup of **S2.022** and **S2.023**, Permittee will not discharge nor cause the discharge into the atmosphere from the exhaust stacks of **S2.022** and **S2.023**, the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 1.10 pounds per hour, each, nor more than 9.40 tons per year, combined, based on a 12-month rolling period.
  - b. NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 1.10 pounds per hour, each, nor more than 9.40 tons per year, combined, based on a 12-month rolling period.
  - c. NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed 0.025 pound per hour, each, nor more than 0.22 ton per year, combined, based on a 12-month rolling period.
  - d. NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere will not exceed 6.72 pounds per hour, each, nor more than 57.45 tons per year, combined, based on a 12-month rolling period.
  - e. NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of CO (carbon monoxide) to the atmosphere will not exceed 4.32 pounds per hour, each, nor more than 36.93 tons per year, combined, based on a 12-month rolling period.
  - f. NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 0.325 pound per hour, each, nor more than 2.78 tons per year, combined, based on a 12-month rolling period.
  - g. NAC 445B.22017 (*State Only Requirement*) - The opacity from the exhaust stacks of **S2.022** and **S2.023** will not equal or exceed 20% in accordance with NAC 445B.22017.
  - h. NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from the exhaust stacks of **S2.022** and **S2.023** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. **S2.022** and **S2.023** may combust either propane or pipeline quality natural gas only. Combustion of a blend of these fuels is prohibited.
  - b. The maximum fuel consumption rate for **S2.022** and **S2.023** will not exceed 1,310 gallons of propane or will not exceed 120,000 cubic feet of pipeline quality natural gas per any one-hour period, each, nor more than 22,400,000 gallons of propane or nor more than 2,051,840,000 cubic feet of pipeline quality natural gas per year, combined, based on a 12-month rolling period.
  - c. The maximum heat input rate for **S2.022** and **S2.023** will not exceed 120.0 million Btu's per hour, each.
  - d. Hours  
**S2.022** and **S2.023** may operate 8,760 hours per year, each.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
On and after the date of startup, Permittee will:
  - a. Monitor and record the quantity and type of fuel combusted in **S2.022** and **S2.023**, separately, on a daily basis.
  - b. Monitor and record the hours of operation of **S2.022** and **S2.023**, separately, on a daily basis.
  - c. Conduct and record an assessment of the visible emissions (excluding water vapor) from **S2.022** and **S2.023** each once per month. If visible emissions appear to exceed the opacity limit as established in D.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.022** and **S2.023** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.022** and **S2.023** not operating or due to poor weather conditions.



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**Section VI. Specific Operating Conditions (continued)**

**D. Emission Units S2.022 and S2.023 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (continued)
- d. Conduct and record a Method 5 or 17 (with back-half catch) source test for PM, Method 201A and 202 source tests for PM<sub>10</sub>, a Method 7E source test for NO<sub>x</sub>, a Method 25 source test for VOC, and a Method 10 source test for CO on the exhaust stacks of **S2.022 and S2.023** each consisting of three valid runs, per source test, **at least 90 days prior to the date of expiration of this operating permit, but no earlier than 365 days from the date of expiration of this operating permit.**
  - e. Permittee may substitute the Method 5 or 17 test (with back-half catch) for the Method 201A and 202 tests. All particulate captured in the Method 5 or 17 test (with back-half catch) will be considered PM<sub>10</sub> for compliance demonstration purposes.
  - f. The hourly fuel consumption rate in gallons per hour of propane and cubic feet per hour of pipeline quality natural gas for **S2.022 and S2.023** will be determined from the total daily fuel consumption and the total daily hours of operation recorded above.
  - g. The hourly heat input rate in millions of Btu's per hour for **S2.022 and S2.023** each will be determined from the total daily heat input and the total daily hours of operation recorded above.
  - h. Record the monthly fuel consumption rate in gallons of propane or cubic feet of pipeline quality natural gas per calendar month, and the corresponding annual fuel consumption rate in gallons of propane or cubic feet of pipeline quality natural gas. The monthly fuel consumption rate will be determined at the end of each calendar month as the sum of each total daily fuel consumption rate as determined in 4.a above for each day of the calendar month. The annual fuel consumption rate will be determined at the end of each calendar month as the sum of the monthly fuel consumption rates, for the previous 12 months, to determine compliance with 3.b of this Section.
  - i. The compliance tests required for NO<sub>x</sub> and CO under D.4.d of this Section will be conducted within 60 days of switching the fuel combusted in **S2.022 and/or S2.023** as allowed under D.3.a of this Section.
  - j. Reporting - Permittee will notify the Director within 15 days of switching the fuels combusted in **S2.022 and/or S2.023** as allowed under D.3.a. of this Section.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Compliance with conditions D.1 through D.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

- NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).
- Article 8.2 (Sulfur Emissions - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

- 445B.2203 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).
- 445B.22047 (Sulfur Emissions - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

The following requirements are not applicable to **S2.022 and S2.023**:

40 CFR 60 Subpart Db. Note: **S2.022 and S2.023** (Autoclave Boilers No. 2 and 3) are defined as process heaters. 40 CFR 60 Subpart Db applies to steam generating units. Per 40 CFR 60.41b, the term steam generating units "does not include process heaters as they are defined in this subpart."



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**Section VI. Specific Operating Conditions (continued)**

E. Emission Unit **S2.024** Location North 4,535.8 km, East 554.9 km, UTM (Zone 11)

**System 05 - Autoclave Circuit**

S 2.024 Boiler No. 4, Foster Wheeler model No. AG-5175C, S/N Unknown

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of **S2.024**, Permittee will control NO<sub>x</sub> emissions from **S2.024** with a selective catalytic reduction (SCR) system at all times during which **S2.024** operates with the exception of the boiler and catalyst warm-up period. For purposes of this requirement, boiler and catalyst warm-up will be defined as that period of time during which the boiler is brought up to steady-state temperature and pressure operating requirements. Boiler and catalyst warm-up will not exceed an 8-hour duration.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of **S2.024**, Permittee will not discharge nor cause the discharge into the atmosphere from the exhaust stack of **S2.024**, the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 2.38 pounds per hour, nor more than 10.43 tons per year, based on a 12-month rolling period.
  - b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 2.38 pounds per hour, nor more than 10.43 tons per year, based on a 12-month rolling period.
  - c. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed 0.047 pound per hour, nor more than 0.21 ton per year, based on a 12-month rolling period.
  - d. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere will not exceed 3.19 pounds per hour, nor more than 13.98 tons per year, based on a 12-month rolling period.
  - e. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of CO (carbon monoxide) to the atmosphere will not exceed 10.53 pounds per hour, nor more than 46.11 tons per year, based on a 12-month rolling period.
  - f. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 3.10 pounds per hour, nor more than 13.56 tons per year, based on a 12-month rolling period.
  - g. NAC 445B.22017 (State Only Requirement) - The opacity from the exhaust stack of **S2.024** will not equal or exceed 20% in accordance with NAC 445B.22017.
  - h. NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust stack of **S2.024** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. **S2.024** may combust either propane or pipeline quality natural gas only. Combustion of a blend of these fuels is prohibited.
  - b. The maximum fuel consumption rate for **S2.024** will not exceed 2,600 gallons of propane or will not exceed 238,160 cubic feet of pipeline quality natural gas per any one-hour period, nor more than 22,776,000 gallons of propane or nor more than 2,086,281,600 cubic feet of pipeline quality natural gas per year, based on a 12-month rolling period.
  - c. The maximum heat input rate for **S2.024** will not exceed 238.16 million Btu's per hour.
  - d. Hours  
**S2.024** may operate a total of 8,760 hours per year.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup, Permittee will:
  - a. Monitor and record the quantity and type of fuel combusted in **S2.024** on a daily basis.
  - b. Monitor and record the hours of operation of **S2.024** on a daily basis.
  - c. Monitor and record the boiler and SCR warm-up periods (dates and times).
  - d. **Conduct and record a reading of the catalyst temperature and ammonia flow rate of the SCR once during each day of operation. Record any monitored occurrences when the catalyst temperature or ammonia flow rate fall outside the manufacturer's recommended operating range and record any corrective actions taken. Maintain records of the manufacturer's recommended operating ranges on-site and available for inspection upon request.**
  - e. **Notify the Director within 15 days of implementing any change to an indicator range and will provide an explanation for the change including any relevant documentation.**
  - f. **The indicator range for the catalyst temperature shall be between 500 and 770 degrees Fahrenheit. The indicator range for the ammonia flow rate shall be between 0 and 6 pounds of ammonia per hour. Excursions shall be defined as any time the catalyst temperature or ammonia flow rate fall outside these indicator ranges.**



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**Section VI. Specific Operating Conditions (continued)**

**E. Emission Unit S2.024 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (continued)
  - g. Conduct and record a catalyst activity test on a representative sample of catalyst annually.
  - h. Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stack of **S2.024** once per month. If visible emissions appear to exceed the opacity limit as established in E.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.024** is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.024** not operating or due to poor weather conditions.
  - i. Conduct and record a Method 5 or 17 (with back-half catch) source test for PM, Method 201A and 202 source tests for PM<sub>10</sub>, a Method 7E source test for NO<sub>x</sub>, a Method 25 for VOC and a Method 10 source test for CO on the exhaust stack of **S2.024** consisting of three valid runs, per source test, **at least 90 days prior to the date of expiration of this operating permit, but no earlier than 365 days from the date of expiration of this operating permit.**
  - j. Permittee may substitute the Method 5 or 17 test (with back-half catch) for the Method 201A and 202 tests. All particulate captured in the Method 5 or 17 test (with back-half catch) will be considered PM<sub>10</sub> for compliance demonstration purposes.
  - k. The hourly fuel consumption rate in gallons per hour of propane and cubic feet per hour of pipeline quality natural gas for **S2.024** will be determined from the total daily fuel consumption rate and the total daily hours of operation recorded above.
  - l. The hourly heat input rate in millions of Btu's per hour for **S2.024** will be determined from the total daily heat input and the total daily hours of operation recorded above.
  - m. The monthly fuel consumption rate in gallons or cubic feet per calendar month, and the corresponding annual fuel consumption rate in gallons or cubic feet. The monthly fuel consumption rate will be determined at the end of each calendar month as the sum of each total daily fuel consumption rate as determined in 4.a above for each day of the calendar month. The annual fuel consumption rate will be determined at the end of each calendar month as the sum of the monthly fuel consumption rates, for the previous 12 months, to determine compliance with 3.b of this Section.
  - n. The compliance tests required for NO<sub>x</sub> and CO under E.4.g of this Section will be conducted within 60 days of switching the fuel combusted in **S2.024** as allowed under E.3.a of this Section.
  - o. Reporting - Permittee will notify the Director within 15 days of switching the fuels combusted in **S2.024** as allowed under E.3.a. of this Section.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Compliance with conditions E.1 through E.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

Article 8.2 (Sulfur Emissions - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.2203 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

445B.22047 (Sulfur Emissions - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

The following requirements are not applicable to **S2.024**:

40 CFR 60 Subpart Db. Note: **S2.024** (Autoclave Boiler No. 4) is defined as a process heater. 40 CFR 60 Subpart Db applies to steam generating units. Per 40 CFR 60.41b, the term steam generating units "does not include process heaters as they are defined in this subpart."



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**Section VI. Specific Operating Conditions (continued)**

F. Emission Units **S2.031.1**, **PF1.021.1** and **PF1.021.2** Location North 4,535.8 km, East 554.8 km, UTM (Zone 11)

**System 06 - Autoclave Circuit**

S 2.031.1 Lime silo No. 5, 28 ton, loading  
PF 1.021.1 Lime silo No. 5, 28 ton, discharge to screw conveyor  
PF 1.021.2 Lime silo No. 5, 28 ton, screw conveyor transfer

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **S2.031.1** will be ducted to a control system consisting of a vent filter with 100% capture.  
Emissions from **PF1.021.1** will be controlled by an enclosure that completely encloses this transfer point and is sealed.  
Emissions from **PF1.021.2** will be controlled by a conveyor cover, which extends approximately 2/3 of the way around the conveyor with openings at the top and bottom of the cover.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the date of startup of **S2.031.1**, Permittee will not discharge nor cause the discharge into the atmosphere from the exhaust stack of the vent filter, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.16 pound per hour, nor more than 0.003 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.16 pound per hour, nor more than 0.003 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from **S2.031.1** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **S2.031.1** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. On and after the date of startup of **PF1.021.1**, Permittee will not discharge nor cause the discharge into the atmosphere from **PF1.021.1**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.010 pound per hour, nor more than 0.002 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.010 pound per hour, nor more than 0.002 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from **PF1.021.1** not exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **PF2.021.1** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - c. On and after the date of startup of **PF1.021.2**, Permittee will not discharge nor cause the discharge into the atmosphere from **PF1.021.2**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.050 pound per hour, nor more than 0.010 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.050 pound per hour, nor more than 0.010 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from **PF1.021.2** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **PF1.021.2** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable loading rate for **S2.031.1** will not exceed 60.0 tons of lime per any one-hour period.
  - b. The maximum allowable throughput rate for **PF1.021.1** and **PF1.021.2** will not exceed 5.0 tons of lime per any one-hour period, each.
  - c. Hours  
**S2.031.1**, **PF1.021.1** and **PF1.021.2** may operate 8,760 hours per year, each.
  - d. Total annual throughput for **S2.031.1**, **PF1.021.1** and **PF1.021.2** will not exceed 2,000 tons of lime per year each, based on a 12-month rolling period.



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**F. Emission Units S2.031.1, PF1.021.1 and PF1.021.2 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

On and after the date of startup, Permittee will:

- a. Monitor and record the amount of lime loaded into **S2.031.1** each day loading occurs. The amount of lime will be based on purchasing receipts.
- b. Monitor and record the hours of operation for **S2.031.1** each day loading occurs.
- c. Monitor and record the amount of lime discharged from **PF1.021.1** and **PF1.021.2** each on a monthly basis. The amount of lime will be based on purchasing receipts and measurements of the level of lime in the silo at the beginning and end of the month. Level measurements will be made with sonic level detectors.
- d. Monitor and record the hours of operation of **PF1.021.1** and **PF1.021.2** each on a monthly basis.
- e. Conduct a weekly inspection of the vent filter on **S2.031.1** in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter material and housing) and any corrective actions taken.
- f. Conduct a monthly inspection of the enclosure on **PF1.021.1** and the cover on **PF1.021.2** each and record the results and any corrective action taken.
- g. Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vent of **S2.031.1** and from **PF1.021.1** and **PF1.021.2** each once per month. If visible emissions appear to exceed the opacity limit as established in F.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.031.1**, **PF1.021.1** and **PF1.021.2** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.031.1**, **PF1.021.1** and **PF1.021.2** not operating or due to poor weather conditions.
- h. The hourly throughput rate in tons per hour for **PF1.021.1** and **PF1.021.2** each will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
- i. The hourly throughput rate in tons per hour for **S2.031.1** will be determined from the total daily throughput and the total daily hours of operation recorded above.
- j. Record the monthly loading rate of **S2.031.1** in tons per calendar month, and the corresponding annual loading rate in tons per year, based on a 12-month rolling period. The monthly loading rate will be determined at the end of each calendar month as the sum of each total daily loading rate as determined in 4.a above for each day of the calendar month. The annual loading rate will be determined at the end of each calendar month as the sum of the monthly loading rates for the previous 12 months to determine compliance with 3.d of this Section.
- k. Record the monthly discharge rate of **PF1.021.1** and **PF1.021.2** each in tons per calendar month, and the corresponding annual discharge rate in tons per year, based on a 12-month rolling period. The monthly discharge rate will be determined at the end of each calendar month. The annual discharge rate will be determined at the end of each calendar month as the sum of the monthly discharge rates for the previous 12 months to determine compliance with 3.d of this Section.

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

Compliance with conditions F.1 through F.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

NAC 445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

G. Emission Units **S2.002**, **PF1.016** and **PF1.016.1** Location North 4,535.9, East 554.7 km, UTM (Zone 11)

**System 07 – Mill # 2 Lime Silo**

S 2.002	Lime silo, 120 ton, loading
PF 1.016	Lime silo, 120 ton, discharge to screw conveyor
PF 1.016.1	Lime silo, 120 ton, screw conveyor transfer

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **S2.002** will be ducted to a control system consisting of a vent filter.  
Emissions from **PF1.016** and **PF1.016.1** will be controlled by enclosures.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the date of startup of **S2.002**, Permittee will not discharge nor cause the discharge into the atmosphere from the exhaust stack of **S2.002**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.16 pound per hour, nor more than 0.12 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.16 pound per hour, nor more than 0.12 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from **S2.002** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **S2.002** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. On and after the date of startup of **PF1.016**, Permittee will not discharge nor cause the discharge into the atmosphere from **PF1.016**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.040 pound per hour, nor more than 0.090 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.040 pound per hour, nor more than 0.090 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from **PF1.016** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **PF1.016** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - c. On and after the date of startup of **PF1.016.1**, Permittee will not discharge nor cause the discharge into the atmosphere from **PF1.016.1**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.20 pound per hour, nor more than 0.45 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.20 pound per hour, nor more than 0.45 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from **PF1.016.1** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **PF1.016.1** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable loading rate for **S2.002** will not exceed 60.0 tons of lime per any one-hour period.
  - b. The maximum allowable throughput rate for **PF1.016** and **PF1.016.1** will not exceed 20.0 tons of lime per any one-hour period, each.
  - c. Hours  
**S2.002**, **PF1.016** and **PF1.016.1** may operate 8,760 hours per year, each.
  - d. Total annual throughput for **S2.002**, **PF1.016** and **PF1.016.1** will not exceed 90,000 tons of lime per year each, based on a 12-month rolling period.



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**Section VI. Specific Operating Conditions (continued)**

**G. Emission Units S2.002, PF1.016 and PF1.016.1 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

On and after the date of startup, Permittee will:

- a. Monitor and record the amount of lime loaded into **S2.002** each day loading occurs. The amount of lime will be based on purchasing receipts.
- b. Monitor and record the hours of operation for **S2.002** each day loading occurs.
- c. Monitor and record the amount of lime discharged from **PF1.016 and PF1.016.1** each on a monthly basis. The amount of lime will be based on purchasing receipts and measurements of the level of lime in the silo at the beginning and end of the month. Level measurements will be made with sonic level detectors.
- d. Monitor and record the hours of operation of **PF1.016 and PF1.016.1** each on a monthly basis.
- e. Conduct a weekly inspection of the vent filter on **S2.002** in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter material and housing) and any corrective actions taken.
- f. Conduct a monthly inspection of the enclosures on both **PF1.016 and PF1.016.1** each and record the results and any corrective action taken.
- g. Conduct and record an assessment of the visible emissions from the exhaust vent of **S2.002** and from **PF1.016 and PF1.016.1** each once per month. If visible emissions appear to exceed the opacity limit as established in G.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.002, PF1.016 and PF1.016.1** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.002, PF1.016 and PF1.016.1** not operating or due to poor weather conditions.
- h. The hourly throughput rate in tons per hour for **PF1.016 and PF1.016.1** each will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
- i. The hourly throughput rate in tons per hour for **S2.002** will be determined from the total daily throughput and the total daily hours of operation recorded above.
- j. Record the monthly loading rate of **S2.002** in tons per calendar month, and the corresponding annual loading rate in tons per year, based on a 12-month rolling period. The monthly loading rate will be determined at the end of each calendar month as the sum of each total daily loading rate as determined in 4.a above for each day of the calendar month. The annual loading rate will be determined at the end of each calendar month as the sum of the monthly loading rates for the previous 12 months to determine compliance with 3.d of this Section.
- k. Record the monthly discharge rate of **PF1.016 and PF1.016.1** each in tons per calendar month, and the corresponding annual discharge rate in tons per year, based on a 12-month rolling period. The monthly discharge rate will be determined at the end of each calendar month. The annual discharge rate will be determined at the end of each calendar month as the sum of the monthly discharge rates for the previous 12 months to determine compliance with 3.d of this Section.

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

Compliance with conditions G.1 through G.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

NAC 445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

H. Emission Units **S2.081**, **PF1.029** and **PF1.030** Location North 4,533.1 km, East 547.3 km, UTM (Zone 11)

**System 08 - Boulder Valley Water Treatment Plant**

S 2.081	Magnesium oxide silo, 200 ton, loading
PF 1.029	Magnesium oxide silo, 200 ton, discharge to screw conveyor
PF 1.030	Magnesium oxide silo, 200 ton, screw conveyor transfer

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **S2.081** will be ducted to a control system consisting of a vent filter.  
Emissions from **PF1.029** and **PF1.030** will be controlled by enclosures.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the date of startup of **S2.081**, Permittee will not discharge nor cause the discharge into the atmosphere from the exhaust stack of **S2.081**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.16 pound per hour, nor more than 0.027 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.16 pound per hour, nor more than 0.027 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from **S2.081** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **S2.081** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. On and after the date of startup of **PF1.029**, Permittee will not discharge nor cause the discharge into the atmosphere from **PF1.029**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.006 pound per hour, nor more than 0.020 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.006 pound per hour, nor more than 0.020 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from **PF1.029** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **PF1.029** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - c. On and after the date of startup of **PF1.030**, Permittee will not discharge nor cause the discharge into the atmosphere from **PF1.030**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.030 pound per hour, nor more than 0.10 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.030 pound per hour, nor more than 0.10 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from **PF1.030** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **PF1.030** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable loading rate for **S2.081** will not exceed 60.0 tons of magnesium oxide per any one-hour period.
  - b. The maximum allowable throughput rate for **PF1.029** and **PF1.030** will not exceed 3.0 tons of magnesium oxide per any one-hour period, each.
  - c. Hours  
**S2.081**, **PF1.029** and **PF1.030** may operate 8,760 hours per year, each.
  - d. Total annual throughput for **S2.081**, **PF1.029** and **PF1.030** will not exceed 20,000 tons of magnesium oxide per year each, based on a 12-month rolling period.



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**Section VI. Specific Operating Conditions (continued)**

**H. Emission Units S2.081, PF1.029 and PF1.030 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

On and after the date of startup, Permittee will:

- a. Monitor and record the amount of magnesium oxide loaded into **S2.081** each day loading occurs. The amount of magnesium oxide will be based on purchasing receipts.
- b. Monitor and record the hours of operation for **S2.081** each day loading occurs.
- c. Monitor and record the amount of magnesium oxide discharged from **PF1.029 and PF1.030** each on a monthly basis. The amount of magnesium oxide will be based on purchasing receipts and measurements of the level of magnesium oxide in the silo at the beginning and end of the month. Level measurements will be made with sonic level detectors.
- d. Monitor and record the hours of operation of **PF1.029 and PF1.030** each on a monthly basis.
- e. Conduct a weekly inspection of the vent filter on **S2.081** in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter material and housing) and any corrective actions taken.
- f. Conduct a monthly inspection of the enclosures on both **PF1.029 and PF1.030** each and record the results and any corrective action taken.
- g. Conduct and record an assessment of the visible emissions from the exhaust vent of **S2.081** and from **PF1.029 and PF1.030** each once per month. If visible emissions appear to exceed the opacity limit as established in H.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.081, PF1.029 and PF1.030** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visible emissions assessment could not be conducted due to **S2.081, PF1.029 and PF1.030** not operating or due to poor weather conditions.
- h. The hourly throughput rate in tons per hour for **PF1.029 and PF1.030** each will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
- i. The hourly throughput rate in tons per hour for **S2.081** will be determined from the total daily throughput and the total daily hours of operation recorded above.
- j. Record the monthly loading rate of **S2.081** in tons per calendar month, and the corresponding annual loading rate in tons per year, based on a 12-month rolling period. The monthly loading rate will be determined at the end of each calendar month as the sum of each total daily loading rate as determined in 4.a above for each day of the calendar month. The annual loading rate will be determined at the end of each calendar month as the sum of the monthly loading rates for the previous 12 months to determine compliance with 3.d of this Section.
- k. Record the monthly discharge rate of **PF1.029 and PF1.030** each in tons per calendar month, and the corresponding annual discharge rate in tons per year, based on a 12-month rolling period. The monthly discharge rate will be determined at the end of each calendar month. The annual discharge rate will be determined at the end of each calendar month as the sum of the monthly discharge rates for the previous 12 months to determine compliance with 3.d of this Section.

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

Compliance with conditions H.1 through H.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

NAC 445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

I. **Emission Unit S2.201** Location North 4,538.4 km, East 552.6 km, UTM (Zone 11)

**System 09 - Roaster Crushing Circuit: Primary Crushing Process**

- S 2.201.1 Dump hopper
- S 2.201.2 Gyrotory crusher
- S 2.201.3 Apron feeder
- S 2.201.4 Transfer conveyor transfer to feed conveyor
- S 2.201.5 Baghouse hopper transfer to feed conveyor

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **S2.201** will be ducted to a control system consisting of a baghouse (**DC-201**). **DC-201 will be operated in accordance with the manufacturer's recommendations at all times during operation of S2.201, including startup and shutdown.** Maximum volume flow rate of **DC-201** will not exceed 42,500 dry standard cubic feet per minute (dscfm). The flow rate will be determined from EPA Reference Method 2 in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA Reference method approved by the Director). **DC-201** filter media will consist of polyester with a maximum air-to-cloth ratio of 4:1. The capture efficiency of the control system will be 100% such that all process emissions from each emission unit indicated for **S2.201** will be captured and ducted to **DC-201** with the exception of the dump hopper. The capture efficiency for the dump hopper will be 50% or greater.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the date of startup of **S2.201**, Permittee will not discharge or cause the discharge into the atmosphere from the stack discharge of **DC-201** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 2.59 pounds per hour.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 2.59 pounds per hour.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from the stack discharge of **DC-201** will not equal or exceed 20 percent in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the stack discharge of **DC-201** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. New Source Performance Standards - Subpart LL - Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part 60.380)  
On and after the date on which the performance test required to be conducted is completed, Permittee will not discharge or cause the discharge into the atmosphere from **DC-201** the following pollutants in excess of the following specified limits:
    - (1) Emissions of particulate matter in excess of 0.05 gram per dry standard cubic meter. (40 CFR Part 60.382(a)(1))
    - (2) Emissions that exhibit greater than 7 percent opacity. (40 CFR Part 60.382(a)(2))
    - (3) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
    - (4) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **S2.201** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable throughput rate for **S2.201** will not exceed 1,232.0 tons of ore per any one-hour period.
  - b. **S2.201** may operate 8,760 hours per year.



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**Section VI. Specific Operating Conditions (continued)**

I. Emission Unit S2.201 (continued)

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*

a. Periodic Compliance Testing

- (1) Permittee will conduct and record the following periodic compliance tests on the exhaust stack of **DC-201**. **The periodic compliance tests will be conducted at least 90 days prior to the date of expiration of this permit, but no earlier than 365 days from the date of expiration of this permit.** The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition I.4.a.(3) of this Section and not to exceed the maximum allowable throughput as established in I.3.a of this Section).
  - (a) A Method 201A compliance test in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>.
  - (b) A Method 5 or 17 compliance test in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director) for PM.
- (2) Permittee may substitute the Method 5 or 17 test for the Method 201A test.
- (3) Compliance tests required under I.4.a.(1) of this Section that are conducted below the maximum allowable throughput, as established in I.3.a of this Section, will be subject to the Director's review to determine if the throughputs during the compliance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
- (4) Concurrent with each periodic PM compliance test, conduct and record a Method 9 visible emission test on the exhaust stack of **DC-201** in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director). If visibility or other conditions prevent the opacity observations from being conducted concurrently with the compliance test, then the visible emission test will be rescheduled as soon after the compliance test as practical, but not later than 30 days thereafter.
- (5) The compliance tests required under I.4.a.(1) of this Section will be conducted within 60 days of an alteration or modification to the filter media and/or air-to-cloth ratio as restricted per I.1 of this Section. Replacement of filter media with the same type of media as part of routine maintenance does not constitute an alteration or modification for the purposes of this requirement, provided that the air-to-cloth ratio is not altered or modified.

b. Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the ore throughput of **S2.201** on a daily basis.
- (2) Monitor and record the hours of operation of **S2.201** on a daily basis.
- (3) Install, calibrate, operate and maintain a device for the measurement of the pressure drop across **DC-201**.
- (4) **Conduct and record a reading of the baghouse pressure drop across the inlet and outlet of DC-201 once during each day of operation. Record any monitored occurrences when the baghouse pressure drop falls outside the manufacturer's recommended operating range and record any corrective actions taken.**
- (5) **The indicator range for the baghouse pressure drop shall be between 1.5 to 11.0 inches of water. Excursions shall be defined as anytime the baghouse pressure drop falls outside this indicator range.**
- (6) **Maintain records of the manufacturer's recommended operating range for the baghouse pressure drop on-site and available for inspection upon request.**
- (7) **Notify the Director within 15 days of implementing any change to an indicator range and will provide an explanation for the change including any relevant documentation.**
- (8) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stack of **DC-201** on a weekly basis. If visible emissions appear to exceed the opacity limit as established in I.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.201** is operating and has the potential to create visible emissions. If **DC-201** is shut down for maintenance or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.201** not operating or due to poor weather conditions.



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**Section VI. Specific Operating Conditions (continued)**

**I. Emission Unit S2.201 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program (continued)
  - b. Monitoring and Recordkeeping (continued)
    - (9) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (10) The hourly throughput rate in tons per hour for **S2.201** will be determined from the total daily throughput and the total daily hours of operation recorded above.
  - c. New Source Performance Standards (NSPS) - Notification and Record Keeping (40 CFR Part 60.7(b))  
Permittee, upon the issuance date of this permit, shall:
    - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Compliance with conditions I.1 through I.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

J. Emission Unit PF1.201 Location North 4,538.4 km, East 552.6 km, UTM (Zone 11)

**System 10 - Roaster Crushing Circuit**

PF 1.201 Primary crusher dump hopper loading (process fugitive emissions)

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
**PF1.201** will be operated in a manner that minimizes emissions.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the date of startup of **PF1.201**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.201** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 1.66 pounds per hour, nor more than 5.54 tons per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.58 pound per hour, nor more than 1.94 tons per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from **PF1.201** will not equal or exceed 20 percent in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **PF1.201** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. New Source Performance Standards (NSPS) - Subpart LL - Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part 60.380)  
On and after the sixtieth day after achieving the maximum production rate at which **PF1.201** will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
    - (1) Process fugitive emissions from **PF1.201** will not exceed 10 percent opacity. (40 CFR Part 60.382(b))
    - (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
    - (3) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.201** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable throughput rate for **PF1.201** will not exceed 1,232.0 tons of ore per any one-hour period, nor more than 8,212,500 tons of ore per year, based on a 12-month rolling period.
  - b. **PF1.201** may operate 8,760 hours per year.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the ore throughput of **PF1.201** on a daily basis. At the end of each calendar month, record the total monthly ore throughput and the total ore throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation of **PF1.201** on a daily basis.
    - (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from **PF1.201** on a weekly basis. If visible emissions appear to exceed the opacity limit, as established in J.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **PF1.201** is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **PF1.201** not operating or due to poor weather conditions.
    - (4) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (5) The hourly throughput rate in tons per hour for **PF1.201** will be determined from the total daily throughput and the total daily hours of operation recorded above.



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**Section VI. Specific Operating Conditions (continued)**

**J. Emission Unit PF1.201 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - b. New Source Performance Standards (NSPS) - Notification and Record Keeping (40 CFR Part 60.7(b))  
Permittee, upon the issuance date of this permit, shall:
    - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Compliance with conditions J.1 through J.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B. 22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

K. Emission Unit **S2.202** Location North 4,538.4 km, East 552.6 km, UTM (Zone 11)

**System 11 - Roaster Crushing Circuit: Secondary Crushing/Screening Process**

- S 2.202.1 Feed conveyor transfer to screen
- S 2.202.2 Screen
- S 2.202.3 Screen transfer to stacking conveyor
- S 2.202.4 Cone crusher
- S 2.202.5 Cone crusher transfer to stacking conveyor
- S 2.202.6 Baghouse hopper transfer to stacking conveyor

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Emissions from **S2.202** will be ducted to a control system consisting of a baghouse (**DC-202**). **DC-202 will be operated in accordance with the manufacturer's recommendations at all times during operation of S2.202, including startup and shutdown.** Maximum volume flow rate of **DC-202** will not exceed 23,600 dry standard cubic feet per minute (dscfm). The flow rate will be determined from EPA Reference Method 2 in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA Reference method approved by the Director). **DC-202** filter media will consist of polyester with a maximum air-to-cloth ratio of 4:1. The capture efficiency of the control system will be 100% such that all process emissions from each emission unit indicated for **S2.202** will be captured and ducted to **DC-202**.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. On and after the date of startup of **S2.202**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **DC-202** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 1.29 pounds per hour.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 1.29 pounds per hour.
    - (3) NAC 445B.22017 (*State Only Requirement*) - The opacity from the stack discharge of **DC-202** will not equal or exceed 20 percent in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from the stack discharge of **DC-202** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. New Source Performance Standards - Subpart LL - Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part 60.380)  
On and after the date on which the performance test required to be conducted is completed, Permittee will not discharge or cause the discharge into the atmosphere from **DC-202** the following pollutants in excess of the following specified limits:
    - (1) Emissions of particulate matter in excess of 0.05 gram per dry standard cubic meter. (40 CFR Part 60.382(a)(1))
    - (2) Emissions that exhibit greater than 7 percent opacity. (40 CFR Part 60.382(a)(2))
    - (3) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
    - (4) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **S2.202** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. The maximum allowable throughput rate for **S2.202** will not exceed 1,232.0 tons of ore per any one-hour period.
  - b. **S2.202** may operate 8,760 hours per year.



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**Section VI. Specific Operating Conditions (continued)**

K. Emission Unit S2.202 (continued)

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program (continued)
  - a. Periodic Compliance Testing
    - (1) Permittee will conduct and record the following periodic compliance tests on the exhaust stack of **DC-202**. **The periodic compliance tests will be conducted at least 90 days prior to the date of expiration of this permit, but no earlier than 365 days from the date of expiration of this permit.** The compliance tests will consist of three valid runs (except as provided under I.U.5 of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition K.4.a.(3) of this Section and not to exceed the maximum allowable throughput as established in K.3.a of this Section).
      - (a) A Method 201A compliance test in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>.
      - (b) A Method 5 or 17 compliance test in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director) for PM.
    - (2) Permittee may substitute the Method 5 or 17 test for the Method 201A test.
    - (3) Compliance tests required under K.4.a.(1) of this Section that are conducted below the maximum allowable throughput, as established in K.3.a of this Section, will be subject to the Director's review to determine if the throughputs during the compliance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
    - (4) Concurrent with each periodic PM compliance test, conduct and record a Method 9 visible emission test on the exhaust stack of **DC-202** in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director). If visibility or other conditions prevent the opacity observations from being conducted concurrently with the compliance test, then the visible emission test will be rescheduled as soon after the compliance test as practical, but not later than 30 days thereafter.
    - (5) The compliance tests required under K.4.a.(1) of this Section will be conducted within 60 days of an alteration or modification to the filter media and/or air-to-cloth ratio as restricted per K.1 of this Section. Replacement of filter media with the same type of media as part of routine maintenance does not constitute an alteration or modification for the purposes of this requirement, provided that the air-to-cloth ratio is not altered or modified.
  - b. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the ore throughput of **S2.202** on a daily basis.
    - (2) Monitor and record the hours of operation of **S2.202** on a daily basis.
    - (3) Install, calibrate, operate and maintain a device for the measurement of the pressure drop across **DC-202**.
    - (4) **Conduct and record a reading of the baghouse pressure drop across the inlet and outlet of DC-202 once during each day of operation. Record any monitored occurrences when the baghouse pressure drop falls outside the manufacturer's recommended operating range and record any corrective actions taken.**
    - (5) **The indicator range for the baghouse pressure drop shall be between 1.5 to 11.0 inches of water. Excursions shall be defined as anytime the baghouse pressure drop falls outside this indicator range.**
    - (6) **Maintain records of the manufacturer's recommended operating range for the baghouse pressure drop on-site and available for inspection upon request.**
    - (7) **Notify the Director within 15 days of implementing any change to an indicator range and will provide an explanation for the change including any relevant documentation.**
    - (8) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stack of **DC-202** on a weekly basis. If visible emissions appear to exceed the opacity limit as established in K.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.202** is operating and has the potential to create visible emissions. If **DC-202** is shut down for maintenance or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.202** not operating or due to poor weather conditions.



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**Section VI. Specific Operating Conditions (continued)**

**K. Emission Unit S2.202 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (continued)
  - b. Monitoring and Recordkeeping (continued)
    - (9) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (10) The hourly throughput rate in tons per hour for **S2.202** will be determined from the total daily throughput and the total daily hours of operation recorded above.
  - c. New Source Performance Standards (NSPS) - Notification and Record Keeping (40 CFR Part 60.7(b))  
Permittee, upon the issuance date of this permit, shall:
    - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Compliance with conditions K.1 through K.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

L. Emission Unit PF1.202 Location North 4,538.3 km, East 552.5 km, UTM (Zone 11)

**System 12 - Roaster Crushing Circuit**

PF 1.202 Coarse ore stacking conveyor

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from the drop point of PF1.202 will be controlled by pneumatic water sprays.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of PF1.202, Permittee will not discharge or cause the discharge into the atmosphere from PF1.202, the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.06 pound per hour, nor exceed 0.19 ton per year, based on a 12-month rolling period.
  - b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.17 pound per hour, nor exceed 0.57 ton per year, based on a 12-month rolling period.
  - c. NAC 445B.22017 (State Only Requirement) - The opacity from PF1.202 will not equal or exceed 20% in accordance with NAC 445B.22017.
  - d. NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from PF1.202 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable throughput rate for PF1.202 will not exceed 1,232.0 tons of ore per any one-hour period, nor more than 8,212,500 tons of ore per year, based on a 12-month rolling period.
  - b. PF1.202 may operate 8,760 hours per year.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the ore throughput of PF1.202 on a daily basis. At the end of each calendar month, record the total monthly ore throughput and the total ore throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation of PF1.202 on a daily basis.
    - (3) Inspect the pneumatic water sprays on PF1.202 once during each day of operation to verify that the sprays are operating as designed. Record the inspection results and any corrective actions taken.
    - (4) Conduct and record an assessment of the visible emissions (excluding water vapor) from PF1.202 on a weekly basis. If visible emissions appear to exceed the opacity limit, as established in L.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while PF1.202 is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to PF1.202 not operating or due to poor weather conditions.
    - (5) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request
    - (6) The hourly throughput rate in tons per hour for PF1.202 will be determined from the total daily throughput and the total daily hours of operation recorded above.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Compliance with conditions L.1 through L.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

The following requirements are not applicable to PF1.202:

Note: PF1.202 (Coarse Ore Stacking Conveyor) -- Transfers to stockpiles are specifically exempt from 40 CFR Part 60, Subpart LL (Standards of Performance for Metallic Mineral Processing Plants) per 60.381, as of July 1, 2002.



