MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

January 27, 2014

PERMIT TO INSTALL
405-08A

ISSUED TO
Eagle Mine, LLC

LOCATED AT
4547 County Road 601
Champion, Michigan

IN THE COUNTY OF
Marquette

STATE REGISTRATION NUMBER
N0934

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: **September 5, 2013**	
DATE PERMIT TO INSTALL APPROVED: **January 27, 2014**	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

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Common Abbreviations / Acronyms

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	BTU	British Thermal Unit
BACT	Best Available Control Technology	°C	Degrees Celsius
CAA	Clean Air Act	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
CO_2e	Carbon Dioxide Equivalent	°F	Degrees Fahrenheit
COM	Continuous Opacity Monitoring	gr	Grains
EPA	Environmental Protection Agency	Hg	Mercury
EU	Emission Unit	hr	Hour
FG	Flexible Group	H_2S	Hydrogen Sulfide
GACS	Gallon of Applied Coating Solids	hp	Horsepower
GC	General Condition	lb	Pound
GHGs	Greenhouse Gases	kW	Kilowatt
HAP	Hazardous Air Pollutant	m	Meter
HVLP	High Volume Low Pressure *	mg	Milligram
ID	Identification	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	NO_x	Oxides of Nitrogen
MDEQ	Michigan Department of Environmental Quality (Department)	PM	Particulate Matter
MSDS	Material Safety Data Sheet	PM10	PM with aerodynamic diameter ≤10 microns
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	PM with aerodynamic diameter ≤ 2.5 microns
NSPS	New Source Performance Standards	pph	Pounds per hour
NSR	New Source Review	ppm	Parts per million
PS	Performance Specification	ppmv	Parts per million by volume
PSD	Prevention of Significant Deterioration	ppmw	Parts per million by weight
PTE	Permanent Total Enclosure	psia	Pounds per square inch absolute
PTI	Permit to Install	psig	Pounds per square inch gauge
RACT	Reasonably Available Control Technology	scf	Standard cubic feet
ROP	Renewable Operating Permit	sec	Seconds
SC	Special Condition	SO_2	Sulfur Dioxide
SCR	Selective Catalytic Reduction	THC	Total Hydrocarbons
SRN	State Registration Number	tpy	Tons per year
TAC	Toxic Air Contaminant	µg	Microgram
TEQ	Toxicity Equivalence Quotient	VOC	Volatile Organic Compound
VE	Visible Emissions	yr	Year

* For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (psig).

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**

2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**

3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**

4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**

5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(R 336.1219)**

6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**

7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**

8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.

9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
    a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
    b) A visible emission limit specified by an applicable federal new source performance standard.
    c) A visible emission limit specified as a condition of this Permit to Install.

12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Flexible Group ID
EUDUMPHOPPER	A dump hopper into which the ore is placed by front end loaders. The hopper is equipped with water sprays. This is the first step in the ore processing. The hopper is located within the enclosed coarse ore storage area (COSA).	FGCOSA FGCONPLANT
EUGRIZZLYFEED	A vibratory feeder/grizzly system used to route ore into the primary crusher. This unit is equipped with water sprays. The grizzly is located within the enclosed coarse ore storage area (COSA).	FGCOSA FGCONPLANT
EUPRIMECRUSHER	A 407 ton per hour jaw crusher equipped with water sprays. This crusher used to reduce the ore to minus 100 mm in size. The crusher is located within the enclosed coarse ore storage area (COSA).	FGCOSA FGCONPLANT
EUROCKBREAKER	A Tamrock or equivalent rock breaker mounted adjacent to the primary crusher is used to reduce oversized rocks entering the system. The rock breaker is equipped with water sprays. The rock breaker is located within the enclosed coarse ore storage area (COSA).	FGCOSA FGCONPLANT
EUFELCOSA	A front end loader is used within the enclosed coarse ore storage area (COSA) to take the ore from storage piles and deposit it into the dump hopper (EUDUMPHOPPER).	FGCOSA FGCONPLANT
EU2NDFEEDCONVY	A covered conveyor used to transport the ore from the enclosed coarse ore storage area (COSA) to the Secondary Crusher Building.	FGTRANSFERCONVYS FGCONPLANT
EU2NDSCREEN	A screen used to sort the ore into pieces above and below approximately 12 mm in size. The oversized material is sent to the secondary crusher, while the remainder of the material is placed on Transfer Conveyor No. 1. The screen is located within the Secondary Crusher Building. Particulate collected from the EU2NDSCREEN is vented through a baghouse dust collector.	FGSECONDCRUSH FGCONPLANT
EU2NDCRUSHER	A cone crusher used to reduce the size of the ore. The unit is located within the Secondary Crusher Building. Particulate collected from EU2NDCRUSHER is vented through a baghouse dust collector.	FGSECONDCRUSH FGCONPLANT
EUTRANSCONVY1	A covered conveyor used to transport the ore from the Secondary Crusher Building to the enclosed transfer station.	FGTRANSFERCONVYS FGCONPLANT

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Flexible Group ID
EU3RDSCREEN	A screen used to sort the ore into pieces above and below approximately 12 mm in size. The oversized material is sent to the tertiary crusher, while the remainder of the material is placed on Transfer Conveyor No. 1. The screen is located within the Secondary Crusher Building. Particulate collected from EU3RDSCREEN is vented through a baghouse dust collector.	FGSECONDCRUSH FGCONPLANT
EU3RDCRUSHER	A cone crusher used to reduce the ore to minus approximately 12 mm in size. The unit is located within the Secondary Crusher Building. Particulate collected from EU3RDCRUSHER is vented through a baghouse dust collector.	FGSECONDCRUSH FGCONPLANT
EURECIRCCONVYS	A covered conveyor used to transport the ore from the secondary and tertiary crushers to the enclosed transfer station and a covered conveyor used to recirculate the ore back to the tertiary crusher screen (EU3RDSCREEN).	FGTRANSFERCONVYS FGCONPLANT
EUTRANSCONVY2	A covered conveyor used to transport the ore from the enclosed transfer station into the Mill Building.	FGTRANSFERCONVYS FGCONPLANT
EUFINEORESTORAGE	Three 2000 tonne (metric ton) capacity fine ore storage bins. The bins are located within the mill Building. Particulate emissions from the bins and the drop points will be controlled by a baghouse dust collector.	FGCONPLANT
EUCONDROP	Nickel concentrate will drop onto a short shuttle conveyor that will distribute concentrate evenly across the loadout pile. Copper concentrate will discharge from the filter directly to the loadout pile via chute.	FGCONPLANT
EULOAD	Rail car loading of copper and nickel bearing concentrate using front end loaders. This activity will take place within the Concentrate Loadout Building.	FGCONPLANT
EUFELCON	Front end loader traffic within the Concentrate Loadout Building.	FGCONPLANT
EUTRANSFERPTS	Process fugitive emissions, regulated under 40 CFR Part 60 Subpart LL, and located within the enclosed coarse ore storage area (COSA), the Secondary Crusher Building, the enclosed transfer station, the Mill Building, and the Concentrate Loadout Building.	FGCONPLANT
EUROADWAY	Fugitive emissions are produced by vehicle traffic entering and exiting the facility.	FGCONPLANT

The following conditions apply to: EUFINEORESTORAGE

DESCRIPTION: Three 2000 tonne (metric ton) capacity fine ore storage bins. The bins are located within the mill building.

Flexible Group ID: FGCONPLANT

POLLUTION CONTROL EQUIPMENT: Particulate emissions from the bins and the drop points will be controlled by a baghouse dust collector.

