TECHNICAL SUPPORT DOCUMENT
For
DRAFT/PROPOSED AIR EMISSION PERMIT NO. 07500003-008

This technical support document (TSD) is intended for all parties interested in the draft/proposed permit and to meet the requirements that have been set forth by the federal and state regulations (40 CFR § 70.7(a)(5) and Minn. R. 7007.0850, subp. 1). The purpose of this document is to provide the legal and factual justification for each applicable requirement or policy decision considered in the preliminary determination to issue the draft/proposed permit.

1. General Information

1.1 Applicant and Stationary Source Location:

Table 1. Applicant and Source Address

Applicant/Address	**Stationary Source/Address** (SIC Code: 1011)
Cliffs Natural Resources 1100 Superior Avenue East Suite 1500 Cleveland, Ohio 44114	Northshore Mining - Silver Bay 10 Outer Drive Silver Bay Lake County, Minnesota 55614
Contact: Andrea Hayden Phone: (218) 226-6032	

1.2 Facility Description

Cliffs Natural Resources, Inc. is the parent company of both Northshore Mining Company and Silver Bay Power Company. Northshore Mining Company operates a taconite processing plant at the Silver Bay facility. Silver Bay Power Company operates a power plant at the Silver Bay facility to provide electricity for the taconite processing operations and the grid. The three companies are the Permittee of this Title V permit for the Silver Bay facility. The Silver Bay facility was originally built in the mid-1950s by Reserve Mining Company and was briefly owned by Cyprus Minerals from 1989 to 1994 (Northshore was purchased in 1994 by Cleveland Cliffs, Inc.). The Silver Bay facility is located on the north shore of Lake Superior.

Through a company owned, 47-mile railroad, the Northshore plant receives crushed ore that has been processed in the primary and secondary crushers at the Peter Mitchell Mine, near Babbitt, Minnesota. The taconite plant further crushes the ore in tertiary crushers, dry cobs the ore (removes the larger non-metallic chunks of ore with magnetic separation of the un-concentrated ore), and then concentrates the iron content from roughly 25 percent to 65 percent in a series of ball mills, rod mills, magnetic concentrators and froth flotation cells. The iron concentrate is then mixed with a variety of binders and fluxing agents (i.e., limestone/dolomite mixture) and formed into small balls referred to as green balls. The green balls are then fired in traveling grate furnaces and indurated into taconite pellets. The pellets are shipped through the Great Lakes system to blast furnaces in the lower Great Lakes and made into a variety of steel products.

The primary air emission units at the Silver Bay facility (the taconite plant and power plant) consist of electric generating boilers, steam heating boilers, rail car unloading, crushed ore storage bins, tertiary crushers, dry cobbers, coarse tailings handling operations, additive storage and handling operations, indurating furnaces, and fired pellet handling and screening. In addition, there are fugitive emission sources at the plant that consist of haul roads, concentrate storage piles, taconite pellet cooling piles, taconite pellet storage piles, pellet transfer operations, pellet ship loadout operations, coal piles, fluxstone piles, coal/fluxstone handling operations, coal ash handling operations, and tailings basin operations.

Fabric filters are used to control particulate matter (PM) emissions from the two large power boilers. Fabric filters are also used to collect PM emissions from the rail car unloading operations, tertiary crushers, dry cobbers, coarse tailings handling operations, crushed ore storage bins, pellet screening for the hearth layer, and the additive storage and handling operations. A multiclone is used to control PM emissions from fluxstone handling in the Concentrator (CE 043). The indurating furnaces are controlled with wet-walled electrostatic precipitators (WWESP) to collect PM as well as sulfur dioxide (SO2), acid gases, and various other air pollutants. PM and Particulate Matter less than 10 microns (PM10) emissions from furnace discharges and indoor pellet screening are controlled with wet scrubbers. Pellet screening, estimated at 600,000 long tons per year, at the pellet yard is allowed (FS 017). This will be performed either by Northshore personnel or a contractor.