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**Section VI. Specific Operating Conditions (continued)**

M. Emission Unit S2.203 Location North 4,538.3 km, East 552.4 km, UTM (Zone 11)

**System 13 - Roaster Mill Circuit: Ore/Lime Mill 1 and 2 Feed Process**

- S 2.203.1 Mill #1 apron feed system transfer
- S 2.203.2 Mill #2 apron feed system transfer
- S 2.203.3 Emergency Mill #1 apron feed system transfer
- S 2.203.4 Emergency Mill #2 apron feed system transfer
- S 2.203.5 Lime transfer to Mill #1 or #2 belt conveyor
- S 2.203.6 Baghouse hopper transfer to Mill #2 feed conveyor

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **S2.203** will be ducted to a control system consisting of a baghouse (**DC-203**). **DC-203 will be operated in accordance with the manufacturer's recommendations at all times during operation of S2.203, including startup and shutdown.** Maximum volume flow rate of **DC-203** will not exceed 23,600 dry standard cubic feet per minute (dscfm). The flow rate will be determined from EPA Reference Method 2 in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA Reference method approved by the Director). **DC-203** filter media will consist of polyester with a maximum air-to-cloth ratio of 4:1. The capture efficiency of the control system will be 100% such that all process emissions from each emission unit indicated for **S2.203** will be captured and ducted to **DC-203**.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the date of startup of **S2.203**, Permittee will not discharge or cause the discharge into the atmosphere from the stack discharge of **DC-203** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 1.29 pounds per hour.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 1.29 pounds per hour.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from the stack discharge of **DC-203** will not equal or exceed 20 percent in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the stack discharge of **DC-203** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. New Source Performance Standards - Subpart LL - Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part 60.380)  
On and after the date on which the performance test required to be conducted is completed, Permittee will not discharge or cause the discharge into the atmosphere from **DC-203** the following pollutants in excess of the following specified limits:
    - (1) Emissions of particulate matter in excess of 0.05 gram per dry standard cubic meter. (40 CFR Part 60.382(a)(1))
    - (2) Emissions that exhibit greater than 7 percent opacity. (40 CFR Part 60.382(a)(2))
    - (3) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
    - (4) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **S2.203** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable throughput rate for **S2.203** will not exceed 1,000.0 tons of ore per any one-hour period.
  - b. **S2.203** may operate 8,760 hours per year.



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**Section VI. Specific Operating Conditions (continued)**

**M. Emission Unit S2.203 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (continued)
  - a. Periodic Compliance Testing
    - (1) Permittee will conduct and record the following periodic compliance tests on the exhaust stack of **DC-203**. **The periodic compliance tests will be conducted at least 90 days prior to the date of expiration of this permit, but no earlier than 365 days from the date of expiration of this permit.** The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition M.4.a.(3) of this Section and not to exceed the maximum allowable throughput as established in M.3.a of this Section).
      - (a) A Method 201A compliance test in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>.
      - (b) A Method 5 or 17 compliance test in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director) for PM.
    - (2) Permittee may substitute the Method 5 or 17 test for the Method 201A test.
    - (3) Compliance tests required under M.4.a.(1) of this Section that are conducted below the maximum allowable throughput, as established in M.3.a of this Section, will be subject to the Director's review to determine if the throughputs during the compliance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
    - (4) Concurrent with each periodic PM compliance test, conduct and record a Method 9 visible emission test on the exhaust stack of **DC-203** in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director). If visibility or other conditions prevent the opacity observations from being conducted concurrently with the compliance test, then the visible emission test will be rescheduled as soon after the compliance test as practical, but not later than 30 days thereafter.
    - (5) The compliance tests required under M.4.a.(1) of this Section will be conducted within 60 days of an alteration or modification to the filter media and/or air-to-cloth ratio as restricted per M.1 of this Section. Replacement of filter media with the same type of media as part of routine maintenance does not constitute an alteration or modification for the purposes of this requirement, provided that the air-to-cloth ratio is not altered or modified.
  - b. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the ore throughput of **S2.203** on a daily basis.
    - (2) Monitor and record the hours of operation of **S2.203** on a daily basis.
    - (3) Install, calibrate, operate and maintain a device for the measurement of the pressure drop across **DC-203**.
    - (4) **Conduct and record a reading of the baghouse pressure drop across the inlet and outlet of DC-203 once during each day of operation. Record any monitored occurrences when the baghouse pressure drop falls outside the manufacturer's recommended operating range and record any corrective actions taken.**
    - (5) **The indicator range for the baghouse pressure drop shall be between 1.5 to 11.0 inches of water. Excursions shall be defined as anytime the baghouse pressure drop falls outside this indicator range.**
    - (6) **Maintain records of the manufacturer's recommended operating range for the baghouse pressure drop on-site and available for inspection upon request.**
    - (7) **Notify the Director within 15 days of implementing any change to an indicator range and will provide an explanation for the change including any relevant documentation.**
    - (8) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stack of **DC-203** on a weekly basis. If visible emissions appear to exceed the opacity limit, as established in M.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.203** is operating and has the potential to create visible emissions. If **DC-203** is shut down for maintenance or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.203** not operating or due to poor weather conditions.



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**Section VI. Specific Operating Conditions (continued)**

**M. Emission Unit S2.203 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program (continued)
  - b. Monitoring and Recordkeeping (continued)
    - (9) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (10) The hourly throughput rate in tons per hour for **S2.203** will be determined from the total daily throughput and the total daily hours of operation recorded above.
  - c. New Source Performance Standards (NSPS) - Notification and Record Keeping (40 CFR Part 60.7(b))  
Permittee, upon the issuance date of this permit, shall:
    - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Compliance with conditions M.1 through M.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

N. Emission Unit PF1.203 Location North 4,538.3 km, East 552.5 km, UTM (Zone 11)

**System 14 - Roaster Mill Circuit: Emergency Reclaim Hoppers;**

**Loading Process**

PF 1.203.1 Mill #1 hopper

PF 1.203.2 Mill #2 hopper

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
**PF1.203** will be operated in a manner which minimizes emissions.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the date of startup of **PF1.203**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.203** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 2.31 pounds per hour, nor more than 1.35 tons per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.80 pound per hour, nor more than 0.47 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from **PF1.203** will not equal or exceed 20 percent in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **PF1.203** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. New Source Performance Standards (NSPS) - Subpart LL - Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part 60.380)  
On and after the sixtieth day after achieving the maximum production rate at which **PF1.203** will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
    - (1) Process fugitive emissions from **PF1.203** will not exceed 10 percent opacity. (40 CFR Part 60.382(b))
    - (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
    - (3) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.203** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable throughput rate for **PF1.203** will not exceed 856.0 tons of ore per any one-hour period, nor more than 1,000,000 tons of ore per year, based on a 12-month rolling period.
  - b. **PF1.203** may operate 8,760 hours per year.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the ore throughput of **PF1.203** on a daily basis. At the end of each calendar month, record the total monthly ore throughput and the total ore throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation of **PF1.203** on a daily basis.
    - (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from **PF1.203** on a weekly basis. If visible emissions appear to exceed the opacity limit, as established in N.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **PF1.203** is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **PF1.203** not operating or due to poor weather conditions.



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**Section VI. Specific Operating Conditions (continued)**

**N. Emission Unit PF1.203 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program (continued)
  - a. Monitoring and Recordkeeping (continued)
    - (4) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (5) The hourly throughput rate in tons per hour for **PF1.203** will be determined from the total daily throughput and the total daily hours of operation recorded above.
  - b. New Source Performance Standards (NSPS) - Notification and Record Keeping (40 CFR Part 60.7(b))  
Permittee, upon the issuance date of this permit, shall:
    - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Compliance with conditions N.1 through N.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

O. Emission Units **S2.204** and **S2.205** Location North 4,538.3 km, East 552.3 km, UTM (Zone 11)

**System 15A - Roaster Mill Circuit: Mill #1 Air Pre-heater**

S 2.204 Mill #1 air pre-heater

**System 15B - Roaster Mill Circuit: Mill #1 Dry Grinding Process**

- S 2.205.01 Mill #1 feed conveyor
- S 2.205.02 Mill #1 double rotator grinding mill
- S 2.205.03 Mill #1 grinding mill to bucket elevator air slide system
- S 2.205.04 Mill #1 bucket elevator
- S 2.205.05 Mill #1 bucket elevator to dynamic classifier air slide system
- S 2.205.06 Mill #1 dynamic classifier
- S 2.205.07 Mill #1 dynamic classifier to grinding mill air slide system
- S 2.205.08 Mill #1 product recovery baghouse to Roaster #1 silo air slide system
- S 2.205.09 Mill #1 pick-up point baghouse to Roaster #1 silo air slide system
- S 2.205.10 Mill #1 static classifier
- S 2.205.11 Roaster #1 silo
- S 2.205.12 Ball chip removal system

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **S2.204** and **S2.205** will be controlled by a control system (**CS-201**) consisting of two (2) quad-chamber product recovery baghouses (**DC-204.1** and **DC-204.2**) and one pick-up point baghouse (**DC-205**). The primary exhaust from **S2.204** and **S2.205** will be split and directed to either **DC-204.1** or **DC-204.2** for product recovery and emissions control.  
Emissions from material transfers associated with **S2.205** will be ducted to **DC-205**. **CS-201 will be operated in accordance with the manufacturer's recommendations at all times during operation of S2.204 and S2.205, including startup and shutdown.**  
Emissions from **CS-201** will be vented to the atmosphere through a single stack. Maximum volume flow rate of **CS-201** will not exceed 183,680 standard cubic feet per minute (scfm). The flow rate will be determined from EPA Reference Method 2 in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA Reference method approved by the Director).  
**DC-204.1** and **DC-204.2** filter media will consist of P-84 filtering material laminated on a substrate with a maximum air-to-cloth ratio of 5:1. **DC-205** filter media will consist of polyester with a maximum air-to-cloth ratio of 4:1. The capture efficiency of **CS-201** will be 100% such that all process emissions from each emission unit indicated for **S2.204** and **S2.205** will be captured and ducted to a baghouse (**DC-204.1**, **DC-204.2** or **DC-205**). **S2.204** will be equipped with low-NO<sub>x</sub> burners and operated in a manner that minimizes emissions.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the date of startup of **S2.204** and **S2.205**, Permittee will not discharge or cause the discharge into the atmosphere from the stack discharge of **CS-201** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 12.60 pounds per hour.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 12.60 pounds per hour.
    - (3) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed 4.28 pounds per hour, nor exceed 16.88 tons per year, based on a 12-month rolling period.
    - (4) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere will not exceed 9.80 pounds per hour, nor exceed 24.22 tons per year, based on a 12-month rolling period.
    - (5) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of CO (carbon monoxide) to the atmosphere will not exceed 5.60 pounds per hour, nor exceed 13.84 tons per year, based on a 12-month rolling period.
    - (6) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 1.82 pounds per hour, nor exceed 4.50 tons per year, based on a 12-month rolling period.
    - (7) NAC 445B.22017 (State Only Requirement) - The opacity from the stack discharge of **CS-201** will not equal or exceed 20 percent in accordance with NAC 445B.22017.
    - (8) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the stack discharge of **CS-201** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.



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**Section VI. Specific Operating Conditions (continued)**

**O. Emission Units S2.204 and S2.205 (continued)**

2. Emission Limits NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (continued)
  - b. New Source Performance Standards - Subpart LL - Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part 60.380)  
On and after the date on which the performance test required to be conducted is completed, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **CS-201** the following pollutants in excess of the following specified limits:
    - (1) Emissions of particulate matter in excess of 0.05 gram per dry standard cubic meter. (40 CFR Part 60.382(a)(1))
    - (2) Emissions that exhibit greater than 7 percent opacity. (40 CFR Part 60.382(a)(2))
    - (3) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
    - (4) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **S2.204 and S2.205** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. **S2.204** may combust either HD-5 grade propane or pipeline quality natural gas only. Combustion of a blend of these fuels is prohibited.
  - b. The maximum heat input rate for **S2.204** will not exceed 140 million Btu's per any one-hour period, nor exceed 692,040 million Btu's per year, based on a 12-month rolling period.
  - c. The maximum fuel consumption rate for **S2.024** will not exceed 1,528 gallons of HD-5 grade propane per any one-hour period, nor more than 7,555,022 gallons per year, based on a 12-month rolling period.
  - d. The maximum fuel consumption rate for **S2.024** will not exceed 140,000 cubic feet of pipeline quality natural gas per any one-hour period, nor more than 692,040,000 cubic feet per year, based on a 12-month rolling period.
  - e. The maximum allowable throughput rate for **S2.205** will not exceed 500.0 tons of ore per any one-hour period, nor exceed 3,376,250 tons of ore per year, based on a 12-month rolling period.
  - f. **S2.204** may operate 8,760 hours per year.
  - g. **S2.205** may operate 8,760 hours per year.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. Periodic Compliance Testing
    - (1) Permittee will conduct and record the following periodic compliance tests on the exhaust stack of **CS-201**. **The periodic compliance tests will be conducted at least 90 days prior to the date of expiration of this permit, but no earlier than 365 days from the date of expiration of this permit.** The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition O.4.a.(3) of this Section and not to exceed the maximum allowable throughput as established in O.3.b. and e. of this Section).
      - (a) Method 201A and 202 compliance tests in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>.
      - (b) Method 5 or 17 (with back-half catch) and 7E compliance tests for PM and NO<sub>x</sub> in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
      - (c) Method 6 and Method 10 compliance tests for SO<sub>2</sub> and CO in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).



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**Section VI. Specific Operating Conditions (continued)**

**O. Emission Units S2.204 and S2.205 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program (continued)

a. Periodic Compliance Testing (continued)

- (2) The Method 201A and Method 202 tests required in O.4.a.(1) of this section may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 tests with back-half performed under this provision shall be considered PM<sub>10</sub> emissions for determination of compliance with the emission limitations established in O.2.a. of this section.
- (3) Compliance tests required under O.4.a.(1) of this Section that are conducted below the maximum allowable throughput, as established in O.3.b. and e. of this Section, will be subject to the Director's review to determine if the throughputs during the compliance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
- (4) Concurrent with each periodic PM compliance test, conduct and record a Method 9 visible emission test on the exhaust stack of **CS-201** in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director). If visibility or other conditions prevent the opacity observations from being conducted concurrently with the compliance test, then the visible emission test will be rescheduled as soon after the compliance test as practical, but not later than 30 days thereafter.
- (5) The compliance tests required for PM<sub>10</sub> and PM under O.4.a.(1) of this Section will be conducted within 60 days of an alteration or modification to the filter media and/or air-to-cloth ratio as restricted per O.1 of this Section. Replacement of filter media with the same type of media as part of routine maintenance does not constitute an alteration or modification for the purposes of this requirement, provided that the air-to-cloth ratio is not altered or modified.
- (6) The compliance tests required for NO<sub>x</sub> and CO under O.4.a.(1) of this Section will be conducted within 60 days of switching the fuel combusted in **S2.204** as allowed under O.3.a. of this Section.

b. Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the type (HD-5 grade propane or pipeline quality natural gas) and amount of fuel combusted in **S2.204** and the ore throughput of **S2.205** on a daily basis. At the end of each calendar month, record the total monthly fuel use and ore throughput, and the total fuel use and ore throughput for the previous 12 months.
- (2) Monitor and record the hours of operation of **S2.204** and **S2.205** on a daily basis.
- (3) Install, calibrate, operate and maintain devices for the measurement of the pressure drop across **DC-204.1**, **DC-204.2** and **DC-205** and the fuel consumption rate for each fuel combusted in **S2.204**.
- (4) **Conduct and record a reading of the baghouse pressure drop across the inlet and outlet of DC-204.1, DC-204.2 and DC-205 once during each day of operation. Record any monitored occurrences when the baghouse pressure drop falls outside the manufacturer's recommended operating range and record any corrective actions taken.**
- (5) **The indicator range for the baghouse pressure drop shall be between 1.5 to 11.0 inches of water. Excursions shall be defined as anytime the baghouse pressure drop falls outside this indicator range.**
- (6) **Maintain records of the manufacturer's recommended operating range for the baghouse pressure drop on-site and available for inspection upon request.**
- (7) **Notify the Director within 15 days of implementing any change to an indicator range and will provide an explanation for the change including any relevant documentation.**
- (8) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stack of **CS-201** on a weekly basis. If visible emissions appear to exceed the opacity limit, as established in O.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.204** and **S2.205** are operating and have the potential to create visible emissions. If **CS-201** is shut down for maintenance or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.204** and **S2.205** not operating or due to poor weather conditions.
- (9) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (10) The hourly fuel heat input rate in millions of Btu's per hour for **S2.204** will be determined from the total daily fuel consumption and the total daily hours of operation recorded above.
- (11) The hourly throughput rate in tons per hour for **S2.205** will be determined from the total daily throughput and the total daily hours of operation recorded above.



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**Section VI. Specific Operating Conditions (continued)**

**O. Emission Units S2.204 and S2.205 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (continued)
- c. Reporting - Permittee will notify the Director within 15 days of switching the fuels combusted in **S2.204** as allowed under O.3.a. of this Section.
- d. New Source Performance Standards (NSPS) - Notification and Record Keeping (40 CFR Part 60.7(b))  
Permittee, upon the issuance date of this permit, shall:
- (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility (**S2.205**); any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Compliance with conditions O.1 through O.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

Article 8.2 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC 445.746 (Other Sulfur Emitting Processes) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.2203 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

445B.22047 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

445B.2205 (Other Process which Emit Sulfur) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

P. Emission Units **S2.206 and S2.207** Location North 4,538.2 km, East 552.3 km, UTM (Zone 11)

**System 16A - Roaster Mill Circuit: Mill #2 Air Pre-heater**

S 2.206 Mill #2 air pre-heater

**System 16B - Roaster Mill Circuit: Mill #2 Dry Grinding Process**

- S 2.207.01 Mill #2 feed conveyor
- S 2.207.02 Mill #2 double rotator grinding mill
- S 2.207.03 Mill #2 grinding mill to bucket elevator air slide system
- S 2.207.04 Mill #2 bucket elevator
- S 2.207.05 Mill #2 bucket elevator to dynamic classifier air slide system
- S 2.207.06 Mill #2 dynamic classifier
- S 2.207.07 Mill #2 dynamic classifier to grinding mill air slide system
- S 2.207.08 Mill #2 product recovery baghouse to Roaster #2 silo air slide system
- S 2.207.09 Mill #2 pick-up point baghouse to Roaster #2 silo air slide system
- S 2.207.10 Mill #2 static classifier
- S 2.207.11 Roaster #2 silo
- S 2.207.12 Ball chip removal system

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **S2.206 and S2.207** will be controlled by a control system (**CS-202**) consisting of two (2) quad-chamber product recovery baghouses (**DC-206.1** and **DC-206.2**) and one pick-up point baghouse (**DC-207**). The primary exhaust from **S2.206 and S2.207** will be split and directed to either **DC-206.1** or **DC-206.2** for product recovery and emissions control.  
Emissions from material transfers associated with **S2.207** will be ducted to **DC-207**. **CS-202 will be operated in accordance with the manufacturer's recommendations at all times during operation of S2.206 and S2.207, including startup and shutdown.**  
Emissions from **CS-202** will be vented to the atmosphere through a single stack. Maximum volume flow rate of **CS-202** will not exceed 183,680 standard cubic feet per minute (scfm). The flow rate will be determined from EPA Reference Method 2 in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA Reference method approved by the Director).  
**DC-206.1** and **DC-206.2** filter media will consist of P-84 filtering material with a maximum air-to-cloth ratio of 5:1. **DC-207** filter media will consist of polyester with a maximum air-to-cloth ratio of 4:1. The capture efficiency of **CS-202** will be 100% such that all process emissions from each emission unit indicated for **S2.206 and S2.207** will be captured and ducted to a baghouse (**DC-206.1**, **DC-206.2** or **DC-207**). **S2.206** will be equipped with low-NO<sub>x</sub> burners and operated in a manner that minimizes emissions.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the date of startup of **S2.206 and S2.207** Permittee will not discharge or cause the discharge into the atmosphere from the stack discharge of **CS-202** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 12.60 pounds per hour.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 12.60 pounds per hour.
    - (3) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed 4.28 pounds per hour, nor exceed 16.88 tons per year, based on a 12-month rolling period.
    - (4) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere will not exceed 9.80 pounds per hour, nor exceed 24.22 tons per year, based on a 12-month rolling period.
    - (5) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of CO (carbon monoxide) to the atmosphere will not exceed 5.60 pounds per hour, nor exceed 13.84 tons per year, based on a 12-month rolling period.
    - (6) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 1.82 pounds per hour, nor exceed 4.50 tons per year, based on a 12-month rolling period.
    - (7) NAC 445B.22017 (State Only Requirement) - The opacity from the stack discharge of **CS-202** will not equal or exceed 20 percent in accordance with NAC 445B.22017.
    - (8) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the stack discharge of **CS-202** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.



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**Section VI. Specific Operating Conditions (continued)**

P. Emission Units S2.206 and S2.207 (continued)

2. Emission Limits NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (continued)
  - b. New Source Performance Standards - Subpart LL - Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part 60.380)  
On and after the date on which the performance test required to be conducted is completed, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **CS-202** the following pollutants in excess of the following specified limits:
    - (1) Emissions of particulate matter in excess of 0.05 gram per dry standard cubic meter. (40 CFR Part 60.382(a)(1))
    - (2) Emissions that exhibit greater than 7 percent opacity. (40 CFR Part 60.382(a)(2))
    - (3) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
    - (4) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **S2.206 and S2.207** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. **S2.206** may combust either HD-5 grade propane or pipeline quality natural gas only. Combustion of a blend of these fuels is prohibited.
  - b. The maximum heat input rate for **S2.206** will not exceed 140 million Btu's per any one-hour period, nor exceed 692,040 million Btu's per year, based on a 12-month rolling period.
  - c. The maximum fuel consumption rate for **S2.206** will not exceed 1,528 gallons of HD-5 grade propane per any one-hour period, nor more than 7,555,022 gallons per year, based on a 12-month rolling period.
  - d. The maximum fuel consumption rate for **S2.206** will not exceed 140,000 cubic feet of pipeline quality natural gas per any one-hour period, nor more than 692,040,000 cubic feet per year, based on a 12-month rolling period.
  - e. The maximum allowable throughput rate for **S2.207** will not exceed 500.0 tons of ore per any one-hour period, nor exceed 3,376,250 tons of ore per year, based on a 12-month rolling period.
  - f. **S2.206** may operate 8,760 hours per year.
  - g. **S2.207** may operate 8,760 hours per year.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. Periodic Compliance Testing
    - (1) Permittee will conduct and record the following periodic compliance tests on the exhaust stack of **CS-202**. **The periodic compliance tests will be conducted at least 90 days prior to the date of expiration of this permit, but no earlier than 365 days from the date of expiration of this permit.** The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition P.4.a.(3) of this Section and not to exceed the maximum allowable throughput as established in P.3.b. and e. of this Section).
      - (a) Method 201A and 202 compliance tests in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>.
      - (b) Method 5 or 17 (with back-half catch) and 7E compliance tests for PM and NO<sub>x</sub> in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
      - (c) Method 6 and Method 10 compliance tests for SO<sub>2</sub> and CO in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).



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**Section VI. Specific Operating Conditions (continued)**

P. Emission Units **S2.206** and **S2.207** (continued)

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program (continued)

a. Periodic Compliance Testing (continued)

- (2) The Method 201A and Method 202 tests required in P.4.a.(1) of this section may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 tests with back-half performed under this provision shall be considered PM<sub>10</sub> emissions for determination of compliance with the emission limitations established in P.2.a. of this section.
- (3) Compliance tests required under P.4.a.(1) of this Section that are conducted below the maximum allowable throughput, as established in P.3.b. and e. of this Section, will be subject to the Director's review to determine if the throughputs during the compliance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
- (4) Concurrent with each periodic PM compliance test, conduct and record a Method 9 visible emission test on the exhaust stack of **CS-202** in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director). If visibility or other conditions prevent the opacity observations from being conducted concurrently with the compliance test, then the visible emission test will be rescheduled as soon after the compliance test as practical, but not later than 30 days thereafter.
- (5) The compliance tests required for PM<sub>10</sub> and PM under P.4.a.(1) of this Section will be conducted within 60 days of an alteration or modification to the filter media and/or air-to-cloth ratio as restricted per P.1 of this Section. Replacement of filter media with the same type of media as part of routine maintenance does not constitute an alteration or modification for the purposes of this requirement, provided that the air-to-cloth ratio is not altered or modified.
- (6) The compliance tests for NO<sub>x</sub> and CO under P.4.a.(1) of this Section will be conducted within 60 days of switching the fuel combusted in **S2.206** as allowed under P.3.a. of this Section.

b. Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the type (HD-5 grade propane or pipeline quality natural gas) and amount of fuel combusted in **S2.206** and the ore throughput of **S2.207** on a daily basis. At the end of each calendar month, record the total monthly fuel use and ore throughput, and the total fuel use and ore throughput for the previous 12 months.
- (2) Monitor and record the hours of operation of **S2.206** and **S2.207** on a daily basis.
- (3) Install, calibrate, operate and maintain devices for the measurement of the pressure drop across **DC-206.1**, **DC-206.2** and **DC-207** and the fuel consumption rate for each fuel combusted in **S2.206**.
- (4) **Conduct and record a reading of the baghouse pressure drop across the inlet and outlet of DC-206.1, DC-206.2 and DC-207 once during each day of operation. Record any monitored occurrences when the baghouse pressure drop falls outside the manufacturer's recommended operating range and record any corrective actions taken.**
- (5) **The indicator range for the baghouse pressure drop shall be between 1.5 to 11.0 inches of water. Excursions shall be defined as anytime the baghouse pressure drop falls outside this indicator range.**
- (6) **Maintain records of the manufacturer's recommended operating range for the baghouse pressure drop on-site and available for inspection upon request.**
- (7) **Notify the Director within 15 days of implementing any change to an indicator range and will provide an explanation for the change including any relevant documentation.**
- (8) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stack of **CS-202** on a weekly basis. If visible emissions appear to exceed the opacity limit, as established in P.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.206** and **S2.207** are operating and have the potential to create visible emissions. If **CS-202** is shut down for maintenance or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.206** and **S2.207** not operating or due to poor weather conditions.
- (9) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (10) The hourly fuel heat input rate in millions of Btu's per hour for **S2.206** will be determined from the total daily fuel consumption and the total daily hours of operation recorded above.
- (11) The hourly throughput rate in tons per hour for **S2.207** will be determined from the total daily throughput and the total daily hours of operation recorded above.



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**Section VI. Specific Operating Conditions (continued)**

**P. Emission Units S2.206 and S2.207 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (continued)
  - c. Reporting - Permittee will notify the Director within 15 days of switching the fuel combusted in **S2.206** as allowed under P.3.a of this Section.
  - d. New Source Performance Standards (NSPS) - Notification and Record Keeping (40 CFR Part 60.7(b))  
Permittee, upon the issuance date of this permit, shall:
    - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility (**S2.207**); any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Compliance with conditions P.1 through P.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

- NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).
- NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).
- Article 8.2 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).
- NAC 445.746 (Other Sulfur Emitting Processes) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

- 445B.2203 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).
- 445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).
- 445B.22047 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).
- 445B.2205 (Other Process which Emit Sulfur) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

Q. Emission Unit S2.208 Location North 4,538.3 km, East 552.3 km, UTM (Zone 11)

**System 17 - Roaster Circuit: Roaster #1 and Roaster #2 Feed Process**

- S 2.208.01 Roaster #1 silo to feed box air slide system
- S 2.208.02 Feed box to Roaster #1 belt air slide system
- S 2.208.03 Roaster #1 belt
- S 2.208.04 Roaster #1 belt to bucket elevator air slide system
- S 2.208.05 Roaster #1 bucket elevator
- S 2.208.06 Roaster #1 elevator to fluidized feeder air slide system
- S 2.208.07 Roaster #1 fluidized feeder
- S 2.208.08 Roaster #1 baghouse hopper transfer to feed box
- S 2.208.09 Coal transfer to Roaster #1 bucket elevator
- S 2.208.10 Roaster #2 silo to feed box air slide system
- S 2.208.11 Feed box to Roaster #2 belt air slide system
- S 2.208.12 Roaster #2 belt
- S 2.208.13 Roaster #2 belt to bucket elevator air slide system
- S 2.208.14 Roaster #2 bucket elevator
- S 2.208.15 Roaster #2 elevator to fluidized feeder air slide system
- S 2.208.16 Roaster #2 fluidized feeder
- S 2.208.17 Roaster #2 baghouse hopper transfer to feed box
- S 2.208.18 Coal transfer to Roaster #2 bucket elevator

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **S2.208** will be ducted to a control system consisting of a baghouse (**DC-208** for the Roaster 1 feed circuit and **DC-209** for the Roaster 2 feed circuit). **DC-208** and **DC-209** will be operated in accordance with the manufacturer's recommendations at all times during operation of **S2.208**, including startup and shutdown. Emissions from **DC-208** and **DC-209** will be vented to the atmosphere through a single stack. Maximum volume flow rate of **DC-208** and **DC-209** will not exceed 14,760 standard cubic feet per minute (scfm). The flow rate will be determined from EPA Reference Method 2 in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA Reference method approved by the Director). **DC-208** and **DC-209** filter media will consist of polyester with a maximum air-to-cloth ratio of 4:1. The capture efficiency of the control system will be 100% such that all process emissions from each emission unit indicated for **S2.208** will be captured and ducted to **DC-208** and **DC-209**.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the date of startup of **S2.208**, Permittee will not discharge or cause the discharge into the atmosphere from the stack discharge of **DC-208** and **DC-209** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 1.01 pounds per hour.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 1.01 pounds per hour.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from the stack discharge of **DC-208** and **DC-209** will not equal or exceed 20 percent in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the stack discharge of **DC-208** and **DC-209** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. New Source Performance Standards - Subpart LL - Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part 60.380)  
On and after the date on which the performance test required to be conducted is completed, Permittee will not discharge or cause the discharge into the atmosphere from the single exhaust stack of **DC-208** and **DC-209** the following pollutants in excess of the following specified limits:
    - (1) Emissions of particulate matter in excess of 0.05 gram per dry standard cubic meter. (40 CFR Part 60.382(a)(1))
    - (2) Emissions that exhibit greater than 7 percent opacity. (40 CFR Part 60.382(a)(2))
    - (3) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
    - (4) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **S2.208** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))



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**Section VI. Specific Operating Conditions (continued)**

**Q. Emission Unit S2.208 (continued)**

3. Operating Parameters NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. The maximum allowable throughput rate for **S2.208** will not exceed 1,000.0 tons of ore per any one-hour period.
  - b. **S2.208** may operate 8,760 hours per year.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. Periodic Compliance Testing
    - (1) Permittee will conduct and record the following periodic compliance tests on the exhaust stack of **DC-208** and **DC-209**. **The periodic compliance tests will be conducted at least 90 days prior to the date of expiration of this permit, but no earlier than 365 days from the date of expiration of this permit.** The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition Q.4.a.(3) of this Section and not to exceed the maximum allowable throughput as established in Q.3.a. of this Section).
      - (a) A Method 201A compliance test in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>.
      - (b) A Method 5 or 17 compliance test in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director) for PM.
    - (2) Permittee may substitute the Method 5 or 17 test for the Method 201A test.
    - (3) Compliance tests required under Q.4.a.(1) of this Section that are conducted below the maximum allowable throughput, as established in Q.3.a. of this Section, will be subject to the Director's review to determine if the throughputs during the compliance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
    - (4) Concurrent with each periodic PM compliance test, conduct and record a Method 9 visible emission test on the exhaust stack of **DC-208** and **DC-209** in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director). If visibility or other conditions prevent the opacity observations from being conducted concurrently with the compliance test, then the visible emission test will be rescheduled as soon after the compliance test as practical, but not later than 30 days thereafter.
    - (5) The compliance tests required under Q.4.a.(1) of this Section will be conducted within 60 days of an alteration or modification to the filter media and/or air-to-cloth ratio as restricted per Q.1 of this Section. Replacement of filter media with the same type of media as part of routine maintenance does not constitute an alteration or modification for the purposes of this requirement, provided that the air-to-cloth ratio is not altered or modified.



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**Section VI. Specific Operating Conditions (continued)**

**Q. Emission Unit S2.208 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (continued)
- b. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
- (1) Monitor and record the ore throughput of **S2.208** on a daily basis.
  - (2) Monitor and record the hours of operation of **S2.208** on a daily basis.
  - (3) Install, calibrate, operate and maintain a device for the measurement of the pressure drop across **DC-208** and **DC-209**.
  - (4) **Conduct and record a reading of the baghouse pressure drop across the inlet and outlet of DC-208 and DC-209 once during each day of operation. Record any monitored occurrences when the baghouse pressure drop falls outside the manufacturer's recommended operating range and record any corrective actions taken.**
  - (5) **The indicator range for the baghouse pressure drop shall be between 1.5 to 11.0 inches of water. Excursions shall be defined as anytime the baghouse pressure drop falls outside this indicator range.**
  - (6) **Maintain records of the manufacturer's recommended operating range for the baghouse pressure drop on-site and available for inspection upon request.**
  - (7) **Notify the Director within 15 days of implementing any change to an indicator range and will provide an explanation for the change including any relevant documentation.**
  - (8) Conduct and record an assessment of the visible emissions (excluding water vapor) from the single exhaust stack of **DC-208** and **DC-209** on a weekly basis. If visible emissions appear to exceed the opacity limit, as established in Q.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.208** is operating and has the potential to create visible emissions. If **DC-208** and **DC-209** are shut down for maintenance or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.208** not operating or due to poor weather conditions.
  - (9) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
  - (10) The hourly throughput rate in tons per hour for **S2.208** will be determined from the total daily throughput and the total daily hours of operation recorded above.
- c. New Source Performance Standards (NSPS) - Notification and Record Keeping (40 CFR Part 60.7(b))  
Permittee, upon the issuance date of this permit, shall:
- (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Compliance with conditions Q.1 through Q.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

R. Emission Unit **S2.209** Location North 4,538.3 km, East 552.2 km, UTM (Zone 11)

**System 18 - Roaster Circuit: Ore Roasting Process**

- S 2.209.1 Roaster #1
- S 2.209.2 Roaster #2

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. 100% of all process emissions from **S2.209** will be ducted to a control system (**CS-203**) consisting of:
    - (1) a venturi wet dust scrubber (**VS-201**) on the exhaust stream of Roaster 1.
    - (2) a venturi wet dust scrubber (**VS-202**) on the exhaust stream of Roaster 2.
    - (3) a wet electrostatic precipitator (**ESP-201**) on the combined exhaust stream of Roasters 1 and 2.
    - (4) a mercury scrubber (**HG-201**) on the combined exhaust stream of Roasters 1 and 2.
    - (5) a SO<sub>2</sub> scrubber (**SO2-201**) on the combined exhaust stream of Roasters 1 and 2.
    - (6) a thermal CO oxidizer (**CO-201**) (which includes a 4.4 million Btu's per hour pre-heater and a 10.4 million Btu's per hour thermal oxidizer burner) on the combined exhaust stream of Roasters 1 and 2, except as provided by R.1.c. of this Section.
    - (7) a selective catalytic NO<sub>x</sub> reduction system (**SCR-201**) on the combined exhaust stream of Roasters 1 and 2, except as provided by R.1.c. of this Section.
  - b. The exhausts from the above control devices will be combined and vented to the atmosphere through a single stack. The above control devices will be operated in accordance with the manufacturer's recommendations at all times during operation of **S2.209**, including startup and shutdown, except as provided by R.1.c. of this Section. Equipment associated with the above control devices with the potential for fugitive chlorine emissions will be equipped with capture hoods (to capture 100% of all process emissions) and ducted to **SO2-201**.
  - c. **S2.209** may be operated without the operation of **CO-201** and/or **SCR-201** (or **CO-201** and/or **SCR-201** may be physically removed from the control system) provided that the NO<sub>x</sub> and CO emissions measured by the NO<sub>x</sub> and CO continuous emission monitor, required under R.4.c.(11) and (12) of this Section, remain below the emission limits established in R.2.d. and e. of this Section.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

On and after the date of startup of **S2.209**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **CS-203** the following pollutants in excess of the following specified limits:

  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 6.0 pounds per hour, nor exceed 23.6 tons per year, based on a 12-month rolling period.
  - b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 6.0 pounds per hour, nor exceed 23.6 tons per year, based on a 12-month rolling period.
  - c. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed 44.9 pounds per hour based on a 3-hour rolling average.
  - d. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere will not exceed 36.81 pounds per hour, based on a 3-hour rolling average, nor exceed 145.2 tons per year, based on a 12-month rolling period.
  - e. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of CO (carbon monoxide) to the atmosphere will not exceed 47.08 pounds per hour, based on a 3-hour rolling average, nor exceed 185.7 tons per year, based on a 12-month rolling period.
  - f. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 39 pounds per hour.
  - g. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of Hg (mercury) to the atmosphere will not exceed 0.2 pound per hour.
  - h. NAC 445B.22017 (State Only Requirement) - The opacity from the exhaust stack of **CS-203** will not equal or exceed 20% in accordance with NAC 445B.22017.
  - i. NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust stack of **CS-203** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.



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**Section VI. Specific Operating Conditions (continued)**

R. **Emission Unit S2.209** Location North 4,538.3 km, East 552.2 km, UTM (Zone 11)

3. Operating Parameters NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*

- a. **S2.209** may combust sub bituminous coal, #2 fuel oil, and either HD-5 grade propane or pipeline quality natural gas only. Combustion of a blend of propane and natural gas is prohibited.
- b. The maximum allowable throughput for **S2.209** will not exceed 1,000.0 tons of ore per any one-hour period, nor exceed 6,752,500 tons of ore per year, based on a 12-month rolling period.
- c. The maximum sub bituminous coal consumption rate for **S2.209** will not exceed 6.8 tons per any one-hour period.
- d. The maximum #2 fuel oil consumption rate for **S2.209** will not exceed 607.0 gallons per any one-hour period.
- e. The maximum fuel consumption rate for **S2.209** will not exceed 437.0 gallons of HD-5 grade propane per any one-hour period.
- f. The maximum fuel consumption rate for **S2.209** will not exceed 40,000.0 cubic feet of pipeline quality natural gas per any one-hour period.
- g. The maximum HD-5 grade propane or pipeline quality natural gas heat input rate for **S2.209** will not exceed 40.0 million Btu's per any one-hour period.
- h. **S2.209** may operate 8,760 hours per year.