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.0035 lbs per 1000 lbs of exhaust gases[A]	Test Protocol*	EUFINEORESTORAGE	General Condition No. 13	R 336.1331, 40 CFR Part 60 Subpart LL
2. PM10	0.1 pph	Test Protocol*	EUFINEORESTORAGE	General Condition No. 13	40 CFR 52.21 Subparts (c) & (d)
[A] Calculated on a dry gas basis * Test protocol shall determine averaging time					

3. Visible emissions from EUFINEORESTORAGE shall not exceed a six-minute average of 5 percent opacity. **(R 336.1301, R 336.1331, 40 CFR Part 60 Subpart LL)**

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate EUFINEORESTORAGE unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the baghouse dust collector is implemented and maintained. The MAP shall be submitted to the AQD District Supervisor a minimum of 120 days prior to commencement of operation of EUFINEORESTORAGE. The MAP shall, at a minimum, specify the following:

   a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

   b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

   c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.1911, 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart LL)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate any storage bin and/or diverter gate in EUFINEORESTORAGE unless the baghouse dust collector is installed, maintained, and operated in a satisfactory manner. **(R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart LL)**

2. Each storage bin, diverter gate, and drop point portion of EUFINEORESTORAGE shall be located within an enclosed building. **(R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d))**

3. The permittee shall not operate EUFINEORESTORAGE unless a gauge, which measures the pressure drop across the fabric filter collector and sounds an alarm when the pressure drop is outside the range recommended by the manufacturer, is installed, maintained and operated in a satisfactory manner. **(R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart LL)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation of EUFINEORESTORAGE, the permittee shall evaluate visible emissions from EUFINEORESTORAGE, as required by federal Standards of Performance for New Stationary Sources, at owner's expense, in accordance with 40 CFR Part 60 Subparts A and LL. Verification of visible emissions includes the submittal of a complete report of opacity observations to the AQD within 45 days following the last date of the evaluation. **(R 336.1301, 40 CFR Part 60 Subparts A & LL)**

2. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation of EUFINEORESTORAGE, the permittee shall verify PM emission rates from EUFINEORESTORAGE, as required by federal Standards of Performance for New Stationary Sources, by testing at owner's expense, in accordance with 40 CFR Part 60 Subparts A and LL. Stack testing procedures and the location of stack testing ports shall be in accordance with the applicable federal Reference Methods, 40 CFR Part 60 Appendix A. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 45 days following the last date of the test. **(R 336.1331, 40 CFR Part 60 Subparts A & LL)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d))**

2. The permittee shall keep the following information on a monthly basis for EUFINEORESTORAGE :
   a) PM10 emission calculations determining the monthly emission rate in tons per calendar month.
   b) PM10 emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

   The permittee shall keep the records on file, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request. **(R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d))**

VII. REPORTING

1. The permittee shall provide written notification of construction and operation to comply with the federal Standards of Performance for New Stationary Sources, 40 CFR 60.7. The permittee shall submit this notification to the AQD District Supervisor within the time frames specified in 40 CFR 60.7. **(40 CFR 60.7)**

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVFINEORESTORAGE	14.0	125.0	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and LL, as they apply to EUFINEORESTORAGE. **(40 CFR Part 60 Subparts A & LL)**

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply to: EULOAD

DESCRIPTION: Rail car loading of copper and nickel bearing concentrate using front end loaders. This activity will take place within the Concentrate Loadout Building.

Flexible Group ID: FGCONPLANT

POLLUTION CONTROL EQUIPMENT: NA

I. EMISSION LIMITS

1. Visible emissions from EULOAD shall not exceed a six-minute average of 10 percent opacity. **(R 336.1301, R 336.1303, 40 CFR 52.21 (c) & (d), 40 CFR Part 60 Subpart LL)**

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. All copper and nickel bearing concentrate loading via front end loaders shall take place within an enclosed building. **(R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation of EULOAD, the permittee shall evaluate visible emissions from EULOAD, as required by federal Standards of Performance for New Stationary Sources, at owner's expense, in accordance with 40 CFR Part 60 Subparts A and LL. Verification of visible emissions includes the submittal of a complete report of opacity observations to the AQD within 45 days following the last date of the evaluation. **(R 336.1301, 40 CFR Part 60 Subparts A & LL)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VII. REPORTING

1. The permittee shall provide written notification of construction and operation to comply with the federal Standards of Performance for New Stationary Sources, 40 CFR 60.7. The permittee shall submit this notification to the AQD District Supervisor within the time frames specified in 40 CFR 60.7. **(40 CFR 60.7)**

VIII. STACK/VENT RESTRICTIONS

1. The exhaust gases from EULOAD shall not be captured and discharged through a dedicated stack to the ambient air at any time. **(R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d))**

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and LL, as they apply to EULOAD. **(40 CFR Part 60 Subparts A & LL)**

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGCOSA	All receiving and crushing activities located within the enclosed coarse ore storage area (COSA). Particulate emissions from these activities are controlled by water sprays.	EUDUMPHOPPER EUGRIZZLYFEED EUPRIMECRUSHER EUROCKBREAKER EUFELCOSA
FGTRANSFERCONVYS	Covered conveyors used to transport ore, copper bearing concentrate, and nickel bearing concentrate between the various buildings at the facility.	EU2NDFEEDCONVY EUTRANSCONVY1 EURECIRCCONVYS EUTRANSCONVY2
FGSECONDCRUSH	All crushing and screening activities located within the Secondary Crusher Building. Particulate emissions from these activities are controlled by a baghouse dust collector.	EU2NDSCREEN EU2NDCRUSHER EU3RDSCREEN EU3RDCRUSHER
FGCONPLANT	All permitted process equipment and activities associated with the copper and nickel ore concentration facility.	EUDUMPHOPPER EUGRIZZLYFEED EUPRIMECRUSHER EUROCKBREAKER EUFELCOSA EU2NDFEEDCONVY EU2NDSCREEN EU2NDCRUSHER EUTRANSCONVY1 EURECIRCCONVYS EU3RDSCREEN EU3RDCRUSHER EUTRANSCONVY2 EUFINEORESTORAGE EUCONDROP EULOAD EUFELCON EUTRANSFERPTS EUROADWAY

The following conditions apply to: FGCOSA

DESCRIPTION: All receiving and crushing activities located within the enclosed coarse ore storage area (COSA).

Emission Units: EUDUMPHOPPER, EUGRIZZLYFEED, EUPRIMECRUSHER, EUROCKBREAKER, EUFELCOSA

POLLUTION CONTROL EQUIPMENT: Particulate emissions from these activities are controlled by water sprays.

I. EMISSION LIMITS

1. Visible emissions from EUDUMPHOPPER shall not exceed a six-minute average of 10 percent opacity. **(R 336.1301, R 336.1303, 40 CFR Part 60 Subpart LL)**

2. Visible emissions from EUGRIZZLYFEED shall not exceed a six-minute average of 10 percent opacity. **(R 336.1301, R 336.1303, 40 CFR Part 60 Subpart LL)**

3. Visible emissions from EUPRIMECRUSHER shall not exceed a six-minute average of 10 percent opacity. **(R 336.1301, R 336.1303, 40 CFR Part 60 Subpart LL)**

4. Visible emissions from EUROCKBREAKER shall not exceed a six-minute average of 10 percent opacity. **(R 336.1301, R 336.1303, 40 CFR Part 60 Subpart LL)**

II. MATERIAL LIMITS

1. The permittee shall not process more than 407 tons of ore through EUDUMPHOPPER per hour. **(R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d))**

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EUDUMPHOPPER unless the water sprays are installed, maintained, and operated in a satisfactory manner. **(R336.1224, R 336.1910, 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart LL)**

2. The permittee shall not operate EUGRIZZLYFEED unless the water sprays are installed, maintained, and operated in a satisfactory manner. **(R 336.1224, R 336.1910, 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart LL)**

3. The permittee shall not operate EUPRIMECRUSHER unless the water sprays are installed, maintained, and operated in a satisfactory manner. **(R 336.1224, R 336.1910, 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart LL)**