1.3 Description of the Activities Allowed by this Permit Action

This permit action, received on May 1, 2013, is a major amendment. The amendment is for the removal of the fabric filter pulse rate monitoring requirements for GPs 003-008 and the utilization of existing bag leak detectors. The amendment also revises the differential pressure lower limit from 2.0 to 1.0 inches of water column for GP 009. There are no emissions increases associated with this amendment. Three administrative amendments, described below, are also included in this permit action.

The August 22, 2011 administrative amendment requested an extension of 120 days for the PM and PM_{10} performance testing required for one stack, on a rotating basis, in GP 014 from Furnace 6. The test was originally required to be performed by August 28, 2011, the extension extended that date to December 26, 2011, and the performance test was completed timely on November 29, 2011. For recurring performance tests, extensions do not change the due date for future performance tests. Therefore, the next performance test for one stack in GP 014 from Furnace 5 or 6 is due by August 28, 2014. There are no emissions increases associated with this amendment.

The September 2, 2010 administrative amendment requested an extension of 120 days for the certification deadline for the Furnace 5 Continuous Emission Monitoring System (CEMS) that measure nitrogen oxide (NO_X) emissions (Monitors (MR) 005-007) and flow meters (MR 008-010). The test was originally required to be performed within 120 days after installation of the CEMS. The CEMS was installed July 25, 2008 and the certification test would have been due by November 22, 2008. However, Furnace 5 was taken offline on October 28, 2008 and the certification requirement was changed to be due 120 days after the reactivation of Furnace 5. Reactivation occurred on September 1, 2010 and the test was then due by December 30, 2010. The extension extended that date to April 29, 2011, and the certification test was completed timely on December 29, 2010. There are no emissions increases associated with this amendment.

The June 12, 2009 administrative amendment requested an extension of 120 days for the SO_2 emissions performance testing required for one stack, on a rotating basis, from GP 001 (Power Boilers). The test was originally required to be performed by June 26, 2009, the extension extended that date to October 24, 2009, and the performance test was completed timely on September 24, 2009. For recurring performance tests, extensions do not reset the due date for future performance tests. Therefore, the next performance test is due by June 26, 2014. There are no emissions increases associated with this amendment.

In addition, this permit action incorporates six MPCA initiated re-openings that include updating operating parameters limits and monitoring equipment information. The updated operating parameters are the pressure drop range for the EU 005 fabric filter based on the June 7, 2011 performance test, the water flow rate for GP 014 based on the February 4, 2011 and May 24, 2012 performance tests.

1.4 Facility Emissions:

Table 3. Total Facility Potential to Emit Summary

	PM tpy	**PM_{10}** tpy	**$PM_{2.5}$** tpy	**SO_2** tpy	**NO_x** tpy	**CO** tpy	**CO_2e** Tpy	**VOC** tpy	**Single HAP** tpy	**All HAPs** tpy
Total Facility Limited Potential Emissions	1,783	1,673	**	9,095	7,097	728.8	962,244	71.7	52.34	134
Total Facility Actual Emissions (2012)	1,218	1,136	**	2,249	2,971	455.2	*	19.27	*	

* Not reported in MN emission inventory.
** Not calculated previously.

Table 4. Facility Classification

Classification	Major/Affected Source	Synthetic Minor/Area	Minor/Area
PSD	X		
Part 70 Permit Program	X		
Part 63 NESHAP	X		

1.5 Changes to Permit

The MPCA has a combined operating and construction permitting program under Minnesota Rules Chapter 7007, and under Minn. R. 7007.0800, the MPCA has authority to include additional requirements in a permit. Under that authority, the following changes to the permit are also made through this permit action:

- The information in the facility description was updated, and several requirements and citations in the permit were updated to meet current MPCA policy.
- Some requirements have been reordered to help with clarity (i.e., similar requirements are grouped).
- Several Groups and Emission Units contained limits for multiple pollutants, multiple individual units, and/or multiple numerical values in the same requirement. These limits were split to

improve clarity. This was performed for GP 001, GP 003 - GP 010, GP 012 - GP 016, EU 005, and EU 043.