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**Section VI. Specific Operating Conditions (continued)**

**R. Emission Unit S2.209 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. Periodic Compliance Testing
    - (1) Permittee will conduct and record the following periodic compliance tests on the exhaust stack of **CS-203**. **The periodic compliance tests will be conducted at least 90 days prior to the date of expiration of this permit, but no earlier than 365 days from the date of expiration of this permit.** The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition R.4.a.(3) of this Section and not to exceed the maximum allowable throughput as established in R.3.b. of this Section).
      - (a) Method 201A and 202 compliance tests in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>.
      - (b) Method 5 or 17 (with back-half catch) compliance test for PM in accordance with 40 CFR Part 60, Appendix A (or alternative EPA reference methods approved by the Director).
      - (c) Method 6, 7E, 10, 25/25A and 29 compliance tests for SO<sub>2</sub>, NO<sub>x</sub>, CO, VOC and Hg in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
    - (2) The Method 201A and Method 202 tests required in R.4.a.(1) of this section may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 tests with back-half performed under this provision shall be considered PM<sub>10</sub> emissions for determination of compliance with the emission limitations established in R.2.a. of this section.
    - (3) Compliance tests required under R.4.a.(1) of this Section that are conducted below the maximum allowable throughput, as established in R.3.b. of this Section, will be subject to the Director's review to determine if the throughputs during the compliance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
    - (4) Concurrent with each periodic PM compliance test, conduct and record a Method 9 visible emission test on the exhaust stack of **CS-203** in accordance with 40 CFR Part 60, Appendix A (or an alternative reference method approved by the Director). If visibility or other conditions prevent the opacity observations from being conducted concurrently with the compliance test, then the visible emission test will be rescheduled as soon after the compliance test as practical, but not later than 30 days thereafter.
    - (5) The compliance tests required for NO<sub>x</sub> and CO under R.4.a.(1) of this Section will be conducted within 60 days of switching the fuel combusted in **S2.209** as allowed under R.3.a. of this Section



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**Section VI. Specific Operating Conditions (continued)**

R. Emission Unit S2.209 (continued)

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program (continued)

b. Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the amount of sub bituminous coal, #2 fuel oil and HD-5 grade propane or pipeline quality natural gas combusted in S2.209, and the ore throughput of S2.209 on a daily basis. At the end of each calendar month, record the total monthly ore throughput and the total ore throughput for the previous 12 months.
- (2) Monitor and record the hours of operation of S2.209 on a daily basis.
- (3) Monitor and record sulfide sulfur content, total carbonaceous matter content and carbonate value of the ore processed in S2.209 on a daily basis.
- (4) Install, calibrate, operate and maintain devices for the measurement the fuel consumption rate for each fuel combusted in S2.209.
- (5) Install, calibrate, operate and maintain devices for the measurement of the following control parameters for the following control equipment:
  - VS-201 pressure drop across the venturi wet dust scrubber.
  - VS-202 pressure drop across the venturi wet dust scrubber.
  - ESP-201 ESP transformer primary and secondary voltage and current.
  - HG-201 mercuric chloride solution line pressure prior to the scrubber tower spray header and inlet gas temperature.
- (6) Establish a procedure for the measurement of the following control parameter for the following control equipment:
  - HG-201 mercuric chloride solution concentration exiting the scrubber.
- (7) Conduct and record a reading of the control parameters specified under R.4.b.(5) and (6) of this Section for HG-201 once during each day of operation. Record any monitored occurrences when any control parameter falls outside the manufacturer's recommended operating range and record any corrective actions taken.
- (8) Continuously monitor and record the control parameters specified under R.4.b.(5) for VS-201, VS-202 and ESP-201. Record any monitored occurrences when any control parameter fall outside the manufacturer's recommended operating range and record any corrective actions taken.
- (9) Maintain records of the manufacturer's recommended operating range for the control parameters specified under R.4.b.(5) and (6) of this section on-site and available for inspection upon request.
- (10) The indicator ranges for the two venturi wet scrubbers (VS-201 and VS-202) and the wet electrostatic precipitator (ESP-201) shall be defined as follows: The pressure drop for the two venturi wet scrubbers shall be between 35 and 100 inches of water, the water flow rate shall be between 500 and 1,200 gallons per minute. The primary voltage for the wet electrostatic precipitator shall be between 240 and 490 volts, the primary current shall be between 5 and 88 amps, the secondary current shall be between 12,500 and 25,500 volts, the secondary current shall be between 0.2 and 1.21 amps. Excursions shall be defined as anytime the control parameters fall outside these indicator ranges.
- (11) The indicator range for the mercury scrubber (HG-201) shall be defined as follows: The head pressure shall be between 2 and 9 pounds per square inch (psi), the inlet gas temperature shall be between 32 and 104 degrees Fahrenheit, the mercury(II) chloride concentration shall be between 1.5 and 4.5 milligrams per liter (mg/l). Excursions shall be defined as anytime the control parameters fall outside these indicator ranges.
- (12) Notify the Director within 15 days of implementing any change to an indicator range and will provide an explanation for the change including any relevant documentation.
- (13) Conduct and record an assessment of the visible emissions (excluding water vapor) from the single exhaust stack of CS-203 on a weekly basis. If visible emissions appear to exceed the opacity limit, as established in R.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while S2.209 is operating and has the potential to create visible emissions. If CS-203 is shut down for maintenance or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to S2.209 not operating or due to poor weather conditions.
- (14) Install, calibrate, operate and maintain continuous monitoring systems for the measurement of SO<sub>2</sub>, NO<sub>x</sub> and CO in the exhaust stack of CS-203. The systems shall meet appropriate performance specifications (such as 40 CFR 60.13 and 40 CFR 60, Appendix B, Performance Specifications 2 and 4) and appropriate quality assurance procedures (such as 40 CFR 60, Appendix F). Performance specifications and quality assurance procedures shall be contained in a monitoring plan that must be submitted to the Director for approval not less than 90 days prior to the date of startup. Any revisions to the monitoring plan must be approved by the Director before becoming effective. The Director retains the authority to request, in writing, revisions to the monitoring plan.
- (15) Install, calibrate, operate and maintain a continuous emissions monitoring system (CEMs) to measure stack gas volumetric flow rates in the exhaust stack of CS-203. The system shall meet appropriate performance specifications (such as 40 CFR 52, Appendix E). Such performance specifications shall be contained in a monitoring plan that must be submitted to the Director for approval not less than 90 days prior to the date of startup. Any revisions to the monitoring plan must be approved by the Director before becoming effective. The Director retains the authority to request, in writing, revisions to the monitoring plan.



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**Section VI. Specific Operating Conditions (continued)**

R. Emission Unit S2.209 (continued)

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program (continued)
- b. Monitoring and Recordkeeping (continued)
- (16) Record hourly average mass emissions of SO<sub>2</sub>, NO<sub>x</sub> and CO, in terms of pounds per hour, using the data collected from the continuous monitoring systems required under R.4.b.(11) and (12). At the end of each calendar month, calculate and record the total monthly SO<sub>2</sub>, NO<sub>x</sub> and CO emissions and the total SO<sub>2</sub>, NO<sub>x</sub> and CO emissions for the previous 12 months. The first hourly average will be calculated by taking the average of the first three hours of data. Subsequent averages will drop off the oldest hour of data and add the newest hour's data to maintain a continuous hourly average based on the most recent three hours of data.
  - (17) Excess emissions for SO<sub>2</sub>, NO<sub>x</sub> or CO shall be defined as any 3-hour period during which the average emissions of SO<sub>2</sub>, NO<sub>x</sub> or CO, as measured by the CEMs devices or a compliance test, exceed the maximum emission limits set forth in R.2 of this Section.
  - (18) Excursions for VOC's shall be defined as any 3-hour period which the average emissions of CO, as measured by the CEMs devices, exceed the maximum emission limits set forth in R.2 of this Section.**
  - (19) Maintain records of monitoring data (including periods of startup and shutdown, continuous monitoring systems evaluations, calibration checks, and adjustment and maintenance performed on these systems), compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
  - (20) The hourly throughput rate in tons per hour for **S2.209** will be determined from the total daily throughput and the total daily hours of operation recorded above.
  - (21) The hourly coal consumption rate in tons per hour for **S2.209** will be determined from the total daily coal consumption and the total daily hours of operation recorded above.
  - (22) The hourly #2 fuel oil consumption rate in gallons per hour for **S2.209** will be determined from the total daily #2 fuel oil consumption and the total daily hours of operation recorded above.
  - (23) The hourly propane or natural gas heat input rate in millions of Btu's per hour for **S2.209** will be determined from the total daily propane or natural gas consumption and the total daily hours of operation recorded above.

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Compliance with conditions R.1 through R.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit:

Applicable SIP Requirements (Revised as of February 2002):

- NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).
- NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).
- Article 8.2 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).
- NAC 445.746 (Other Sulfur Emitting Processes) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

- 445B.2203 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).
- 445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).
- 445B.22047 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).
- 445B.2205 (Other Process which Emit Sulfur) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

The following requirements are not applicable to **S2.201.1** and **S2.209.2**:

Note: For **S2.209.1** and **S2.209.2** (Roaster 1 and Roaster 2) -- Roasters are not subject to 40 CFR Part 60, Subpart LL (Standards of Performance for Metallic Mineral Processing Plants) since they are not specifically defined under Subparts 60.380 to 60.381, revised as of July 1, 2002.



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**Section VI. Specific Operating Conditions (continued)**

S. Emission Units S2.210 and S2.211 Location North 4,538.3 km, East 552.2 km, UTM (Zone 11)

**System 19 - Roaster Circuit: Quenching Process**

S	2.210	Roaster #1 quench tank
S	2.211	Roaster #2 quench tank

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
100% of all process emissions from **S2.210 and S2.211** will be ducted to a control system consisting of one venturi wet dust scrubber per quench tank (**VS-203** and **VS-204**, respectively). Emissions from **VS-203** and **VS-204** will be exhausted to the atmosphere through separate stacks. **VS-203** and **VS-204** will be operated in accordance with the manufacturer's recommendations at all times during operation of **S2.210 and S2.211**, including startup and shutdown.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
On and after the date of startup of **S2.210 and S2.211**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stacks of **VS-203** and **VS-204** the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 1.84 pounds per hour for **VS-203** and **VS-204**, each.
  - b. NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 1.84 pounds per hour for **VS-203** and **VS-204**, each.
  - c. NAC 445B.22017 (*State Only Requirement*) - The opacity from the exhaust stacks of **VS-203** and **VS-204**, each will not equal or exceed 20% in accordance with NAC 445B.22017.
  - d. NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from the exhaust stacks of **VS-203** and **VS-204**, each will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. The maximum allowable throughput rate for **S2.210 and S2.211** will not exceed 500.0 tons of ore per any one-hour period, each.
  - b. **S2.210 and S2.211** may operate 8,760 hours per year, each.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. Periodic Compliance Testing
    - (1) Permittee will conduct and record the following periodic compliance tests on the exhaust stacks of **VS-203** and **VS-204**. **The periodic compliance tests will be conducted at least 90 days prior to the date of expiration of this permit, but no earlier than 365 days from the date of expiration of this permit.** The compliance tests will consist of three valid runs (except as provided under I.U.5 of this operating permit) at the maximum achievable throughput rates (subject to Condition S.4.a.(3) of this Section and not to exceed the maximum allowable throughputs as established in S.3.a. of this Section):
      - (a) A Method 201A performance test in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>, on each stack.
      - (b) A Method 5 or 17 compliance test in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director) for PM, on each stack.
    - (2) Permittee may substitute the Method 5 or 17 test for the Method 201A test.
    - (3) Compliance tests required under S.4.a.(1) of this Section that are conducted below the maximum allowable throughput, as established in S.3.a. of this Section, will be subject to the Director's review to determine if the throughputs during the compliance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
    - (4) Concurrent with the periodic PM and PM<sub>10</sub> compliance tests, conduct and record a Method 9 visible emission test on the exhaust stacks of **VS-203** and **VS-204** each, in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director). If visibility or other conditions prevent the opacity observations from being conducted concurrently with the initial compliance test, then the visible emission test will be rescheduled as soon after the initial compliance test as practical, but not later than 30 days thereafter.



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**S. Emission Units S2.210 and S2.211 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program (continued)
- b. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
- (1) Monitor and record the ore throughput of **S2.210 and S2.211** on a daily basis.
  - (2) Monitor and record the hours of operation of **S2.210 and S2.211** on a daily basis.
  - (3) Install, calibrate, operate and maintain devices for the measurement of the venturi pressure drops and water flow rates of **VS-203** and **VS-204**, separately.
  - (4) Conduct and record a reading of the venturi pressure drops and water flow rates of **VS-203** and **VS-204** once during each day of operation. Record any monitored occurrences when the venturi pressure drop or water flow rate falls outside the manufacturer's recommended operating range and record any corrective actions taken.
  - (5) **The indicator range for the venturi pressure drop for VS-203 and VS-204 each shall be between 24 to 34.5 inches of water. The water flow rates for VS-203 and VS-204 each shall be between 88 and 120 gallons per minute. Excursions shall be defined as anytime the venturi pressure drop and the water flow rate falls outside these indicator ranges.**
  - (6) **Maintain records of the manufacturer's recommended operating range for the baghouse pressure drop on-site and available for inspection upon request.**
  - (7) **Notify the Director within 15 days of implementing any change to an indicator range and will provide an explanation for the change including any relevant documentation.**
  - (8) Conduct and record an assessment of the visible emissions (excluding water vapor) from the separate exhaust stacks of **VS-203** and **VS-204** each on a weekly basis. If visible emissions appear to exceed the opacity limit, as established in S.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.210 and S2.211** are operating and have the potential to create visible emissions. If **VS-203 and VS-204** are shut down for maintenance, or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.210 and S2.211** not operating or due to poor weather conditions.
  - (9) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
  - (10) The hourly throughput rate in tons per hour for **S2.210 and S2.211** will be determined from the total daily throughput and the total daily hours of operation recorded above.

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Compliance with conditions S.1 through S.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit:

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

The following requirements are not applicable to **S2.210** and **S2.211**:

Note: For **S2.210** and **S2.211** (Roaster 1 and Roaster 2 Quench Tanks) -- Roaster quench tanks are not subject to 40 CFR Part 60, Subpart LL (Standards of Performance for Metallic Mineral Processing Plants) since they are not specifically defined under Subparts 60.380 to 60.381 revised, as of July 1, 2002.



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**Section VI. Specific Operating Conditions (continued)**

T. Emission Units **S2.212** and **PF1.204** Location North 4,538.3 km, East 552.3 km, UTM (Zone 11)

**System 20 - Ancillary Roaster Processes: Coal Silo**

S	2.212	Coal silo, 200 ton, loading
PF	1.204	Coal silo discharge to screw conveyor

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **S2.212** will be ducted to a control system consisting of a vent filter (**PDC-201**) with 100% capture.  
Emissions from **PF1.204** will be controlled by an enclosure that completely encloses the transfer point.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the date of startup of **S2.212**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vent of **PDC-201**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.32 pound per hour, nor exceed 0.10 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.32 pound per hour, nor exceed 0.10 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from the exhaust vent of **PDC-201** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust vent of **PDC-201** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. On and after the date of startup of **PF1.204**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.204**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.04 pound per hour, nor exceed 0.08 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.04 pound per hour, nor exceed 0.08 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from **PF1.204** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **PF1.204** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable loading rate for **S2.212** will not exceed 120.0 tons of coal per any one-hour period, nor more than 75,000 tons of coal per year, based on a 12-month rolling period.
  - b. The maximum allowable throughput rate for **PF1.204** will not exceed 20.0 tons of coal per any one-hour period, nor more than 75,000 tons of coal per year, based on a 12-month rolling period.
  - c. **S2.212** and **PF1.204** may operate 8,760 hours per year, each.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the amount of coal loaded into **S2.212** each day loading occurs. At the end of each calendar month, record the total monthly coal throughput and the total coal throughput for the previous 12 months.
    - (2) Monitor and record the amount of coal discharged from **PF1.204** on a monthly basis. The amount of coal will be based on purchasing receipts and measurements of the level of coal in the silo at the beginning and end of the month. At the end of each calendar month, record the total coal throughput for the previous 12 months.
    - (3) Monitor and record the hours of operation of **S2.212** and **PF1.204** on a monthly basis.
    - (4) Install, calibrate, operate and maintain a device for the measurement of the level of coal in the silo.
    - (5) Conduct and record an inspection of **PDC-201** on a monthly basis noting the condition of the filter material and housing. Record any corrective actions taken.
    - (6) Conduct and record an inspection of the enclosure on **PF1.204** on a monthly basis. Record any corrective actions taken.
    - (7) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vent of **PDC-201** and from **PF1.204** each on a weekly basis. If visible emissions appear to exceed the opacity limit, as established in T.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.212** and **PF1.204** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.212** and **PF1.204** not operating or due to poor weather conditions.



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**T. Emission Units S2.212 and PF1.204 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (continued)
  - a. Monitoring and Recordkeeping (continued)
    - (8) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (9) The hourly throughput rate in tons per hour for **S2.212 and PF1.204** will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Compliance with conditions T.1 through T.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

U. Emission Units **S2.213 through S2.215** Location North 4,538.2 km, East 552.2 km, UTM (Zone 11)

**System 21 - Ancillary Roaster Processes: Propane Vaporizers**

- S 2.213 Propane Vaporizer #1
- S 2.214 Propane Vaporizer #2
- S 2.215 Propane Vaporizer #3

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
**S2.213 to S2.215** will be operated in a manner that minimizes emissions.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of **S2.213 through S2.215**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stacks of **S2.213 through S2.215** the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.071 pound per hour, each unit.
  - b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.071 pound per hour, each unit.
  - c. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed 0.004 pound per hour, each unit.
  - d. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere will not exceed 1.36 pounds per hour, each unit.
  - e. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of CO (carbon monoxide) to the atmosphere will not exceed 0.42 pound per hour, each unit.
  - f. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 0.52 pound per hour, each unit.
  - g. NAC 445B.22017 (State Only Requirement) - The opacity from the exhaust stacks of **S2.213 through S2.15** each, will not equal or exceed 20% in accordance with NAC 445B.22017.
  - h. NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust stacks of **S2.213 through S2.215** each, will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. **S2.213 through S2.215** may combust HD-5 grade propane only.
  - b. The maximum HD-5 grade propane heat input rate for **S2.213 through S2.215** will not exceed 4.7 million Btu's per any one-hour period, each unit.
  - c. The maximum fuel consumption rate for **S2.213 through S2.215** will not exceed 51.0 gallons of HD-5 grade propane per any one-hour period, each unit.
  - d. **S2.213 through S2.215** may operate 8,760 hours per year, each unit.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the amount of HD-5 grade propane combusted in **S2.213 through S2.215**, each, on a monthly basis.
    - (2) Monitor and record the hours of operation of **S2.213 through S2.215**, each, on a monthly basis.
    - (3) Install, calibrate, operate and maintain devices for the measurement fuel consumption rate of **S2.213 through S2.215**, each.
    - (4) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (5) The hourly propane heat input rate in millions of Btu's per hour for **S2.213 through S2.215** will be determined from the total monthly propane consumption and the total monthly hours of operation recorded above.



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**Section VI. Specific Operating Conditions (continued)**

**U. Emission Units S2.213 through S2.215 (continued)**

5. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Compliance with conditions U.1 through U.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

Article 8.2 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.2203 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

445B.22047 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

V. Emission Units **S2.216** and **PF1.205** Location North 4,538.3 km, East 552.2 km, UTM (Zone 11)

**System 22 - Ancillary Roaster Processes: Slaked Lime Silo**

S 2.216 Lime Silo - slaking, 1,000 ton, loading  
PF 1.205 Lime Silo - slaking discharge to screw conveyor

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Emissions from **S2.216** will be ducted to a control system consisting of a vent filter (**PDC-202**) with 100% capture.  
Emissions from **PF1.205** will be controlled by an enclosure that completely encloses the transfer point.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. On and after the date of startup of **S2.216**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vent of **PDC-202**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.32 pound per hour, nor exceed 0.34 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.32 pound per hour, nor exceed 0.34 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (*State Only Requirement*) - The opacity from the exhaust vent of **PDC-202** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from the exhaust vent of **PDC-202** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. On and after the date of startup of **PF1.205**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.205**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.08 pound per hour, nor exceed 0.25 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.08 pound per hour, nor exceed 0.25 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (*State Only Requirement*) - The opacity from **PF1.205** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from **PF1.205** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. The maximum allowable loading rate for **S2.216** will not exceed 120.0 tons of lime per any one-hour period, nor more than 250,000 tons of lime per year, based on a 12-month rolling period.
  - b. The maximum allowable throughput rate for **PF1.205** will not exceed 40.0 tons of lime per any one-hour period, nor more than 250,000 tons of lime per year, based on a 12-month rolling period.
  - c. **S2.216** and **PF1.205** may operate 8,760 hours per year, each.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the amount of lime loaded into **S2.216** each day loading occurs. At the end of each calendar month, record the total monthly lime throughput and the total lime throughput for the previous 12 months.
    - (2) Monitor and record the amount of lime discharged from **PF1.205** on a monthly basis. The amount of lime will be based on purchasing receipts and measurements of the level of lime in the silo at the beginning and end of the month. At the end of each calendar month, record the total lime throughput for the previous 12 months.
    - (3) Monitor and record the hours of operation of **S2.216** and **PF1.205** each on a monthly basis.
    - (4) Install, calibrate, operate and maintain a device for the measurement of the level of lime in the silo.
    - (5) Conduct and record an inspection of **PDC-202** on a monthly basis noting the condition of the filter material and housing. Record any corrective actions taken.
    - (6) Conduct and record an inspection of the enclosure on **PF1.205** on a monthly basis. Record any corrective actions taken.



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**Section VI. Specific Operating Conditions (continued)**

**V. Emission Units S2.216 and PF1.205 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program (continued)
  - a. Monitoring and Recordkeeping (continued)
    - (7) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vent of **PDC-202** and from **PF1.205** each on a weekly basis. If visible emissions appear to exceed the opacity limit, as established in V.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.216 and PF1.205** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.216 and PF1.205** not operating or due to poor weather conditions.
    - (8) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (9) The hourly throughput rate in tons per hour for **PF1.205** will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
    - (10) The hourly loading rate in tons per hour for **S2.216** will be determined from the total daily throughput and the total daily hours of operation recorded above.

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Compliance with conditions V.1 through V.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

W. Emission Units **S2.217, PF1.206 and PF1.207** Location North 4,538.3 km, East 552.4 km, UTM (Zone 11)

**System 23 - Ancillary Roaster Processes: Mill Lime Silo**

S	2.217	Mill lime silo, 500 ton, loading
PF	1.206	Mill lime silo discharge to Mill #1 screw conveyor
PF	1.207	Mill lime silo discharge to Mill #2 screw conveyor

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Emissions from **S2.217** will be ducted to a control system consisting of a vent filter (**PDC-203**) with 100% capture.  
Emissions from **PF1.206 and PF1.207** will be controlled by an enclosure that completely encloses the transfer point.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. On and after the date of startup of **S2.217**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vent of **PDC-203**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.32 pound per hour, nor exceed 0.17 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.32 pound per hour, nor exceed 0.17 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (*State Only Requirement*) - The opacity from the exhaust vent of **PDC-203** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from the exhaust vent of **PDC-203** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. On and after the date of startup of **PF1.206 and PF1.207**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.206 and PF1.207**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.04 pound per hour, total, nor exceed 0.13 ton per year, total, based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.04 pound per hour, total, nor exceed 0.13 ton per year, total, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (*State Only Requirement*) - The opacity from **PF1.206 and PF1.207** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from **PF1.206 and 1.207** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. The maximum allowable loading rate for **S2.217** will not exceed 120.0 tons of lime or soda ash per any one-hour period, nor more than 125,000 tons of lime or soda ash per year, based on a 12-month rolling period.
  - b. The maximum allowable throughput rate for **PF1.206 and PF1.207** will not exceed 20.0 tons of lime or soda ash per any one-hour period, total, nor more than 125,000 tons of lime or soda ash per year, total, based on a 12-month rolling period.
  - c. **S2.217, PF1.206 and PF1.207** may operate 8,760 hours per year, each.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the amount of lime or soda ash loaded into **S2.217** and the duration of the loading each day loading occurs. At the end of each calendar month, record the total monthly lime or soda ash throughput and the total lime or soda ash throughput for the previous 12 months.
    - (2) Monitor and record the amount of lime or soda ash discharged from **PF1.206 and PF1.207** on a monthly basis. The amount of lime or soda ash will be based on purchasing receipts and measurements of the level of lime or soda ash in the silo at the beginning and end of the month. At the end of each calendar month, record the total lime or soda ash throughput for the previous 12 months.
    - (3) Monitor and record the hours of operation of **PF1.206 and PF1.207** on a monthly basis.
    - (4) Install, calibrate, operate and maintain a device for the measurement of the level of lime or soda ash in the silo.
    - (5) Conduct and record an inspection of **PDC-203** on a monthly basis noting the condition of the filter material and housing. Record any corrective actions taken.
    - (6) Conduct and record an inspection of the enclosure on **PF1.206 and 1.207** on a monthly basis. Record any corrective actions taken.



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**W. Emission Units S2.217, PF1.206 and PF1.207 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program (continued)
  - a. Monitoring and Recordkeeping (continued)
    - (7) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vent of **PDC-203** and from **PF1.206 and PF1.207** each on a weekly basis. If visible emissions appear to exceed the opacity limit, as established in W.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.217, PF1.206 and PF1.207** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.217, PF1.206 and PF1.207** not operating or due to poor weather conditions.
    - (8) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (9) The hourly throughput rate in tons per hour for **PF1.206 and PF1.207** will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
    - (10) The hourly loading rate in tons per hour for **S2.217** will be determined from the total daily throughput and the total daily hours of operation recorded above.

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Compliance with conditions W.1 through W.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

X. Emission Units **S2.218** and **PF1.208** Location North 4,538.3 km, East 552.2 km, UTM (Zone 11)

**System 24 - Ancillary Roaster Processes: Soda Ash Silo**

S	2.218	Soda ash silo, 200 ton, loading
PF	1.208	Soda ash silo discharge to screw conveyor

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **S2.218** will be ducted to a control system consisting of a vent filter (**PDC-204**) with 100% capture.  
Emissions from **PF1.208** will be controlled by an enclosure that completely encloses the transfer point.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the date of startup of **S2.218**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vent of **PDC-204**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.32 pound per hour, nor exceed 0.14 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.32 pound per hour, nor exceed 0.14 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from the exhaust vent of **PDC-204** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust vent of **PDC-204** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. On and after the date of startup of **PF1.208**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.208**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.08 pound per hour, nor exceed 0.10 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.08 pound per hour, nor exceed 0.10 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from **PF1.208** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **PF1.208** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable loading rate for **S2.218** will not exceed 120.0 tons of soda ash per any one-hour period, nor more than 100,000 tons of soda ash per year, based on a 12-month rolling period.
  - b. The maximum allowable throughput rate for **PF1.208** will not exceed 40.0 tons of soda ash per any one-hour period, nor more than 100,000 tons of soda ash per year, based on a 12-month rolling period.
  - c. **S2.218** and **PF1.208** may operate 8,760 hours per year, each.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the amount of soda ash loaded into **S2.218** and the duration of the loading each day loading occurs. At the end of each calendar month, record the total monthly soda ash throughput and the total soda ash throughput for the previous 12 months.
    - (2) Monitor and record the amount of soda ash discharged from **PF1.208** on a monthly basis. The amount of soda ash will be based on purchasing receipts and measurements of the level of soda ash in the silo at the beginning and end of the month. At the end of each calendar month, record the total soda ash throughput for the previous 12 months.
    - (3) Monitor and record the hours of operation of **PF1.208** on a monthly basis.
    - (4) Install, calibrate, operate and maintain a device for the measurement of the level of soda ash in the silo.
    - (5) Conduct and record an inspection of **PDC-204** on a monthly basis noting the condition of the filter material and housing. Record any corrective actions taken.
    - (6) Conduct and record an inspection of the enclosure on **PF1.208** on a monthly basis. Record any corrective actions taken.



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**X. Emission Units S2.218 and PF1.208 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (continued)
  - a. Monitoring and Recordkeeping (continued)
    - (7) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vent of **PDC-204** and from **PF1.208** each on a weekly basis. If visible emissions appear to exceed the opacity limit, as established in X.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.218 and PF1.208** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.218 and PF1.208** not operating or due to poor weather conditions.
    - (8) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (9) The hourly throughput rate in tons per hour for **PF1.208** will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
    - (10) The hourly loading rate in tons per hour for **S2.218** will be determined from the total daily throughput and the total daily hours of operation recorded above.

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Compliance with conditions X.1 through X.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

Y. **Emission Unit S2.219** Location North 4,538.3 km, East 552.2 km, UTM (Zone 11)

**System 25 - Ancillary Roaster Processes**

S 2.219 Fuel oil storage tank, 16,000 gallons

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
**S2.219** will be a fixed roof tank equipped for submerged filling.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of **S2.219**, Permittee will not discharge or cause the discharge into the atmosphere from **S2.219**, the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 0.02 ton per year, based on a 12-month rolling period.
  - b. NAC 445B.22017 (State Only Requirement) - The opacity from **S2.219** will not equal or exceed 20% in accordance with NAC 445B.22017.
  - c. NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **S2.219** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. **S2.219** may store #2 fuel oil only.
  - b. The maximum allowable fuel throughput rate for **S2.219** will not exceed 2,400,000 gallons of #2 fuel oil per year, based on a 12-month rolling period.
  - c. **S2.219** may operate 8,760 hours per year.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the amount of fuel loaded in **S2.219** on a monthly basis. At the end of each calendar month, record the total fuel throughput for the previous 12 months.
    - (2) Maintain records of the tank dimensions and capacity for the life of **S2.219** in accordance with 40 CFR Part 60, Subpart Kb.
    - (3) No monitoring of opacity is required as long as **S2.219** stores #2 fuel oil only.
    - (4) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

N/A



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**Section VI. Specific Operating Conditions (continued)**

Z. Emission Unit S2.220 Location North 4,538.4 km, East 552.2 km, UTM (Zone 11)

**System 26 - Ancillary Roaster Processes**  
S 2.220 Liquid Oxygen Vaporizer

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
**S2.220** will be operated in a manner that minimizes emissions.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of **S2.220**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.220** the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.35 pound per hour, nor exceed 0.23 ton per year, based on a 12-month rolling period.
  - b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.35 pound per hour, nor exceed 0.23 ton per year, based on a 12-month rolling period.
  - c. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed 0.021 pound per hour, nor exceed 0.014 ton per year, based on a 12-month rolling period.
  - d. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere will not exceed 4.14 pounds per hour, nor exceed 2.70 tons per year, based on a 12-month rolling period.
  - e. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of CO (carbon monoxide) to the atmosphere will not exceed 8.28 pounds per hour, nor exceed 5.40 tons per year, based on a 12-month rolling period.
  - f. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 2.53 pounds per hour, nor exceed 1.65 tons per year, based on a 12-month rolling period.
  - g. NAC 445B.22017 (State Only Requirement) - The opacity from the exhaust stack of **S2.220** will not equal or exceed 20% in accordance with NAC 445B.22017.
  - h. NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust stack of **S2.220** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. **S2.220** may combust HD-5 grade propane or pipeline quality natural gas only. Combustion of a blend of these fuels is prohibited.
  - b. The maximum HD-5 grade propane or pipeline quality natural gas heat input rate for **S2.220** will not exceed 23 million Btu's per any one-hour period, nor more than 30,000 million Btu's per year, based on a 12-month rolling period.
  - c. The maximum fuel consumption rate for **S2.220** will not exceed 251.0 gallons of HD-5 grade propane per any one-hour period.
  - d. The maximum fuel consumption rate for **S2.220** will not exceed 23,000.0 cubic feet of pipeline quality natural gas per any one-hour period.
  - e. **S2.220** may operate 8,760 hours per year.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the type (HD-5 grade propane or pipeline quality natural gas) and amount of fuel combusted in **S2.220** on a daily basis. At the end of each calendar month, record the total monthly fuel use, and the total fuel use for the previous 12 months.
    - (2) Monitor and record the hours of operation of **S2.220** on a daily basis.
    - (3) Install, calibrate, operate and maintain a device for the measurement fuel consumption rate of **S2.220**.
    - (4) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stack of **S2.220** on a monthly basis. If visible emissions appear to exceed the opacity limit, as established in Z.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.220** is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.220** not operating or due to poor weather conditions.
    - (5) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (6) The hourly fuel heat input rate in millions of Btu's per hour for **S2.220** will be determined from the total daily fuel consumption and the total daily hours of operation recorded above.



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**Z. Emission Unit S2.220 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (Continued)
  - b. Periodic Compliance Testing
    - (1) Permittee will conduct and record the following periodic compliance tests on the exhaust stack of **S2.220**. **The periodic compliance tests will be conducted at least 90 days prior to the date of expiration of this permit, but no earlier than 365 days from the date of expiration of this permit.** The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable heat input rate (subject to Condition Z.4.a.(3) of this Section and not to exceed the maximum allowable heat input rate as established in Z.3.b. of this Section).
      - (a) Method 7E compliance test for NO<sub>x</sub> in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
      - (b) Method 10 compliance test for CO in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Compliance with conditions Z.1 through Z.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

Article 8.2 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.2203 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

445B.22047 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

AA. Emission Unit S2.221 Location North 4,538.3 km, East 552.3 km, UTM (Zone 11)

**System 27 - Ancillary Roaster Processes**

S 2.221 Vacuum Housekeeping System

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **S2.221** will be ducted to a control system consisting of a baghouse (**DC-210**). **DC-210 will be operated in accordance with the manufacturer's recommendations at all times during operation of S2.221, including startup and shutdown.** Maximum volume flow rate of **DC-210** will not exceed 6,000 standard cubic feet per minute (scfm). The flow rate will be determined from EPA Reference Method 2 in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA Reference method approved by the Director). **DC-210** filter media will consist of polyester with a maximum air-to-cloth ratio of 12:1. The capture efficiency of the control system will be 100% such that all process emissions from **S2.221** will be captured and ducted to **DC-210**.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of **S2.221**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **DC-210**, the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.51 pound per hour.
  - b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.51 pound per hour.
  - c. NAC 445B.22017 (State Only Requirement) - The opacity from the exhaust stack of **DC-210** will not equal or exceed 20% in accordance with NAC 445B.22017.
  - d. NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust stack of **DC-210** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. **S2.221** may operate 8,760 hours per year.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the hours of operation of **S2.221** on a daily basis.
    - (2) Install, calibrate, operate and maintain a device for the measurement of the pressure drop across **DC-210**.
    - (3) Conduct and record a reading of the baghouse pressure drop across the inlet and outlet of **DC-210** once during each day of operation. Record any monitored occurrences when the baghouse pressure drop falls outside the manufacturer's recommended operating range and record any corrective actions taken.
    - (5) **The indicator range for the baghouse pressure drop shall be between 1.5 to 11.0 inches of water. Excursions shall be defined as anytime the baghouse pressure drop falls outside this indicator range.**
    - (6) **Maintain records of the manufacturer's recommended operating range for the baghouse pressure drop on-site and available for inspection upon request.**
    - (7) **Notify the Director within 15 days of implementing any change to an indicator range and will provide an explanation for the change including any relevant documentation.**
    - (8) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stack of **DC-210** on a weekly basis. If visible emissions appear to exceed the opacity limit, as established in AA.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.221** is operating and has the potential to create visible emissions. If **DC-210** is shut down for maintenance or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.221** not operating or due to poor weather conditions.
    - (9) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.



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**AA. Emission Unit S2.221 (continued)**

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Compliance with conditions AA.1 through AA.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

The following requirements are not applicable to **S2.221**:

*Note: For S2.221 (Vacuum Housekeeping System) -- the vacuum housekeeping system is not subject to 40 CFR Part 60, Subpart LL (Standards of Performance for Metallic Mineral Processing Plants) since it is not specifically defined under Subparts 60.380 to 60.381, revised as of July 1, 2002.*



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**Section VI. Specific Operating Conditions (continued)**

**AB. Emission Unit S2.222** Location North 4,538.2 km, East 552.2 km, UTM (Zone 11)

**System 28 - Ancillary Roaster Processes**

S 2.222 Scrubber Water Cooling Tower

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **S2.222** will be controlled by drift eliminators with a manufacturer's guaranteed drift loss of 0.0005% of total circulating flow, and operation in a manner that minimizes emissions.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of **S2.222**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vent of **S2.222**, the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.016 pound per hour.
  - b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.016 pound per hour.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Circulating water flow rate of **S2.222** will not exceed 8,000 gallons per minute.
  - b. The total dissolved solids (TDS) content of the circulating water of **S2.222** will not exceed 2,500 ppm.
  - c. **S2.222** may operate 8,760 hours per year.
  - d. The use of chromium-based water treatment chemicals is prohibited.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the TDS value of the circulating water of **S2.222** on a calendar quarter basis.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
The following requirements are not applicable to **S2.222**:

Applicable SIP Requirements (Revised as of February 2002):

- NAC 445.721 (Visible Emissions from Stationary Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).
- NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

- 445B.22017.1 (Maximum Opacity of Emissions) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).
- 445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

**AC. Emission Unit S2.223** Location North 4,538.2 km, East 552.2 km, UTM (Zone 11)

**System 29 - Ancillary Roaster Processes**

S 2.223 Quench Water Cooling Tower

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **S2.223** will be controlled by drift eliminators with a manufacturer's guaranteed drift loss of 0.001% of total circulating flow, and operation in a manner that minimizes emissions.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of **S2.223**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vent of **S2.223**, the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.31 pound per hour.
  - b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.31 pound per hour.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Circulating water flow rate of **S2.223** will not exceed 15,000 gallons per minute.
  - b. The total dissolved solids (TDS) content of the circulating water of **S2.223** will not exceed 15,000 ppm.
  - c. **S2.223** may operate 8,760 hours per year.
  - d. The use of chromium-based water treatment chemicals is prohibited.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the TDS value of the circulating water of **S2.223** on a calendar quarter basis.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
The following requirements are not applicable to **S2.223**:

Applicable SIP Requirements (Revised as of February 2002):

- NAC 445.721 (Visible Emissions from Stationary Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).
- NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

- 445B.22017.1 (Maximum Opacity of Emissions) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).
- 445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

AD – AV. Systems 30 – 48 Removed from permit January 3, 2002

**Systems 30 - 48 - Meikle Backfill Crushing & Screening Plant**

- PF 1.301 Jaw Crusher Pan Feeder (load)
- PF 1.302 Jaw Crusher Pan Feeder (discharge)
- PF 1.303 Jaw Crusher
- PF 1.304 Conveyor – Jaw Outlet to Primary Screen Feeder Belt (discharge)
- PF 1.305 Conveyor – Primary Screen Feeder Belt (discharge)
- PF 1.306 Primary Screen
- PF 1.307 Conveyor – Primary Screen Underbelt (discharge)
- PF 1.308 Conveyor – Transfer to line Aggregate Stockpile (discharge)
- PF 1.309 Conveyor – Primary Screen to line Aggregate Transfer Belt (discharge)
- PF 1.310 Conveyor – Line Aggregate Transfer Belt (discharge)
- PF 1.311 Conveyor – Primary Screen to Cone Crusher (discharge)
- PF 1.312 Cone Crusher
- PF 1.313 Conveyor – Cone to Secondary Screen Transfer (discharge)
- PF 1.314 Secondary Screen
- PF 1.315 Conveyor – Secondary Screen to Cone Feed Return Belt (discharge)
- PF 1.316 Conveyor – Cone Feed Return Belt (discharge)
- PF 1.317 Conveyor – Secondary Screen to Scale Conveyor Belt (discharge)
- PF 1.318 Conveyor – Scale Conveyor Belt (discharge)
- PF 1.319 Stacker – Transfer to Course Aggregate Stockpile (discharge)
- PF 1.320 Stacker – Spare Stacker Conveyor



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**Section VI. Specific Operating Conditions (continued)**

AW. Emission Units PF1.119 and PF1.120 Location North 4,539.1 km, East 552.0 km, UTM (Zone 11)

**System 49 - Meikle Backfill/Cement Feed Plant Hopper**

PF 1.119 Aggregate feed hopper (loading)  
PF 1.120 Aggregate feed hopper (discharge)

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Emissions from the load point of **PF1.119** will be controlled by a pneumatic water spray system. The pneumatic water spray system will be operated at all times **PF1.119** operates.  
Emissions from **PF1.120** will be controlled by an enclosure.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. On and after the date of startup of **PF1.119**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.119** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.074 pound per hour, nor more than 0.066 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.035 pound per hour, nor more than 0.032 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (*State Only Requirement*) - The opacity from **PF1.119** will not equal or exceed 20 percent in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from **PF1.119** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. On and after the date of startup of **PF1.120**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.120** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.735 pound per hour, nor more than 0.662 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.350 pound per hour, nor more than 0.315 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (*State Only Requirement*) - The opacity from **PF1.120** will not equal or exceed 20 percent in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from **PF1.120** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - c. New Source Performance Standards (NSPS) - Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)  
On and after the sixtieth day after achieving the maximum production rate at which **PF1.120** will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
    - (1) Fugitive emissions from **PF1.120** will not exceed 10 percent opacity. (40 CFR Part 60.672(b))
    - (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction (40 CFR Part 60.11(c)).
    - (3) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.120** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. The maximum allowable loading rate for **PF1.119** will not exceed 500.0 tons of aggregate per any one-hour period, nor more than 900,000 tons of aggregate per year, based on a 12-month rolling period.
  - b. The maximum allowable discharge rate for **PF1.120** will not exceed 500.0 tons of aggregate per any one-hour period, nor more than 900,000 tons of aggregate per year, based on a 12-month rolling period.
  - c. **PF1.119** and **PF1.120** may operate 8,760 hours per year, each.