4. The permittee shall not operate EUROCKBREAKER unless the water sprays are installed, maintained, and operated in a satisfactory manner. **(R 336.1224, R 336.1910, 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart LL)**

5. The permittee shall maintain water sprays within the enclosed coarse ore storage area, including in the enclosed truck unloading area, as needed to ensure compliance with the opacity requirements of 40 CFR Part 60 Subpart LL. **(R 336.1224, R 336.1910, 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart LL)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation of FGCOSA, the permittee shall evaluate visible emissions from EUDUMPHOPPER, EUGRIZZLYFEED, EUPRIMECRUSHER, EUROCKBREAKER, as required by federal Standards of Performance for New Stationary Sources, at owner's expense, in accordance with 40 CFR Part 60 Subparts A and LL. Verification of visible emissions includes the submittal of a complete report of opacity observations to the AQD within 45 days following the last date of the evaluation. **(R 336.1301, 40 CFR Part 60 Subparts A & LL)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d))**

2. The permittee shall monitor and record, in a method acceptable to the AQD District Supervisor, the ore feed rate to EUDUMPHOPPER on an hourly and 12-month rolling time period basis, as determined at the end of each calendar month. The permittee shall keep the records on file, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request. **(R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d))**

VII. REPORTING

1. The permittee shall provide written notification of construction and operation to comply with the federal Standards of Performance for New Stationary Sources, 40 CFR 60.7. The permittee shall submit this notification to the AQD District Supervisor within the time frames specified in 40 CFR 60.7. **(40 CFR 60.7)**

VIII. STACK/VENT RESTRICTIONS

1. The exhaust gases from any portion of FGCOSA shall not be captured and discharged through a dedicated stack to the ambient air at any time. **(R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d))**

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and LL, as they apply to FGCOSA. **(40 CFR Part 60 Subparts A & LL)**

Footnotes:

[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply to: FGSECONDCRUSH

DESCRIPTION: All crushing and screening activities located within the Secondary Crusher Building.

Emission Units: EU2NDSCREEN, EU2NDCRUSHER, EU3RDSCREEN, EU3RDCRUSHER

POLLUTION CONTROL EQUIPMENT: Particulate emissions from these activities are controlled by a baghouse dust collector.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.009 lbs per 1000 lbs of exhaust gases[A]	Test Protocol*	FGSECONDCRUSH	SC V. 2.	R 336.1331, 40 CFR Part 60 Subpart LL
2. PM10	0.5 pph	Test Protocol*	FGSECONDCRUSH	SC V. 2.	40 CFR 52.21 Subparts (c) & (d)
[A] Calculated on a dry gas basis * Test protocol shall determine averaging time					

3. Visible emissions from FGSECONDCRUSH shall not exceed a six-minute average of 5 percent opacity. **(R 336.1301, R 336.1303, R 336.1331, 40 CFR Part 60 Subpart LL)**

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate any portion of FGSECONDCRUSH unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the baghouse dust collector is implemented and maintained. The MAP shall be submitted to the AQD District Supervisor a minimum of 120 days prior to commencement of operation of FGSECONDCRUSH. The MAP shall, at a minimum, specify the following:

   a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

   b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

   c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1224, R 336.1225, R 336.1331, R 336.1910, R 336.1911, 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart LL)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate any screen and/or crusher portion of FGSECONDCRUSH unless the baghouse dust collector is installed, maintained, and operated in a satisfactory manner. **(R 336.1224, R 336.1225, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart LL)**

2. Each screen and crusher portion of FGSECONDCRUSH shall be located within an enclosed building. **(R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d))**

3. The permittee shall not operate FGSECONDCRUSH unless a gauge, which measures the pressure drop across the fabric filter collector and sounds an alarm when the pressure drop is outside the range recommended by the manufacturer, is installed, maintained and operated in a satisfactory manner. **(R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart LL)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation of FGSECONDCRUSH, the permittee shall evaluate visible emissions from FGSECONDCRUSH, as required by federal Standards of Performance for New Stationary Sources, at owner's expense, in accordance with 40 CFR Part 60 Subparts A and LL. Verification of visible emissions includes the submittal of a complete report of opacity observations to the AQD within 45 days following the last date of the evaluation. **(R 336.1301, 40 CFR Part 60 Subparts A & LL)**

2. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation of FGSECONDCRUSH, the permittee shall verify PM emission rates from FGSECONDCRUSH, as required by federal Standards of Performance for New Stationary Sources, by testing at owner's expense, in accordance with 40 CFR Part 60 Subparts A and LL. Stack testing procedures and the location of stack testing ports shall be in accordance with the applicable federal Reference Methods, 40 CFR Part 60 Appendix A. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 45 days following the last date of the test. **(R 336.1331, 40 CFR Part 60 Subpart LL)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d))**

2. The permittee shall keep the following information on a monthly basis for FGSECONDCRUSH:
   a) PM10 emission calculations determining the monthly emission rate in tons per calendar month.
   b) PM10 emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

   The permittee shall keep the records on file, in a format acceptable to the AQD District Supervisor, and make them available to the Department upon request. **(R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d))**

VII. REPORTING

1. The permittee shall provide written notification of construction and operation to comply with the federal Standards of Performance for New Stationary Sources, 40 CFR 60.7. The permittee shall submit this notification to the AQD District Supervisor within the time frames specified in 40 CFR 60.7. **(40 CFR 60.7)**

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV2NDCRUSHER	30.0	65.5	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and LL, as they apply to FGSECONDCRUSH. **(40 CFR Part 60 Subparts A & LL)**

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply Source-Wide to: FGCONPLANT

DESCRIPTION: All permitted process equipment and activities associated with the copper and nickel ore concentration facility.

Emission Units: EUDUMPHOPPER, EUGRIZZLYFEED, EUPRIMECRUSHER, EUROCKBREAKER, EUFELCOSA, EU2NDFEEDCONVY, EU2NDSCREEN, EU2NDCRUSHER, EUTRANSCONVY1, EU3RDSCREEN, EU3RDCRUSHER, EURECIRCCONVYS, EUTRANSCONVY2, EUFINEORESTORAGE, EUCONDROP, EULOAD, EUFELCON, EUTRANSFERPTS, EUROADWAY

POLLUTION CONTROL EQUIPMENT: Two baghouse dust collectors, water sprays, and conveyor covers

I. EMISSION LIMITS

1. Visible emissions from all wheel loaders and all truck traffic shall not exceed five (5) percent opacity. Compliance shall be demonstrated using Test Method 9D as defined in Section 324.5525(j) of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). **(R 336.1301, 40 CFR 52.21(c) & (d))**

2. Process fugitive emissions from each crusher, screen, conveyor belt transfer point, storage bin, enclosed storage area, and truck unloading station in FGCONPLANT shall not exceed a six-minute average of 10 percent opacity. **(R 336.1301, R 336.1303, 40 CFR 52.21 (c) & (d), 40 CFR Part 60 Subpart LL)**

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not maintain any outside storage piles of any material at the facility. **(R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d))**

2. The permittee shall not operate any portion of FGCONPLANT unless the program for continuous fugitive emissions control for all plant roadways, the plant yard, and all material handling operations specified in Appendix A, or an alternate plan approved by the AQD District Supervisor, has been implemented and is maintained. **(R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d))**

3. The permittee shall not exceed a maximum equivalent of 17,140 50-ton ore trucks entering the facility for each 12-month rolling time period. **(R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d))**

4. The permittee shall cover all product haul trucks travelling on site, in accordance with the fugitive dust control plan, to reduce fugitive dust emissions. **(R 336.1224, R 336.1225, R 336.1301, 40 CFR 52.21 (c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall pave the plant roadways routinely travelled by product haul trucks. Routinely travelled roadways include the facility access road (beginning at the facility gate), the road to the COSA, and the road returning from the COSA to the facility gate. This condition does not require paving of roadways that will not routinely be travelled by product haul trucks, such as the road to the office/maintenance building and mill building. **(R 336.1224, R 336.1225, R 336.1301, 40 CFR 52.21(c) & (d))**