- The requirements prescribed by the Minnesota Standards of Performance for Pre-1969 Industrial Process Equipment (Minn. R. 7011.0710) were removed from GP 003. Minn. R. 7011.0710 applies to units for which a standard of performance has not been promulgated in a specific rule. The units in GP 003 are subject to 40 CFR pt. 60, subp. LL Standards of Performance for Metallic Mineral Processing Plants; therefore, Minn. R. 7011.0710 does not apply.

2. Regulatory and/or Statutory Basis

New Source Review (NSR)
The facility is an existing major source under New Source Review regulations. No changes are authorized by this permit.

Part 70 Permit Program
The facility is a major source under the Part 70 permit program.

New Source Performance Standards (NSPS)
The Permittee has stated there are no New Source Performance Standards applicable to the changes authorized by this permit action.

National Emission Standards for Hazardous Air Pollutants (NESHAP)
The facility is a major source of HAPs under 40 CFR pt. 63. In addition, the Permittee has stated there are no NESHAPs applicable to the changes authorized by this permit action.

Minnesota State Rules
Portions of the facility affected by this permit amendment are subject to the following Minnesota Standards of Performance:

- Minn. R. 7011.0510 Standards of Performance for Existing Indirect Heating Equipment
- Minn. R. 7011.0610 Standards of Performance for Fossil-Fuel-Burning Direct Heating Equipment
- Minn. R. 7011.0710 Standards of Performance for Pre-1969 Industrial Process Equipment
- Minn. R. 7011.2700 Standards of Performance for Metallic Mineral Processing Plants.

Regulatory Overview
The table below provides an overview of the applicable regulations that apply to items affected by this permit action. None of the regulatory bases or requirements for these items were affected by this permit action. This modification only affects monitoring and recordkeeping requirements that are contained within the items in the table below. All requirements for each item are included to provide a complete overview even if the applicable regulation did not change as a result of this permit action.

The monitoring and recordkeeping requirements that were affected are as follows. The fabric filter pulse rate monitoring requirements for GPs 003-008 were removed with the installation of bag leak detectors. The differential pressure lower limit was revised from 2.0 to 1.0 inches of water column for GP 009. Operating parameters updated through MPCA initiated re-openings include the pressure drop range for

the EU 005 fabric filter, and the water flow rate for GP 014. These operating parameters were established through required performance tests.

Table 6. Regulatory Overview of Units Affected by the Modification/Permit Amendment