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**Section VI. Specific Operating Conditions (continued)**

**AW. Emission Units PF1.119 and PF1.120 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the throughput of **PF1.119 and PF1.120** each on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation of **PF1.119 and PF1.120** each on a daily basis.
    - (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from **PF1.119 and PF1.120** each on a weekly basis. If visible emissions appear to exceed the opacity limit, as established in AW.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **PF1.119 and PF1.120** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **PF1.119 and PF1.120** not operating or due to poor weather conditions.
    - (4) Inspect the pneumatic water spray system on **PF1.119** once during each day of operation to verify that it is operating as designed. Record the inspection results and any corrective actions taken.
    - (5) Inspect the enclosure on **PF1.120** on a monthly basis to verify that the enclosure is intact. Record the inspection results and any corrective actions taken.
    - (6) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (7) The hourly throughput rate in tons per hour for **PF1.119 and PF1.120** each will be determined from the total daily throughput and the total daily hours of operation recorded above.
  - b. New Source Performance Standards (NSPS) - Notification and Record Keeping (40 CFR Part 60.7(b))  
Permittee, upon the issuance date of this permit, shall:
    - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Compliance with conditions AW.1 through AW.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

The following requirements are not applicable to **PF1.119**:

*Note: For PF1.119 (Truck Dumping to Feed Hopper) -- Truck dumping to feed hoppers are specifically exempt from 40 CFR 60, Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants) per Subpart 60.672(d), revised as of July 1, 2002.*



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**Section VI. Specific Operating Conditions (continued)**

AX. Emission Unit PF1.121 Location North 4,539.1 km, East 552.0 km, UTM (Zone 11)

**System 50 - Meikle Backfill/Cement Feed Plant Feed Conveyor**

PF 1.121 Aggregate feed conveyor (discharge)

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from PF1.121 will be controlled by an enclosure.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the date of startup of PF1.121, Permittee will not discharge or cause the discharge into the atmosphere from PF1.121 the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.735 pound per hour, nor more than 0.662 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.350 pound per hour, nor more than 0.315 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from PF1.121 will not equal or exceed 20 percent in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from PF1.121 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. New Source Performance Standards (NSPS) - Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)  
On and after the sixtieth day after achieving the maximum production rate at which PF1.121 will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
    - (1) Fugitive emissions from PF1.121 will not exceed 10 percent opacity. (40 CFR Part 60.672(b))
    - (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction (40 CFR Part 60.11(c)).
    - (3) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate PF1.121 including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable throughput rate for PF1.121 will not exceed 500.0 tons of aggregate per any one-hour period, nor more than 900,000 tons of aggregate per year, based on a 12-month rolling period.
  - b. PF1.121 may operate 8,760 hours per year.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the throughput of PF1.121 on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation of PF1.121 on a daily basis.
    - (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from PF1.121 on a weekly basis. If visible emissions appear to exceed the opacity limit, as established in AX.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while PF1.121 is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to PF1.121 not operating or due to poor weather conditions.
    - (4) Inspect the enclosure on PF1.121 on a monthly basis to verify that the enclosure is intact. Record the inspection results and any corrective actions taken.
    - (5) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (6) The hourly throughput rate in tons per hour for PF1.121 will be determined from the total daily throughput and the total daily hours of operation recorded above.



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**Section VI. Specific Operating Conditions (continued)**

**AX. Emission Unit PF1.121 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (continued)
  - b. New Source Performance Standards (NSPS) - Notification and Record Keeping (40 CFR Part 60.7(b))  
Permittee, upon the issuance date of this permit, shall:
    - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
  
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Compliance with conditions AX.1 through AX.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

AY. Emission Units **S2.101, PF1.122 and PF1.122.1** Location North 4,539.1 km, East 552.0 km, UTM (Zone 11)

**System 51 - Meikle Backfill/Cement Feed Plant Silo #1**

S	2.101	Cement/fly ash silo #1 (loading)
PF	1.122	Cement/fly ash silo #1 (discharge)
PF	1.122.1	Cement/fly ash silo #1 (screw conveyor transfer)

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **S2.101** will be ducted to a vent filter with 100% capture.  
Emissions from **PF1.122 and 1.122.1** will be controlled by enclosures that completely enclose each transfer point.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the date of startup of **S2.101**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vent of **S2.101**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.216 pound per hour, nor exceed 0.088 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.216 pound per hour, nor exceed 0.088 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from the exhaust vent of **S2.101** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust vent of **S2.101** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. On and after the date of startup of **PF1.122 and PF1.122.1**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.122 and PF1.122.1**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.160 pound per hour, each, nor exceed 0.065 ton per year, each, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.160 pound per hour, each, nor exceed 0.065 ton per year, each, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from the exhaust vent of **PF1.122 and PF1.122.1** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **PF1.122 and PF1.122.1** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable loading rate for **S2.101** will not exceed 80.0 tons of cement/fly ash per any one-hour period, nor more than 65,000 tons of cement/fly ash per year, based on a 12-month rolling period.
  - b. The maximum allowable throughput rate for **PF1.122 and PF1.122.1** will not exceed 80.0 tons of cement/fly ash per any one-hour period, each, nor more than 65,000 tons of cement/fly ash per year, each, based on a 12-month rolling period.
  - c. **S2.101, PF1.122 and PF1.122.1** may operate 8,760 hours per year, each.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the amount of cement/fly ash loaded into **S2.101** and the duration of the loading each day loading occurs. At the end of each calendar month, record the total monthly cement/fly ash throughput and the total cement/fly ash throughput for the previous 12 months.
    - (2) Monitor and record the amount of cement/fly ash discharged from **PF1.122 and PF1.122.1** on a monthly basis. The amount of cement/fly ash will be based on purchasing receipts and measurements of the level of cement/fly ash in the silo at the beginning and end of the month. At the end of each calendar month, record the total cement/fly ash throughput for the previous 12 months.
    - (3) Monitor and record the hours of operation of **PF1.122 and PF1.122.1** on a monthly basis.
    - (4) Install, calibrate, operate and maintain a device for the measurement of the level of cement/fly ash in the silo.
    - (5) Conduct and record an inspection of the vent filter on **S2.101** on a monthly basis noting the condition of the filter material and housing. Record any corrective actions taken.
    - (6) Conduct and record an inspection of the enclosures on **PF1.122 and PF1.122.1** on a monthly basis to verify that the enclosures are intact. Record the inspection results and any corrective actions taken.



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**Section VI. Specific Operating Conditions (continued)**

**AY. Emission Units S2.101, PF1.122 and PF1.122.1 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (continued)
  - a. Monitoring and Recordkeeping (continued)
    - (7) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vent of **S2.101** and from **PF1.122 and PF1.122.1** each on a weekly basis. If visible emissions appear to exceed the opacity limit, as established in AY.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.101, PF1.122 and PF1.122.1** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.101, PF1.122 and PF1.122.1** not operating or due to poor weather conditions.
    - (8) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (9) The hourly throughput rate in tons per hour for **PF1.122 and PF1.122.1** will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
    - (10) The hourly loading rate in tons per hour for **S2.101** will be determined from the total daily throughput and the total daily hours of operation recorded above.

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Compliance with conditions AY.1 through AY.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

AZ. Emission Units **S2.102, PF1.123 and PF1.123.1** Location North 4,539.1 km, East 552.0 km, UTM (Zone 11)

**System 52 - Meikle Backfill/Cement Feed Plant Silo #2**

S	2.102	Cement/fly ash silo 2 (loading)
PF	1.123	Cement/fly ash silo 2 (discharge)
PF	1.123.1	Cement/fly ash silo 2 (screw conveyor transfer)

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **S2.102** will be ducted to a vent filter with 100% capture.  
Emissions from **PF1.123 and PF1.123.1** will be controlled by enclosures that completely enclose each transfer point.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the date of startup of **S2.102**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vent of **S2.102**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.216 pound per hour, nor exceed 0.088 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.216 pound per hour, nor exceed 0.088 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from the exhaust vent of **S2.102** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust vent of **S2.102** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. On and after the date of startup of **PF1.123 and PF1.123.1**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.123 and PF1.123.1**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.160 pound per hour, each, nor exceed 0.065 ton per year, each, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.160 pound per hour, each, nor exceed 0.065 ton per year, each, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from **PF1.123 and PF1.123.1** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **PF1.123 and PF1.123.1** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable loading rate for **S2.102** will not exceed 80.0 tons of cement/fly ash per any one-hour period, nor more than 65,000 tons of cement/fly ash per year, based on a 12-month rolling period.
  - b. The maximum allowable throughput rate for **PF1.123 and PF1.123.1** will not exceed 80.0 tons of cement/fly ash per any one-hour period, each, nor more than 65,000 tons of cement/fly ash per year, each, based on a 12-month rolling period.
  - c. **S2.102, PF1.123 and PF1.123.1** may operate 8,760 hours per year, each.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the amount of cement/fly ash loaded into **S2.102** and the duration of the loading each day loading occurs. At the end of each calendar month, record the total monthly cement/fly ash throughput and the total cement/fly ash throughput for the previous 12 months.
    - (2) Monitor and record the amount of cement/fly ash discharged from **PF1.123 and PF1.123.1** on a monthly basis. The amount of cement/fly ash will be based on purchasing receipts and measurements of the level of cement/fly ash in the silo at the beginning and end of the month. At the end of each calendar month, record the total cement/fly ash throughput for the previous 12 months.
    - (3) Monitor and record the hours of operation of **PF1.123 and PF1.123.1** on a monthly basis.
    - (4) Install, calibrate, operate and maintain a device for the measurement of the level of cement/fly ash in the silo.
    - (5) Conduct and record an inspection of the vent filter on **S2.102** on a monthly basis noting the condition of the filter material and housing. Record any corrective actions taken.
    - (6) Conduct and record an inspection of the enclosures on **PF1.123 and PF1.123.1** on a monthly basis to verify that the enclosures are intact. Record the inspection results and any corrective actions taken.



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**Section VI. Specific Operating Conditions (continued)**

**AZ. Emission Units S2.102, PF1.123 and PF1.123.1 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (continued)
  - a. Monitoring and Recordkeeping (continued)
    - (7) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vent of **S2.102** and from **PF1.123 and PF1.123.1** each on a weekly basis. If visible emissions appear to exceed the opacity limit, as established in AZ.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.102, PF1.123 and PF1.123.1** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.102, PF1.123 and PF1.123.1** not operating or due to poor weather conditions.
    - (8) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (9) The hourly throughput rate in tons per hour for **PF1.123 and PF1.123.1** will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
    - (10) The hourly loading rate in tons per hour for **S2.102** will be determined from the total daily throughput and the total daily hours of operation recorded above.

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Compliance with conditions AZ.1 through AZ.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

BA. Emission Unit **S2.301** Location North 4,539.4 km, East 551.8 km, UTM (Zone 11)

**System 53 - Surface Concrete Batch Plant Cement/Fly Ash Silo**

S 2.301 Cement/fly ash silo (pneumatic loading)

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **S2.301** will be ducted to a vent filter with 100% capture.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of **S2.301**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vent of **S2.301**, the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.162 pound per hour, nor exceed 0.014 ton per year, based on a 12-month rolling period.
  - b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.162 pound per hour, nor exceed 0.014 ton per year, based on a 12-month rolling period.
  - c. NAC 445B.22017 (State Only Requirement) - The opacity from the exhaust vent of **S2.301** will not equal or exceed 20% in accordance with NAC 445B.22017.
  - d. NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust vent of **S2.301** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable loading rate for **S2.301** will not exceed 60.0 tons of cement/fly ash per any one-hour period, nor more than 10,000 tons of cement/fly ash per year, based on a 12-month rolling period.
  - b. **S2.301** may operate 8,760 hours per year.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the amount of cement/fly ash loaded into **S2.301** and the duration of the loading each day loading occurs. At the end of each calendar month, record the total monthly cement/fly ash throughput and the total cement/fly ash throughput for the previous 12 months.
    - (2) Conduct and record an inspection of the vent on **S2.301** on a monthly basis noting the condition of the filter material and housing. Record any corrective actions taken.
    - (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vent of **S2.301** on a weekly basis. If visible emissions appear to exceed the opacity limit, as established in BA.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.301** is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.301** not operating or due to poor weather conditions.
    - (4) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (5) The hourly loading rate in tons per hour for **S2.301** will be determined from the total daily throughput and the total daily hours of operation recorded above.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Compliance with conditions BA.1 through BA.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

BB. Emission Unit **S2.302** Location North 4,539.5 km, East 552.1 km; or North 4,539.6 km, East 551.9 km, UTM (Zone 11)

**System 54 - Surface Concrete Batch Plant Cement/Fly Ash Silo**

S 2.302 Cement/fly ash silo (pneumatic loading)

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **S2.302** will be ducted to a vent filter with 100% capture.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of **S2.302**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vent of **S2.302**, the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.162 pound per hour, nor exceed 0.014 ton per year, based on a 12-month rolling period.
  - b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.162 pound per hour, nor exceed 0.014 ton per year, based on a 12-month rolling period.
  - c. NAC 445B.22017 (State Only Requirement) - The opacity from the exhaust vent of **S2.302** will not equal or exceed 20% in accordance with NAC 445B.22017.
  - d. NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust vent of **S2.302** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable loading rate for **S2.302** will not exceed 60.0 tons of cement/fly ash per any one-hour period, nor more than 10,000 tons of cement/fly ash per year, based on a 12-month rolling period.
  - b. **S2.302** may operate 8,760 hours per year.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the amount of cement/fly ash loaded into **S2.302** and the duration of the loading each day loading occurs. At the end of each calendar month, record the total monthly cement/fly ash throughput and the total cement/fly ash throughput for the previous 12 months.
    - (2) Conduct and record an inspection of the vent filter on **S2.302** on a monthly basis noting the condition of the filter material and housing. Record any corrective actions taken.
    - (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vent of **S2.302** on a weekly basis. If visible emissions appear to exceed the opacity limit, as established in BB.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.302** is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.302** not operating or due to poor weather conditions.
    - (4) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (5) The hourly loading rate in tons per hour for **S2.302** will be determined from the total daily throughput and the total daily hours of operation recorded above.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Compliance with conditions BB.1 through BB.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

BC. Emission Unit PF1.321 Location North 4,539.4 km, East 551.8 km, UTM (Zone 11)

**System 55 - Surface Concrete Batch Plant**

PF 1.321 Sand/aggregate loading to storage bin(s)

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from PF1.321 will be controlled by an enclosure on all sides of the feed hopper except in the front where the hopper is loaded by a front-end loader, an enclosure around the point where the feed hopper drops onto the conveyor and an enclosure around the discharge point where the conveyor loads the bins.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of PF1.321, Permittee will not discharge or cause the discharge into the atmosphere from PF1.321, the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 2.393 pounds per hour, nor exceed 0.435 ton per year, based on a 12-month rolling period.
  - b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 2.393 pounds per hour, nor exceed 0.435 ton per year, based on a 12-month rolling period.
  - c. NAC 445B.22017 (State Only Requirement) - The opacity from PF1.321 will not equal or exceed 20% in accordance with NAC 445B.22017.
  - d. NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust vent of PF1.321 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable throughput rate for PF1.321 will not exceed 165.0 tons of sand/aggregate per any one-hour period, nor more than 60,000 tons of sand/aggregate per year, based on a 12-month rolling period.
  - b. PF1.321 may operate 8,760 hours per year.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the throughput of PF1.321 on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation of PF1.321 on a daily basis.
    - (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from PF1.321 on a weekly basis. If visible emissions appear to exceed the opacity limit, as established in BC.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while PF1.321 is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to PF1.321 not operating or due to poor weather conditions.
    - (4) Inspect the enclosures on PF1.321 on a monthly basis to verify that the enclosures are intact. Record the inspection results and any corrective actions taken.
    - (5) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (6) The hourly throughput rate in tons per hour for PF1.321 will be determined from the total daily throughput and the total daily hours of operation recorded above.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Compliance with conditions BC.1 through BC.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

BD. Emission Unit PF1.322 Location North 4,539.4 km, East 551.8 km, UTM (Zone 11)

**System 56 - Surface Concrete Batch Plant**

PF 1.322 Weigh hopper loading

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from PF1.322 will be controlled by a full enclosure.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of PF1.322, Permittee will not discharge or cause the discharge into the atmosphere from PF1.322, the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.386 pound per hour, nor exceed 0.070 ton per year, based on a 12-month rolling period.
  - b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.386 pound per hour, nor exceed 0.070 ton per year, based on a 12-month rolling period.
  - c. NAC 445B.22017 (State Only Requirement) - The opacity from PF1.322 will not equal or exceed 20% in accordance with NAC 445B.22017.
  - d. NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust vent of PF1.322 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable loading rate for PF1.322 will not exceed 193.0 tons of concrete (dry) per any one-hour period, nor more than 70,000 tons of concrete (dry) per year, based on a 12-month rolling period.
  - b. PF1.322 may operate 8,760 hours per year.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the throughput of PF1.322 on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation of PF1.322 on a daily basis.
    - (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from PF1.322 on a weekly basis. If visible emissions appear to exceed the opacity limit, as established in BD.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while PF1.322 is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to PF1.322 not operating or due to poor weather conditions.
    - (4) Inspect the enclosure on PF1.322 on a monthly basis to verify that the enclosure is intact. Record the inspection results and any corrective actions taken.
    - (5) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (6) The hourly loading rate in tons per hour for PF1.322 will be determined from the total daily throughput and the total daily hours of operation recorded above.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Compliance with conditions BD.1 through BD.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

BE. Emission Unit PF1.323 Not constructed, removed from inventory November 19, 1999.

**System 57 – Removed**

PF 1.323 Central mixer loading



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**Section VI. Specific Operating Conditions (continued)**

BF. Emission Unit PF1.324 Location North 4,539.4 km, East 551.8 km, UTM (Zone 11)

**System 58 - Surface Concrete Batch Plant**

PF 1.324 Truck mixer loading

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
PF1.324 will be operated in a manner that minimizes emissions.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of PF1.324, Permittee will not discharge or cause the discharge into the atmosphere from PF1.324, the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 3.86 pounds per hour, nor exceed 0.700 ton per year, based on a 12-month rolling period.
  - b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 3.86 pounds per hour, nor exceed 0.700 ton per year, based on a 12-month rolling period.
  - c. NAC 445B.22017 (State Only Requirement) - The opacity from PF1.324 will not equal or exceed 20% in accordance with NAC 445B.22017.
  - d. NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from PF1.324 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable throughput rate for PF1.324 will not exceed 193.0 tons of concrete (dry) per any one-hour period, nor more than 70,000 tons of concrete (dry) per year, based on a 12-month rolling period.
  - b. PF1.324 may operate 8,760 hours per year.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the throughput of PF1.324 on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation of PF1.324 on a daily basis.
    - (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from PF1.324 on a weekly basis. If visible emissions appear to exceed the opacity limit, as established in BF.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while PF1.324 is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to PF1.324 not operating or due to poor weather conditions.
    - (4) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (5) The hourly throughput rate in tons per hour for PF1.324 will be determined from the total daily throughput and the total daily hours of operation recorded above.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Compliance with conditions BF.1 through BF.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

BG. Emission Unit PF1.325 Location North 4,539.1 km, East 552.0 km, UTM (Zone 11)

**System 59 - Meikle Shotcrete Loadout Station**

PF 1.325 Delivery truck (discharge)

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from PF1.325 will be controlled by an enclosure that completely encloses the transfer point.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of PF1.325, Permittee will not discharge or cause the discharge into the atmosphere from PF1.325, the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.180 pound per hour, nor exceed 0.045 ton per year, based on a 12-month rolling period.
  - b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.180 pound per hour, nor exceed 0.045 ton per year, based on a 12-month rolling period.
  - c. NAC 445B.22017 (State Only Requirement) - The opacity from PF1.325 will not equal or exceed 20% in accordance with NAC 445B.22017.
  - d. NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from PF1.325 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable throughput rate for PF1.325 will not exceed 90.0 tons of shotcrete per any one-hour period, nor more than 45,000 tons of shotcrete per year, based on a 12-month rolling period.
  - b. PF1.325 may operate 8,760 hours per year.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the throughput of PF1.325 on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation of PF1.325 on a daily basis.
    - (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from PF1.325 on an annual basis. If visible emissions appear to exceed the opacity limit, as established in BG.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while PF1.325 is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to PF1.325 not operating or due to poor weather conditions.
    - (4) Conduct and record an inspection of the enclosure on PF1.325 on an annual basis to verify that the enclosures are intact. Record the inspection results and any corrective actions taken.
    - (5) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (6) The hourly throughput rate in tons per hour for PF1.325 will be determined from the total daily throughput and the total daily hours of operation recorded above.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Compliance with conditions BG.1 through BG.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

BH. Emission Unit PF1.326 Location North 4,539.1 km, East 552.0 km, UTM (Zone 11)

**System 60 - Meikle Shotcrete Loadout Station**

PF 1.326 Screw conveyor (discharge)

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from PF1.326 will be controlled by an enclosure that completely encloses the transfer point.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of PF1.326, Permittee will not discharge or cause the discharge into the atmosphere from PF1.326, the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.180 pound per hour, nor exceed 0.045 ton per year, based on a 12-month rolling period.
  - b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.180 pound per hour, nor exceed 0.045 ton per year, based on a 12-month rolling period.
  - c. NAC 445B.22017 (State Only Requirement) - The opacity from PF1.326 will not equal or exceed 20% in accordance with NAC 445B.22017.
  - d. NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from PF1.326 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable throughput rate for PF1.326 will not exceed 90.0 tons of shotcrete per any one-hour period, nor more than 45,000 tons of shotcrete per year, based on a 12-month rolling period.
  - b. PF1.326 may operate 8,760 hours per year.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the throughput of PF1.326 on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation of PF1.326 on a daily basis.
    - (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from PF1.326 on an annual basis. If visible emissions appear to exceed the opacity limit, as established in BH.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while PF1.326 is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to PF1.326 not operating or due to poor weather conditions.
    - (4) Conduct and record an inspection of the enclosure on PF1.326 on an annual basis to verify that the enclosures are intact. Record the inspection results and any corrective actions taken.
    - (5) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (6) The hourly throughput rate in tons per hour for PF1.326 will be determined from the total daily throughput and the total daily hours of operation recorded above.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Compliance with conditions BH.1 through BH.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

Bl. Emission Unit # **S2.004** Location North 4,536.0 km, East 554.7 km, UTM (Zone 11)

**System 61 - Carbon Reactivation Kiln 2**

- S 2.004.1 Carbon Kiln #2 Drum
- S 2.004.2 Carbon Kiln #2 Burner

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
**S2.004.1** will be ducted to a control system consisting of a venturi wet scrubber (**WS-001**). Following installation and shakedown, **WS-001** will be operated in accordance with the manufacturer's recommendations at all times during operation of **S2.004.1**, including startup and shutdown. **S2.004.2** will be operated in a manner that minimizes emissions.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the issuance date of this permit, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **WS-001** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 4.21 pounds per hour.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 4.21 pounds per hour.
    - (3) (4) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere will not exceed 0.12 pound per hour.
    - (4) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of CO (carbon monoxide) to the atmosphere will not exceed 1.18 pounds per hour.
    - (5) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 1.13 pounds per hour.
    - (6) NAC 445B.22017 (State Only Requirement) - The opacity from the exhaust stack of **WS-001** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (7) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust stack of **WS-001** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, opacity in accordance with NAC 445.721.
  - b. On and after the issuance date of this permit, Permittee will not discharge or cause the discharge into the atmosphere from the two exhaust stacks of **S2.004.2** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.60 pound per hour.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.60 pound per hour.
    - (3) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed 0.30 pound per hour.
    - (4) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere will not exceed 4.16 pounds per hour.
    - (5) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of CO (carbon monoxide) to the atmosphere will not exceed 2.44 pounds per hour.
    - (6) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 1.00 pound per hour.
    - (7) NAC 445B.22017 (State Only Requirement) - The opacity from the two exhaust stacks of **S2.004.2** each, will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (8) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the two exhaust stacks of **S2.004.2** each, will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, opacity in accordance with NAC 445.721
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable throughput rate for **S2.004.1** will not exceed 3.0 tons of carbon per any one-hour period.
  - b. **S2.004.2** may combust either HD-5 grade propane or pipeline quality natural gas only. Combustion of a blend of these fuels is prohibited.
  - c. The maximum fuel heat input rate for **S2.004.2** will not exceed 17.5 million Btu's per any one-hour period.
  - d. The maximum fuel consumption rate for **S2.004.2** will not exceed 191.0 gallons of HD-5 grade propane per any one-hour period.
  - e. The maximum fuel consumption rate for **S2.004.2** will not exceed 17,500.0 cubic feet of pipeline quality natural gas per any one-hour period.
  - f. **S2.004.1** and **S2.004.2** may operate 8,760 hours per year, each.



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**Section VI. Specific Operating Conditions (continued)**

**BI. Emission Units S2.004.1 and S2.004.2 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

a. Monitoring and Recordkeeping

Permittee, upon the issuance date of this permit, will:

- (1) Monitor the throughput rate of carbon for **S2.004.1** on a daily basis.
- (2) Monitor the fuel combustion rate and type of fuel combusted for **S2.004.2** on a daily basis.
- (3) Monitor the hours of operation for **S2.004.1 and S2.004.2 each**, on a daily basis.
- (4) The required monitoring established in (1) through (3) above, will be maintained in a contemporaneous log containing, at a minimum, the following recordkeeping:
  - (a) The calendar date of any required monitoring.
  - (b) The total daily throughput rate of carbon, in tons, for the corresponding date.
  - (c) The total daily fuel consumption rate in million BTU's, and type of fuel, for the corresponding date.
  - (d) The total daily hours of operation for the corresponding date.
  - (e) The corresponding average hourly throughput rate in tons per hour. The average hourly throughput rate will be determined from the total daily throughput rate and the total daily hours of operation recorded in (b) and (d) above.
  - (f) The corresponding average hourly fuel consumption rate in million BTU's per hour. The average hourly fuel consumption rate will be determined from the total daily fuel consumption rate and the total daily hours of operation recorded in (c) and (d) above.
- (5) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stack of **WS-001** and the two exhaust stacks of **S2.004.2** each once per month. If visible emissions appear to exceed the opacity limit, as established in BI.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.004.1 and S2.004.2** are operating and have the potential to create visible emissions. If **WS-001** is shut down for maintenance or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.004.1 and S2.004.2** not operating or due to poor weather conditions.
- (6) Install, calibrate, operate and maintain devices for the measurement of the venture wet scrubber (**WS-001**) pressure drop and water flow rate.
- (7) Conduct and record a reading of the venturi wet scrubber (**WS-001**) pressure drop and water flow rate once during each day **S2.004.1** is operating. Record any monitored occurrences when the pressure drop or flow rate falls outside the specified operating range and record any corrective actions taken.
- (8) The Permittee will notify the director within 15 days of switching the fuel combusted in **S2.004.2** as allowed under BI.3.b. of this Section.
- (9) Maintain records of the specified operating range for the venturi wet scrubber (**WS-001**) pressure drop and water flow rate on site and available for inspection upon request. The specified operating ranges will be specified by the Permittee based on the manufacturer's design recommendations or compliance tests, which are correlated to the scrubber's operating range.
- (10) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of the permit. The most recent 2 years records will be retained on site and made available for inspection upon request.



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**Section VI. Specific Operating Conditions (continued)**

**BI. Emission Units S2.004.1 and S2.004.2 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program (continued)
  - b. Periodic Compliance Testing
    - (1) Permittee will conduct and record the following periodic compliance tests on the exhaust stack of **S2.004.1**. **The periodic compliance tests will be conducted at least 90 days prior to the date of expiration of this permit, but no earlier than 365 days from the date of expiration of this permit.**
      - (a) Conduct and record the following performance tests on the exhaust stack of **S2.004.1** consisting of three valid runs at the maximum throughput rate subject to BI.3.a. of this section:
        - (i) A Method 5 (with back-half catch) source test in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the director) for PM.
        - (ii) A Method 201A and 202 test in accordance with 40 CFR Part 60, Appendix M (or an alternative EPA reference method approved by the director) for PM<sub>10</sub>.
      - (b) The Method 201A and Method 202 tests required in BI.4.b.(1)(a)(ii) of this section may be replaced by a Method 5 test which includes the back-half catch. All particulate captured in the Method 5 tests with back-half performed under this provision shall be considered PM<sub>10</sub> emissions for determination of compliance with the emission limitations established in BI.2.a. of this section.
      - (c) Conduct and record a Method 10 test in accordance with 40 CFR Part 60, Appendix A (or equivalent methods as approved by the Director) for CO.
      - (d) Conduct and record a Method 25/25A test in accordance with 40 CFR Part 60, Appendix A (or equivalent methods as approved by the Director) for VOC.
      - (e) Performance tests required under BI.4.b.(1) of this section that are conducted below the maximum allowable throughput, as established in BI.3. of this section, shall be subject to the director's review to determine if the throughput during the performance tests were sufficient to provide adequate compliance demonstration. Should the director determine that the performance tests do not provide adequate compliance demonstration then, the director may order additional performance testing for the purpose of a compliance demonstration.
      - (f) Conduct and record a Method 9 visible emissions reading on the exhaust stack of **S2.004.1** concurrent with one of the three required Method 5 or Method 201A and Method 202 performance tests as referenced in BI.4.b.(1)(a) of this section. Visible emissions reading shall use the procedures contained in 40 CFR Part 60, Appendix A, Method 9. The visible emissions reading must be conducted by a certified visible emissions reader for a period of 6-minutes.
      - (g) The Permittee shall comply with the requirements of Section I.U.3 through I.U.8 and Section I.V.3 through I.V.8 for all performance testing.



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**Section VI. Specific Operating Conditions (continued)**

**BI. Emission Units S2.004.1 and S2.004.2 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program (continued)
  - b. Periodic Compliance Testing (Continued)
    - (2) Permittee will conduct and record the following periodic compliance tests on the 2 exhaust stacks of **S2.004.2**. **The periodic compliance tests will be conducted at least 90 days prior to the date of expiration of this permit, but no earlier than 365 days from the date of expiration of this permit.** The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum throughput rate and heat input rate subject to BI.3.a.and c. of this section:
      - (a) Conduct and record a Method 7E test in accordance with 40 CFR Part 60, Appendix A (or equivalent methods as approved by the Director) for NOx.
      - (b) Conduct and record a Method 10 test in accordance with 40 CFR Part 60, Appendix A (or equivalent methods as approved by the Director) for CO.
      - (c) Conduct and record a Method 25/25A test in accordance with 40 CFR Part 60, Appendix A (or equivalent methods as approved by the Director) for VOC.
      - (d) Performance tests required under BI.4.b.(2) of this section that are conducted below the maximum allowable throughput, as established in BI.3. of this section, shall be subject to the director's review to determine if the throughput during the performance tests were sufficient to provide adequate compliance demonstration. Should the director determine that the performance tests do not provide adequate compliance demonstration, then the director may order additional performance testing for the purpose of a compliance demonstration.
      - (e) Conduct and record a Method 9 visible emissions reading on the 2 exhaust stacks of **S2.004.2** concurrent with performance tests as referenced in BI.4.b.(2) of this section. Visible emissions reading shall use the procedures contained in 40 CFR Part 60, Appendix A, Method 9. The visible emissions reading must be conducted by a certified visible emissions reader for a period of 6-minutes.
      - (f) The Method 7E, 10 and 25/25A emissions tests required under BI.4.b.(2) of this Section will be conducted on the 2 exhaust stacks of **S2.004.2** within 60 days of switching the fuel combusted in **S2.004.2** as allowed under BI.3.b. of this Section
      - (g) The Permittee shall comply with the requirements of Section I.U.3 through I.U.8 and Section I.V.3 through I.V.8 for all performance testing.

**Section VI. Specific Operating Conditions (continued)**



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**BI. Emission Units S2.004.1 and S2.004.2 (continued)**

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

Compliance with conditions BI.1 through BI.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit revision application, received January 29, 2004 (case #04AP0195).

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit revision application, received January 29, 2004 (case #04AP0195).

Article 8.2 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit revision application, received January 29, 2004 (case #04AP0195).

NAC Requirements (Revised as of February 2003):

445B.2203 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit revision application, received January 29, 2004 (case #04AP0195).

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 4 of operating permit revision application, received January 29, 2004 (case #04AP0195).

445B.22047 (Fuel-Burning Equipment) - see streamline analysis provided in Appendix 4 of operating permit revision application, received January 29, 2004 (case #04AP0195).



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**Section VI. Specific Operating Conditions (continued)**

**BJ. Emission Units PF1.101 through PF1.105** Location North 4,539.1 km, East 551.9 km, UTM (Zone 11)

**System 62 - Meikle Production Shaft**

- PF 1.101 Skips discharge - transfer to upper chute
- PF 1.102 Upper chute discharge - transfer to one of two transfer cars
- PF 1.103 Transfer cars discharge - transfer to one of two lower chutes
- PF 1.104 Bins loading - lower chutes discharge to one of two bins
- PF 1.105 Bins discharge - transfer to haul truck

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Emissions from **PF1.101 through PF1.104** will be controlled by a building enclosure that encloses each transfer point on all sides. Emissions from the drop point of **PF1.105** will be controlled by a pneumatic water spray system. The pneumatic water spray system will be in operation at all times **PF1.105** is operating, including startup and shutdown.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. On and after the date of startup of **PF1.101, PF1.102, PF1.103 and PF1.104**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.101, PF1.102, PF1.103 and PF1.104** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.280 pound per hour each, nor more than 0.381 ton per year each, based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.098 pound per hour each, nor more than 0.133 ton per year each, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (*State Only Requirement*) - The opacity from **PF1.101, PF1.102, PF1.103 and PF1.104** each will not equal or exceed 20 percent in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from **PF1.101, PF1.102, PF1.103 and PF1.104** each will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. On and after the date of startup of **PF1.105**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.105** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.149 pound per hour, nor more than 0.202 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.052 pound per hour, nor more than 0.071 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (*State Only Requirement*) - The opacity from **PF1.105** will not equal or exceed 20 percent in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from **PF1.105** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - c. New Source Performance Standards (NSPS) - Subpart LL - Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part 60.380)  
On and after the sixtieth day after achieving the maximum production rate at which **PF1.004 - PF1.105**, each will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
    - (1) Process fugitive emissions from **PF1.004 - PF1.105**, each will not exceed 10 percent opacity. (40 CFR Part 60.382(b))
    - (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
    - (3) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.004 - PF1.105**, each including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. The maximum allowable throughput rate for **PF1.101 through PF1.105** will not exceed 1,105.0 tons of ore/mine rock per any one-hour period, each, nor more than 3,000,000 tons of ore/mine rock per year, each, based on a 12-month rolling period.
  - b. **PF1.101 through PF1.105** may operate 8,760 hours per year, each.



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**BJ. Emission Units PF1.101 through PF1.105 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*

a. Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the throughput of **PF1.101 through PF1.105** on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
- (2) Monitor and record the hours of operation of **PF1.101 through PF1.105** on a daily basis.
- (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from **PF1.101 through PF1.105** each on a weekly basis. If visible emissions appear to exceed the opacity limit, as established in BJ.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **PF1.101 through PF1.105** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **PF1.101 through PF1.105** not operating or due to poor weather conditions.
- (4) Inspect the pneumatic water spray system on **PF1.105** once during each day of operation to verify that it is operating as designed. Record the inspection results and any corrective actions taken.
- (5) Inspect the enclosures on **PF1.101 through PF1.104** on a monthly basis to verify that the enclosures are intact. Record the inspection results and any corrective actions taken.
- (6) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (7) The hourly throughput rate in tons per hour for **PF1.101 through PF1.105** will be determined from the total daily throughput and the total daily hours of operation recorded above.

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

Permittee, upon the issuance date of this permit, shall:

- (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*

Compliance with conditions BJ.1 through BJ.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

The following requirements are not applicable to **PF1.101 through PF1.103**:

*Note: For PF1.101 through PF1.103 (Skips, Chutes and Transfer Cars) --The skips, chutes, and transfer cars are not subject to 40 CFR, Subpart LL (Standards of Performance for Metallic Mineral Processing Plants) because they are not specifically defined under 60.380 to 60.381, revised as of July 1, 2002.*



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**Section VI. Specific Operating Conditions (continued)**

**BK. Emission Units S2.028 to S2.031 and PF1.018 to PF1.021** Location North 4,535.8 km, East 554.8 km, UTM (Zone 11)

**System 63 - Autoclave Lime Silos 1 to 4**

S	2.028	Lime Silo #1, 250 ton, load
PF	1.018	Lime Silo #1, 250 ton, discharge
S	2.029	Lime Silo #2, 500 ton, load
PF	1.019	Lime Silo #2, 500 ton, discharge
S	2.030	Lime Silo #3, 500 ton, load
PF	1.020	Lime Silo #3, 500 ton, discharge
S	2.031	Lime Silo #4, 1,000 ton, load
PF	1.021	Lime Silo #4, 1,000 ton, discharge

**Note: See Section VII.A. - Emission Caps**



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**Section VI. Specific Operating Conditions (continued)**

- BL. Emission Units PF1.001, PF1.003, PF1.004 and PF1.006 Location North 4,536.1 km, East 555.0 km, UTM (Zone 11)  
Emission Units PF1.007 and PF1.008.1 Location North 4,536.0 km, East 554.9 km, UTM (Zone 11)  
Emission Units PF1.005, PF1.005.1 and PF1.008 Location North 4,536.0 km, East 554.7 km, UTM (Zone 11)

**System 64 - Mill #1 Primary and Tertiary Crushing Process**

PF 1.001	Ore Hopper
PF 1.003	Jaw Crusher
PF 1.004	Apron Feeder
PF 1.005	Cone Crusher
PF 1.005.1	Conveyor (cone outlet)
PF 1.006	Conveyor #001 (jaw outlet)
PF 1.007	Conveyor/Radial Stacker #002
PF 1.008	Conveyor # 003 (mill inlet)
PF 1.008.1	Apron Feeders (load and discharge)

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **PF1.001** will be controlled by a pneumatic water spray system. Emissions from **PF1.005** and **PF1.007** will be controlled by a pneumatic water spray system. The pneumatic water spray system for each emission unit (**PF1.001**, **PF1.005** and **PF1.007**) will be operated at all times the emission units operate.  
Emissions from **PF1.005.1** and **PF1.006** each, will be controlled by enclosures that enclose each transfer point and minimize that amount of dust caused by ambient wind.  
Emissions from **PF1.003**, **PF1.004** and **PF1.008** each, will be controlled by building enclosures.  
Emissions from **PF1.008.1** will be controlled by operation underground.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the date of startup of **PF1.001**, **PF1.003** and **PF1.004**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.001**, **PF1.003** and **PF1.004** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.59 pound per hour, total, nor exceed 1.55 tons per year, total, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 1.24 pounds per hour, total, nor exceed 3.26 tons per year, total, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from **PF1.001**, **PF1.003** and **PF1.004** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **PF 1.001**, **PF1.003** and **PF1.004** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. On and after the date of startup of **PF1.005**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.005** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.13 pound per hour, nor exceed 0.30 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.27 pound per hour, nor exceed 0.62 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from **PF1.005** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **PF1.005** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - c. On and after the date of startup of **PF1.005.1**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.005.1** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.019 pound per hour, nor exceed 0.045 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.055 pound per hour, nor exceed 0.13 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from **PF1.005.1** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **PF1.005.1** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.