2. All material handling operations in FGCONPLANT shall be located within an enclosed building. **(R 336.1910, 40 CFR 52.21(c) & (d))**

3. The permittee shall not load material onto EUTRANSCONVY2 unless the transfer station dust collectors are installed, maintained, and operated in a satisfactory manner. **(R 336.1910, 40 CFR 52.21(c) & (d), 40 CFR Part 60 Subpart LL)**

4. The permittee shall equip and maintain any portion of any conveyor that is not located inside an enclosed building with a cover. **(R 336.1910, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation of FGCONPLANT, the permittee shall evaluate visible emissions from each crusher, screen, conveyor belt transfer point, storage bin, enclosed storage area, and truck unloading station in FGCONPLANT, as required by federal Standards of Performance for New Stationary Sources, at owner's expense, in accordance with 40 CFR Part 60 Subparts A and LL. Verification of visible emissions includes the submittal of a complete report of opacity observations to the AQD within 45 days following the last date of the evaluation. **(R 336.1301, 40 CFR Part 60 Subparts A & LL)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d))**

2. The permittee shall keep a daily record of the type, size (weight) and number of ore transport trucks entering the facility. Each month, in a manner acceptable to the AQD District Supervisor, the permittee shall calculate an equivalent number of 50-ton ore transport trucks entering the facility based on that month's daily records. The permittee shall keep all records and calculations on file and make them available to the Department upon request. **(R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d))**

VII. REPORTING

1. The permittee shall provide written notification of construction and operation to comply with the federal Standards of Performance for New Stationary Sources, 40 CFR 60.7. The permittee shall submit this notification to the AQD District Supervisor within the time frames specified in 40 CFR 60.7. **(40 CFR 60.7)**

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and LL, as they apply to FGCONPLANT. **(40 CFR Part 60 Subparts A & LL)**

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

APPENDIX A

Humboldt Mill
Nuisance Minimization Plan
Fugitive Dust Control Plan

Prepared for
Kennecott Eagle Minerals Company

Updated by
Consulting Services, LLC

September 2013

Introduction

Pursuant to the conditions of Permit to Install 405-08A, a Fugitive Dust Control Plan is required for the Humboldt Mill. The major requirements for dust control are the following:

- A written Fugitive Dust Control Program;
- Maintenance of records consistent with activities to be implemented under the program; and
- Identification of control technologies and methods that will be implemented as part of the program.

This Fugitive Dust Control Plan describes best management practices and controls to minimize fugitive dust from the facility.

Potential sources of fugitive dust include:

- Haul truck traffic;
- Ore storage and handling; and
- Concentrate storage, handling, and load-out.

Haul Truck Activities

The mill access road entering the facility from County Road (CR) 601 will be used for haul trucks delivering ore. The haul truck route is paved.

On site staff will continually monitor roadways. Corrective measures will be taken if visible emissions from roadways are observed. Paved areas will be swept or flushed as needed. The goal is to prevent visible dust emissions from roadways and insure opacity is 5% or less. Attached is the Roadway Dust Suppression Form.

Unloading Operations

Trailers on haul trucks will be covered to reduce fugitive dust during transport. The ore is expected to have a silt content of less than 1%. Haul trucks will enter the Coarse Ore Storage Area (COSA) through a roll-up door on the south side of the building and stop at the unloading area. The trailer covers will automatically lift out of the way for dumping and ore will be side discharged. Once the ore has been unloaded, the trailers will be covered and trucks will exit through another roll-up door. It is anticipated that the coarse ore will normally be moist and unloading will generate very little dust. Water sprays will be available to control fugitive dust in the unloading area as needed. The enclosed building is expected to provide 95%+ control of fugitive dust from the unloading of ore in the COSA.

Ore Storage and Handling

After unloading, a front end loader will move the ore to a stockpile within the COSA or place it directly into the dump hopper. As needed, the concrete floor in the COSA will be swept or flushed with water to reduce fugitive emissions from operation of the loader.

Visible emissions from the COSA will comply with the permitted opacity limit of 10%.

Concentrate Storage, Handling, and Load-Out

Concentrate handling and loading will be performed in the enclosed concentrate load-out building. The enclosed building is expected to provide a 95%+ reduction in emissions of fugitive dust. The concentrate will be moist (approximately 8% moisture) and will not be a dusty material.

Rail car loading will take place within the enclosed building. Roll-up doors will be opened only to allow rail cars to enter or exit. Prior to a loaded rail car exiting the building, the wheels and body will be checked for material clinging to the exterior. If present, loose material will be brushed off.

During load-out, a front end loader will transfer concentrate from the stockpile to rail cars. Similar to the COSA, the concrete floor in the load-out area will be swept or flushed with water to reduce fugitive emissions from operation of the loader. Sweepings will be added to the stockpiles.

Visible emissions from the concentrate load-out building will meet the permitted opacity limit of 10%.

Recordkeeping

Roadway dust suppression forms will be kept on file for five years.

Humboldt Mill - Roadway Dust Suppression Form

Date: _____ / _____ / _____ Shift: _____

Employee: _____

Temperature: _____

Weather Conditions: _____

_____

Dust from roadways observed? Yes: ____ Road segment(s): _____

No: ___

If yes to above, actions taken: Sweeping: ____ Road segment(s): _____

Dust suppressant: ____ Road segment(s): _____

Water applied: _____ Road segment(s): _____

Comments: _____

_____

_____

Eagle Mine, LLC

RESPONSE TO COMMENTS DOCUMENT

January 27, 2014

PERMIT No. 405-08A

Rick Snyder, Governor

Air Quality Division
Michigan Department of Environmental Quality

INTERNET: http://www.michigan.gov/air

G. Vinson Hellwig, Chief
Air Quality Division
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I. PUBLIC PARTICIPATION PROCESS

Permit to Install (PTI) application No. 405-08A, for Eagle Mine, LLC, is for proposed modifications to the Humboldt Mill, a copper and nickel ore processing facility, located at 4547 County Road 601, Humboldt Township, Michigan. The public participation process involved providing information for public review including a Fact Sheet, proposed permit terms and conditions, a public comment period, an informational meeting, a public hearing, and the receipt of written and verbal public comments on the Air Quality Division (AQD) staff's analysis of the application and the proposed permit.

On November 7, 2013, copies of the Notice of Air Pollution Comment Period and Public Hearing, the Fact Sheet, and the draft terms and conditions were placed on the Michigan Department of Environmental Quality (MDEQ), Air Quality Division Home Page (http://www.michigan.gov/air). Also on that date, the AQD mailed approximately 100 letters to persons who had previously expressed interest via letter and had provided a complete address. In addition, a notice announcing the Public Comment Period, Public Informational Meeting, and Public Hearing was placed in the Marquette Mining Journal. The notice provided pertinent information regarding the proposed action; the locations of available information; a telephone number to request additional information; the date, time, and location of the Public Informational Meeting and Public Hearing; the closing date of the Public Comment Period; and the address where written comments were being received.

The Informational Meeting was held on December 17, 2013, at Westwood High School, 300 Westwood Drive, Ishpeming, Michigan. This location was selected due to its proximity to the facility and the size of the room. Approximately eight people attended the Informational Meeting. A panel of representatives from the AQD was available to answer questions regarding the proposed project. The meeting began at approximately 6:15 p.m. and concluded at approximately 6:50 p.m.

The Public Hearing was held on December 17, 2013, at Westwood High School, 300 Westwood Drive, Ishpeming, Michigan. The hearing began at 7:04 p.m. with Mr. Steve Casey as the Hearings Officer and Mr. G. Vinson Hellwig as the Decision maker. Only comments on the proposed permit action were received. In addition, staff of the AQD was available outside the auditorium to answer any questions. Approximately eight people were in attendance at the Public Hearing with four providing oral comments. The Public Hearing concluded at 7:21 PM.