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BL. Emission Units PF1.001, PF1.003, PF1.004, PF1.005, PF1.005.1, PF1.006, PF1.007, PF1.008 and PF1.008.1 (continued)

2. Emission Limits NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (continued)

- d. On and after the date of startup of **PF1.006**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.006** the following pollutants in excess of the following specified limits:
- (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.089 pound per hour, nor exceed 0.23 ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.25 pound per hour, nor exceed 0.67 ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (*State Only Requirement*) - The opacity from **PF1.006** will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from **PF1.006** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- e. On and after the date of startup of **PF1.007**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.007** the following pollutants in excess of the following specified limits:
- (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.047 pound per hour, nor exceed 0.12 ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.13 pound per hour, nor exceed 0.35 ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (*State Only Requirement*) - The opacity from **PF1.007** will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from **PF1.007** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- f. On and after the date of startup of **PF1.008**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.008** the following pollutants in excess of the following specified limits:
- (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.046 pound per hour, nor exceed 0.20 ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.13 pound per hour, nor exceed 0.57 ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (*State Only Requirement*) - The opacity from **PF1.008** will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from **PF1.008** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- g. On and after the date of startup of **PF1.008.1**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.008.1** the following pollutants in excess of the following specified limits:
- (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.091 pound per hour, nor exceed 0.40 ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.26 pound per hour, nor exceed 1.14 tons per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (*State Only Requirement*) - The opacity from **PF1.008.1** will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from **PF1.008.1** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- h. New Source Performance Standards (NSPS) - Subpart LL - Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part 60.380)
- On and after the sixtieth day after achieving the maximum production rate at which **PF1.001, PF1.003, PF1.004, PF1.005, PF1.005.1, PF1.006, PF1.008 and PF1.008.1**, each will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
- (1) Process fugitive emissions from **PF1.001, PF1.003, PF1.004, PF1.005, PF1.005.1, PF1.006, PF1.008 and PF1.008.1**, each will not exceed 10 percent opacity. (40 CFR Part 60.382(b))
  - (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
  - (3) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.001, PF1.003, PF1.004, PF1.005, PF1.005.1, PF1.006, PF1.008 and PF1.008.1** each, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))



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**Section VI. Specific Operating Conditions (continued)**

BL. Emission Units PF1.001, PF1.003, PF1.004, PF1.005, PF1.005.1, PF1.006, PF1.007, PF1.008 and PF1.008.1 (continued)

3. Operating Parameters NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. The maximum allowable throughput rate for **PF1.001, PF1.003, PF1.004, PF1.006 and PF1.007** will not exceed 1,000.0 tons of ore per any one-hour period, each, nor more than 5,256,000 tons of ore per year, each, based on a 12-month rolling period.
  - b. The maximum allowable throughput rate for **PF1.008 and PF1.008.1** will not exceed 515.0 tons of ore per any one-hour period, each, nor more than 4,511,400 tons of ore per year, each, based on a 12-month rolling period.
  - c. The maximum allowable throughput rate for **PF1.005 and PF1.005.1** will not exceed 215.0 tons of ore per any one-hour period, each, nor more than 1,007,400 tons of ore per year, each, based on a 12-month rolling period.
  - d. **PF1.001, PF1.003, PF1.004, PF1.005, PF1.005.1, PF1.006, PF1.007, PF1.008 and PF1.008.1** may operate 8,760 hours per year, each.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. Monitoring and Recordkeeping

On and after the date of initial start up, Permittee will:

    - (1) Monitor and record the throughput of **PF1.001, PF1.003, PF1.004, PF1.005, PF1.005.1, PF1.006, PF1.007, PF1.008 and PF1.008.1** on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation of **PF1.001, PF1.003, PF1.004, PF1.005, PF1.005.1, PF1.006, PF1.007, PF1.008 and PF1.008.1** on a daily basis.
    - (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from **PF1.001, PF1.003, PF1.004, PF1.005, PF1.006, PF1.008 and PF1.008.1** on a weekly basis, and from **PF1.007** on an annual basis. If visible emissions appear to exceed the opacity limit, as established in BL.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **PF1.001, PF1.003, PF1.004, PF1.005, PF1.005.1, PF1.006, PF1.007, PF1.008 and PF1.008.1** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **PF1.001, PF1.003, PF1.004, PF1.005, PF1.005.1, PF1.006, PF1.007, PF1.008 and PF1.008.1** not operating or due to poor weather conditions.
    - (4) Inspect the pneumatic water spray system on **PF1.001, PF1.005, and PF1.007** once during each day of operation to verify that it is operating as designed. Record the inspection results and any corrective actions taken.
    - (5) Inspect the enclosures on **PF1.003, PF1.004, PF1.005.1, PF1.006 and PF1.008** on an annual basis to verify that the enclosures are intact. Record the inspection results and any corrective actions taken.
    - (6) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (7) The hourly throughput rate in tons per hour for **PF1.001, PF1.003, PF1.004, PF1.005, PF1.005.1, PF1.006, PF1.007, PF1.008 and PF1.008.1** will be determined from the total daily throughput and the total daily hours of operation recorded above.
  - b. New Source Performance Standards (NSPS) - Notification and Record Keeping (40 CFR Part 60.7(b))

Permittee, upon the issuance date of this permit, shall:

    - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.



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**Section VI. Specific Operating Conditions (continued)**

**BL. Emission Units PF1.001, PF1.003, PF1.004, PF1.005, PF1.005.1, PF1.006, PF1.007, PF1.008 and PF1.008.1 (continued)**

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

For **PF1.001, PF1.003, PF1.004, PF1.005, PF1.005.1, PF1.006, PF1.008 and PF1.008.1:**

Compliance with conditions BL.1 through BL.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

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

For **PF1.007:**

Compliance with conditions BL.1 through BL.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

The following requirements are not applicable to **PF1.007:**

*Note: For **PF1.007** (Conveyor / Radial Stacker No.002 transfer to Stockpile) --Transfers to stockpiles are specifically exempt from 40 CFR 60 Subpart LL (Standards of Performance for Metallic Mineral Processing Plants) per Subpart 60.381, revised as of July 1, 2002.*



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**Section VI. Specific Operating Conditions (continued)**

BM. Emission Units PF1.010 and PF1.015.1 Location North 4,536.0 km, East 554.9 km, UTM (Zone 11)  
Emission Units PF1.011, PF1.012 and PF1.013 Location North 4,536.1 km, East 555.0 km, UTM (Zone 11)  
Emission Units PF1.014, PF1.014.1 and PF1.015 Location North 4,535.9 km, East 554.7 km, UTM (Zone 11)

**System 65 - Mill 2 Primary and Tertiary Crushing Process**

PF 1.010	Conveyor # 304 (Fixed Stacker)
PF 1.011	Dump Pocket
PF 1.012	Gyratory Crusher
PF 1.013	Conveyor #101 (Gyratory Outlet)
PF 1.014	Cone Crusher
PF 1.014.1	Conveyor (Cone Outlet)
PF 1.015	Conveyor #301 (Mill Inlet)
PF 1.015.1	Apron Feeders (Loading and Discharge)

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Emissions from **PF1.011** will be controlled by a pneumatic water spray system.  
Emissions from **PF1.010** and **PF1.014** each, will be controlled by a pneumatic water spray system. The pneumatic water spray system for each emission unit (**PF1.010**, **PF1.011** and **PF1.014**) will be operated at all times the emission unit operates.  
Emissions from **PF1.013** and **PF1.014.1** each, will be controlled by enclosures that enclose each transfer point and minimize the amount of dust caused by ambient wind.  
Emissions from **PF1.012** and **PF1.015** each, will be controlled by building enclosures.  
Emissions from **PF1.015.1** will be controlled by operation underground.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. On and after the date of startup of **PF1.010**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.010** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.082 pound per hour, nor exceed 0.36 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.24 pound per hour, nor exceed 1.03 tons per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (*State Only Requirement*) - The opacity from **PF1.010** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from **PF1.010** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. On and after the date of startup of **PF1.011** and **PF1.012**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.011** and **PF1.012** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 1.03 pounds per hour, total, nor exceed 4.52 tons per year, total, based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 2.17 pounds per hour, total, nor exceed 9.50 tons per year, total, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (*State Only Requirement*) - The opacity from **PF1.011** and **PF1.012** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from **PF1.011** and **PF1.012** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - c. On and after the date of startup of **PF1.013**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.013** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.16 pound per hour, nor exceed 0.68 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.44 pound per hour, nor exceed 1.94 tons per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (*State Only Requirement*) - The opacity from **PF1.013** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from **PF1.013** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.



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BM. Emission Units PF1.010, PF1.011, PF1.012, PF1.013, PF1.014, PF1.014.1, PF1.015 and PF1.015.1 (continued)

2. Emission Limits NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (continued)
- d. On and after the date of startup of **PF1.014**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.014** the following pollutants in excess of the following specified limits:
- (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.18 pound per hour, nor exceed 0.79 ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.38 pound per hour, nor exceed 1.65 tons per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (*State Only Requirement*) - The opacity from **PF1.014** will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from **PF1.014** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- e. On and after the date of startup of **PF1.014.1**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.014.1** the following pollutants in excess of the following specified limits:
- (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.027 pound per hour, nor exceed 0.12 ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.077 pound per hour, nor exceed 0.34 ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (*State Only Requirement*) - The opacity from **PF1.014.1** will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from **PF1.014.1** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- f. On and after the date of startup of **PF1.015**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.015** the following pollutants in excess of the following specified limits:
- (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.082 pound per hour, nor exceed 0.36 ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.23 pound per hour, nor exceed 1.03 tons per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (*State Only Requirement*) - The opacity from **PF1.015** will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from **PF1.015** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- g. On and after the date of startup of **PF1.015.1**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.015.1** the following pollutants in excess of the following specified limits:
- (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.15 pound per hour, nor exceed 0.64 ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.42 pound per hour, nor exceed 1.82 ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.22017 (*State Only Requirement*) - The opacity from **PF1.015.1** will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (4) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from **PF1.015.1** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- h. New Source Performance Standards (NSPS) - Subpart LL - Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part 60.380)
- On and after the sixtieth day after achieving the maximum production rate at which **PF1.011**, **PF1.012**, **PF1.013**, **PF1.014**, **PF1.014.1**, **PF1.015** and **PF1.015.1**, each will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
- (1) Process fugitive emissions from **PF1.011**, **PF1.012**, **PF1.013**, **PF1.014**, **PF1.014.1**, **PF1.015** and **PF1.015.1**, each will not exceed 10 percent opacity. (40 CFR Part 60.382(b))
  - (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
  - (3) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.011**, **PF1.012**, **PF1.013**, **PF1.014**, **PF1.014.1**, **PF1.015** and **PF1.015.1** each, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))



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**Section VI. Specific Operating Conditions (continued)**

BM. Emission Units PF1.010, PF1.011, PF1.012, PF1.013, PF1.014, PF1.014.1, PF1.015 and PF1.015.1 (continued)

3. Operating Parameters NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. The maximum allowable throughput rate for **PF1.010 through PF1.013** will not exceed 1,750.0 tons of ore per any one-hour period, each, nor more than 15,330,000 tons of ore per year, each, based on a 12-month rolling period.
  - b. The maximum allowable throughput rate for **PF1.014 and PF1.014.1** will not exceed 304.0 tons of ore per any one-hour period, each, nor more than 2,663,040 tons of ore per year, each, based on a 12-month rolling period.
  - c. The maximum allowable throughput rate for **PF1.015** will not exceed 925.0 tons of ore per any one-hour period, nor more than 8,103,000 tons of ore per year, based on a 12-month rolling period.
  - d. The maximum allowable throughput rate for **PF1.015.1** will not exceed 821.0 tons of ore per any one-hour period, nor more than 7,191,960 tons of ore per year, based on a 12-month rolling period.
  - e. **PF1.010, PF1.011, PF1.012, PF1.013, PF1.014, PF1.014.1, PF1.015 and PF1.015.1** may operate 8,760 hours per year, each.
  
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. Monitoring and Recordkeeping  
On and after the date of initial start up, Permittee will:
    - (1) Monitor and record the throughput of **PF1.010, PF1.011, PF1.012, PF1.013, PF1.014, PF1.014.1, PF1.015 and PF1.015.1** on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation of **PF1.010, PF1.011, PF1.012, PF1.013, PF1.014, PF1.014.1, PF1.015 and PF1.015.1** on a daily basis.
    - (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from **PF1.011, PF1.012, PF1.013, PF1.014, PF1.014.1, PF1.015 and PF1.015.1** on a weekly basis, and from **PF1.010** on an annual basis. If visible emissions appear to exceed the opacity limit, as established in BM.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **PF1.010, PF1.011, PF1.012, PF1.013, PF1.014, PF1.014.1, PF1.015 and PF1.015.1** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **PF1.010, PF1.011, PF1.012, PF1.013, PF1.014, PF1.014.1, PF1.015 and PF1.015.1** not operating or due to poor weather conditions.
    - (4) Inspect the pneumatic water spray system on **PF1.010, PF1.011 and PF1.014** once during each day of operation to verify that it is operating as designed. Record the inspection results and any corrective actions taken.
    - (5) Inspect the enclosures on **PF1.012, PF1.013, PF1.014.1 and PF1.015** on an annual basis to verify that the enclosures are intact. Record the inspection results and any corrective actions taken.
    - (6) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (7) The hourly throughput rate in tons per hour for **PF1.010, PF1.011, PF1.012, PF1.013, PF1.014, PF1.014.1, PF1.015 and PF1.015.1** will be determined from the total daily throughput and the total daily hours of operation recorded above.
  - b. New Source Performance Standards (NSPS) - Notification and Record Keeping (40 CFR Part 60.7(b))  
Permittee, upon the issuance date of this permit, shall:
    - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.



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**BM. Emission Units PF1.010, PF1.011, PF1.012, PF1.013, PF1.014, PF1.014.1, PF1.015 and PF1.015.1 (continued)**

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

For **PF1.011, PF1.012, PF1.013, PF1.014, PF1.014.1, PF1.015 and PF1.015.1:**

Compliance with conditions BM.1 through BM. 4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

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

For **PF1.010:**

Compliance with conditions BM.1 through BM.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

The following requirements are not applicable to **PF1.010:**

*Note: For **PF1.010** (Conveyor No. 304 Fixed Stacker) -- Transfers to stockpiles are specifically exempt from 40 CFR Part 60, Subpart LL (Standards of Performance for Metallic Mineral Processing Plants) per Subpart 60.381, revised as of July 1, 2002.*



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**Section VI. Specific Operating Conditions (continued)**

BN. Emission Units **S2.015**, and **S2.018** through **S2.020** Location North 4,535.8 km, East 554.8 km, UTM (Zone 11)  
Emission Units **S2.016** and **S2.017** Location North 4,535.9 km, East 554.8 km, UTM (Zone 11)

**System 66 - Autoclave Circuit**

- S 2.015 Autoclave #1
- S 2.016 Autoclave #2
- S 2.017 Autoclave #3
- S 2.018 Autoclave #4
- S 2.019 Autoclave #5
- S 2.020 Autoclave #6

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
100% of all process emissions from **S2.215 through S2.020** will be ducted to a control system consisting of:
  - a. a venturi wet dust scrubber on the exhaust stream of **S2.015** (Autoclave 1).
  - b. a venturi wet dust scrubber on the exhaust stream of **S2.016 and S2.017** (Autoclaves 2 and 3).
  - c. a venturi wet dust scrubber on the exhaust stream of **S2.018** (Autoclave 4).
  - d. a venturi wet dust scrubber on the exhaust stream of **S2.019 and S2.020** (Autoclaves 5 and 6).
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the date of startup of **S2.015**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.015** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 2.28 pounds per hour, nor exceed 9.99 tons per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 2.28 pounds per hour, nor exceed 9.99 tons per year, based on a 12-month rolling period.
    - (3) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed 0.29 pound per hour, nor exceed 1.27 tons per year, based on a 12-month rolling period.
    - (4) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of H<sub>2</sub>S (hydrogen sulfide) to the atmosphere will not exceed 2.12 pounds per hour, nor exceed 9.29 tons per year, based on a 12-month rolling period.
    - (5) NAC 445B.22017 (State Only Requirement) - The opacity from the exhaust stack of **S2.015** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (6) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust stack of **S2.015** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. On and after the date of startup of **S2.016 and S2.017**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.016 and S2.017** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 7.00 pounds per hour, total, nor exceed 30.66 tons per year, total, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 7.00 pounds per hour, total, nor exceed 30.66 tons per year, total, based on a 12-month rolling period.
    - (3) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed 0.90 pound per hour, total, nor exceed 3.94 tons per year, total, based on a 12-month rolling period.
    - (4) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of H<sub>2</sub>S (hydrogen sulfide) to the atmosphere will not exceed 6.54 pounds per hour, total, nor exceed 28.65 tons per year, total, based on a 12-month rolling period.
    - (5) NAC 445B.22017 (State Only Requirement) - The opacity from the exhaust stack of **S2.016 and S2.017** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (6) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust stack of **S2.016 and S2.017** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - c. On and after the date of startup of **S2.018**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.018** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 3.50 pounds per hour, nor exceed 15.33 tons per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 3.50 pounds per hour, nor exceed 15.33 tons per year, based on a 12-month rolling period.
    - (3) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed 0.45 pound per hour, nor exceed 1.97 tons per year, based on a 12-month rolling period.



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**Section VI. Specific Operating Conditions (continued)**

**BN. Emission Units S2.015 through S2.020 (continued)**

2. Emission Limits NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (continued)
  - (4) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of H<sub>2</sub>S (hydrogen sulfide) to the atmosphere will not exceed 3.27 pounds per hour, nor exceed 14.32 tons per year, based on a 12-month rolling period.
  - (5) NAC 445B.22017 (*State Only Requirement*) - The opacity from the exhaust stack of **S2.018** will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (6) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from the exhaust stack of **S2.018** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- d. On and after the date of startup of **S2.019 and S2.020**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.019 and S2.020** the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 7.00 pounds per hour, total, nor exceed 30.66 tons per year, total, based on a 12-month rolling period.
  - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 7.00 pounds per hour, total, nor exceed 30.66 tons per year, total, based on a 12-month rolling period.
  - (3) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed 0.90 pound per hour, total, nor exceed 3.94 tons per year, total, based on a 12-month rolling period.
  - (4) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of H<sub>2</sub>S (hydrogen sulfide) to the atmosphere will not exceed 6.54 pounds per hour, total, nor exceed 28.65 tons per year, total, based on a 12-month rolling period.
  - (5) NAC 445B.22017 (*State Only Requirement*) - The opacity from the exhaust stacks of **S2.019 and S2.020** each will not equal or exceed 20% in accordance with NAC 445B.22017.
  - (6) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from the exhaust stacks of **S2.019 and S2.020** each will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. The maximum allowable throughput rate for **S2.015** will not exceed 130.0 tons of ore per any one-hour period.
  - b. The maximum allowable throughput rate for **S2.016 and S2.017** will not exceed 200.0 tons of ore per any one-hour period, each.
  - c. The maximum allowable throughput rate for **S2.018** will not exceed 200.0 tons of ore per any one-hour period.
  - d. The maximum allowable throughput rate for **S2.019 and S2.020** will not exceed 200.0 tons of ore per any one-hour period, each.
  - e. **S2.015 through S2.020** may operate 8,760 hours per year, each.



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**Section VI. Specific Operating Conditions (continued)**

**BN. Emission Units S2.015 through S2.020 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

a. Periodic Compliance Testing

- (1) Permittee will conduct and record the following periodic compliance tests on the exhaust stacks of **S2.015 through S2.020** each. **The periodic compliance tests will be conducted at least 90 days prior to the date of expiration of this permit, but no earlier than 365 days from the date of expiration of this permit.** The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition BN.4.a.(3) of this Section and not to exceed the maximum allowable throughput as established in BN.3.a. to e. of this Section).
  - (a) Method 201A and 202 compliance tests in accordance with 40 CFR Part 51, Appendix M (or an alternative reference method approved by the Director, pursuant to NAC 445B.252 and Sections I.U. and I.V. of this operating permit) for PM<sub>10</sub>.
  - (b) Method 5 or 17 (with back-half catch), 6 and 11 compliance tests for PM, SO<sub>2</sub> and H<sub>2</sub>S in accordance with 40 CFR Part 60, Appendix A (or an alternative method approved by the Director, pursuant to NAC 445B.252 and Sections I.U and I.V of this operating permit).
- (2) The Method 201A and Method 202 tests required in BN.4.a.(1) of this section may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 tests with back-half performed under this provision shall be considered PM<sub>10</sub> emissions for determination of compliance with the emission limitations established in BN.2. of this section.
- (3) Compliance tests required under BN.4.a.(1) of this Section that are conducted below the maximum allowable throughput, as established in BN.3 of this Section, will be subject to the Director's review to determine if the throughputs during the compliance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
- (4) Concurrent with each periodic PM compliance test, conduct and record a Method 9 visible emission test on the exhaust stacks of the venturi wet dust scrubbers for **S2.015 through S2.020** each in accordance with 40 CFR Part 60, Appendix A (or an alternative reference method approved by the Director). If visibility or other conditions prevent the opacity observations from being conducted concurrently with the compliance test, then the visible emission test will be rescheduled as soon after the compliance test as practical, but not later than 30 days thereafter.

b. Monitoring and Recordkeeping

On and after the date of initial start up, Permittee will:

- (1) Monitor and record the ore throughput of **S2.015 through S2.020** each on a daily basis. At the end of each calendar month, record the total monthly ore throughput and the total ore throughput for the previous 12 months.
- (2) Monitor and record the hours of operation of **S2.015 through S2.020** each on a daily basis.
- (3) Install, calibrate, operate and maintain devices for the measurement of the water flow rate through each venturi wet dust scrubber for **S2.015 through S2.020**.
- (4) Continuously monitor and record the water flow rate through each venturi wet dust scrubber. Record any monitored occurrences when the water flow rate falls outside the specified operating range and record any corrective actions taken.
- (5) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust stacks of the venturi wet dust scrubbers for **S2.015 through S2.020** each on an annual basis. If visible emissions appear to exceed the opacity limit, as established in BN.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.015 through S2.020** are operating and have the potential to create visible emissions. If the venturi wet dust scrubbers for **S2.015 through S2.020** are shut down for maintenance or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.015 through S2.020** not operating or due to poor weather conditions.
- (6) Maintain records of the specified operating range for the wet scrubbers on site and available for inspection upon request. The specified operating range will be determined by Permittee based on operating experience and the manufacturer's recommendations.
- (7) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (8) The hourly throughput rate in tons per hour for **S2.015 through S2.020** each will be determined from the total daily throughput and the total daily hours of operation recorded above.



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**Section VI. Specific Operating Conditions (continued)**

**BN. Emission Units S2.015 through S2.020 (continued)**

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Compliance with conditions BN.1 through BN.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit:

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC 445.746 (Other Sulfur Emitting Processes) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

445B.2205 (Other Process which Emit Sulfur) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

The following requirements are not applicable to **S2.015** through **S2.020**:

*Note: For **S2015 through S2.020** (Autoclaves #1 through #6): Autoclaves and pressure vessels/reactors are not subject to 40 CFR Part 60, Subpart LL (Standards of Performance for Metallic Mineral Processing Plants) because they are not specifically defined under Subparts 60.380 to 60.381, revised as of July 1, 2002.*



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**Section VI. Specific Operating Conditions (continued)**

BO. Emission Units S2.009 through S2.011 Location North 4,536.0 km, East 554.6 km, UTM (Zone 11)

**System 67 - Mercury Retorts**

- |   |       |                   |
|---|-------|-------------------|
| S | 2.009 | Mercury Retort #1 |
| S | 2.010 | Mercury Retort #2 |
| S | 2.011 | Mercury Retort #3 |

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **S2.009 through S2.011** will be controlled by a control system consisting of a mercury condenser and carbon adsorption unit for each retort.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of **S2.009 through S2.011**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stacks of **S2.009 through S2.011**, the following pollutants in excess of the following specified limits:
  - a. NAC 445B.22017 (State Only Requirement) - The opacity from the exhaust stacks of **S2.009 through S2.011** each will not equal or exceed 20% in accordance with NAC 445B.22017.
  - b. NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust stacks of **S2.009 through S2.011** each will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. **S2.009 through S2.011** may operate 8,760 hours per year, each.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial start up, Permittee will:
    - (1) Monitor and record the hours of operation of **S2.009 through S2.011** on a daily basis.
    - (2) Install, calibrate, operate and maintain devices for the measurement of the condenser water temperature and retort vacuum gauge pressure for **S2.009 through S2.011**.
    - (3) Record the date of each carbon replacement in the carbon adsorbers.
    - (4) Continuously monitor and record the condenser water temperature and retort vacuum gauge pressure of **S2.009 through S2.011**. Record any monitored occurrences when any control parameter falls outside the specified operating range and record any corrective actions taken.
    - (5) Maintain records of the specified operating range for the mercury condensers and the retort vacuum gauge pressure on site and available for inspection upon request. The specified operating range will be determined by Permittee based on operating experience and the manufacturer's recommendations.
    - (6) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Compliance with conditions BO.1 through BO.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit:

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

The following requirements are not applicable to **S2.009 through S2.011**:

Note: For **S2.009 through S2.011** (Mercury Retorts #1 through #3): Mercury retorts are not subject to 40 CFR Part 60, Subpart LL (Standards of Performance for Metallic Mineral Processing Plants) because they are not specifically defined under Subparts 60.380 to 60.381, revised as of July 1, 2002.



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**Section VI. Specific Operating Conditions (continued)**

BP. Emission Units S2.013 and S2.014 Location North 4,536.0 km, East 554.6 km, UTM (Zone 11)

**System 68 - Furnace Refining**

- |   |       |                      |
|---|-------|----------------------|
| S | 2.013 | West Melting Furnace |
| S | 2.014 | East Melting Furnace |

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **S2.013 and S2.014** each will be ducted to a control system consisting of a baghouse. The baghouse will be operated in accordance with the manufacturer's recommendations at all times during the operation of **S2.013 and S2.014**, including startup and shutdown. The capture efficiency of the control system will be 100% such that all process emissions from **S2.013 and S2.014** each will be captured and ducted to the baghouse.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of **S2.013 and S2.014**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.013 and S2.014**, the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 1.40 pounds per hour each, nor exceed 1.53 tons per year each, based on a 12-month rolling period.
  - b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 1.40 pounds per hour each, nor exceed 1.53 tons per year each, based on a 12-month rolling period.
  - c. NAC 445B.22017 (State Only Requirement) - The opacity from the exhaust stack of **S2.013 and S2.014** each will not equal or exceed 20% in accordance with NAC 445B.22017.
  - d. NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust stack of **S2.013 and S2.014** each will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable loading rate for **S2.013 and S2.014** will not exceed 0.20 ton per hour of gold sludge and flux, each, per any one-hour period, nor exceed 438.0 tons per year of gold sludge and flux, each, based on a 12-month rolling period.
  - b. **S2.013 and S2.014** may operate 8,760 hours per year, each.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Periodic Compliance Testing
    - (1) Permittee will conduct and record the following periodic compliance tests on the exhaust stack of **S2.013 and S2.014**. **The periodic compliance tests will be conducted at least 90 days prior to the date of expiration of this permit, but no earlier than 365 days from the date of expiration of this permit.** The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition BP.4.a.(3) of this Section and not to exceed the maximum allowable throughput as established in BP.3.a. of this Section).
      - (a) Method 201A and 202 compliance tests in accordance with 40 CFR Part 51, Appendix M (or an alternative method approved by the Director pursuant to (NAC 445B.252 and Sections I.U and I.V of this operating permit) for PM<sub>10</sub>.
      - (b) Method 5 or 17 (with back-half catch) compliance tests for PM in accordance with 40 CFR Part 60, Appendix A (or an alternative method approved by the Director pursuant to (NAC 445B.252 and Sections I.U and I.V of this operating permit).
    - (2) The Method 201A and Method 202 tests required in BP.4.a.(1) of this section may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 tests with back-half performed under this provision shall be considered PM<sub>10</sub> emissions for determination of compliance with the emission limitations established in BP.2.a. of this section.
    - (3) Compliance tests required under BP.4.a.(1) of this Section that are conducted below the maximum allowable throughput, as established in BP.3.a. of this Section, will be subject to the Director's review to determine if the throughputs during the compliance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
    - (4) Concurrent with each periodic PM and PM<sub>10</sub> compliance tests, conduct and record a Method 9 visible emission test on the single exhaust stack of **S2.013 and S2.014** in accordance with 40 CFR Part 60, Appendix A (or an alternative reference method approved by the Director). If visibility or other conditions prevent the opacity observations from being conducted concurrently with the compliance test, then the visible emission test will be rescheduled as soon after the compliance test as practical, but not later than 30 days thereafter.



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**Section VI. Specific Operating Conditions (continued)**

**BP. Emission Units S2.013 and S2.014 (continued)**

b. Monitoring and Recordkeeping

On and after the date of initial start up, Permittee will:

- (1) Monitor and record the loading of gold sludge and flux for **S2.013 and S2.014** each on a daily basis. At the end of each calendar month, record the total monthly material throughput and the total material loaded for the previous 12 months.
- (2) Monitor and record the hours of operation of **S2.013 and S2.014** on a daily basis.
- (3) Install, calibrate, operate and maintain devices for the measurement of the pressure drop across the baghouse for **S2.013 and S2.014**.
- (4) Conduct and record a reading of the pressure drop across the baghouse once during each day of operation. Record any monitored occurrences when the baghouse pressure drop falls outside the specified operating range and record any corrective actions taken.
- (5) Maintain records of the specified operating range for the baghouse on site and available for inspection upon request. The specified operating range will be determined by Permittee based on operating experience and the manufacturer's recommendations.
- (6) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (7) The hourly loading rate of gold sludge and flux in ton per hour for **S2.013 and S2.014** each will be determined from the total daily loading and the total daily hours of operation recorded above.

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

Compliance with conditions BP.1 through BP.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit:

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

The following requirements are not applicable to **S2.013 and S2.014**:

*Note: For **S2.013 and S2.014** (East and West Melting Furnaces): Smelting furnaces are not subject to 40 CFR Part LL, (Standards of Performance for Metallic Mineral Processing Plants) because they are not specifically defined under Subparts 60.380 to 60.381, revised as of July 1, 2002.*



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**Section VI. Specific Operating Conditions (continued)**

BQ. Emission Units S2.033 through S2.050 Location North 4,535.8 km, East 554.5 km, UTM (Zone 11)

**System 69 - Analytical Laboratories Sample Preparation**

- |   |            |                        |
|---|------------|------------------------|
| S | 2.033 - 41 | Crushers               |
| S | 2.042 - 49 | Pulverizers            |
| S | 2.050      | Sample reject conveyor |

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **S2.033 through S2.050** each will be ducted to a control system consisting of a baghouse. The baghouse will be operated in accordance with the manufacturer's recommendations at all times during the operation of **S2.033 through S2.050**, including startup and shutdown. The capture efficiency of the control system will be 100% such that all process emissions from **S2.033 through S2.050** each will be captured and ducted to the baghouse.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of **S2.033 through S2.050**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of the baghouse of **S2.033 through S2.050**, the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 1.05 pounds per hour.
  - b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 1.05 pounds per hour.
  - c. NAC 445B.22017 (State Only Requirement) - The opacity from the exhaust stack of the baghouse of **S2.033 through S2.050** will not equal or exceed 20% in accordance with NAC 445B.22017.
  - d. NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust stack of the baghouse of **S2.033 through S2.050** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable throughput rate for **S2.033 through S2.050** will not exceed 3.876 tons of gold ore and mine rock samples total, per any one-hour period.
  - b. **S2.033 through S2.050** may operate 8,760 hours per year, each.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial start up, Permittee will:
    - (1) Monitor and record the throughput of gold ore and mine rock samples for **S2.033 through S2.050** each on a monthly basis.
    - (2) Monitor and record the hours of operation for **S2.033 through S2.050** each on a monthly basis.
    - (3) Install, calibrate, operate and maintain devices for the measurement of the pressure drop across the baghouse of **S2.033 through S2.050**.
    - (4) Conduct and record a reading of the pressure drop across the baghouse once during each day of operation. Record any monitored occurrences when the baghouse pressure drop falls outside the specified operating range and record any corrective actions taken.
    - (5) Maintain records of the specified operating range for the baghouse on site and available for inspection upon request. The specified operating range will be determined by Permittee based on operating experience and the manufacturer's recommendations.
    - (6) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (7) The hourly throughput rate gold ore and mine rock samples of in tons per hour for **S2.033 through S2.050** each will be determined from the total monthly throughput and the total monthly hours of operation recorded above.



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**Section VI. Specific Operating Conditions (continued)**

**BQ. Emission Units S2.033 through S2.050 (continued)**

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Compliance with conditions BQ.1 through BQ.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit:

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

The following requirements are not applicable to **S.2033** through **S2.050**:

*Note: For **S2.033 through S2.050** (Laboratory Crushers, Pulverizers and Conveyance System): Laboratory crushers and ancillary equipment are not subject to 40 CFR Part 60, Subpart LL (Standards of Performance for Metallic Mineral Processing Plants) because they are not specifically defined under Subparts 60.380 to 60.381, revised as of July 1, 2002.*



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**Section VI. Specific Operating Conditions (continued)**

BR. Emission Units **S2.051 through S2.066.15** Location North 4,535.8 km, East 554.5 km, UTM (Zone 11)

**System 70 - Analytical Fire Assay Facility**

S 2.051 - 64	Assay furnaces
S 2.065	Tumbler
S 2.065.1	Mixed flux dispenser
S 2.066	Drag conveyor
S 2.066.01 -.14	Furnace tables
S 2.066.15	Waste crusher

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **S2.051 through S2.066.15** each will be ducted to a control system consisting of a baghouse. The baghouse will be operated in accordance with the manufacturer's recommendations at all times during the operation of **S2.051 through S2.066.15**, including startup and shutdown. The capture efficiency of the control system will be 100% such that all process emissions from **S2.051 through S2.066.15** each will be captured and ducted to the baghouse.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of **S2.051 through S2.066.15**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of the baghouse of **S2.051 through S2.066.15**, the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 2.47 pounds per hour.
  - b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 2.47 pounds per hour.
  - c. NAC 445B.22017 (State Only Requirement) - The opacity from the exhaust stack of the baghouse of **S2.051 through S2.066.15** will not equal or exceed 20% in accordance with NAC 445B.22017.
  - d. NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust stack of the baghouse of **S2.051 through S2.066.15** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable throughput rate for **S2.051 through S2.066.15** will not exceed 0.468 ton of assay samples total, per any one-hour period.
  - b. **S2.051 through S2.066.15** may operate 8,760 hours per calendar year, each.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the throughput of assay samples for **S2.051 through S2.066.15** each on a monthly basis.
    - (2) Monitor and record the hours of operation for **S2.051 through S2.066.15** each on a monthly basis.
    - (3) Install, calibrate, operate and maintain devices for the measurement of the pressure drop across the baghouse of **S2.051 through S2.066.15**.
    - (4) Conduct and record a reading of the pressure drop across the baghouse once during each day of operation. Record any monitored occurrences when the baghouse pressure drop falls outside the specified operating range and record any corrective actions taken.
    - (5) Maintain records of the specified operating range for the baghouse on site and available for inspection upon request. The specified operating range will be determined by Permittee based on operating experience and the manufacturer's recommendations
    - (6) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (7) The hourly throughput rate of assay samples in tons per hour for **S2.051 through S2.066.15** each will be determined from the total monthly throughput and the total monthly hours of operation recorded above.



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**Section VI. Specific Operating Conditions (continued)**

**BR. Emission Units S2.051 through S2.066.15 (continued)**

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Compliance with conditions BR.1 through BR.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit:

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

7445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

The following requirements are not applicable to **S2.051** through **S2.066.15**:

*Note: For **S2.051** through **S2.066.15** (Fire Assay Furnaces, etc.): Fire assay furnaces and ancillary equipment are not subject to 40 CFR Part 60, Subpart LL (Standards of Performance for Metallic Mineral Processing Plants) because they are not specifically defined under Subparts 60.380 to 60.381, revised as of July 1, 2002.*



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**Section VI. Specific Operating Conditions (continued)**

BS. Emission Units **S2.067, S2.068 and S2.072** Location North 4,535.8 km, East 554.4 km, UTM (Zone 11)

**System 71 - Metallurgical Laboratory Sample Preparation**

- S 2.067 Crusher
- S 2.068 Crusher
- S 2.072 Pulverizer

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Emissions from **S2.067, S2.068 and S2.072** each will be ducted to a control system consisting of a baghouse. The baghouse will be operated in accordance with the manufacturer's recommendations at all times during the operation of **S2.067, S2.068 and S2.072**, including startup and shutdown. The capture efficiency of the control system will be 100% such that all process emissions from **S2.067, S2.068 and S2.072** each will be captured and ducted to the baghouse.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
On and after the date of startup of **S2.067, S2.068 and S2.072**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of the baghouse of **S2.067, S2.068 and S2.072**, the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.64 pound per hour.
  - b. NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.64 pound per hour.
  - c. NAC 445B.22017 (*State Only Requirement*) - The opacity from the exhaust stack of **S2.067, S2.068 and S2.072** each will not equal or exceed 20% in accordance with NAC 445B.22017.
  - d. NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from the exhaust stack of **S2.067, S2.068 and S2.072** each will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. The maximum allowable throughput rate for **S2.067, S2.068 and S2.072** will not exceed 0.21 tons of gold ore and mine rock samples total, per any one-hour period.
  - b. **S2.067, S2.068 and S2.072** may operate 8,760 hours per year, each.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. Monitoring and Recordkeeping  
On and after the date of initial start up, Permittee will:
    - (1) Monitor and record the throughput of gold ore and mine rock samples for **S2.067, S2.068 and S2.072** each on a monthly basis.
    - (2) Monitor and record the hours of operation for the **S2.067, S2.068 and S2.072** each on a monthly basis.
    - (3) Install, calibrate, operate and maintain devices for the measurement of the pressure drop across the baghouse of **S2.067, S2.068 and S2.072**.
    - (4) Conduct and record a reading of the pressure drop across the baghouse once during each day of operation. Record any monitored occurrences when the baghouse pressure drop falls outside the specified operating range and record any corrective actions taken.
    - (5) Maintain records of the specified operating range for the baghouse on site and available for inspection upon request. The specified operating range will be determined by Permittee based on operating experience and the manufacturer's recommendations.
    - (6) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (7) The hourly throughput rate of gold ore and mine rock samples in tons per hour for **S2.067, S2.068 and S2.072** each will be determined from the total monthly throughput and the total monthly hours of operation recorded above.