A total of approximately five written comments were received during the Public Comment Period and the hearing.

The remainder of this document is a listing of the significant comments received during the public comment period and hearing regarding the proposed permit and the AQD's response.

II. SUMMARY OF SIGNIFICANT COMMENTS

A. Public Health and Environment Concerns

Comment

Was any consideration given to the nature of the particulate matter less than 10 microns in diameter (PM10) and particulate matter less than 2.5 microns in diameter (PM2.5) as to their relative toxicity as sulfuric acid generators and metal content? Not all small particulates have the same environmental effects, and the particulates in this case are of special concern.

AQD Response

Yes. The emissions were evaluated as PM10 and PM2.5 for compliance with the relevant federal standards for these pollutants. The dispersion modeling demonstrated that the PM10 and PM2.5 emissions from the Coarse Ore Storage Area (COSA) and the concentrate loadout building are below the applicable Prevention of Significant Deterioration (PSD) significant impact levels (SILs) (See Table 1). When the modeled impact for a pollutant is below the SIL, the AQD expects the National Ambient Air Quality Standards (NAAQS) to be met and no additional modeling is warranted for that pollutant.

In addition, the emissions of specific metals and sulfuric acid were evaluated for compliance with the Michigan air toxics rules. The emissions of the specific toxic air contaminants (TACs) were estimated based on the total particulate matter (PM) emission rate and the composition of the ore. The results of these evaluations showed that metal and sulfuric acid emissions from the COSA and the concentrate loadout building are expected to be in compliance with Michigan air toxics rules (See Tables 2 and 3).

Table 1. PM10 and PM2.5 Dispersion Modeling Results

Pollutant	Averaging time	SIL (µg/m3)	Impact (µg/m3)	% of SIL
PM10	Annual	1	0.0209	2%
PM10	24-hour	5	0.5	10%
PM2.5	Annual	0.3*	0.0038	1%
PM2.5	24-hour	1.2*	0.082	7%

* Note the PM2.5 SILs were vacated, so further analysis, beyond comparing the impacts to the SILs, is required. Therefore, the AQD compared the PM2.5 annual NAAQS of 12 µg/m^3 to the background concentration of 5.8 µg/m^3 and determined that there is 6.2 µg/m^3 available before the NAAQS would be exceeded. This margin is more than the vacated 0.3 µg/m^3 SIL. Since the 0.0038 µg/m^3 impact from the COSA and concentrate loadout building is below the SIL, and the margin between the NAAQS and the background is more than the SIL, the AQD expects the NAAQS to be met and no additional modeling is warranted for PM2.5 on an annual averaging time.

In addition, the AQD compared the PM2.5 24-hour NAAQS of 35 µg/m^3 to the background concentration of 19.9 µg/m^3 and determined that there is 15.1 µg/m^3 available before the NAAQS would be exceeded. This margin is more than the vacated 1.2 µg/m^3 SIL. Since the 0.082 µg/m^3 impact from the COSA and concentrate loadout building is below the SIL, and the margin between the NAAQS and the background is more than the SIL, the AQD expects the NAAQS to be met and no additional modeling is warranted for PM2.5 on a 24-hour averaging time.

Table 2. Toxic Air Contaminant (TAC) Allowable Emission Rates (AER)

TAC	Screening Level ($\mu g/m^3$)	Averaging Time	Hourly TAC Emission Rate (lb)	Time Period* Emission Rate (lb)	Hourly Allowable Emission Rate (lb)	Time Period* Allowable Emission Rate (lb)	Below AER?
Antimony	0.2	24-Hour	8.07×10^{-7}	5.09×10^{-6}	0.01	0.024	Yes
Arsenic	0.0002	Annual	4.97×10^{-7}	3.69×10^{-4}	0.0001	0.008	Yes
Barium	5	8-Hour	1.59×10^{-6}	1.27×10^{-5}	0.1	0.1	Yes
Beryllium	0.02	24-Hour	8.21×10^{-9}	1.97×10^{-7}	0.001	0.0024	Yes
Beryllium	0.0004	Annual	8.21×10^{-9}	6.11×10^{-6}	0.0002	0.016	Yes
Cadmium	0.0006	Annual	3.93×10^{-7}	2.92×10^{-4}	0.0003	0.024	Yes
Chromium	5	8-Hour	9.31×10^{-5}	7.45×10^{-4}	0.1	0.1	Yes
Cobalt	0.2	8-Hour	8.00×10^{-5}	6.4×10^{-4}	0.004	0.004	Yes
Copper	2	8-Hour	3.40×10^{-3}	2.72×10^{-2}	0.04	0.04	Yes
Magnesium	100	8-Hour	7.52×10^{-3}	6.02×10^{-2}	2	2	Yes
Manganese	0.05	Annual	8.07×10^{-5}	6.00×10^{-2}	0.027	2	Yes
Selenium	2	8-Hour	4.15×10^{-6}	3.32×10^{-5}	0.04	0.04	Yes
Silver	0.1	8-Hour	9.89×10^{-7}	7.91×10^{-6}	0.002	0.002	Yes
Sulfuric Acid	1	Annual	2.45×10^{-2}	18.22	0.54	40	Yes
Sulfuric Acid	120	1-Hour	2.45×10^{-2}	2.45×10^{-2}	0.12	0.12	Yes
Tin	20	8-Hour	5.07×10^{-7}	4.05×10^{-6}	0.4	0.4	Yes

* The AER analysis compares the maximum hourly emission rate to an allowed hourly emission rate. In addition, for screening levels with averaging times greater than one hour, the AER analysis also compares the 8-hour, 24-hour, or monthly emission rate to a corresponding allowed emission rate. The "Time Period" column refers to these 8-hour, 24-hour, or monthly emission rates.

Table 3. Dispersion Modeling for Nickel

TAC	Averaging Time	Screening Level Type	Screening Level ($\mu g/m^3$)	Predicted Impact ($\mu g/m^3$)	Percent of Screening Level (%)
Nickel	Annual	IRSL	0.0042	0.00351	84

B. Air Toxics and Risk Assessment

Comment

Applicant failed to comply with the requirements of Rule 225, which states "A person who is responsible for any proposed new or modified emission unit or units for which an application for a Permit to Install is required by part 2 of these rules and which emits a TAC shall not cause or allow the emission of the TAC from the proposed new or modified emission unit or units in excess of the maximum allowable emission rate which results in a predicted maximum ambient impact that is more than the initial threshold screening level or the initial risk screening level, or both."

The application wholly fails to resolve the potential impact of TACs and cannot have thoroughly evaluated such potential impacts when the applicant refuses to acknowledge and consider the potential impact from all activities on and related to the site. Noncompliance with Rule 225 requirements would render approval of the permit arbitrary, capricious, and not in accordance with the law.

AQD Response

Rule 225 applies to new or modified emission units. Since the permit application does not propose installing any new emission units, Rule 225 applies only to the "modified" emission units identified in the application.

For the purposes of Rule 225, an emission unit is modified if there is a physical change or a change in the method of operation which increases the amount of any air contaminant which is not already allowed to be emitted or which results in the emission of any TAC not previously emitted.

None of the changes proposed in the application increase TAC emissions or result in the emission of any TAC not previously emitted. Therefore, Rule 225 does not apply to the changes proposed in the application. Nevertheless, the AQD did evaluate the TAC emissions from the proposed changes to the COSA and concentrate loadout building and determined, as shown in Tables 2 and 3, that the emissions are less than the applicable screening levels and therefore are in compliance with Rule 225.