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**Section VI. Specific Operating Conditions (continued)**

**BS. Emission Units S2.067, S2.068 and S2.072 (Continued)**

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Compliance with conditions BS.1 through BS.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit:

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

The following requirements are not applicable to **S2067, S2.068 and S2.072:**

*Note: For S2.067, S2.068 and S2.072 (Metallurgical Laboratory Crushers and Pulverizers): Laboratory crushers and ancillary equipment are not subject to 40 CFR Part 60, Subpart LL (Standards of Performance for Metallic Mineral Processing Plants) because they are not specifically defined under Subparts 60.380 to 60.381, revised as of July 1, 2002.*



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**Section VI. Specific Operating Conditions (continued)**

BT. Emission Units **S2.074 through S2.077** Location North 4,535.8 km, East 554.4 km, UTM (Zone 11)

**System 72 - Metallurgical Fire Assay Facility**

S 2.074 - 77 Furnaces

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **S2.074 through S2.077** each will be ducted to a control system consisting of a baghouse. The baghouse will be operated in accordance with the manufacturer's recommendations at all times during the operation of **S2.074 through S2.077**, including startup and shutdown. The capture efficiency of the control system will be 100% such that all process emissions from **S2.074 through S2.077** each will be captured and ducted to the baghouse.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of **S2.074 through S2.077**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of the baghouse of **S2.074 through S2.077**, the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.192 pound per hour.
  - b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.192 pound per hour.
  - c. NAC 445B.22017 (State Only Requirement) - The opacity from the exhaust stack of **S2.074 through S2.077** will not equal or exceed 20% in accordance with NAC 445B.22017.
  - d. NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust stack of **S2.074 through S2.077** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable throughput rate for **S2.074 through S2.077** will not exceed 0.0104 ton of assay samples total, per any one-hour period.
  - b. **S2.074 through S2.077** may operate 8,760 hours per year, each.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial start up, Permittee will:
    - (1) Monitor and record the throughput of assay samples for **S2.074 through S2.077** on a monthly basis.
    - (2) Monitor and record the hours of operation for **S2.074 through S2.077** on a monthly basis.
    - (3) Install, calibrate, operate and maintain devices for the measurement of the pressure drop across the baghouse of **S2.074 through S2.077**.
    - (4) Conduct and record a reading of the pressure drop across the baghouse once during each day of operation. Record any monitored occurrences when the baghouse pressure drop falls outside the specified operating range and record any corrective actions taken.
    - (5) Maintain records of the specified operating range for the baghouse on site and available for inspection upon request. The specified operating range will be determined by Permittee based on operating experience and the manufacturer's recommendations.
    - (6) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (7) The hourly throughput rate of assay samples in tons per hour for **S2.074 through S2.077** will be determined from the total monthly throughput and the total monthly hours of operation recorded above.



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**Section VI. Specific Operating Conditions (continued)**

**BT. Emission Units S2.074 through S2.077 (Continued)**

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Compliance with conditions BT.1 through BT.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit:

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

The following requirements are not applicable to **S2.074 through S2.077**:

*Note: For **S2.074 through S2.077** (Fire Assay Furnaces): Fire assay furnaces and ancillary equipment are not subject to 40 CFR Part 60, Subpart LL (Standards of Performance for Metallic Mineral Processing Plants) because they are not specifically defined under Subparts 60.380 to 60.381, revised as of July 1, 2002.*



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**Section VI. Specific Operating Conditions (continued)**

BU. Emission Units **S2.079** and **PF1.027** Location North 4,535.8 km, East 555.2 km, UTM (Zone 11)

**System 73 - AA Block Heap Leaching Lime Silo**

S 2.079 Lime silo (loading)  
PF 1.027 Lime silo (discharge)

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **S2.079** will be ducted to a vent filter with 100% capture.  
Emissions from **PF1.027** will be controlled by an enclosure that completely encloses the discharge point.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the date of startup of **S2.079**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vent of **S2.079**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.16 pound per hour, nor exceed 0.0015 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.16 pound per hour, nor exceed 0.0015 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from the exhaust vent of **S2.079** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust vent of **S2.079** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. On and after the date of startup of **PF1.027**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.027**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.00025 pound per hour, nor exceed 0.0011 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.00025 pound per hour, nor exceed 0.0011 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from **PF1.027** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **PF1.027** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable loading rate for **S2.079** will not exceed 60.0 tons of lime per any one-hour period, nor more than 1,100 tons of lime per year, based on a 12-month rolling period.
  - b. The maximum allowable discharge rate for **PF1.027** will not exceed 0.125 ton of lime per any one-hour period, nor more than 1,100 tons of lime per year, based on a 12-month rolling period.
  - c. **S2.079** and **PF1.027** may operate 8,760 hours per year, each.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial start up, Permittee will:
    - (1) Monitor and record the amount of lime loaded into **S2.079** and the duration of the loading each day loading occurs. At the end of each calendar month, record the total monthly lime throughput and the total lime throughput for the previous 12 months.
    - (2) Monitor and record the amount of lime discharged from **PF1.027** on a monthly basis. The amount of lime will be based on purchasing receipts and measurements of the level of lime in the silo at the beginning and end of the month. At the end of each calendar month, record the total lime throughput for the previous 12 months.
    - (3) Monitor and record the hours of operation of **PF1.027** on a monthly basis.
    - (4) Install, calibrate, operate and maintain a device for the measurement of the level of lime in the silo.
    - (5) Conduct and record an inspection of the vent filter on **S2.079** on a quarterly basis noting the condition of the filter material and housing. Record any corrective actions taken.
    - (6) Conduct and record an inspection of the enclosure on **PF1.027** on an annual basis to verify that the enclosure is intact. Record the inspection results and any corrective actions taken.



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**Section VI. Specific Operating Conditions (continued)**

**BU. Emission Units S2.079 and PF1.027 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (continued)
  - a. Monitoring and Recordkeeping (continued)
    - (7) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vent of **S2.079** on a quarterly basis and from **PF1.027** on an annual basis. If visible emissions appear to exceed the opacity limit, as established in BU.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.079 and PF1.027** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.079 and PF1.027** not operating or due to poor weather conditions.
    - (8) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (9) The hourly discharge rate in tons per hour for **PF1.027** will be determined from the total monthly discharge rate and the total monthly hours of operation recorded above.
    - (10) The hourly loading rate in tons per hour for **S2.079** will be determined from the total daily throughput and the total daily hours of operation recorded above.

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Compliance with conditions BU.1 through BU.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

BV. Emission Units **S2.025 through S2.027** Location North 4,535.8 km, East 555.0 km, UTM (Zone 11)

**System 74 - Propane Vaporizers**

- |   |       |                      |
|---|-------|----------------------|
| S | 2.025 | Propane Vaporizer #1 |
| S | 2.026 | Propane Vaporizer #2 |
| S | 2.027 | Propane Vaporizer #3 |

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
**S2.025 through S2.027** each will be operated in a manner that minimizes emissions.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of **S2.025 through S2.027**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stacks of **S2.025 through S2.027**, the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.069 pound per hour each.
  - b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.069 pound per hour each.
  - c. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed 0.004 pound per hour each.
  - d. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere will not exceed 1.33 pounds per hour each.
  - e. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of CO (carbon monoxide) to the atmosphere will not exceed 0.41 pound per hour each.
  - f. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 0.51 pound per hour each.
  - g. NAC 445B.22017 (State Only Requirement) - The opacity from the exhaust stacks of **S2.025 through S2.027** will not equal or exceed 20% in accordance with NAC 445B.22017.
  - h. NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust stacks of **S2.025 through S2.027** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. **S2.025 through S2.027** may only combust HD- 5 grade propane only.
  - b. The maximum HD-5 propane heat input rate for **S2.025 through S2.027** will not exceed 4.6 million Btu's per any one-hour period, each.
  - c. The maximum fuel consumption rate for **S2.025 through S2.027** will not exceed 50.2 gallons of HD-5 grade propane per any one-hour period, each.
  - d. **S2.025 through S2.027** may operate 8,760 hours per year, each.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial start up, Permittee will:
    - (1) Monitor and record the amount of HD-5 propane combusted in **S2.025 through S2.027** on a monthly basis.
    - (2) Monitor and record the hours of operation of **S2.025 through S2.027** on a monthly basis.
    - (3) Install, calibrate, operate and maintain a device for the measurement of the fuel combustion rate for **S2.025 through S2.027**.
    - (4) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (5) The hourly propane heat input rate in millions of Btu's per hour for **S2.025 through S2.027** will be determined from the total monthly propane consumption and the total monthly hours of operation recorded above.



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**Section VI. Specific Operating Conditions (continued)**

**BV. Emission Units S2.025 through S2.027 (continued)**

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

Compliance with conditions BV.1 through BV.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

Article 8.2 (Sulfur Emissions - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.2203 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

445B.22047 (Sulfur Emissions - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

<b>BW. Emission Unit S2.080</b>	Location North 4,536.2 km, East 554.7 km, UTM (Zone 11)
<b>Emission Unit S2.081</b>	Location North 4,536.9 km, East 552.4 km, UTM (Zone 11)
<b>Emission Unit S2.082</b>	Location North 4,535.8 km, East 555.0 km, UTM (Zone 11)
<b>Emission Unit S2.083</b>	Location North 4,537.8 km, East 552.0 km, UTM (Zone 11)

**System 75 - Fuel Storage Tanks**

S 2.080	Fuel oil storage tank, 150,000 gallons
S 2.081	Fuel oil storage tank, 250,000 gallons
S 2.082	Gasoline storage tank, 12,000 gallons
S 2.083	Fuel oil storage tank, 34,200 gallons

- Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
**S2.080 through S2.083** each are fixed roof tanks equipped for submerged filling.
- Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - On and after the date of startup of **S2.080**, Permittee will not discharge or cause the discharge into the atmosphere from **S2.080**, the following pollutants in excess of the following specified limits:
    - NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 0.28 ton per year, based on a 12-month rolling period.
    - NAC 445B.22017 (State Only Requirement) - The opacity from **S2.080** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **S2.080** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - On and after the date of startup of **S2.081**, Permittee will not discharge or cause the discharge into the atmosphere from **S2.081**, the following pollutants in excess of the following specified limits:
    - NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 0.085 ton per year, based on a 12-month rolling period.
    - NAC 445B.22017 (State Only Requirement) - The opacity from **S2.081** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **S2.081** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - On and after the date of startup of **S2.082**, Permittee will not discharge or cause the discharge into the atmosphere from **S2.082**, the following pollutants in excess of the following specified limits:
    - NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 3.19 tons per year, based on a 12-month rolling period.
    - NAC 445B.22017 (State Only Requirement) - The opacity from **S2.082** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **S2.082** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - On and after the date of startup of **S2.083**, Permittee will not discharge or cause the discharge into the atmosphere from **S2.083**, the following pollutants in excess of the following specified limits:
    - NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 0.018 ton per year, based on a 12-month rolling period.
    - NAC 445B.22017 (State Only Requirement) - The opacity from **S2.083** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **S2.083** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - S2.080, S2.081 and S2.083** each may store fuel oil only.
  - S2.082** may store gasoline only.
  - The maximum allowable throughput for **S2.080** will not exceed 25,000,000 gallons of #2 fuel oil per year, based on a 12-month rolling period.
  - The maximum allowable throughput for **S2.081** will not exceed 5,600,000 gallons of #2 fuel oil per year, based on a 12-month rolling period.
  - The maximum allowable throughput for **S2.082** will not exceed 530,000 gallons of gasoline per year, based on a 12-month rolling period.
  - The maximum allowable throughput for **S2.083** will not exceed 3,000,000 gallons of #2 fuel oil per year, based on a 12-month rolling period.
  - S2.080 through S2.083** each may operate 8,760 hours per year.



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**Section VI. Specific Operating Conditions (continued)**

BW. Emission Unit S2.080 through S2.083 (continued)

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

a. Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the amount of fuel loaded in **S2.080 through S2.083** each, on a monthly basis. At the end of each calendar month, record the total fuel throughput for the previous 12 months.
- (2) Maintain records of the tank dimensions and capacity for the life of **S2.080 through S2.083** each in accordance with 40 CFR. Part 60, Subpart Kb.
- (3) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

N/A

The following requirements are not applicable to **S2.080 through S2.083**:

*40 CFR 60 (NSPS) (Revised as of July 1, 2002) Subparts K, Ka, and Kb (except for paragraphs (a) and (b) of 60.116b).*

*Each tank was constructed after July 23, 1984. **S2.082** has a design capacity of less than 75 cubic meters (17,027 gallons). **S2.083** has a design capacity of greater than 75 cubic meters and less than 151 cubic meters (34,280 gallons), and stores a liquid with a maximum true vapor pressure of less than 15 kPa. **S2.080 and S2.081** have a design capacity of greater than 151 cubic meters and store a liquid with a maximum true vapor pressure of less than 3.5 kPa.*



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**Section VI. Specific Operating Conditions (continued)**

**BX. Emission Units S2.104 through S2.107** Location North 4,539.1 km, East 552.0 km, UTM (Zone 11)

**System 76 - Meikle Mine Air Heaters**

- S 2.104 Air heater #1
- S 2.105 Air heater #2
- S 2.106 Air heater #3
- S 2.107 Air heater #4

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
**S2.104 through S2.107** each will be operated in a manner that minimizes emissions.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of **S2.104 through S2.107**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stream of **S2.104 through S2.107**, the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.37 pound per hour total, nor exceed 0.20 ton per year total, based on a 12 month rolling period.
  - b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.37 pound per hour total, nor exceed 0.20 ton per year total, based on a 12 month rolling period.
  - c. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed 0.052 pound per hour total, nor exceed 0.028 ton per year total, based on a 12 month rolling period.
  - d. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere will not exceed 11.63 pounds per hour total, nor exceed 6.18 tons per year total, based on a 12 month rolling period.
  - e. T NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of CO (carbon monoxide) to the atmosphere will not exceed 1.96 pounds per hour total, nor exceed 1.04 tons per year total, based on a 12 month rolling period.
  - f. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 0.31 pound per hour total, nor exceed 0.16 ton per year total, based on a 12 month rolling period.
  - g. NAC 445B.22017 (State Only Requirement) - The opacity from the exhaust stream of **S2.104 through S2.107** each will not equal or exceed 20% in accordance with NAC 445B.22017.
  - h. NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust stream of **S2.104 through S2.107** each will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. **S2.104 through S2.107** each may combust HD- 5 grade propane or pipeline quality natural gas only. Combustion of a blend of these fuels is prohibited.
  - b. The fuel heat input rate for **S2.104 through S2.107** will not exceed 56.1 million Btu's per any one hour period, total, nor exceed 59,540 million Btu's per year, total, based on a 12-month rolling period.
  - c. The maximum fuel consumption rate for **S2.104 through S2.107** will not exceed 612.5 gallons of HD-5 grade propane per any one-hour period, total.
  - d. The maximum fuel consumption rate for **S2.104 through S2.107** will not exceed 56,100 cubic feet of pipeline quality natural gas per any one-hour period, total.
  - e. **S2.104 through S2.107** each may operate 8,760 hours per year, each.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial start up, Permittee will:
    - (1) Monitor and record the type and amount of fuel (HD-5 propane or pipeline quality natural gas) combusted in **S2.104 through S2.107** each on a monthly basis.
    - (2) Monitor and record the hours of operation of **S2.104 through S2.107** each on a monthly basis.
    - (3) Install, calibrate, operate and maintain a device for the measurement of the fuel combustion rate for **S2.104 through S2.107** each.
    - (4) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (5) The hourly fuel heat input rate in millions of Btu's per hour for **S2.104 through S2.107** each will be determined from the total monthly fuel consumption and the total monthly hours of operation recorded above.



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**BX. Emission Units S2.104 through S2.107 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (Continued)
  - b. Periodic Compliance Testing
    - (1) Permittee will conduct and record the following periodic compliance tests on the exhaust stacks of **S2.104 through S2.107** each. **The periodic compliance tests will be conducted at least 90 days prior to the date of expiration of this permit, but no earlier than 365 days from the date of expiration of this permit.** The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable heat input rate (subject to Condition BX.4.a.(3) of this Section and not to exceed the maximum allowable heat input rate as established in BX.3.b. of this Section).
      - (a) Method 7E compliance test for NO<sub>x</sub> in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
      - (b) Method 10 compliance test for CO in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Compliance with conditions BX.1 through BX.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).  
Article 8.2 (Sulfur Emissions - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.2203 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).  
445B.22047 (Sulfur Emissions - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

BY. Emission Units PF1.125 and PF1.126 Location North 4,537.9 km, East 552.2 km, UTM (Zone 11)

**System 77 - Rodeo Shaft**

PF 1.125 Skip (discharge)

PF 1.126 Chute (discharge)

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **PF1.125** will be controlled by an enclosure.  
**PF1.126** will be operated in a manner that minimizes emissions.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the date of startup of **PF1.125**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.125**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.022 pound per hour, nor exceed 0.032 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.063 pound per hour, nor exceed 0.093 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from **PF1.125** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **PF1.125** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. On and after the date of startup of **PF1.126**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.126**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.236 pound per hour, nor exceed 0.344 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.673 pound per hour, nor exceed 0.983 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from **PF1.126** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **PF1.126** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable discharge rate for **PF1.125 and PF1.126** will not exceed 250.0 tons of ore/rock per any one-hour period, each, nor more than 730,000 tons of ore/rock per year, each, based on a 12-month rolling period.
  - b. **PF1.125 and PF1.126** may operate 8,760 hours per year, each.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial start up, Permittee will:
    - (1) Monitor and record the throughput rate for **PF1.125 and PF1.126** each on a daily basis. At the end of the calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation for **PF1.125 and PF1.126** each on a daily basis
    - (3) Conduct and record an inspection of the enclosure on **PF1.125** on an annual basis to verify that the enclosures are intact. Record the inspection results and any corrective actions taken.
    - (4) Conduct and record an assessment of the visible emissions (excluding water vapor) from **PF1.125 and PF1.126** each on an annual basis. If visible emissions appear to exceed the opacity limit, as established in BY.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **PF1.125 and PF1.126** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **PF1.125 and PF1.126** not operating or due to poor weather conditions.
    - (5) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (6) The hourly discharge rate in tons per hour for **PF1.125 and PF1.126** each will be determined from the total daily throughput and the total daily hours of operation recorded above.



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**Section VI. Specific Operating Conditions (continued)**

**BY. Emission Units PF1.125 and PF1.126 (continued)**

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Compliance with conditions BY.1 through BY.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

The following requirements are not applicable to **PF1.125** and **PF1.126**:

*Note: For **PF1.125** and **PF1.26** (Rodeo Bucket and Chute): Bucket and chute from the shaft/minehead are not subject to 40 CFR part 60, Subpart LL (Standards of Performance for Metallic Mineral Processing Plants) because they are not specifically defined under Subparts 60.380 to 60.381, revised as of July 1, 2002.*



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**Section VI. Specific Operating Conditions (continued)**

BZ. Emission Unit **S2.224** Location North 4,538.4 km, East 552.2 km, UTM (Zone 11)

**System 78 - Cooling Tower**

S 2.224 Oxygen plant cooling tower

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **S2.224** will be controlled by drift eliminators with a manufacturer's guaranteed drift loss of 0.008% of total circulating flow and operated in a manner which ensures compliance with the emission limits and the opacity standard.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of **S2.224**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vent of **S2.224**, the following pollutants in excess of the following specified limits:
  - a. (NAC 445B.3405) (NAC 445B.316) Federally Enforceable Part 70 Program - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.238 pound per hour.
  - b. NAC 445B.305 Federally Enforceable Part 70 Program - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.238 pound per hour.
  - c. NAC 445B.22017 State Only Requirement - The opacity from **S2.224** will not equal or exceed 20% in accordance with NAC 445B.22017.
  - d. NAC 445.721 Federally Enforceable SIP Requirement - The opacity from the exhaust vent of **S2.224** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Circulating water flow rate of **S2.224** will not exceed 7,600 gallons of water per minute.
  - b. The total dissolved solids content (TDS) of the circulating water in **S2.224** will not exceed 2500 ppm.
  - c. **S2.224** may operate 8,760 hours per year.
  - d. The use of chromium based water treatment chemicals is prohibited.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of initial startup, Permittee will monitor and record the TDS value of the circulating water of **S2.224** on a calendar quarter basis.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Compliance with conditions BZ.1 through BZ.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources Not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

The following requirements are not applicable to **S2.224**:

**S2.224** (Oxygen Plant Water Cooling Tower) is not subject to 40 CFR 63 Subpart Q "National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers". The water cooling tower does not utilize chromium-based water treatment chemicals.



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**Section VI. Specific Operating Conditions (continued)**

CA. Emission Units PF1.327, PF1.328, PF1.328.1 and PF1.329 - Removed from the permit as part of the renewal process.

**System 79 - Removed**

PF 1.327	Bin
PF 1.328	Feeder
PF 1.328.1	Conveyor
PF 1.329	Stacker



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**Section VI. Specific Operating Conditions (continued)**

CB. Emission Units PF1.330, PF1.331, PF1.332, PF1.333, PF1.333.1 and PF1.334 - Removed from the permit as part of the renewal process

**System 80 - Removed**

PF 1.330	Headframe buckets
PF 1.331	Headframe chute
PF 1.332	Bin
PF 1.333	Feeder
PF 1.333.1	Conveyor
PF 1.334	Stacker



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Issued to: Barrick Goldstrike Mines Inc.

**Section VI. Specific Operating Conditions (continued)**

CC. Emission Units **S2.303, S2.304, PF1.335, and PF1.336** Location North 4,537.9 km, East 552.2 km, UTM (Zone 11)

**System 81 - Rodeo Backfill Mixing Plant Cement/Fly Ash Silos #1 and #2**

S	2.303	Cement/fly ash silo #1 (loading)
S	2.304	Cement/fly ash silo #2 (loading)
PF	1.335	Cement/fly ash silo #1 discharge/transfer to screw conveyor
PF	1.336	Cement/fly ash silo #2 discharge/transfer to screw conveyor

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **S2.303 and S2.304** each will be ducted to a vent filter with 100% capture.  
Emissions from **PF1.335 and PF1.336** each will be controlled by full enclosures.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the date of startup of **S2.303 and S2.304**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vents of **S2.303 and S2.304**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.324 pound per hour, each, nor exceed 0.270 ton per year, total, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.324 pound per hour, each, nor exceed 0.270 ton per year, total, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from exhaust vents of **S2.303 and S2.304** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust vents of **S2.303 and S2.304** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. On and after the date of startup of **PF1.335 and PF1.336**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.335 and PF1.336**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.240 pound per hour, each, nor exceed 0.200 ton per year, total, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.240 pound per hour, each, nor exceed 0.200 ton per year, total, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from **PF1.335 and PF1.336** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **PF1.335 and PF1.336** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable loading rate for **S2.303 and S2.304** will not exceed 120.0 tons of cement/fly ash per any one-hour period, each, nor more than 200,000 tons of cement/fly ash per year, total, based on a 12-month rolling period.
  - b. The maximum allowable throughput rate for **PF1.335 and PF1.336** will not exceed 120.0 tons of cement/fly ash per any one-hour period, each, nor more than 200,000 tons of cement/fly ash per year, total, based on a 12-month rolling period.
  - c. **S2.303, S2.304, PF1.335 and PF1.336** may operate 8,760 hours per year, each.



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**CC. Emission Units S2.303, S2.304, PF1.335, and PF1.336 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*

a. Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the amount of cement/fly ash loaded into **S2.303 and S2.304** and the duration of the loading each day loading occurs. At the end of the calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
- (2) Monitor and record the amount of Cement/fly ash discharged from **PF1.335 and PF1.336** on a monthly basis. The amount of cement/fly ash will be based on purchasing receipts and measurements of the level of the cement/fly ash in the silo at the beginning and end of the month. At the end of each calendar month, record the total cement/fly ash throughput for the previous 12 months.
- (3) Monitor and record the hours of operation of **PF1.335 and PF1.336** on a monthly basis.
- (4) Install, calibrate, operate and maintain a device for the measurement of the level of the cement/fly ash in the silos.
- (5) Conduct and record an inspection of the vent filters on **S2.303 and S2.304** on an annual basis noting the condition of the filters and housing. Record the inspection results and any corrective actions taken.
- (6) Conduct and record an inspection of the enclosures on **PF1.335 and PF1.336** on an annual basis to verify that the enclosures are intact. Record the inspection results and any corrective actions taken.
- (7) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vents of **S2.303 and S2.304** each on a quarterly basis, and from **PF1.335 and PF1.336** each on an annual basis. If visible emissions appear to exceed the opacity limit, as established in CC.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **S2.303, S2.304, PF1.335 and PF1.336** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **S2.303, S2.304, PF1.335 and PF1.336** not operating or due to poor weather conditions.
- (8) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (9) The hourly throughput rate in tons per hour for **PF1.335 and PF1.336** will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
- (10) The hourly loading rate in tons per hour for **S2.303 and S2.304** will be determined from the total daily throughput and the total daily hours of operation recorded above.

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*

Compliance with conditions CC.1 through CC.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

CD. Emission Unit PF1.340 Location North 4,537.9 km, East 552.2 km, UTM (Zone 11)

**System 82 - Rodeo Backfill Mixing Plant Slurry Mixer**

PF 1.340 Mixer Loading

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **PF1.340** will be controlled by a building enclosure.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the date of startup of **PF1.340**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.340**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.480 pound per hour, nor exceed 0.400 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.480 pound per hour, nor exceed 0.400 ton per year, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (State Only Requirement) - The opacity from **PF1.340** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **PF1.340** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable loading rate for **PF1.340** will not exceed 120.0 tons of cement and fly ash per any one-hour period, nor more than 200,000 tons of cement and fly ash per year, based on a 12-month rolling period.
  - b. **PF1.340** may operate 8,760 hours per year.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the throughput of **PF1.340** on a daily basis. At the end of the calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation of **PF1.340** on a daily basis.
    - (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from **PF1.340** on an annual basis. If visible emissions appear to exceed the opacity limit, as established in CD.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **PF1.340** is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **PF1.340** not operating or due to poor weather conditions.
    - (4) Conduct and record an inspection of the enclosure on **PF1.340** on an annual basis to verify that the enclosure is intact. Record the inspection results and any corrective actions taken.
    - (5) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (6) The hourly loading rate in tons per hour for **PF1.340** will be determined from the total daily throughput and the total daily hours of operation recorded above.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Compliance with conditions CD.1 through CD.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

CE – CF. Systems 83 and 84 – Removed from permit January 3, 2002.

**Systems 83 and 84 - Rodeo Shotcrete Plant**

- S 2.305 Cement/Fly Ash Silo #1 (pneumatic loading)
- S 2.306 Cement/Fly Ash Silo #2 (pneumatic loading)
- PF 1.341 Cement/Fly Ash Silo #1 (discharge to screw conveyor)
- PF 1.342 Cement/Fly Ash Silo #2 (discharge to screw conveyor)
- PF 1.343 Sand/Aggregate transfer from Stack to Feeder Hopper & Conveyor
- PF 1.344 Sand/Aggregate transfer from Stack to Feeder Hopper & Conveyor
- PF 1.345 Weigh Hopper Loading
- PF 1.346 Mixer Loading



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**Section VI. Specific Operating Conditions (continued)**

CG. Emission Unit PF1.347 Location North 4,537.9 km, East 552.2 km, UTM (Zone 11)

**System 85 - Rodeo Backfill Feed Plant Aggregate Feed**

PF 1.347 Feed hopper loading

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **PF1.347** will be controlled by a wind shield.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of **PF1.347**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.347**, the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> to the atmosphere will not exceed 0.083 pound per hour, nor exceed 0.072 ton per year, based on a 12-month rolling period.
  - b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM to the atmosphere will not exceed 0.236 pound per hour, nor exceed 0.205 ton per year, based on a 12-month rolling period.
  - c. NAC 445B.22017 (State Only Requirement) - The opacity from **PF1.347** will not equal or exceed 20% in accordance with NAC 445B.22017.
  - d. NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **PF1.347** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable loading rate for **PF1.347** will not exceed 750.0 tons of aggregate per any one-hour period, nor more than 1,300,000 tons of aggregate per year, based on a 12-month rolling period.
  - b. **PF1.347** may operate 8,760 hours per year.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the throughput of **PF1.347** on a daily basis. At the end of the calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation of **PF1.347** on a daily basis.
    - (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from **PF1.347** on an annual basis. If visible emissions appear to exceed the opacity limit, as established in CG.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **PF1.347** is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **PF1.347** not operating or due to poor weather conditions.
    - (4) Conduct and record an inspection of the windshield on **PF1.347** on an annual basis to verify that the wind shield is intact. Record the inspection results and any corrective actions taken.
    - (5) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (6) The hourly loading rate in tons per hour for **PF1.347** will be determined from the total daily throughput and the total daily hours of operation recorded above.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Compliance with conditions CG.1 through CG.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

The following requirements are not applicable to **PF1.347**:

Note: For **PF 1.347 (Feed Hopper Loading)** -- Truck dumping into a feed hopper is specifically exempt from 40 CFR Part 60, Subpart OOO (Standards of Performance for Non-Metallic Mineral Processing Plants) per Subpart 60.672(d), revised as of July 1, 2002



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**Section VI. Specific Operating Conditions (continued)**

CH. Emission Units PF1.350 and PF1.351 Location North 4,537.9 km, East 552.2 km, UTM (Zone 11)

**System 86 - Rodeo Shotcrete Loadout Station**

PF 1.350 Delivery truck discharge

PF 1.351 Screw conveyor discharge/transfer

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **PF1.350 and PF1.351** will be controlled by full enclosures.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of **PF1.350 and PF1.351**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.350 and PF1.351**, the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.120 pound per hour, each, nor exceed 0.060 ton per year, each, based on a 12-month rolling period.
  - b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.120 pound per hour, each, nor exceed 0.060 ton per year, each, based on a 12-month rolling period.
  - c. NAC 445B.22017 (State Only Requirement) - The opacity from **PF1.350 and PF1.351** will not equal or exceed 20% in accordance with NAC 445B.22017.
  - d. NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from **PF1.350 and PF1.351** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum allowable throughput rate for **PF1.350 and PF1.351** will not exceed 60.0 tons of shotcrete per any one-hour period, each, nor more than 60,000 tons of shotcrete per year, each, based on a 12-month rolling period.
  - b. **PF1.350 and PF1.351** may operate 8,760 hours per year, each.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the throughput of **PF1.350 and PF1.351** on a daily basis. At the end of the calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation of **PF1.350 and PF1.351** on a daily basis.
    - (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from **PF1.350 and PF1.351** each on an annual basis. If visible emissions appear to exceed the opacity limit, as established in CH.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **PF1.350 and PF1.351** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **PF1.350 and PF1.351** not operating or due to poor weather conditions.
    - (4) Conduct and record an inspection of the enclosures on **PF1.350 and PF1.351** on an annual basis to verify that the enclosures are intact. Record the inspection results and any corrective actions taken.
    - (5) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (6) The hourly throughput rate in tons per hour for **PF1.350 and PF1.351** will be determined from the total daily throughput and the total daily hours of operation recorded above.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Compliance with conditions CH.1 through CH.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

CI. Emission Units **S2.307 through S2.310** Location North 4,537.9 km, East 552.2 km, UTM (Zone 11)

**System 87 - Rodeo Mine Air Heaters**

- S 2.307 Air heater #1
- S 2.308 Air heater #2
- S 2.309 Air heater #3
- S 2.310 Air heater #4

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
**S2.307 through S2.310** will be controlled in a manner which minimizes emissions.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of **S2.307 through S2.310**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust streams of **S2.307 through S2.310**, the following pollutants in excess of the following specified limits:
  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.75 pound per hour total, nor exceed 0.49 ton per year total, based on a 12-month rolling period.
  - b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.75 pound per hour total, nor exceed 0.49 ton per year total, based on a 12-month rolling period.
  - c. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed 0.046 pound per hour total, nor exceed 0.03 ton per year total, based on a 12-month rolling period.
  - d. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere will not exceed 10.00 pounds per hour total, nor exceed 6.53 tons per year total, based on a 12-month rolling period.
  - e. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of CO (carbon monoxide) to the atmosphere will not exceed 15.0 pounds per hour total, nor exceed 9.80 tons per year total, based on a 12-month rolling period.
  - f. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 11.50 pounds per hour total, nor exceed 7.51 tons per year total, based on a 12-month rolling period.
  - g. NAC 445B.22017 (State Only Requirement) - The opacity from the exhaust streams of **S2.307 through S2.310** each will not equal or exceed 20% in accordance with NAC 445B.22017.
  - h. NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust streams of **S2.307 through S2.310** each will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. **S2.307 through S2.310** each may only combust HD- 5 grade propane or pipeline quality natural gas only. Combustion of a blend of these fuels is prohibited.
  - b. The fuel heat input rate for **S2.307 through S2.310** will not exceed 50.0 million Btu's per any one hour period total, nor exceed 65,333 million Btu's per year total, based on a 12-month rolling period.
  - c. The maximum fuel consumption rate for **S2.307 through S2.310** will not exceed 546.0 gallons of HD-5 grade propane per any one-hour period, total.
  - d. The maximum fuel consumption rate for **S2.307 through S2.310** will not exceed 50,000 cubic feet of pipeline quality natural gas per any one-hour period, total.
  - e. **S2.307 through S2.310** may operate 8,760 hours per year, each.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the type (HD-5 propane or pipeline quality natural gas) and amount of fuel combusted in **S2.307 through S2.310** total on a monthly basis. At the end of each month, record the total monthly fuel use for the previous 12 months.
    - (2) Monitor and record the hours of operation of **S2.307 through S2.310** total on a monthly basis.
    - (3) Install, calibrate, operate and maintain a device for the measurement of the fuel combustion rate for **S2.307 through S2.310** total.
    - (4) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (5) The hourly fuel heat input rate in millions of Btu's per hour for **S2.307 through S2.310** total will be determined from the total monthly fuel consumption and the total monthly hours of operation recorded above.



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**Section VI. Specific Operating Conditions (continued)**

**CI. Emission Units S2.307 through S2.310 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (Continued)
  - b. Periodic Compliance Testing
    - (1) Permittee will conduct and record the following periodic compliance tests on the exhaust stacks of **S2.307 through S2.310** each. **The periodic compliance tests will be conducted at least 90 days prior to the date of expiration of this permit, but no earlier than 365 days from the date of expiration of this permit.** The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable heat input rate (subject to Condition CI.4.a.(3) of this Section and not to exceed the maximum allowable heat input rate as established in CI.3.b. of this Section).
      - (a) Method 7E compliance test for NO<sub>x</sub> in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
      - (b) Method 10 compliance test for CO in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Compliance with conditions CI.1 through CI.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

Article 8.2 (Sulfur Emissions - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.2203 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

445B.22047 (Sulfur Emissions - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

CJ. Emission Units PF1.352 through PF1.359 Location North 4,539.4 km, East 552.1 km, UTM (Zone 11), or  
Emission Units PF1.352 through PF1.359 Location North 4,538.4 km, East 552.6 km, UTM (Zone 11)

**System 88 - Backup Crushing System**

PF 1.352 Crusher feeder (load)  
PF 1.353 Crusher feeder (discharge)  
PF 1.354 Primary crusher  
PF 1.355 Crusher outlet conveyor transfer  
PF 1.356 Conveyor transfer  
PF 1.357 Hopper (load)  
PF 1.358 Hopper (discharge)  
PF 1.359 Conveyor transfer

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
At all times **PF1.353 through PF1.356 and PF1.358 and PF1.359** each, process aggregate, emissions from **PF1.353 through PF1.356 and PF1.358 and PF1.359** each will be controlled by pneumatic water spray systems.  
At all times **PF1.352 through PF1.359** each, process ore, emissions from **PF1.352 through PF1.359** each will be controlled by pneumatic water spray systems.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the date of startup of **PF1.352**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.352**, the following pollutants in excess of the following specified limits for aggregate and ore processing:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.805 pound per hour (during aggregate processing) and 0.058 pound per hour (during ore processing), nor exceed 1.260 tons per year (during aggregate processing) and 0.194 ton per year (during ore processing), based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 1.691 pounds per hour (during aggregate processing) and 0.166 pound per hour (during ore processing), nor exceed 2.646 tons per year (during aggregate processing) and 0.553 ton per year (during ore processing), based on a 12-month rolling period.
  - b. On and after the date of startup of **PF1.353**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.353**, the following pollutants in excess of the following specified limits for aggregate and ore processing:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.040 pound per hour (during aggregate processing) and 0.058 pound per hour (during ore processing), nor exceed 0.063 ton per year (during aggregate processing) and 0.194 ton per year (during ore processing), based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.085 pound per hour (during aggregate processing) and 0.166 pound per hour (during ore processing), nor exceed 0.132 ton per year (during aggregate processing) and 0.553 ton per year (during ore processing), based on a 12-month rolling period.
  - c. On and after the date of startup of **PF1.354**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.354**, the following pollutants in excess of the following specified limits for aggregate and ore processing:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.069 pound per hour (during aggregate processing) and 0.727 pound per hour (during ore processing), nor exceed 0.108 ton per year (during aggregate processing) and 2.423 tons per year (during ore processing), based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.145 pound per hour (during aggregate processing) and 1.526 pounds per hour (during ore processing), nor exceed 0.227 ton per year (during aggregate processing) and 5.088 tons per year (during ore processing), based on a 12-month rolling period.
  - d. On and after the date of startup of **PF1.355**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.355**, the following pollutants in excess of the following specified limits for aggregate and ore processing:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.040 pound per hour (during aggregate processing) and 0.058 pound per hour (during ore processing), nor exceed 0.063 ton per year (during aggregate processing) and 0.194 ton per year (during ore processing), based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.085 pound per hour (during aggregate processing) and 0.166 pound per hour (during ore processing), nor exceed 0.132 ton per year (during aggregate processing) and 0.553 ton per year (during ore processing), based on a 12-month rolling period.



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**Section VI. Specific Operating Conditions (continued)**

**C.J. Emission Units PF1.352 through PF1.359 (continued)**

2. Emission Limits NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (continued)
- e. On and after the date of startup of **PF1.356**, will not discharge or cause the discharge into the atmosphere from **PF1.356**, the following pollutants in excess of the following specified limits for aggregate and ore processing:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.040 pound per hour (during aggregate processing) and 0.058 pound per hour (during ore processing), nor exceed 0.063 ton per year (during aggregate processing) and 0.194 ton per year (during ore processing), based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.085 pound per hour (during aggregate processing) and 0.166 pound per hour (during ore processing), nor exceed 0.132 ton per year (during aggregate processing) and 0.553 ton per year (during ore processing), based on a 12-month rolling period.
  - f. On and after the date of startup of **PF1.357**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.357**, the following pollutants in excess of the following specified limits for aggregate and ore processing:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.805 pound per hour (during aggregate processing) and 0.058 pound per hour (during ore processing), nor exceed 1.260 tons per year (during aggregate processing) and 0.194 ton per year (during ore processing), based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 1.691 pounds per hour (during aggregate processing) and 0.166 pound per hour (during ore processing), nor exceed 2.646 tons per year (during aggregate processing) and 0.553 ton per year (during ore processing), based on a 12-month rolling period.
  - g. On and after the date of startup of **PF1.358**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.358**, the following pollutants in excess of the following specified limits for aggregate and ore processing:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.040 pound per hour (during aggregate processing) and 0.058 pound per hour (during ore processing), nor exceed 0.063 ton per year (during aggregate processing) and 0.194 ton per year (during ore processing), based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.085 pound per hour (during aggregate processing) and 0.166 pound per hour (during ore processing), nor exceed 0.132 ton per year (during aggregate processing) and 0.553 ton per year (during ore processing), based on a 12-month rolling period.
  - h. On and after the date of startup of **PF1.359**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.359**, the following pollutants in excess of the following specified limits for aggregate and ore processing:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.040 pound per hour (during aggregate processing) and 0.058 pound per hour (during ore processing), nor exceed 0.063 ton per year (during aggregate processing) and 0.194 ton per year (during ore processing), based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.085 pound per hour (during aggregate processing) and 0.166 pound per hour (during ore processing), nor exceed 0.132 ton per year (during aggregate processing) and 0.553 ton per year (during ore processing), based on a 12-month rolling period.
  - i. NAC 445B.22017 (*State Only Requirement*) - The opacity from **PF1.352 through PF1.359** each during aggregate crushing and ore crushing will not equal or exceed 20% in accordance with NAC 445B.22017.
  - j. NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from **PF1.352 through PF1.359** each during aggregate crushing and ore crushing will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.



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**Section VI. Specific Operating Conditions (continued)**

**CJ. Emission Units PF1.352 through PF1.359 (continued)**

2. Emission Limits NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (continued)
- k. New Source Performance Standards (NSPS) - Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)  
On and after the sixtieth day after achieving the maximum production rate at which **PF1.353, PF1.355 PF1.356, PF1.358, and PF1.359** each will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
  - (1) Fugitive emissions from **PF1.353, PF1.355 PF1.356, PF1.358, and PF1.359** each, during aggregate conveying, will not exceed 10 percent opacity. (40 CFR Part 60.672(b))
  - (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction (40 CFR Part 60.11(c)).
  - (3) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.353, PF1.355 PF1.356, PF1.358, and PF1.359** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
- l. New Source Performance Standards (NSPS) - Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)  
On and after the sixtieth day after achieving the maximum production rate at which **PF1.354** will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
  - (1) Fugitive emissions from **PF1.354**, during aggregate crushing, will not exceed 15 percent opacity. (40 CFR Part 60.672(c))
  - (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
  - (3) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.354** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
- m. New Source Performance Standards (NSPS) - Subpart LL - Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part 60.380)  
On and after the sixtieth day after achieving the maximum production rate at which **PF1.352 through PF1.359** will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
  - (1) Process fugitive emissions from **PF1.352 through PF1.359** each, during ore crushing and conveying, will not exceed 10 percent opacity. (40 CFR Part 60.382(b))
  - (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
  - (3) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.352 through PF1.359** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))



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**Section VI. Specific Operating Conditions (continued)**

**CJ. Emission Units PF1.352 through PF1.359 (continued)**

3. Operating Parameters NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. The maximum allowable throughput rate for **PF1.352 through PF1.359** will not exceed 575.0 tons of aggregate per any one-hour period, each, nor more than 1,800,000 tons of aggregate per year, each, based on a 12-month rolling period.
  - b. The maximum allowable throughput rate for **PF1.352 through PF1.359** will not exceed 1,232.0 tons of ore per any one-hour period, each, nor more than 8,212,500 tons of ore per year, each, based on a 12-month rolling period.
  - c. **PF1.352 through PF1.359 may operate only when either System 9 or Emission Units PF1.404 and PF1.405 of System 95 are shut down.**
  - d. **PF1.352 through PF1.359** may operate 8,760 hours per year, each.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

    - (1) Monitor and record the throughput of aggregate and ore for **PF1.352 through PF1.359** each on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (2) Monitor and record the hours of operation of **PF1.352 through PF1.359** each on a daily basis.
    - (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from **PF1.352 through PF1.359** each on a weekly basis. If visible emissions appear to exceed the opacity limit, as established in CJ.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **PF1.352 through PF1.359** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **PF1.352 through PF1.359** not operating or due to poor weather conditions.
    - (4) Inspect the pneumatic water spray systems on **PF1.352 through PF1.359** each, once during each day of operation to verify that they are operating as designed. Record the inspection results and any corrective actions taken.
    - (5) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
    - (6) The hourly throughput rate in tons per hour for **PF1.352 through PF1.359** each will be determined from the total daily throughput and the total daily hours of operation recorded above.
  - b. New Source Performance Standards (NSPS) - Notification and Record Keeping (40 CFR Part 60.7(b))

Permittee, upon the issuance date of this permit, shall:

    - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.



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**Section VI. Specific Operating Conditions (continued)**

**CJ. Emission Units PF1.352 through PF1.359 (continued)**

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

Compliance with conditions CJ.1 through CJ.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

The following requirements are not applicable to **PF1.352 and PF1.357** during aggregate crushing:

*Note: For **PF 1.352 and PF1.357** during aggregate crushing, truck dumping into a feed hopper or a crusher is specifically exempt from 40 CFR Part 60, Subpart OOO (Standards of Performance for Non-Metallic Mineral Processing Plants) per Subpart 60.672(d), revised as of July 1, 2002.*



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**Section VI. Specific Operating Conditions (continued)**

CK. **System 89** – Removed from permit January 3, 2002.

**System 89 – Surge Bin and Stacker**

PF 1.360 Surge Bin

PF 1.361 Stacker (spare stacker conveyor)



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**Section VI. Specific Operating Conditions (continued)**

CL. Emission Unit S2.311.1 Location North 4,535.8 km, East 554.8 km, UTM (Zone 11)  
Emission Units S2.311.2, S2.311.3 and S2.311.4 Location North 4,535.8 km, East 554.8 km, UTM (Zone 11)

**System 90 - Electric Power Generators**

- S 2.311.1 Diesel-fueled engine electric-generator #1 (MP-750, Autoclave)
- S 2.311.2 Diesel-fueled engine electric-generator #2 (MP-598, Autoclave)
- S 2.311.3 Diesel-fueled engine electric-generator #3 (MP-606, Autoclave)
- S 2.311.4 Diesel-fueled engine electric-generator #4 (MP-607, Autoclave)

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program S2.311.1 through S2.311.4 will each be operated in a manner that minimizes emissions.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of S2.311.1 through S2.311.4, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stacks of S2.311.1 through S2.311.4, the following pollutants in excess of the following specified limits, as monitored under CL.4.c.:
  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere from each of S2.311.1 through S2.311.4 will not exceed 2.0 pounds per hour. Permittee will not discharge annual emissions of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) in excess of the amount provided in Section VII.B of this operating permit.
  - b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere from each of S2.311.1 through S2.311.4 will not exceed 2.0 pounds per hour. Permittee will not discharge annual emissions of PM (particulate matter) in excess of the amount provided in Section VII.B of this operating permit.
  - c. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere from each of S2.311.1 through S2.311.4 will not exceed 61.3 pounds per hour. Permittee will not discharge annual emissions of NO<sub>x</sub> (nitrogen oxides) in excess of the amount provided in Section VII.B of this operating permit.
  - d. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere from each of S2.311.1 through S2.311.4 will not exceed 1.2 pounds per hour. Permittee will not discharge annual emissions of SO<sub>2</sub> (sulfur dioxide) in excess of the amount provided in Section VII.B of this operating permit.
  - e. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of CO (carbon monoxide) to the atmosphere from each of S2.311.1 through S2.311.4 will not exceed 12.3 pounds per hour. Permittee will not discharge annual emissions of CO (carbon monoxide) in excess of the amount provided in Section VII.B of this operating permit.
  - f. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of VOC (volatile organic compounds) to the atmosphere from each of S2.311.1 through S2.311.4 shall not exceed 2.0 pounds per hour. Permittee will not discharge annual emissions of VOC (volatile organic compounds) in excess of the amount provided in Section VII.B of this operating permit.
  - g. NAC 445B.22017 and NAC 445B.2202. (State Only Requirement) - The emissions from each of the exhaust stacks of S2.311.1 through S2.311.4 will not equal or exceed 20% opacity with the exception of the emissions during a warm-up period for not longer than 15 minutes to achieve operating temperatures in accordance with NAC 445B.22017 and NAC 445B.2202.
  - h. NAC 445.721 and SIP Article 4.3.5 (Federally Enforceable SIP Requirements) - The emissions from each of the exhaust stacks of S2.311.1 through S2.311.4 will not equal or exceed 20% opacity with the exception of the emissions during a warm-up period for not longer than 15 minutes to achieve operating temperatures in accordance with NAC 445.721 and SIP Article 4.3.5.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum electrical output for S2.311.1 will not exceed 800 kilowatts (equivalent to 8.34 MMBtu/hr).
  - b. The maximum electrical output for each of S2.311.2 through S2.311.4 will not exceed 850 kilowatts (equivalent to 8.86 MMBtu/hr).
  - c. Permittee will combust only diesel fuel, with a sulfur content of 0.05% (by weight) or less, in each of S2.311.1 through S2.311.4.
  - d. The maximum fuel consumption rate for S2.311.1 will not exceed 60.9 gallons of diesel fuel per any one-hour period.
  - e. The maximum fuel consumption rate for S2.311.2 through S2.311.4 will not exceed 64.7 gallons of diesel fuel per any one-hour period, each.
  - f. S2.311.1 through S2.311.4, each or in combination with any other emission units identified in Section VII.B of this operating permit, may not operate in a manner which results in an exceedance of the emission limits contained in Section VII.B of this operating permit.



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**Section VI. Specific Operating Conditions (continued)**

CL. Emission Units S2.311.1 through S2.311.4 (continued)

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

a. Periodic Compliance Testing

- (1) Permittee will conduct and record the following periodic compliance tests on each of the exhaust stacks of **S2.311.1 through S2.311.4**. **The periodic compliance tests will be conducted at least 90 days prior to the date of expiration of this permit, but no earlier than 365 days from the date of expiration of this permit.** The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition CL.4.a.(2) of this Section and not to exceed the maximum electrical output as established in CL.3 of this Section).
  - (a) Methods 2, 7E and 10 compliance tests for velocity/volumetric flow rate, NO<sub>x</sub>, and CO in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
  - (b) Upon **S2.311.1 through S2.311.4** individually obtaining 500 hours of operation in a calendar year during the term of this operating permit, Permittee will, within 90 days of achieving the 500 hours of operation, conduct and record the following performance tests on each exhaust stack of **S2.311.1 through S2.311.4**.
    - (i) A Method 201A/202 performance test in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>.
    - (ii) Method 2, 5 or 17 (with back-half catch), 6, and 25/25A compliance tests for velocity/volumetric flow rate, PM, SO<sub>2</sub>, and VOC in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
  - (c) The Method 201A and 202 tests required in CL.4.a.(1)(b) of this Section may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 tests performed under this provision will be considered PM<sub>10</sub> emissions for determination of compliance with the emission limitations established in CL.2.b of this Section.
  - (d) The performance tests in CL.4.a.(1)(b) of this Section will only be required once (if necessary) during the term of the operating permit, unless otherwise required by the Director as specified in (NAC 445B.252).
- (2) Compliance tests required under CL.4.a.(1) of this Section that are conducted below the maximum allowable electrical output, as established in CL.3 of this Section, will be subject to the Director's review to determine if the electrical output during the compliance tests was sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
- (3) In lieu of the testing required in CL.4.a.(1) of this Section, Permittee may provide any valid testing that was conducted on **S2.311.1 through S2.311.4** consistent with NAC 445B.252 and the test methods required in CL.4.a.(1) of this Section. The tests submitted pursuant to this allowance must have been performed within the last 200 operating hours upon review and approval by the Director.
- (4) Permittee will monitor and record the concentration of NO<sub>x</sub> and CO in each exhaust stack of **S2.311.1 through S2.311.4** with a portable NO<sub>x</sub>/CO exhaust-gas monitoring device. The portable gas analyzer will measure NO<sub>x</sub> and CO emissions for a period of not less than 1 hour for each exhaust stack. The periodic test will be conducted no less than once every 200 hours of backup operation for each of **S2.311.1 through S2.311.4** at the maximum electrical output (subject to Condition CL.4.a.(2) of this Section and not to exceed the maximum electrical output as established in CL.3 of this Section). The initial periodic test required under this section will be required to be conducted within 200 hours of operation from the initial testing conducted pursuant to CL.4.a.(3).
- (5) Performance specifications and quality assurance procedures for the portable NO<sub>x</sub>/CO exhaust-gas monitoring device shall be contained in a monitoring plan that must be submitted to the Director prior to the first required periodic test.
- (6) Testing required under CL.4.a.(1) of this Section that are conducted below the maximum electrical output, as established in CL.3 of this Section, will be subject to the Director's review to determine if the electrical output during the tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the periodic compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.



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**Section VI. Specific Operating Conditions (continued)**

CL. Emission Units S2.311.1 through S2.311.4 (continued)

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (continued)
  - b. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Maintain a daily record of the electrical output for each generator, in kilowatts, for each day or portion thereof that **S2.311.1 through S2.311.4** operates.
    - (2) Maintain a monthly record of the backup electrical output, in kilowatts, for each of **S2.311.1 through S2.311.4**.
    - (3) Maintain a daily record of the hours of operation for each generator for each day or portion thereof that **S2.311.1 through S2.311.4** operates.
    - (4) Monitor and record on a monthly basis the total hours of operation for each of **S2.311.1 through S2.311.4**. Indicate in the record the amount of operating hours under backup and emergency operating modes, each.
    - (5) Monitor and record the concentration of NO<sub>x</sub> and CO emitted from each of **S2.311.1 through S2.311.4**, as provided under CL.4.a of this Section.
    - (6) Conduct and record an assessment of the visible emissions (excluding water vapor) from each of **S2.311.1 through S2.311.4**, at least once every consecutive 12-month period. If emissions appear to exceed the opacity limit, as established in CL.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while the emission unit is operating and has the potential to create visible emissions, however, in accordance with CL.2.g and h, no assessment of visible emissions or visible emission test will be conducted during each engines' warm-up period. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to the emission unit not operating or due to poor weather conditions.
    - (7) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Compliance with conditions CL.1 through CL.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).  
Article 8.1 and 8.2 (Sulfur Emissions - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.2203 (Emissions of Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).  
445B.22047 (Sulfur Emissions - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

CM. Emission Unit S2.312.1 Location North 4,535.9 km, East 554.6 km, UTM (Zone 11)  
Emission Unit S2.312.2 Location North 4,539.1 km, East 551.8 km, UTM (Zone 11)

**System 91 - Electric Power Generators**

- |   |         |   |
|---|---------|---|
| S | 2.312.1 | Diesel-fueled engine electric-generator #5 (MP-608, Mill)     |
| S | 2.312.2 | Diesel-fueled engine electric-generator #10 (KCG-002, Meikle) |

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program S2.312.1 through S2.312.2, will each be operated in a manner that minimizes emissions.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
On and after the date of startup of **S2.312.1 and S2.312.2**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stacks of **S2.312.1 and S2.312.2**, the following pollutants in excess of the following specified limits, as monitored under CM.4.c.:
  - a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere from each of **S2.312.1 and S2.312.2** will not exceed 4.1 pounds per hour. Permittee will not discharge annual emissions of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) in excess of the amount provided in Section VII.B of this operating permit.
  - b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere from each of **S2.312.1 and S2.312.2** will not exceed 4.1 pounds per hour. Permittee will not discharge annual emissions of PM (particulate matter) in excess of the amount provided in Section VII.B of this operating permit.
  - c. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere from each of **S2.312.1 and S2.312.2** will not exceed 151.2 pounds per hour. Permittee will not discharge annual emissions of NO<sub>x</sub> (nitrogen oxides) in excess of the amount provided in Section VII.B of this operating permit.
  - d. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere from each of **S2.312.1 and S2.312.2** will not exceed 2.4 pounds per hour. Permittee will not discharge annual emissions of SO<sub>2</sub> (sulfur dioxide) in excess of the amount provided in Section VII.B of this operating permit.
  - e. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of CO (carbon monoxide) to the atmosphere from each of **S2.312.1 and S2.312.2** will not exceed 25.6 pounds per hour. Permittee will not discharge annual emissions of CO (carbon monoxide) in excess of the amount provided in Section VII.B of this operating permit.
  - f. NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of VOC (volatile organic compounds) to the atmosphere from each of **S2.312.1 and S2.312.2** shall not exceed 4.1 pounds per hour. Permittee will not discharge annual emissions of VOC (volatile organic compounds) in excess of the amount provided in Section VII.B of this operating permit.
  - g. NAC 445B.22017 and NAC 445B.2202 (State Only Requirement) - The emissions from each of the exhaust stacks of **S2.312.1 and S2.312.2**, will not equal or exceed 20% opacity with the exception of the emissions during a warm-up period for not longer than 15 minutes to achieve operating temperatures in accordance with NAC 445B.22017 and NAC 445B.2202.
  - h. NAC 445.721 and SIP Article 4.3.5 (Federally Enforceable SIP Requirements) - The emissions from each of the exhaust stacks of **S2.312.1 and S2.312.2** will not equal or exceed 20% opacity with the exception of the emissions during a warm-up period for not longer than 15 minutes to achieve operating temperatures in accordance with NAC 445.721 and SIP Article 4.3.5.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. The maximum electrical output for **S2.312.1** will not exceed 2000 kilowatts (equivalent to 19.68 MMBtu/hr).
  - b. The maximum electrical output for **S2.312.2** will not exceed 1900 kilowatts (equivalent to 18.70 MMBtu/hr).
  - c. Permittee will combust only diesel fuel, with a sulfur content of 0.05% (by weight) or less, in each of **S2.312.1 and S2.312.2**.
  - d. The maximum fuel consumption rate for **S2.312.1** will not exceed 143.6 gallons of diesel fuel per any one-hour period.
  - e. The maximum fuel consumption rate for **S2.312.2** will not exceed 136.5 gallons of diesel fuel per any one-hour period.
  - f. **S2.312.1 and S2.312.2**, each or in combination with any other emission units identified in Section VII.B of this operating permit, may not operate in a manner which results in an exceedance of the emission limits contained in Section VII.B of the operating permit.



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**Section VI. Specific Operating Conditions (continued)**

CM. Emission Units S2.312.1 and S2.312.2 (continued)

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. Periodic Compliance Testing
    - (1) Permittee will conduct and record the following periodic compliance tests on each of the exhaust stacks of **S2.312.1 and S2.312.2**. **The periodic compliance tests will be conducted at least 90 days prior to the date of expiration of this permit, but no earlier than 365 days from the date of expiration of this permit.** The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition CM.4.a.(2) of this Section and not to exceed the maximum electrical output as established in CM.3 of this Section).
      - (a) Methods 2, 7E and 10 compliance tests for velocity/volumetric flow rate, NO<sub>x</sub>, and CO in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
      - (b) Upon **S2.312.1 and S2.312.2** individually obtaining 500 hours of operation in a calendar year during the term of this operating permit, Permittee will, within 90 days of achieving the 500 hours of operation, conduct and record the following performance tests on each exhaust stack of **S2.312.1 and S2.312.2**.
        - (i) A Method 201A/202 performance test in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>.
        - (ii) Method 2, 5 or 17 (with back-half catch), 6, and 25/25A compliance tests for velocity/volumetric flow rate, PM, SO<sub>2</sub>, and VOC in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
      - (c) The Method 201A and 202 tests required in CM.4.a.(1)(b) of this Section may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 tests performed under this provision will be considered PM10 emissions for determination of compliance with the emission limitations established in CM.2.b of this Section.
      - (d) The performance tests in CM.4.a.(1)(b) of this Section will only be required once (if necessary) during the term of the operating permit, unless otherwise required by the Director as specified in (NAC 445B.252).
    - (2) Compliance tests required under CM.4.a.(1) of this Section that are conducted below the maximum allowable electrical output, as established in CM.3 of this Section, will be subject to the Director's review to determine if the electrical output during the compliance tests was sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
    - (3) In lieu of the testing required in CM.4.a.(1) of this Section, Permittee may provide any valid testing that was conducted on **S2.312.1 and S2.312.2** consistent with NAC 445B.252 and the test methods required in CM.4.a.(1) of this Section. The tests submitted pursuant to this allowance must have been performed within the last 200 operating hours upon review and approval by the Director.
    - (4) Permittee will monitor and record the concentration of NO<sub>x</sub> and CO in each exhaust stack of **S2.312.1 and S2.312.2** with a portable NO<sub>x</sub>/CO exhaust-gas monitoring device. The portable gas analyzer will measure NO<sub>x</sub> and CO emissions for a period of not less than 1 hour for each exhaust stack. The periodic test will be conducted no less than once every 200 hours of backup operation for each of **S2.312.1 and S2.312.2** at the maximum electrical output (subject to Condition CM.4.a.(2) of this Section and not to exceed the maximum electrical output as established in CM.3 of this Section). The initial periodic test required under this section will be required to be conducted within 200 hours of operation from the initial testing conducted pursuant to CM.4.a.(3).
    - (5) Performance specifications and quality assurance procedures for the portable NO<sub>x</sub>/CO exhaust-gas monitoring device shall be contained in a monitoring plan that must be submitted to the Director prior to the first required periodic test.
    - (6) Testing required under CM.4.a.(1) of this Section that are conducted below the maximum electrical output, as established in CM.3 of this Section, will be subject to the Director's review to determine if the electrical output during the tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the periodic compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.



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**Section VI. Specific Operating Conditions (continued)**

**CM. Emission Units S2.312.1 and S2.312.2 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program (continued)
- b. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
- (1) Maintain a daily record of the electrical output for each generator, in kilowatts, for each day or portion thereof that **S2.312.1 and S2.312.2** operates.
  - (2) Maintain a monthly record of the backup electrical output, in kilowatts, for each of **S2.312.1 and S2.312.2**.
  - (3) Maintain a daily record of the hours of operation for each generator for each day or portion thereof that **S2.312.1 and S2.312.2** operates.
  - (4) Monitor and record on a monthly basis the total hours of operation for each of **S2.312.1 and S2.312.2**. Indicate in the record the amount of operating hours under backup and emergency operating modes, each.
  - (5) Monitor and record the concentration of NO<sub>x</sub> and CO emitted from each of **S2.312.1 and S2.312.2**, as provided under CM.4.a of this Section.
  - (6) Conduct and record an assessment of the visible emissions (excluding water vapor) from each of **S2.312.1 and S2.312.2**, at least once every consecutive 12-month period. If emissions appear to exceed the opacity limit, as established in CM.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while the emission unit is operating and has the potential to create visible emissions, however, in accordance with CM.2.g and h, no assessment of visible emissions or visible emission test will be conducted during each engines' warm-up period. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to the emission unit not operating or due to poor weather conditions.
  - (7) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Compliance with conditions CM.1 through CM.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).  
Article 8.1 and 8.2 (Sulfur Emissions - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.2203 (Emissions of Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).  
445B.22047 (Sulfur Emissions - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

- CN. Emission Units **S2.313.1** and **S2.313.2** Location North 4,538.1 km, East 552.3 km, UTM (Zone 11)  
Emission Unit **S2.313.3** Location North 4,538.2 km, East 552.3 km, UTM (Zone 11)  
Emission Unit **S2.313.4** Location North 4,537.9 km, East 552.2 km, UTM (Zone 11)

**System 92 - Electric Power Generators**

- S 2.313.1 Diesel-fueled engine electric-generator #6 (MP-610, Roaster)
- S 2.313.2 Diesel-fueled engine electric-generator #7 (MP-705, Roaster)
- S 2.313.3 Diesel-fueled engine electric-generator #8 (MP-706, Roaster)
- S 2.313.4 Diesel-fueled engine electric-generator #9 (MP-704, Rodeo)

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
**S2.313.1 through S2.313.4** will each be operated in a manner that minimizes emissions.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
On and after the date of startup of **S2.313.1 through S2.313.4**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stacks of **S2.313.1 through S2.313.4**, the following pollutants in excess of the following specified limits, as monitored under CN.4.c.:
  - a. NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere from each of **S2.313.1 through S2.313.4** will not exceed 2.0 pounds per hour. Permittee will not discharge annual emissions of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) in excess of the amount provided in Section VII.B of this operating permit.
  - b. NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere from each of **S2.313.1 through S2.313.4** will not exceed 2.0 pounds per hour. Permittee will not discharge annual emissions of PM (particulate matter) in excess of the amount provided in Section VII.B of this operating permit.
  - c. NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere from each of **S2.313.1 through S2.313.4** will not exceed 73.6 pounds per hour. Permittee will not discharge annual emissions of NO<sub>x</sub> (nitrogen oxides) in excess of the amount provided in Section VII.B of this operating permit.
  - d. NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere from each of **S2.313.1 through S2.313.4** will not exceed 1.1 pounds per hour. Permittee will not discharge annual emissions of SO<sub>2</sub> (sulfur dioxide) in excess of the amount provided in Section VII.B of this operating permit.
  - e. NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of CO (carbon monoxide) to the atmosphere from each of **S2.313.1 through S2.313.4** will not exceed 3.1 pounds per hour. Permittee will not discharge annual emissions of CO (carbon monoxide) in excess of the amount provided in Section VII.B of this operating permit.
  - f. NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of VOC (volatile organic compounds) to the atmosphere from each of **S2.313.1 through S2.313.4** shall not exceed 2.0 pounds per hour. Permittee will not discharge annual emissions of VOC (volatile organic compounds) in excess of the amount provided in Section VII.B of this operating permit.
  - g. NAC 445B.22017 and NAC 445B.2202 (*State Only Requirement*) - The emissions from each of the exhaust stacks of **S2.313.1 through S2.313.4** will not equal or exceed 20% opacity with the exception of the emissions during a warm-up period for not longer than 15 minutes to achieve operating temperatures in accordance with NAC 445B.22017 and NAC 445B.2202.
  - h. NAC 445.721 and SIP Article 4.3.5 (*Federally Enforceable SIP Requirement*) - The emissions from each of the exhaust stacks of **S2.313.1 through S2.313.4** will not equal or exceed 20% opacity with the exception of the emissions during a warm-up period for not longer than 15 minutes to achieve operating temperatures in accordance with NAC 445.721 and SIP Article 4.3.5.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. The maximum electrical output for **S2.313.1** will not exceed 800 kilowatts (equivalent to 9.25 MMBtu/hr).
  - b. The maximum electrical output for each of **S2.313.2 and S2.313.3** will not exceed 850 kilowatts (equivalent to 9.83 MMBtu/hr).
  - c. The maximum electrical output for each of **S2.313.4** will not exceed 1000 kilowatts (equivalent to 11.56 MMBtu/hr).
  - d. Permittee will combust only diesel fuel with a sulfur content of 0.05% (by weight) or less in each of **S2.313.1 through S2.313.4**.
  - e. The maximum fuel consumption rate for **S2.313.1** will not exceed 67.5 gallons of diesel fuel per any one-hour period.
  - f. The maximum fuel consumption rate for **S2.313.2 and S2.313.3** will not exceed 71.8 gallons of diesel fuel per any one-hour period, each.
  - g. The maximum fuel consumption rate for **S2.313.4** will not exceed 84.4 gallons of diesel fuel per any one-hour period.
  - h. **S2.313.1 through S2.313.4**, each or in combination with any other emission units identified in Section VII.B of this operating permit, may not operate in a manner which results in an exceedance of the emission limits contained in Section VII.B of the operating permit.



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**Section VI. Specific Operating Conditions (continued)**

CN. Emission Units S2.313.1 through S2.313.4 (continued)

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

a. Periodic Compliance Testing

- (1) Permittee will conduct and record the following periodic compliance tests on each of the exhaust stacks of **S2.313.1 through S2.313.4**. **The periodic compliance tests will be conducted at least 90 days prior to the date of expiration of this permit, but no earlier than 365 days from the date of expiration of this permit.** The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition CN.4.a.(2) of this Section and not to exceed the maximum electrical output as established in CN.3 of this Section).
  - (a) Methods 2, 7E and 10 compliance tests for velocity/volumetric flow rate, NO<sub>x</sub>, and CO in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
  - (b) Upon **S2.313.1 through S2.313.4** individually obtaining 500 hours of operation in a calendar year during the term of this operating permit, Permittee will, within 90 days of achieving the 500 hours of operation, conduct and record the following performance tests on each exhaust stack of **S2.313.1 through S2.313.4**.
    - (i) A Method 201A/202 performance test in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>.
    - (ii) Method 2, 5 or 17 (with back-half catch), 6, and 25/25A compliance tests for velocity/volumetric flow rate, PM, SO<sub>2</sub>, and VOC in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
  - (c) The Method 201A and 202 tests required in CN.4.a.(1)(b) of this Section may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 tests performed under this provision will be considered PM<sub>10</sub> emissions for determination of compliance with the emission limitations established in CN.2.b of this Section.
  - (d) The performance tests in CN.4.a.(1)(b) of this Section will only be required once (if necessary) during the term of the operating permit, unless otherwise required by the Director as specified in (NAC 445B.252).
- (2) Compliance tests required under CN.4.a.(1) of this Section that are conducted below the maximum allowable electrical output, as established in CN.3 of this Section, will be subject to the Director's review to determine if the electrical output during the compliance tests was sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
- (3) In lieu of the testing required in CN.4.a.(1) of this Section, Permittee may provide any valid testing that was conducted on **S2.313.1 through S2.313.4** consistent with NAC 445B.252 and the test methods required in CN.4.a.(1) of this Section. The tests submitted pursuant to this allowance must have been performed within the last 200 operating hours upon review and approval by the Director.
- (4) Permittee will monitor and record the concentration of NO<sub>x</sub> and CO in each exhaust stack of **S2.313.1 through S2.313.4** with a portable NO<sub>x</sub>/CO exhaust-gas monitoring device. The portable gas analyzer will measure NO<sub>x</sub> and CO emissions for a period of not less than 1 hour for each exhaust stack. The periodic test will be conducted no less than once every 200 hours of backup operation for each of **S2.313.1 through S2.313.4** at the maximum electrical output (subject to Condition CN.4.a.(2) of this Section and not to exceed the maximum electrical output as established in CN.3 of this Section). The initial periodic test required under this section will be required to be conducted within 200 hours of operation from the initial testing conducted pursuant to CN.4.a.(3).
- (5) Performance specifications and quality assurance procedures for the portable NO<sub>x</sub>/CO exhaust-gas monitoring device shall be contained in a monitoring plan that must be submitted to the Director prior to the first required periodic test.
- (6) Testing required under CN.4.a.(1) of this Section that are conducted below the maximum electrical output, as established in CN.3 of this Section, will be subject to the Director's review to determine if the electrical output during the tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the periodic compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.



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**Section VI. Specific Operating Conditions (continued)**

**CN. Emission Units S2.313.1 through S2.313.4 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (continued)
  - b. Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

    - (1) Maintain a daily record of the electrical output for each generator, in kilowatts, for each day or portion thereof that **S2.313.1 through S2.313.4** operates.
    - (2) Maintain a monthly record of the backup electrical output, in kilowatts, for each of **S2.313.1 through S2.313.4**.
    - (3) Maintain a daily record of the hours of operation for each generator for each day or portion thereof that **S2.313.1 through S2.313.4** operates.
    - (4) Monitor and record on a monthly basis the total hours of operation for each of **S2.313.1 through S2.313.4**. Indicate in the record the amount of operating hours under backup and emergency operating modes, each.
    - (5) Monitor and record the concentration of NO<sub>x</sub> and CO emitted from each of **S2.313.1 through S2.313.4**, as provided under CN.4.a of this Section.
    - (6) Conduct and record an assessment of the visible emissions (excluding water vapor) from each of **S2.313.1 through S2.313.4**, at least once every consecutive 12-month period. If emissions appear to exceed the opacity limit, as established in CN.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while the emission unit is operating and has the potential to create visible emissions, however, in accordance with CN.2.g and h, no assessment of visible emissions or visible emission test will be conducted during each engines' warm-up period. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to the emission unit not operating or due to poor weather conditions.
    - (7) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*

Compliance with conditions CN.1 through CN.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.731 (Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

Article 8.1 and 8.2 (Sulfur Emissions - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.2203 (Emissions of Particulate Matter - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

445B.22047 (Sulfur Emissions - Fuel Burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

CN. and CO. Emission Units S2.313.5 and S2.314.1 Removed from the permit as part of the renewal process.

**System 92 – Removed one Diesel-fueled engine generator**

S 2.313.5 Diesel-fueled engine electric-generator #12 (Boulder Valley)

**System 93 - Removed**

S 2.314.1 Diesel-fueled engine electric-generator #11 (Meikle)



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**Section VI. Specific Operating Conditions (continued)**

CP. Emission Units PF1.400 through PF1.436 Location North 4,539.4 km, East 552.1 km, UTM (Zone 11)

**System 95 - Backfill Crushing and Screening Plant**

PF 1.400-.401	Jaw crusher pan feeders 1 and 2 (load)
PF 1.402-.403	Jaw crusher pan feeders 1 and 2 (discharge)
PF 1.404-.405	Jaw crushers 1 and 2
PF 1.406-.407	Cone crushers 1 and 2 and transfer belts
PF 1.408	Reject screen and transfer belts
PF 1.409	(A) half of twin screen and transfer belts
PF 1.410	(B) half of twin screen and transfer belts
PF 1.411	Truck load-out surge bin (discharge)
PF 1.412	Twin screen feed conveyor transfer
PF 1.413-.432	Conveyor transfers
PF 1.433-.436	Stacker conveyor transfers

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
**PF1.400 and PF1.401** each will be operated in a manner that minimizes emissions.  
Emissions from **PF1.402 through PF1.436** each will be controlled by pneumatic water spray systems.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the date of startup of **PF1.400 and PF1.401**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.400 and PF1.401**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.980 pound per hour total, nor exceed 1.260 tons per year total, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 2.058 pounds per hour total, nor exceed 2.646 tons per year total, based on a 12-month rolling period.
  - b. On and after the date of startup of **PF1.402 and PF1.403**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.402 and PF1.403** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.049 pound per hour total, nor exceed 0.063 ton per year total, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.103 pound per hour total, nor exceed 0.132 ton per year total, based on a 12-month rolling period.
  - c. On and after the date of startup of **PF1.404 and PF1.405**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.404 and PF1.405** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.025 pound per hour total, nor exceed 0.032 ton per year total, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.025 pound per hour total, nor exceed 0.032 ton per year total, based on a 12-month rolling period.
  - d. On and after the date of startup of **PF1.406 and PF1.407**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.406 and PF1.407** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.084 pound per hour each, nor exceed 0.108 ton per year each, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.176 pound per hour each, nor exceed 0.227 ton per year each, based on a 12-month rolling period.
  - e. On and after the date of startup of **PF1.408 through PF1.410**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.408 through PF1.410** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.525 pound per hour each, nor exceed 0.675 ton per year each, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 1.103 pounds per hour, each, nor exceed 1.418 tons per year, each, based on a 12-month rolling period.
  - f. On and after the date of startup of **PF1.411**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.411** the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.049 pound per hour, nor exceed 0.063 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.103 pound per hour, nor exceed 0.132 ton per year, based on a 12-month rolling period.



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**Section VI. Specific Operating Conditions (continued)**

**CP. Emission Units PF1.400 through PF1.436 (continued)**

2. Emission Limits NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (continued)

g. On and after the date of startup of **PF1.412**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.412** the following pollutants in excess of the following specified limits:

- (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.084 pound per hour, nor exceed 0.091 ton per year, based on a 12-month rolling period.
- (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.176 pound per hour, nor exceed 0.191 ton per year, based on a 12-month rolling period.

h. On and after the date of startup of **PF1.413 through PF1.436**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.413 through PF1.436** the following pollutants in excess of the following specified limits:

- (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.049 pound per hour each, nor exceed 0.063 ton per year each, based on a 12-month rolling period.
- (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.103 pound per hour, each, nor exceed 0.132 ton per year, each, based on a 12-month rolling period.

i. NAC 445B.22017 (*State Only Requirement*) - The opacity from **PF1.400 through PF1.436** each will not equal or exceed 20% in accordance with NAC 445B.22017.

j. NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from **PF1.400 through PF1.436** each will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

k. New Source Performance Standards (NSPS) - Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)

On and after the sixtieth day after achieving the maximum production rate at which **PF1.402 and PF1.403**, and **PF1.408 through PF1.432** each will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:

- (1) Fugitive emissions from **PF1.402 and PF1.403**, and **PF1.408 through PF1.432** each, will not exceed 10 percent opacity. (40 CFR Part 60.672(b))
- (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction (40 CFR Part 60.11(c)).
- (3) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.402 and PF1.403**, and **PF1.408 through PF1.432** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))

l. New Source Performance Standards (NSPS) - Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)

On and after the sixtieth day after achieving the maximum production rate at which **PF1.404 through PF1.407** each will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:

- (1) Fugitive emissions from **PF1.404 through PF1.407** each will not exceed 15 percent opacity. (40 CFR Part 60.672(c))
- (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
- (3) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.404 through PF1.407** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))

3. Operating Parameters NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*

a. The maximum allowable throughput rate for **PF1.400 and PF1.401** will not exceed 700.0 tons of aggregate per any one-hour period, total, nor more than 1,800,000 tons of aggregate per year, total, based on a 12-month rolling period.

b. The maximum allowable throughput rate for **PF1.402 and PF1.403** will not exceed 700.0 tons of aggregate per any one-hour period, total, nor more than 1,800,000 tons of aggregate per year, total, based on a 12-month rolling period.

c. The maximum allowable throughput rate for **PF1.404 and PF1.405** will not exceed 700.0 tons of aggregate per any one-hour period, total, nor more than 1,800,000 tons of aggregate per year, total, based on a 12-month rolling period.

d. The maximum allowable throughput rate for **PF1.406 through PF1.411** and **PF1.413 through PF1.436** will not exceed 700.0 tons of aggregate per any one-hour period, each, nor more than 1,800,000 tons of aggregate per year, each, based on a 12-month rolling period.

e. The maximum allowable throughput rate for **PF1.412** will not exceed 1,200.0 tons of aggregate per any one-hour period, nor more than 2,600,000 tons of aggregate per year, based on a 12-month rolling period.

f. **PF1.400 through PF1.436** each will process only non-metallic minerals.

g. **PF1.400 through PF1.436** may operate 8,760 hours per year, each.