Comment

The Keweenaw Bay Indian Community (Community) is a federally recognized Indian tribe that, along with its members, retained their inherent right to hunt, fish, trap and gather in, on and over the lands and waters, that were ceded to the United States under the Treaty with the Chippewa at La Pointe, 7 Stat. 591 ("Treaty of 1842"), which included the lands that would be affected by the proposed change in operation of the Humboldt Mill.

The Fact Sheet states that nickel emissions are above its allowable emissions rate. Rule 228 allows the Department to require a lower emission rate than that specified by Best Available Control Technology for Toxics (T-BACT) or the health based screening level, on a case-by-case basis if it is determined that these requirements may not provide adequate protection of human health or the environment. The Community requests a case-by-case evaluation because Community members will be disproportionally impacted through exercise of treaty reserved rights.

Significant levels of contamination are known to exist at the Humboldt Mill in connection with previous operations at the facility. By approving the changes requested in this permit, the MDEQ would allow this site to be further contaminated. The Community urges the MDEQ to consider the cumulative impacts of the permitted air releases in light of the legacy pollution and the subsequent public health effects at the Humboldt Mill site.

AQD Response

The AQD has developed a health based screening level for nickel, and Rule 225 requires the nickel emissions to meet this screening level. Rule 227 outlines three methods that can be used to demonstrate that the proposed emissions are in compliance with the applicable screening levels. One of these methods is identified as the "allowable emission rate (AER)" method. If the proposed emission rate is less than the AER, compliance has been demonstrated with the screening level. If the proposed emission rate is more than the AER, another allowed method is used.

In this instance, the nickel emission rate did not meet the AER, so another allowed method (maximum ambient impact analysis) was used to demonstrate that the nickel emissions are in compliance with the screening level. Eagle Mine conducted, and the AQD verified, air dispersion modeling using AERMOD, the United States Environmental Protection Agency's (USEPA) recommended model, which determined that the "maximum ambient impact" of the nickel emissions is less than the screening level (see Table 3).

As part of the MDEQ's review of the Part 632 mining permit for the Humboldt Mill, which was issued on February 9, 2010, a deposition modeling analysis was conducted. This analysis, which is similar to the type of analysis that would be conducted under Rule 228, demonstrated that no adverse impacts were expected due to the air emissions from the facility. The AQD determined that, because the estimated emissions from the facility are now lower than the emissions previously evaluated, a revised analysis is not needed. The conclusions from the original analysis are still valid and the facility is not expected to have an adverse impact on human health or the environment, including tribal members exercising their treaty rights.

C. Dispersion Modeling

Comment

While MDEQ mentions a modeling analysis was completed for the permit, no modeling data or summary was provided. Commenter reserves the right to provide additional comments regarding this issue when such information is provided.

Emissions from the Eagle Mine and the roads to be constructed and used for transport of ore materials, clearly connected actions under the National Environmental Policy Act, were not considered in the overall emissions calculations. These calculations are incorrect and underestimated. The incomplete air modeling impacts analysis is a significant failure in the permit application. Approval of the permit with such glaring deficiencies would be arbitrary, capricious, and not in accordance with the law.

AQD Response

Air emissions from public roads are not subject to the air permitting process under Part 55 and their emissions cannot be included in the potential to emit for the Humboldt Mill. In addition, the Humboldt Mill and the Eagle Mine are separate stationary sources because they are not contiguously located and, therefore, the Eagle Mine emissions cannot be included in the potential to emit for the Humboldt Mill.

The applicant correctly calculated the potential emissions from the modified emission units at the Humboldt Mill that are subject to the Part 55 air permit program requirements and correctly demonstrated compliance with the applicable regulations for PM2.5, PM10, and TACs.

The Fact Sheet that was made available to the public at the beginning of the public comment period on November 7, 2013, provided a brief description of the dispersion modeling that was conducted and provided a summary of the modeling results in Tables C and D of the Fact Sheet.

In addition, the complete modeling analysis has been available through the Freedom of Information Act since the AQD completed the analysis on September 16, 2013.

D. Best Available Control Technology (BACT) Review

Comment

Rule 224 requires a T-BACT analysis to ensure best available control technologies are implemented to minimize the emission of TACs. No Top Down, 5-Step, or other equally comprehensive T-BACT analysis was provided for public review. The MDEQ notes in the Fact Sheet that the TAC emissions from the COSA meet Rule 224 and that water sprays are sufficient. However, an analysis in accordance with Rule 224 is not provided and, therefore, approval of the permit is contrary to law.

AQD Response

Rule 224 applies to new or modified emission units. Since the permit application does not propose installing any new emission units, Rule 224 applies only to the “modified” emission units identified in the application.

For the purposes of Rule 224, an emission unit is modified if there is a physical change or a change in the method of operation which increases the amount of any air contaminant which is not already allowed to be emitted or which results in the emission of any TAC not previously emitted.

None of the changes proposed in the application increase TAC emissions or result in the emission of any TAC not previously emitted. Therefore, Rule 224 does not apply to the changes proposed in the application. Nevertheless, the AQD did evaluate the TAC emissions from the proposed changes to the COSA and concentrate loadout building and determined, as shown in Tables 2 and 3, that the emissions are less than the applicable screening levels and therefore are in compliance with Rule 225.

As defined in Rule 102(a), "'T-BACT means the maximum degree of emission reduction which the department determines is reasonably achievable for each process that emits toxic air contaminants, taking into account energy, environmental, and economic impacts and other costs." For processes with very low emission rates, a comprehensive analysis is often not required in order for the MDEQ to determine what constitutes T-BACT. This is the case for the proposed changes at the Humboldt Mill.

Given the very low emission rates, the MDEQ determined that the TAC emissions from the COSA would meet Rule 224 with the proposed dedicated water sprays on the dump hopper, vibratory feeder/grizzly system, primary crusher, and rock breaker. In addition, the sprayed water that is available in the truck unloading area to control emissions was determined to meet Rule 224.

Given the very low emission rates, the MDEQ determined that the TAC emissions from the concentrate loadout building would meet Rule 224 by conducting the loadout inside an enclosed building.

E. Permit Requirements

Comment

Tests should be done on an unannounced basis.

AQD Response

The federal Standards of Performance for New Stationary Sources (NSPS) 40 CFR Part 60 Subpart LL for metallic mineral processing plants establishes specific testing requirements for the Humboldt Mill. As this testing requires submittal of plans to the AQD prior to testing and requires Eagle Mine, LLC to hire stack testers, it is not practical to require unannounced emission tests.

F. Permit Review Process

Comment

Using the USEPA AP-42 Chapter 13.2.4 emission factors rather than the emission factors for Metallic Minerals Processing reduces the estimated emissions, but does it adequately reflect the nature of the particles being handled, i.e. fine particulate dust from acid-forming sulfide ores?

AQD Response

Yes, using the AP-42 Chapter 13.2.4 emission, factors rather than the emission factors for Metallic Minerals Processing (AP-42 Chapter 11.24), does adequately reflect the nature of the particles being handled.

The Chapter 13.2.4 emission factors are believed to provide more accurate emission estimates than Chapter 11.24 for the reasons listed in Table 4.

Table 4. AP-42 Chapter 13.2.4 Compared to Chapter 11.24

	Chapter 13.2.4	**Chapter 11.24**
Particle sizes addressed	PM2.5, PM5, PM10, PM15, and PM30	PM10 and PM30
USEPA rating	A (excellent)	C (average)
Last updated	November, 2006	August, 1982
Account for site specific wind speed and material moisture content?	Yes	No

The emissions of specific compounds (metals and sulfuric acid) were then calculated from the particulate emission estimate obtained using AP-42 Chapter 13.2.4 and the composition of the ore.

Comment

There isn't a description of how the residue from the baghouse dust collectors will be treated.

AQD Response

The ore dust collected by the dust collectors at the facility will be returned to the milling process.