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**Section VI. Specific Operating Conditions (continued)**

CP. Emission Units PF1.400 through PF1.436 (continued)

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*

a. Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

- (1) Monitor and record the throughput of aggregate of **PF1.400 through PF1.436** on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
- (2) Monitor and record the hours of operation of **PF1.400 through PF1.436** on a daily basis.
- (3) Conduct and record an assessment of the visible emissions (excluding water vapor) from **PF1.400 through PF1.436** each on a weekly basis. If visible emissions appear to exceed the opacity limit, as established in CP.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **PF1.400 through PF1.436** are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **PF1.400 through PF1.436** not operating or due to poor weather conditions.
- (4) Inspect the pneumatic water spray systems on **PF1.402 through PF1.436** once during each day of operation to verify that they are operating as designed. Record the inspection results and any corrective actions taken.
- (5) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this operating permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (6) The hourly throughput rate in tons per hour for **PF1.400 through PF1.436** will be determined from the total daily throughput and the total daily hours of operation recorded above.

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

Permittee, upon the issuance date of this permit, shall:

- (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*

Compliance with conditions CP.1 through CP.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Particulate Matter - Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Emissions of Particulate Matter - Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

The following requirements are not applicable to **PF1.400 through PF1.401** and **PF1.433 through PF1.436** during aggregate crushing:

*40 CFR Part 60 (NSPS) Requirements (Revised as of July 1, 2002) Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants).*

*Pursuant to 40 CFR Subpart 60.672 (d), truck dumping is specifically exempted from Subpart OOO.*

*Pursuant to 40 CFR Subpart 60.671, transfers to stockpiles are specifically exempt from Subpart OOO.*



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**Section VI. Specific Operating Conditions (continued)**

CQ. Emission Units PF1.437 through PF1.440, S2.400, PF1.447, S2.401, PF1.450 through PF1.456 Location North 4,539.5 km, East 552.1 km, UTM (Zone 11)

System 96 – Shotcrete Plant with Aggregate Dryer	
PF 1.437	Bins #1 and #2 (loading)
PF 1.438	Bins #1 and #2 (discharge)
PF 1.439	Feeders (discharge)
PF 1.440	Feeder belt (discharge)
S 2.400.1	Dryer
S 2.400.2	Blending screen
S 2.400.3	Bucket elevator
S 2.400.4 - .400.6	Load-out silos #1, #2, and #3 (loading)
PF 1.447	Scale belt (discharge)
S 2.401.1 - .401.2	Cement/fly ash silos #1 and #2 (loading)
PF 1.450-.451	Cement/fly ash silos #1 and #2 (discharge)
PF 1.452-.453	Augers #1 and #2 (discharge)
PF 1.454-.456	Load-out silos #1, #2, and #3 (discharge to trucks)

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
**PF1.437** will be operated in a manner that minimizes emissions.  
The emissions from **PF1.438** will be controlled by a wind shield.  
The emissions from **PF1.439 and PF1.440** each will be controlled by enclosures.  
The emissions from **S2.400.1 through S2.400.6** each will be ducted to a single baghouse with 100% capture of all process emissions.  
The emissions from **PF1.447 and PF1.450 through PF1.453** each will be controlled by building enclosures.  
The emissions from **S2.401.1 and S2.401.2** each will be controlled by a vent filter.  
The emissions from **PF1.454 through PF1.456** each will be controlled by enclosures.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the date of startup of **PF1.437**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.437**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.240 pound per hour, nor exceed 0.060 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.685 pound per hour, nor exceed 0.171 ton per year, based on a 12-month rolling period.
  - b. On and after the date of startup of **PF1.438 through PF1.440**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.438 through PF1.440**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.023 pound per hour, each, nor exceed 0.006 ton per year, each, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.065 pound per hour, each, nor exceed 0.016 ton per year, each, based on a 12-month rolling period.
  - c. On and after the date of startup of **S2.400**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.400**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 7.0 pounds per hour, total, nor exceed 1.75 tons per year, total, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 7.0 pounds per hour, total, nor exceed 1.75 tons per year, total, based on a 12-month rolling period.
    - (3) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed 10.61 pounds per hour, nor exceed 2.65 tons per year, based on a 12-month rolling period.
    - (4) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere will not exceed 11 pounds per hour, nor exceed 2.75 tons per year, based on a 12-month rolling period.
    - (5) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of CO (carbon monoxide) to the atmosphere will not exceed 26.0 pounds per hour, nor exceed 6.50 tons per year, based on a 12-month rolling period.
    - (6) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed 3.0 pounds per hour, nor exceed 0.75 ton per year, based on a 12-month rolling period.



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**Section VI. Specific Operating Conditions (continued)**

CQ. Emission Units PF1.437 through PF1.440, S2.400, PF1.447, S2.401, PF1.450 through PF1.456 (continued)

2. Emission Limits NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (continued)
- d. On and after the date of startup of **PF1.447**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.447**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.278 pound per hour, nor exceed 0.069 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.793 pound per hour, nor exceed 0.198 ton per year, based on a 12-month rolling period.
  - e. On and after the date of startup of **S2.401.1 and S2.401.2**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vents of **S2.401.1 and S2.401.2**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 2.074 pounds per hour, total, nor exceed 0.122 ton per year, total, based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 2.074 pounds per hour, total, nor exceed 0.122 ton per year, total, based on a 12-month rolling period.
  - f. On and after the date of startup **PF1.450 and PF1.451**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.450 and PF1.451**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.090 pound per hour, total, nor exceed 0.023 ton per year, total, based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.090 pound per hour, total, nor exceed 0.023 ton per year, total, based on a 12-month rolling period.
  - g. On and after the date of startup of **PF1.452 and PF1.453**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.452 and PF1.453**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.090 pound per hour, total, nor exceed 0.023 ton per year, total, based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.090 pound per hour, total, nor exceed 0.023 ton per year, total, based on a 12-month rolling period.
  - h. On and after the date of startup of **PF1.454 through PF1.456**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.454 through PF1.456**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.487 pound per hour, total, nor exceed 0.085 ton per year, total, based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 1.393 pounds per hour, total, nor exceed 0.242 ton per year, total, based on a 12-month rolling period.
  - i. NAC 445B.22017 (*State Only Requirement*) - The opacity from **PF1.437 through PF1.440, S2.400, S2.401, PF1.447, and PF1.450 through PF1.456** each will not equal or exceed 20% in accordance with NAC 445B.22017.
  - j. NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from **PF1.437 through PF1.440, S2.400, S2.401, PF1.447, and PF1.450 through PF1.456** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - k. New Source Performance Standards (NSPS) - Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60.670)  
On and after the sixtieth day after achieving the maximum production rate at which **PF1.438 through PF1.440, and PF1.447** each will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
    - (1) Fugitive emissions from **PF1.438 through PF1.440, and PF1.447** each, will not exceed 10 percent opacity. (40 CFR Part 60.672(b))
    - (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction (40 CFR Part 60.11(c)).
    - (3) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.438 through PF1.440, and PF1.447** including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))



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**Section VI. Specific Operating Conditions (continued)**

CQ. Emission Units PF1.437 through PF1.440, S2.400, PF1.447, S2.401, PF1.450 through PF1.456 (continued)

3. Operating Parameters NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
- a. The maximum allowable throughput rate for **PF1.437 through PF1.440, S2.400.1, and PF1.447** will not exceed 205.0 tons of sand/aggregate per any one-hour period, each, nor more than 102,500 tons of sand/aggregate per year, each, based on a 12-month rolling period.
  - b. The maximum allowable throughput rate for **S2.400.2 and S2.400.3** will not exceed 250.0 tons of shotcrete per any one-hour period, each, nor more than 125,000 tons of shotcrete per year, each, based on a 12-month rolling period.
  - c. The maximum allowable throughput rate for **S2.400.4 through S2.400.6** will not exceed 250.0 tons of shotcrete per any one-hour period, total, nor more than 125,000 tons of shotcrete per year, total, based on a 12-month rolling period.
  - d. The maximum allowable loading rate for **S2.401.1 and S2.401.2** will not exceed 192.0 tons of cement/fly ash per any one-hour period, total, nor more than 22,500 tons of cement/fly ash per year, total, based on a 12-month rolling period.
  - e. The maximum allowable throughput rate for **PF1.450 and PF1.451** will not exceed 45.0 tons of cement/fly ash per any one-hour period, total, nor more than 22,500 tons of cement/fly ash per year, total, based on a 12-month rolling period.
  - f. The maximum allowable throughput rate for **PF1.452 and PF1.453** will not exceed 45.0 tons of cement/fly ash per any one-hour period, total, nor more than 22,500 tons of cement/fly ash per year, total, based on a 12-month rolling period.
  - g. The maximum allowable throughput rate for **PF1.454 through PF1.456** will not exceed 360.0 tons of shotcrete per any one-hour period, total, nor more than 125,000 tons of shotcrete per year, total, based on a 12-month rolling period.
  - h. The maximum #2 fuel oil consumption rate for **S2.400.1** will not exceed 374.0 gallons per any one-hour period, nor more than 187,000 gallons per year, based on a 12-month rolling period.
  - i. The maximum #2 fuel oil heat input rate for **S2.400.1** will not exceed 52.73 million Btu's per any one-hour period.
  - j. **PF1.437 through PF1.440, S2.400, PF1.447, S2.401, PF1.450 through PF1.456** will process only non-metallic minerals.
  - k. **PF1.437 through PF1.440, S2.400, PF1.447, S2.401, PF1.450 through PF1.456** may operate 8,760 hours per year, each.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
- a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the throughput of sand/aggregate of **PF1.437 through PF1.440, S2.400.1, and PF1.447** on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (2) Monitor and record the throughput of shotcrete of **S2.400.2 through S2.400.6 and PF1.454 through PF1.456** on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (3) Monitor and record the throughput of cement/fly ash of **PF1.452 and PF1.453** on a daily basis. At the end of each calendar month, record the total monthly throughput and the total throughput for the previous 12 months.
    - (4) Monitor and record the throughput of cement/fly ash loaded into **S2.401.1 and S2.401.2** and the duration of the loading each day loading occurs. At the end of each calendar month, record the total cement/fly ash throughput and the total cement/fly ash throughput for the previous 12 months.
    - (5) Monitor and record the throughput of cement/fly ash of **PF1.450 and PF1.451** on a monthly basis. The amount of cement/fly ash will be based on purchasing receipts and measurements of the level of cement/fly ash in the silo at the beginning and end of the month. At the end of each calendar month, record the total cement/fly ash throughput for the previous 12 months.
    - (6) Monitor and record the hours of operation of **PF1.437 through PF1.440, S2.400, PF1.447, S2.401 and PF1.452 through PF1.456** on a daily basis.
    - (7) Monitor and record the hours of operation of **PF1.450 and PF1.451** on a monthly basis.
    - (8) Install, calibrate, operate and maintain a device for the measurement of the level of cement/fly ash in the silos.
    - (9) **Conduct and record a reading of the baghouse pressure drop during each day of operation. Record any monitored occurrences when the baghouse pressure drop falls outside the manufacturer's recommended operating range and record any corrective actions taken.**
    - (10) **The indicator range for the baghouse pressure drop shall be between 0 to 2.0 inches of water. Excursions shall be defined as anytime the baghouse pressure drop falls outside this indicator range.**
    - (11) **Maintain records of the manufacturer's recommended operating range for the baghouse pressure drop on-site and available for inspection upon request.**
    - (12) **Notify the Director within 15 days of implementing any change to an indicator range and will provide an explanation for the change including any relevant documentation.**
    - (13) Conduct and record an inspection of the vent filters on **S2.401.1 and S2.401.2** on a quarterly basis noting the condition of the filters and housing. Record any corrective actions taken.
    - (14) Conduct and record an inspection of the wind shield/enclosure on **PF1.438 through PF1.440, PF1.447, and PF1.450 through PF1.456** on an annual basis to verify that the windshield/enclosures are intact. Record the inspection results and any corrective actions taken.



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**Section VI. Specific Operating Conditions (continued)**

CQ. Emission Units PF1.437 through PF1.440, S2.400, PF1.447, S2.401, PF1.450 through PF1.456 (continued)

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (Continued)
  - a. Monitoring and Recordkeeping (Continued)
    - (15) Conduct and record an assessment of the visible emissions from each emission unit of **PF1.437 through PF1.440, S2.400, PF1.447, S2.401 and PF1.450 through PF1.456** on an annual basis. For each emission unit that appears to exceed the opacity limit as established in CQ.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while the emission unit is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to the emission unit not operating or due to poor weather conditions.
    - (16) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this operating permit. The most recent 2 years will be retained on-site and made available for inspection upon request.
    - (17) The hourly throughput rate in tons per hour for **PF1.437 through PF1.440, S2.400, PF1.447, S2.401, PF1.452 through PF1.456** will be determined from the total daily throughput and the total daily hours of operation recorded above.
    - (18) The hourly throughput rate in tons per hour for **PF1.450 through PF1.451** will be determined from the total monthly throughput and the total monthly hours of operation recorded above.
    - (19) Monitor and record the amount of #2 fuel oil combusted in **S2.400.1** on a monthly basis. At the end of each month, record the total monthly #2 fuel oil use for the previous 12 months.
    - (20) Install, calibrate, operate and maintain a device for the measurement of the #2 fuel oil combustion rate for **S2.400.1**.
    - (21) The hourly fuel heat input rate in millions of Btu's per hour for **S2.400.1** will be determined from the total monthly fuel consumption and the total monthly hours of operation recorded above.
  - b. Periodic Compliance Testing
    - (1) Permittee will conduct and record the following periodic compliance tests on the exhaust stack of **S2.400.1**. **The periodic compliance tests will be conducted at least 90 days prior to the date of expiration of this permit, but no earlier than 365 days from the date of expiration of this permit.** The compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition CQ.4.a.(19) of this Section and not to exceed the maximum allowable throughput as established in CQ.3.i. of this Section).
      - (a) Method 7E compliance tests for NO<sub>x</sub> in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
      - (b) Method 6 and Method 10 compliance tests for SO<sub>2</sub> and CO in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director).
  - c. New Source Performance Standards (NSPS) - Notification and Record Keeping (40 CFR Part 60.7(b))

Permittee, upon the issuance date of this permit, shall:

    - (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*

Compliance with conditions CQ.1 through CQ.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Particulate Matter - Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

Article 8.2 (Fuel-burning Equipment) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Emissions of Particulate Matter - Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VI. Specific Operating Conditions (continued)**

CR. Emission Units PF1.457 through PF1.464 Location North 4536.00 km, East 554.80 km, UTM (Zone 11)

**System 97 - Intermediate Crushing System (Mill #1)**

PF 1.457.1	Feed hopper and feeder (load)
PF 1.457.2	Feed hopper and feeder (discharge)
PF 1.458	Conveyor transfer
PF 1.459	Double deck screen
PF 1.460	Double deck screen under conveyor transfer
PF 1.461	Conveyor transfer
PF 1.462	Conveyor transfer
PF 1.463	Cone crusher
PF 1.464	Stacker conveyor

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
Emissions from **PF1.457.1 and PF1.459** each will be controlled by pneumatic water sprays.  
Emissions from **PF1.464** will be controlled by pneumatic water sprays.  
Emissions from **PF1.457.2, PF1.458 and PF1.460 through PF1.463** each will be controlled by enclosures.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program
  - a. On and after the date of startup of **PF1.457.1**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.457.1**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.024 pound per hour, nor exceed 0.103 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.067 pound per hour, nor exceed 0.295 ton per year, based on a 12-month rolling period.
  - b. On and after the date of startup of **PF1.457.2**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.457.2**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.044 pound per hour, nor exceed 0.194 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.127 pound per hour, nor exceed 0.556 ton per year, based on a 12-month rolling period.
  - c. On and after the date of startup of **PF1.458**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.458**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.044 pound per hour, nor exceed 0.194 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.127 pound per hour, nor exceed 0.556 ton per year, based on a 12-month rolling period.
  - d. On and after the date of startup of **PF1.459**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.459**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.420 pound per hour, nor exceed 1.840 tons per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.882 pound per hour, nor exceed 3.863 tons per year, based on a 12-month rolling period.
  - e. On and after the date of startup of **PF1.460**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.460**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.044 pound per hour, nor exceed 0.194 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.127 pound per hour, nor exceed 0.556 ton per year, based on a 12-month rolling period.
  - f. On and after the date of startup of **PF1.461**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.461**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.044 pound per hour, nor exceed 0.194 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.127 pound per hour, nor exceed 0.556 ton per year, based on a 12-month rolling period.



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**Section VI. Specific Operating Conditions (continued)**

CR. Emission Units PF1.457 through PF1.464 (continued)

2. Emission Limits NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* (continued)
  - g. On and after the date of startup of **PF1.462**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.462**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.044 pound per hour, nor exceed 0.194 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.127 pound per hour, nor exceed 0.556 ton per year, based on a 12-month rolling period.
  - h. On and after the date of startup of **PF1.463**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.463**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.295 pound per hour, nor exceed 1.292 tons per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.620 pound per hour, nor exceed 2.713 tons per year, based on a 12-month rolling period.
  - i. On and after the date of startup of **PF1.464**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.464**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.024 pound per hour, nor exceed 0.103 ton per year, based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.067 pound per hour, nor exceed 0.295 ton per year, based on a 12-month rolling period.
  - j. NAC 445B.22017 (*State Only Requirement*) - The opacity from **PF1.457 through PF1.464** each will not equal or exceed 20% in accordance with NAC 445B.22017.
  - k. NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from **PF1.457 through PF1.464** each shall not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any one hour.
  - l. New Source Performance Standards (NSPS) - Subpart LL - Standards of Performance for Metallic Mineral Processing Plants (40 CFR Part 60.380)  
On and after the sixtieth day after achieving the maximum production rate at which **PF1.457 through PF1.463** each, will be operated, but not later than 180 days after initial startup, Permittee will not discharge or cause the discharge into the atmosphere, the following pollutants in excess of the following specified limits:
    - (1) Process fugitive emissions from **PF1.457 through PF1.463** each, will not exceed 10 percent opacity. (40 CFR Part 60.382(b))
    - (2) The opacity standard set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction. (40 CFR Part 60.11(c))
    - (3) At all times, including periods of startup, shutdown, and malfunction, Permittee shall, to the extent practicable, maintain and operate **PF1.457 through PF1.463** each, including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (40 CFR Part 60.11(d))
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. The maximum allowable throughput for **PF1.457 through PF1.464** will not exceed 500.0 tons of ore per any one-hour period, each, nor more than 4,380,000 tons of ore per year, each, based on a 12-month rolling period.
  - b. **PF1.457 through PF1.464** may operate 8,760 hours per year, each.
4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. Monitoring and Recordkeeping  
On and after the date of initial startup, Permittee will:
    - (1) Monitor and record the throughput of **PF1.457 through PF1.464** on a daily basis.
    - (2) Monitor and record the hours of operation of **PF1.457 through PF1.464** on a daily basis.
    - (3) Conduct and record an assessment of the visible emissions from each emission unit of **PF1.457 through PF1.463** on a weekly basis and from emission unit **PF1.464** on an annual basis. For each emission unit that appears to exceed the opacity limit as established in CR.2 of this Section, conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while the emission unit is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to the emission unit not operating or due to poor weather conditions.



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**Section VI. Specific Operating Conditions (continued)**

CR. Emission Units PF1.457 through PF1.464 (continued)

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program (continued)
- a. Monitoring and Recordkeeping (continued)
- (4) Inspect the pneumatic water sprays systems on **PF1.457.1**, **PF1.459** and **PF1.464** once during each day of operation to verify they are operating as designed. Record the inspection results and any corrective actions taken.
- (5) Inspect the enclosures on **PF1.457.2**, **PF1.458** and **PF1.460 through PF1.463** on an annual basis to verify that the enclosures are intact. Record the inspection results and any corrective actions taken.
- (6) Maintain a contemporaneous log containing at a minimum, the following recordkeeping for each day, or part of a day that **PF1.457 through PF1.464** operate.
- (a) The calendar date of any required monitoring.
- (b) The total daily throughput of ore for the corresponding date.
- (c) The total daily hours of operation for the corresponding date.
- (d) The corresponding average throughput rate in tons per hour for **PF1.457 through PF1.464**. The average hourly throughput rate shall be determined from the total daily throughput and the total daily hours of operation recorded in 4.b.(6)(b) and (c) above.
- (e) The monthly throughput rate in tons per calendar month, and the corresponding annual throughput rate in tons per 12-month rolling period. The monthly throughput rate will be determined at the end of each calendar month as the sum of each total daily throughput rate as determined in (b) above for each day of the calendar month. The annual throughput rate will be determined at the end of each calendar month as the sum of the monthly throughput rates for the 12 immediately preceding calendar months.
- (7) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- b. New Source Performance Standards (NSPS) - Notification and Record Keeping (40 CFR Part 60.7(b))  
Permittee, upon the issuance date of this permit, shall:
- (1) Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program  
For **PF1.457 through PF1.463**:

Compliance with conditions CR.1 through CR.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Minor Revision application dated January 2003 (case #03AP0130).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Minor Revision application dated January 2003 (case #03AP0130).

For **PF1.464**:

Compliance with conditions CR.1 through CR.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Minor Revision application dated January 2003 (case #03AP0130).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Minor Revision application dated January 2003 (case #03AP0130).

The following requirements are not applicable to **PF1.464**:

(Note: For **PF1.464** (stacker conveyor transfer to a stockpile), transfer to stockpiles are specifically exempt from 40 CFR Part 60, Subpart LL, revised as of July 1, 2002.)

\*\*\*\*\*End of Specific Operating Conditions\*\*\*\*\*



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Issued to: Barrick Goldstrike Mines Inc.

**Section VII. Emission Caps**

A. Cap for Emission Units **S2.028 through S2.031 and PF1.018 through PF1.021** Location North 4,535.8 km, East 554.8 km, UTM (Zone 11)

**System 63 - Autoclave Lime Silos 1 to 4**

S	2.028	Lime silo #1, 250 ton, load
PF	1.018	Lime silo #1, 250 ton, discharge
S	2.029	Lime silo #2, 500 ton, load
PF	1.019	Lime silo #2, 500 ton, discharge
S	2.030	Lime silo #3, 500 ton, load
PF	1.020	Lime silo #3, 500 ton, discharge
S	2.031	Lime silo #4, 1,000 ton, load
PF	1.021	Lime silo #4, 1,000 ton, discharge

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*  
Emissions from **S2.028 through S2.031** will be ducted to vent filters with 100% capture.  
Emissions from **PF1.018 through PF1.021** will be controlled by enclosures that enclose each silo discharge point on all sides.
2. Emission Limits NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. On and after the date of startup of **S2.028 through S2.031**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vents of **S2.028 through S2.031**, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 2.27 pounds per hour, total, nor exceed 1.08 tons per year, total, based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 2.27 pounds per hour, total, nor exceed 1.08 ton per year, total, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (*State Only Requirement*) - The opacity from the exhaust vents of **S2.028 through S2.031** will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from the exhaust vents of **S2.028 through S2.031** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
  - b. On and after the date of startup of **PF1.018 through PF1.021**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.018 through PF1.021** combined, the following pollutants in excess of the following specified limits:
    - (1) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 0.211 pound per hour, total, nor exceed 0.398 ton per year, total, based on a 12-month rolling period.
    - (2) NAC 445B.305 (*Federally Enforceable Part 70 Program*) - The discharge of PM (particulate matter) to the atmosphere will not exceed 0.211 pound per hour, total, nor exceed 0.398 ton per year, total, based on a 12-month rolling period.
    - (3) NAC 445B.22017 (*State Only Requirement*) - The opacity from **PF1.018 through PF1.021** each will not equal or exceed 20% in accordance with NAC 445B.22017.
    - (4) NAC 445.721 (*Federally Enforceable SIP Requirement*) - The opacity from **PF1.018 through PF1.021** will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
3. Operating Parameters NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*
  - a. The maximum allowable loading rate for **S2.028 through S2.031** will not exceed 420.0 tons of lime per any one-hour period, total, nor more than 398,480 tons of lime per year, total, based on a 12-month rolling period.
  - b. The maximum allowable discharge rate for **PF1.018 through PF1.021** will not exceed 105.0 tons of lime per any one-hour period, total, nor more than 398,480 tons of lime per year, total, based on a 12-month rolling period.
  - c. **S2.028 through S2.031** and **PF1.018 through PF1.021** may operate 8,760 hours per year, each.



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**Section VII. Emission Caps (continued)**

**A. Cap for Emission Units S2.028 through S2.031 and PF1.018 through PF1.021 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

a. Monitoring and Recordkeeping

On and after May 17, 1999, Permittee will:

- (1) Monitor and record the total amount of lime unloaded from the delivery truck(s) to **S2.028, S2.029, S2.030 or S2.031** and the duration of the truck unloading process each day lime is delivered. At the end of each calendar month, record the total monthly lime throughput and the total lime throughput for the previous 12 months.
- (2) Monitor and record the amount of lime discharged from **PF1.018 through PF1.021** on a monthly basis. The amount of lime will be based on purchasing receipts and measurements of the level of lime in the silo at the beginning and end of the month. At the end of each calendar month, record the total lime throughput for the previous 12 months.
- (3) Monitor and record the hours of operation of **PF1.018 through PF1.021** on a monthly basis.
- (4) Install, calibrate, operate and maintain a device for the measurement of the level of lime in each silo.
- (5) Conduct and record an inspection of the vent filters on **S2.028 through S2.031** on a monthly basis noting the condition of the filter material and housing. Record any corrective actions taken.
- (6) Conduct and record an inspection of the enclosures on **PF1.018 through PF1.021** on a monthly basis to verify that the enclosures are intact. Record the inspection results and any corrective actions taken.
- (7) Conduct and record an assessment of the visible emissions from each emission unit (**S2.028 through S2.031 and PF1.018 through PF1.021**) on a quarterly basis. For each emission unit that appears to exceed the opacity limit as established in A.2 of Section VII., conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test within 24 hours. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while the emission unit is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to the emission unit not operating or due to poor weather conditions.
- (8) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (9) The hourly discharge rate in tons per hour for **PF1.018 through PF1.021** will be determined from the total monthly throughput and the total monthly hours of operation recorded above. This calculated rate will be used for compliance demonstration with the throughput limitation established in A.3.b. of this Section.
- (10) The hourly loading rate in tons per hour for **S2.028 through S2.031** will be determined from the total daily throughput and the total daily hours of operation recorded above. This calculated rate will be used for compliance demonstration with the throughput limitation established in A.3.a of this Section.

5. Shielded Requirements NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

Compliance with conditions A.1 through A.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 1 of operating permit renewal application, received November 16, 2001 (case #02AP0136).



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**Section VII. Emission Caps (continued)**

**B. Cap for Emission Units S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4**

**Systems 90, 91 & 92 - Cap for Electric Power Generators**

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

1. Air Pollution Control Equipment NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

**S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4** will each be operated in a manner that minimizes emissions.

2. Emission Limits NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

On and after the date of startup of **S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stacks of **S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4**, the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) - The combined discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere from **S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4** will not exceed 5.6 short tons per year, based on a rolling 12-month period.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) - The combined discharge of PM (particulate matter) to the atmosphere from **S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4**, will not exceed 5.6 short tons per year, based on a rolling 12-month period.
- c. NAC 445B.305 (Federally Enforceable Part 70 Program) - The combined discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere from **S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4**, will not equal or exceed 40 short tons per year, based on a rolling 12-month period.
- d. NAC 445B.305 (Federally Enforceable Part 70 Program) - The combined discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere from **S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4**, will not exceed 3.22 short tons per year, based on a rolling 12-month period.
- e. NAC 445B.305 (Federally Enforceable Part 70 Program) - The combined discharge of CO (carbon monoxide) to the atmosphere from **S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4**, will not exceed 10.0 short tons per year, based on a rolling 12-month period.
- f. NAC 445B.305 (Federally Enforceable Part 70 Program) - The combined discharge of VOC (volatile organic compounds) to the atmosphere from **S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4**, will not exceed 5.6 short tons per year, based on a rolling 12-month period.
- g. The emissions from each of **S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4**, will not exceed the opacity limitations specified in Section VI.CL.2, VI.CM.2 and VI.CN.2 of this operating permit.

3. Operating Parameters NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

- a. Permittee will comply with the specific operating conditions contained in Section VI.CL.3, VI.CM.3 and VI.CN.3.



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**Section VII. Emission Caps (continued)**

**B. Cap for Emission Units S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4 (continued)**

4. Monitoring, Recordkeeping, Reporting and Compliance NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program

a. Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

- (1) Calculate and record the total emissions of PM<sub>10</sub>, PM, SO<sub>2</sub>, and VOC, in tons, on a monthly basis, from **S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4**. The calculation will be based on the total number of hours of backup operation recorded pursuant to CL.4.c, CM.4.c and CN.4.c. of Section VI, multiplied by the appropriate hourly emission limit for **S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4**, as specified in CL.2, CM.2 and CN.2 of Section VI.
- (2) Calculate and record the total emissions of NO<sub>x</sub> and CO, each, in tons, on a monthly basis, from **S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4**, individually, based on the number of hours of backup operation recorded pursuant to CL.4.c, CM.4.c and CN.4.c. of Section VI, the results of the most recent emission measurement conducted pursuant to CL.4.b, CM.4.b and CN.4.b of Section VI or B.4.b of this Section, and the flow rate measurements conducted pursuant to CL.4.a.(1), CM.4.a.(1) and CN.4.a.(1). The exact procedures for this calculation shall be specified in the monitoring plan required pursuant to CL.4.b.(2), CM.4.b.(2) and CN.4.b.(2).
- (3) Calculate and record the cumulative 12-month rolling average emissions of PM<sub>10</sub>, PM, SO<sub>2</sub>, and VOC by summing 12 consecutive monthly emissions for each pollutant determined pursuant to B.4.a.(1) of the Section. Calculate and record the cumulative 12-month rolling average emissions of NO<sub>x</sub> and CO by summing 12 consecutive monthly emissions determined pursuant to B.4.a.(2) of this Section.
- (4) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.

b. Periodic Compliance Testing

- (1) Permittee will monitor and record the concentration of NO<sub>x</sub> and CO in each of the exhaust stacks of **S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4** that operated since the last round of NO<sub>x</sub>/CO compliance testing. The monitoring will be performed with the portable NO<sub>x</sub>/CO exhaust-gas monitoring device specified in Sections VI.CL.4.b, VI.CM.4.b and VI.CN.4.b of this operating permit. The portable gas analyzer will measure NO<sub>x</sub> and CO emissions for a period of not less than 1 hour for each exhaust stack. The periodic test will be conducted no less than once every 1000 hours of cumulative backup operations for **S2.311.1 through S2.311.4, S2.312.1 through S2.312.2, and S2.313.1 through S2.313.4** at the maximum electrical output (subject to Condition B.4.b(3) of this Section and not to exceed the maximum electrical output as established in B.3 of this Section).
- (2) Performance specifications and quality assurance procedures for the portable NO<sub>x</sub>/CO exhaust-gas monitoring device shall be contained in the monitoring plan required pursuant to CL.4.b(2), CM.4.b(2) and CN.4.b(2).
- (3) Testing required under B.4.b(1) of this Section that are conducted below the maximum electrical output, as established in CL.3, CM.3 and CN.3 of Section VI, will be subject to the Director's review to determine if the electrical output during the tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the periodic compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.

\*\*\*\*\*End of Emission Caps\*\*\*\*\*



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**Section VIII. Surface Area Disturbance Conditions**

Surface area disturbance in excess of 20 acres.

- A. State Implementation Plan (SIP) NAC 445.734 (*Federally Enforceable SIP Requirement*)
1. Permittee will not cause or permit the handling, transporting or storing of any material in a manner which allows or may allow controllable particulate matter to become airborne.
  2. Permittee may not cause or permit the construction, repair, or demolition work, or the use of unpaved or untreated areas without applying all such measures as may be required by the Director to prevent particulate matter from becoming airborne.
  3. Permittee will control fugitive dust in accordance with the dust control plan entitled "Fugitive Dust Control Plan", as submitted on January 30, 2004.
- B. Fugitive Dust (NAC 445B.22037) (*State Only Requirement*)
1. Permittee may not cause or permit the handling, transporting, or storing of any material in a manner which allows or may allow controllable particulate matter to become airborne.
  2. Except as otherwise provided in subsection 4, Permittee may not cause or permit the construction, repair, demolition, or use of unpaved or untreated areas without first putting into effect an ongoing program using the best practical methods to prevent particulate matter from becoming airborne. As used in this subsection, "best practical methods" includes, but is not limited to, paving, chemical stabilization, watering, phased construction, and revegetation.
  3. Except as provided in subsection 4, Permittee may not disturb or cover 5 acres or more of land or its topsoil until Permittee has obtained an Operating Permit for surface area disturbance to clear, excavate, or level the land or to deposit any foreign material to fill or cover the land.
  4. The provisions of subsections 2 and 3 do not apply to:
    - a. Agricultural activities occurring on agricultural land; or
    - b. Surface disturbances authorized by a permit issued pursuant to NRS 519A.180 which occur on land which is not less than 5 acres or more than 20 acres.

\*\*\*\*\***End of Surface Area Disturbance Conditions**\*\*\*\*\*



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**Section IX. Schedules of Compliance**

Permittee is in compliance with NAC 445B.230 - "Plan for reduction of emissions" as the plan was submitted on August 7, 1997.

**\*\*\*\*\*End of Schedules of Compliance\*\*\*\*\***



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**Section X. Amendments**

June 28, 2005 – Off-Permit Change to System 23 (S2.217 & PF1.206) – change the description of the material to be handled to include soda ash as well as lime; no changes to existing emission rates for System 23.

**This permit:**

1. Is non-transferable. (NAC 445B.287.3)
2. Will be posted conspicuously at or near the stationary source. (NAC 445B.318.5)
3. Will expire and be subject to renewal five (5) years after the issuance date of PROPOSED. (NAC 445B.3443.1)
4. A complete application for the renewal of a Class I operating permit must be submitted to the director on the form provided by the director with the appropriate fee at least 240 days, but no earlier than 18 months, before the expiration date of the current Class I operating permit for stationary sources. (NAC 445B.3443.2)
5. Any party aggrieved by the Department's decision to issue this permit may appeal to the State Environmental Commission (SEC) within ten days after the date of notice of the Department's action. (NRS 445B.340)

**THIS PERMIT EXPIRES ON:** PROPOSED

Signature \_\_\_\_\_  
Issued by: Matthew DeBurle  
Supervisor, Permitting Branch  
Bureau of Air Pollution Control

Phone: (775) 687-9391 Date: PROPOSED

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## CLASS I AIR QUALITY OPERATING PERMIT

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### Class I Non-Permit Equipment List

Appended to Barrick Goldstrike Mines Inc. AP1041-0739.01

Emission Unit #	Emission Unit Description
IA1.001	Temporary Shotcrete Plant; Maximum throughput rates are as follows: 36.0 cubic yards of shotcrete per day, 13,140.0 cubic yards of shotcrete per year, based on a 12-month rolling period.
IA1.002	Hazen Pilot Scale Fluidized Bed Roaster with Integral Quenching Eductor; Maximum ore throughput rate of 45.0 pounds per hour.
IA1.003	SAG and ball mills and associated screens and cyclones
IA1.004	Pre-oxidation thickener tanks
IA1.005	Acidulation tanks
IA1.006	Flash tanks
IA1.007	Slurry cooler surge tanks
IA1.008	Slurry coolers
IA1.009	Neutralization tanks
IA1.010	Carbon-in-leach tanks
IA1.011	Carbon-in-leach screens
IA1.012	Cyanide destruction system
IA1.013	Reclaim water tanks
IA1.014	Electrowinning circuit
IA1.015	Carbon acid wash vessels
IA1.016	Propane-fired carbon strip heaters with a rated heat input < 4 MMBtu per hour
IA1.017	Mill refinery central vacuum system
IA1.018	Carbon Reactivation quench tanks
IA1.019	Carbon screens
IA1.020	Activated carbon tanks
IA1.021	Laboratory sample preparation equipment with a throughput rate of < 50 pounds per hour
IA1.022	Propane storage tanks
IA1.023	Ammonium tank
IA1.024	Various storage tanks containing: waste oil, jet fuel, diesel fuel, lubricating oils and greases, gasoline and other miscellaneous Volatile Organic Liquids – with maximum storage capacities < 40,000 gallons and NOT SUBJECT to 40 CFR Part 60, Subparts K, Ka or Kb.
IA1.025	Propane vaporizers, building heaters and other miscellaneous heaters with a rated heat input < 4 MMBtu per hour.
IA1.026	Antifreeze (glycol) storage tank with maximum storage capacity < 10,000 gallons.
IA1.027	Portable internal combustion engines with rated output < 500 hp
IA1.028	Portable internal combustion engines with rated output > 500 hp, but operated < 100 hours per year
IA1.029	Stationary internal combustion engines with rated output < 250 hp
IA1.030	Stationary internal combustion engines with rated output > 250 hp, but operated < 100 hours per year
IA1.031	Emergency generators
IA1.032	Nitric Acid (HNO <sub>3</sub> ) and Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> ) storage and mixing tanks
IA1.033	Anti-scalent storage tanks – with maximum storage capacity < 5,000 gallons
IA1.034	Meikle Mine air refrigeration plant
IA1.035	Potable water treatment systems
IA1.036	Rotating biological contractor sewer systems
IA1.037	Underground mixing plant (Backfill Plant)
IA1.038	Magnesium sulfate (MgSO <sub>4</sub> ) mix tanks (water treatment plant)
IA1.039	Milk of Lime storage tank (water treatment plant)
IA1.040	210' clarifiers, emergency/storm water storage pond (water treatment plant)
IA1.041	Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> ) storage tank (water treatment plant)
IA1.042	Roaster neutralization tanks
IA1.043	Roaster thickener tank



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**Class I Non-Permit Equipment List (Continued)**

Appended to Barrick Goldstrike Mines Inc. AP1041-0739.01

Emission Unit #	Emission Unit Description
IA1.044	Tanks and thickeners associated with the Sulfur Dioxide (SO <sub>2</sub> ) scrubbing solution regeneration process (Roasters)
IA1.045	Tanks and a mercury electrowinning cell associated with the mercury scrubbing solution regeneration and mercury recovery process (Roasters)
IA1.046	Polymer storage and handling (Roasters)
IA1.047	Pressurized propane storage tank (Roasters)
IA1.048	Ammonium Hydroxide (NH <sub>4</sub> OH) solution storage tank (Roasters)
IA1.049	Volatile Organic Liquid storage tanks – maximum storage capacity < 10,567 gallons (Roasters)
IA1.050	Sodium Cyanide (NaCn) solution storage tanks (Roasters)
IA1.051	Volatile Inorganic Liquid storage tanks containing: sulfuric acid, ammonium bisulfate, copper sulfate, ammonium nitrate and sodium hydrosulfide – maximum storage capacity < 40,000 gallons, with corresponding true vapor pressure < 0.6 psig; and maximum storage capacity <200,000 gallons, with corresponding true vapor pressure < 0.13 psig (Roasters)
IA1.052	Meikle and Autoclave cooling towers
IA1.053	Prill Silos
IA1.054	Mine analytical/metallurgical lab fume hoods
IA1.055	Non-road engines (welders, compressors, hydro-blasters, mobile lights, generators, pumps, etc.)