Comment

How will process emissions in the COSA and the concentrate loadout building be separated from the loader emissions?

AQD Response

Process emissions will not be separated from loader emissions. The permit conditions state "The exhaust gases from any portion of (the COSA or the concentrate loadout building) shall not be captured and discharged through a dedicated stack to the ambient air at any time." These conditions do not allow the facility to use a hood or similar device to capture process emissions and exhaust the process emissions through a dedicated stack. Process emissions that vent inside the buildings will be exhausted through the building ventilation. These emissions were evaluated as part of the air permit application review.

Comment

How will fugitive dust from operations in the COSA be prevented from release to the atmosphere?

AQD Response

The COSA is equipped with water sprays, including in the enclosed truck unloading area, to minimize fugitive dust emissions. However, fugitive dust emissions will be exhausted to the atmosphere through the building ventilation. These emissions were evaluated as part of the air permit application review.

Comment

Why was venting of gases from the COSA and the concentrate loadout building not considered in the original mill plans? Why is this change needed at this late point in construction of the facility?

AQD Response

Emissions due to ventilation of the COSA and concentrate loadout building were included in the original air permit review, including the air dispersion modeling analysis. However, the original air permit conditions for these two buildings stated "The exhaust gases from any portion of (the COSA or the concentrate loadout building) shall not be discharged to the ambient air at any time." These conditions could be interpreted to prohibit any ventilation of these buildings, although that was not the intent of the conditions. Therefore, to make it clear that ventilation of these buildings is allowed, the permit condition language was modified.

Comment

Permit to Install 405-08 was issued to Kennecott Eagle Minerals Company and since that time, ownership and/or control of the Humboldt Mill has changed at least twice. The current permit is proposed to be issued to Rio Tinto Eagle Mine, LLC but the ownership has changed to Lundin Mining Corporation. Rule 219 has a procedure for transfer of permits and authority to undertake permitted activity. This procedure has not been complied with and the permit cannot be transferred to Lundin Mining Corporation. A permit cannot be approved with unenforceable conditions and cannot be issued to Rio Tinto without prior compliance with the Michigan Administrative Code (Rule 219) on this issue.

AQD Response

General Condition 5 of the permit conditions states "The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install." The permit is therefore enforceable against Lundin Mining Corporation or any other entity that owns the facility now or in the future, regardless of whether the permit is formally transferred to Lundin Mining Corporation.

In addition, transfer of the permit is permissive, not mandatory. Rule 219 states that a “person may notify the department, in writing, of a change of ownership or operational control” of a facility whose emissions are authorized by a permit. There is no legal requirement for Rio Tinto Eagle Mine, LLC to transfer the permit to Lundin Mining Corporation.

Comment

The Rio Tinto Eagle Mine and the Humboldt Mill are a single stationary source due to the connection between the two sites and the cumulative effect of their operation. By evaluating the impacts from the Humboldt Mill disassociated with Eagle Mine, the MDEQ has evaluated an incomplete and fractional portion of the projected emissions from the true extent of the activity to be permitted.

A "stationary source" is defined as "any building, structure, facility or installation which emits or may emit a regulated new source review pollutant." This same section defines "[b]uilding, structure, facility, or installation" as “all of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person, or persons under common control, except the activities of any vessel.” The interrelated nature of the Humboldt Mill and Eagle Mine is indisputable:

- Mining and milling activities are included in the same Standard Industrial Classification Code.

- A common definition of "contiguous" is "in close proximity without actually touching; near." The Humboldt Mill and Eagle Mine are located approximately 25 miles apart and a road project to connect the two locations is underway. Rio Tinto located the administrative offices for the Eagle Mine at the Humboldt Mill site.

- Humboldt Mill is being utilized to process ore from the Eagle Mine.

The Humboldt Mill and Eagle Mine meet every criteria for consideration collectively as a "stationary source."

When determining the designation of a stationary source, it is imperative to consider "support facilities." The USEPA states "[s]upport facilities are typically those which convey, store, or otherwise assist in the production of the principal product." The Humboldt Mill is processing the ore from only the Eagle Mine.

If the combined emission of regulated pollutants is projected to exceed the statutorily defined levels, the "stationary source" would be designated as a "major stationary source" requiring significant additional analysis. Ensuring an accurate determination of the "stationary source" is the MDEQ's responsibility. The MDEQ has failed to accurately determine the stationary source by considering the Humboldt Mill and Eagle Mine separately.

Rio Tinto's attempt to avoid a designation as a "major source" by transferring certain milling operations to the Humboldt Mill, and then permitting the Humboldt Mill and Eagle Mine activities separately, should not prevent the MDEQ from reviewing the combined operation and determining the two locations are one operation.

AQD Response

The Eagle Mine and the Humboldt Mill do not constitute a single stationary source as the facilities are not on contiguous or adjacent properties as they are located approximately 18 miles apart. For stationary source determinations under the state and federal air quality rules and regulations, properties located 18 miles apart are neither contiguous nor adjacent.

In addition, the Humboldt Mill is not a "support facility" of the Eagle Mine. As defined in Rule 119(r), in order for one facility to be a "support facility" of another, they must be located on contiguous or adjacent properties. Properties located 18 miles apart are neither contiguous nor adjacent.

Note that, even if the emissions from the two sources are added together, the total emissions are still below the major source threshold.

Comment

An Environmental Impact Assessment (EIA) is required with application for particular activities to ensure that all environmental impacts are considered in one comprehensive document.

The Part 632 Nonferrous Metallic Mineral Mining regulations mandate that an applicant for a mining permit must provide the department: "An environmental impact assessment for the proposed mining operation that describes the natural and human made features, including, but not limited to, flora, fauna, hydrology, geology, and geochemistry, and baseline conditions in the proposed mining area and the affected area that may be impacted by the mining, and the potential impacts on those features from the proposed mining operation."

Rio Tinto prepared an EIA in connection with its mining permit which was fatally flawed because it incompletely addressed only on-site impacts.

The Permit to Install regulations (Rule 203) provide:

> (1) An application for a Permit to Install shall include information required by the department on the application form or by written notice. This information may include, as necessary, any of the following:
>
> > (g) Information, in a form prescribed by the department, which is necessary for the preparation of an environmental impact statement if, in the judgment of the department, the equipment for which a permit is sought may have a significant effect on the environment.

It is arbitrary, capricious, and not in accordance with law for the MDEQ not to require an environmental impact statement (EIS) for this permit.

There are three connected actions, within such close proximity that their environmental impacts will be cumulative, which must have their cumulative environmental impacts considered together: the Humboldt Mill, construction improvements to Michigan County Roads 5l0, 550, and Triple A, and the operation of the Eagle Mine. The failure of the MDEQ to require an EIA would be arbitrary, capricious, and contrary to law.

In addition, the failure of the MDEQ to establish criteria for when to require an EIA under Rule 203 is arbitrary, capricious, and contrary to law.

AQD Response

The Humboldt Mill, as represented in PTI application No. 405-08A, is a minor source of air pollutants under the state and federal PSD regulations. Therefore, under R 336.1203(1)(g), in the judgment of the MDEQ, the equipment for which Rio Tinto is seeking a permit is not expected to have a significant impact on the environment and an EIS is not required under Part 55. This judgment is confirmed by the dispersion modeling analysis for the modified emission units, which demonstrates that emissions are expected to comply with all applicable state and federal air quality regulations.

The changes proposed to the facility in the application represent overall emission reductions from the facility, and therefore are not expected to have an impact on the environment greater than that which was evaluated in the EIA conducted under Part 632. The MDEQ notes that an EIA was prepared and accepted by the MDEQ in the review and issuance of the Part 632 mining permit.

The AQD reviewed the permit application to determine if the proposed modifications to the Humboldt Mill meet the applicable requirements under Part 55, and the AQD has determined that the proposed modifications meet those requirements.

Public roads are not subject to the air permitting process under Part 55 and cannot be included in the potential to emit for the Humboldt Mill. Emissions from roadways within the Humboldt Mill facility have been included in the potential to emit. In addition, the Humboldt Mill and the Eagle Mine are separate stationary sources as they are not contiguously located and, therefore, the Eagle Mine emissions cannot be included in the potential to emit for the Humboldt Mill.

Neither Part 55 nor Rule 203 requires the MDEQ to establish published criteria for when an EIS should be required.

Comment

Rio Tinto has failed to substantiate compliance with Michigan Administrative Code R.336.1901 (Rule 901). Not only has Rio Tinto failed to provide an EIA or EIS regarding the revised proposed activities on site but has failed to consider impacts to endangered or sensitive flora, fauna, and surrounding water bodies (i.e. "animal life, plant life of significant economic value, or property). Approval of such a deficient permit application would be arbitrary, capricious, and not in accordance with the law.

AQD Response

Given the extremely low emission rates from the Humboldt Mill, and the dispersion modeling demonstrates the emissions from the COSA and concentrate loadout building are in compliance with all state and federal air quality standards (see Tables 1 through 3), compliance with Rule 901 has been demonstrated.

In addition, as part of the MDEQ's review of the Part 632 mining permit for the Humboldt Mill, a deposition modeling analysis was conducted which demonstrated that no adverse impacts were expected due to the air emissions from the Humboldt Mill. The AQD determined that, because the estimated emissions from the facility are now lower than the emissions previously evaluated, the conclusions from the original analysis are still valid and the facility is not expected to have an adverse impact on human health or the environment.

Comment

The permit is based on uncertain information, perhaps the best that is available, but it is an educated guess on the content of the ore being processed.

The MDEQ has not conducted an independent analysis of the ore body and obtained a comprehensive chemical analysis of a representative sample of the ores and, therefore, there are likely missing hazardous constituents that should be regulated and should have been considered when issuing the permit.

There needs to be a formal re-assessment based on the actual measurement and chemical analysis of emissions at the plant when the facility is actually under operation.

AQD Response

Eagle Mine, LLC, has conducted an extensive analysis of the ore expected to be processed at the Humboldt Mill. As part of the Office of Oil, Gas, and Minerals (OOGM) review of the Part 632 permit for the Eagle Project, an independent review of the geochemistry studies was obtained ("Review of Geochemisrty Studies for the Kennecott Eagle Project Permit Application", L. Edmond Eary, Ph.D., P.G., November 30, 2006). This review concluded "that the geochemical studies follow industry practice and provide a thorough characterization of the rock types that would be mined at the Kennecott Eagle Project and their potential reactivities."

In estimating the emissions of TACs from the Humboldt Mill, the maximum expected production rate, the average sulfur content of the highest sulfur ore, and the 95th percentile metals contents of the ore were used. These assumptions provide for a worst case estimate of the emissions and provide an adequate basis on which to approve the permit. Given the very low expected emission rates, a re-assessment is not necessary to ensure that the Humboldt Mill operates in compliance with all applicable air quality rules and regulations.

Comment

The permit should apply only to ore from the Eagle Mine where there is some idea of what is going to be processed rather than saying you can bring in anything and Lundin personnel can decide whether it is suitable or not.

AQD Response

The permit does not restrict the Humboldt Mill from processing ore from mines other than the Eagle Mine. However, in order to process ore from another mine, Eagle Mine, LLC must determine whether or not processing a different ore would require a new Permit to Install. The Michigan air pollution regulations provide some exemptions from the requirement to obtain an air permit. If the proposed ore is physically and chemically similar to the ore from the Eagle Mine, such that the emissions from the Humboldt Mill would be substantially the same when processing the new ore as when processing ore from the Eagle Mine, then a new air permit would likely not be required.

If, however, new equipment were needed, the ore processing limit needed to be increased, or the ore was sufficiently different from the Eagle Mine ore such that emissions of a particular air contaminant(s) would be significantly higher than when processing ore from the Eagle Mine, then a new air permit would likely be required. The determination of whether or not a new air permit would be required to process a different ore would be a case-by-case analysis.

G. Public Comment Process

Comment

The public comment period should be extended so that people can base their comments on the information received at the informational session.

AQD Response

The draft permit was subject to the public participation process specified in section 5511(3) of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. In accordance with the law, the MDEQ is required to provide at least 30 days for public comment. The actions taken by the MDEQ to notify the public regarding this proposed permit met or exceeded the minimum public participation requirements of state and federal law. This included providing information for public review (a Fact Sheet and proposed permit terms and conditions), a public comment period, an informational meeting, a public hearing, and the receipt of written and verbal public comments on the AQD staff's analysis of the application and the proposed permit. Also, approximately 100 letters to Interested Parties were mailed at the beginning of the public comment period to provide notification and information on the proposed permit. In addition, the AQD staff contact information was provided so that people interested in the proposed project could contact the AQD for additional information, including to ask questions, during the public comment period. Based on this, an extension to the comment period is not warranted.

H. Miscellaneous

Comment

One commenter objected to the project in general.

AQD Response

The AQD is required by law to issue a permit if the permit contains all of the applicable air quality regulatory requirements with which the facility must comply. There is not a state or federal law that allows the AQD or the USEPA to consider whether there is support or opposition to the proposed permit.

Comment

Inspections once per year or once per quarter don't seem adequate.

In addition, there are too many requirements that are based on voluntary operator procedures by Lundin personnel. It is difficult to anticipate how adequately personnel are performing these operations unless there are MDEQ personnel there to watch what is going on. For example, will the doors on the COSA be closed, as required, on a hot, humid summer day?

AQD Response

The facility is subject to scheduled inspections as well as random, unannounced inspections by the AQD staff. The frequency of inspections for a particular facility depend on many factors, including the magnitude of emissions from the facility, the compliance status of the facility, and the number of complaints received regarding the facility. Any activities witnessed by the inspector that are not in compliance with the permit conditions can result in enforcement action.

In addition to the AQD staff, staff from other MDEQ divisions will also visit and inspect the facility. The AQD district staff are located in the same office as staff from the other MDEQ program divisions, including OOGM. These MDEQ staff will coordinate, as necessary, to ensure that the facility is operating in compliance with all applicable rules and regulations. For example, if a staff person from another MDEQ division observes what appears to be excessive dust from the facility, that person will contact the AQD inspector for further evaluation.

Comment

The Humboldt Mill is under site investigation by the USEPA as a potential Superfund site eligible for listing on the National Priorities List due to historical mining and contamination affecting nearby wetlands and the Middle Branch Escanaba River Watershed. It is uncertain how this investigation and the USEPA findings may influence current or future permits and operations at the site.

AQD Response

The AQD cannot consider any potential results of any USEPA investigation of the site in this current permitting action. Only those requirements that the facility is currently subject to can be considered.

Comment

The permit allows air pollution control by spraying water for dust control. In this case, water spraying will result in acidic effluent. Even if neutralized, it will have high metallic content. How will this effluent from each of the sites be collected and sent for treatment at the wastewater treatment facility? Will it be incorporated into the material being sent to the bottom of the old mine pit? If these effluents are sent through the water treatment facility, how will the resulting salts be disposed of? This air pollution method creates a water pollution problem that needs to be addressed.

AQD Response

The water used for dust control will be collected and either routed into the milling process or incorporated into the tailings and placed in the tailings basin. The effluent from the tailings basin is regulated under the facility's National Pollutant Discharge Elimination System permit. Residuals (these will not be salts at Humboldt Mill) from the treatment process will be disposed of in accordance with applicable regulations.

III. SUMMARY OF COMMENTS RECEIVED IN SUPPORT

The following is a list of the benefits cited in the letters received:

- Operation of the Humboldt Mill will provide jobs
- Operation of the Humboldt Mill will bring prosperity

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