Subject Item*	Applicable Regulations	Rationale
GP 003 (Crude Ore Rail Car Unloading)	Title I Condition: 40 CFR § 52.21(k)	Limits set for PM and PM_{10} to comply with National Ambient Air Quality Standards. Limits were derived from computer dispersion modeling required by the Prevention of Significant Deterioration program.
	40 CFR pt. 60, subp. LL	Standards of Performance for Metallic Mineral Processing Plants. Limits set for PM and opacity.
GP 004 (Crushed Ore Storage)	Title I Condition: 40 CFR § 52.21(k)	Limits set for PM and PM_{10} to comply with National Ambient Air Quality Standards. Limits were derived from computer dispersion modeling required by the Prevention of Significant Deterioration program.
	Minn. R. 7011.0710	Standards of Performance for Pre-1969 Industrial Process Equipment. Limits set for PM and opacity.
GP 005 (Tertiary Crushing)	Title I Condition: 40 CFR § 52.21(k)	Limits set for PM and PM_{10} to comply with National Ambient Air Quality Standards. Limits were derived from computer dispersion modeling required by the Prevention of Significant Deterioration program.
	Title I Condition: 40 CFR § 52.21(j)	Prevention of Significant Deterioration. Best Available Control Technology (BACT) limits set for PM and PM_{10} for EU 011 and EU 020.
	Minn. R. 7011.0710	Standards of Performance for Pre-1969 Industrial Process Equipment. Limits set for PM and opacity.
GP 006 (Crushed Ore Conveying)	Title I Condition: 40 CFR § 52.21(k)	Limits set for PM and PM_{10} to comply with National Ambient Air Quality Standards. Limits were derived from computer dispersion modeling required by the Prevention of Significant Deterioration program.
	Minn. R. 7011.0710	Standards of Performance for Pre-1969 Industrial Process Equipment. Limits set for PM and opacity.
GP 007 (Dry Cobbing & Conveying)	Title I Condition: 40 CFR § 52.21(k)	Limits set for PM and PM_{10} to comply with National Ambient Air Quality Standards. Limits were derived from computer dispersion modeling required by the Prevention of Significant Deterioration program.
	Minn. R. 7011.0710	Standards of Performance for Pre-1969 Industrial Process Equipment. Limits set for PM and opacity.
GP 008 (Coarse Tails Handling)	Title I Condition: 40 CFR § 52.21(k)	Limits set for PM and PM_{10} to comply with National Ambient Air Quality Standards. Limits were derived from computer dispersion modeling required by the Prevention of Significant Deterioration program.
	Minn. R. 7011.0710	Standards of Performance for Pre-1969 Industrial Process Equipment. Limits set for PM and opacity.
GP 009 (Concentrator Bins - W or E; with Cartridge	Title I Condition: 40 CFR § 52.21(k)	Limits set for PM and PM_{10} to comply with National Ambient Air Quality Standards. Limits were derived from computer dispersion modeling required by the Prevention of Significant Deterioration program.

Subject Item*	Applicable Regulations	Rationale
Collectors)	Minn. R. 7011.0710	Standards of Performance for Pre-1969 Industrial Process Equipment. Limits set for PM and opacity.
	Minn. R. 7007.0800	Requirements for Fabric Filter. Limits set for pressure drop range. Limits were established through performance testing.
GP 014 (Pellet Indurating Furnaces)	Title I Condition: 40 CFR § 52.21(k)	Limits set for PM and PM_{10} to comply with National Ambient Air Quality Standards. Limits were derived from computer dispersion modeling required by the Prevention of Significant Deterioration program.
	Title I Condition: 40 CFR § 52.21(j)	Prevention of Significant Deterioration. BACT limits set for PM, PM_{10}, SO_2, and NO_X for EU 634.
	Minn. R. 7011.0610	Standards of Performance for Fossil-Fuel-Burning Direct Heating Equipment. Limits set for PM, SO_2, and opacity.
	Minn. R. 7007.0800	Requirements for Electrostatic Precipitators. Limits set for water flow rate. Limits were established through performance testing.
EU 005 (Coal Transfer & Coal Bunkers)	Title I Condition: 40 CFR § 52.21(k)	Limits set for PM and PM_{10} to comply with National Ambient Air Quality Standards. Limits were derived from computer dispersion modeling required by the Prevention of Significant Deterioration program.
	Minn. R. 7011.0710	Standards of Performance for Pre-1969 Industrial Process Equipment. Limits set for PM and opacity.
	Minn. R. 7007.0800	Requirements for Fabric Filter. Limits set for pressure drop range. Limits were established through performance testing.

*Where the requirement appears in the permit (e.g., EU, SV, GP, etc.).

3. Technical Information

3.1 Monitoring

In accordance with the Clean Air Act, it is the responsibility of the owner or operator of a facility to have sufficient knowledge of the facility to certify that the facility is in compliance with all applicable requirements. In evaluating the monitoring included in the permit, the MPCA considered the following:

- the likelihood of the facility violating the applicable requirements;
- whether add-on controls are necessary to meet the emission limits;
- the variability of emissions over time;
- the type of monitoring, process, maintenance, or control equipment data already available for the emission unit;
- the technical and economic feasibility of possible periodic monitoring methods; and
- the kind of monitoring found on similar units elsewhere.

The table below summarizes the monitoring requirements associated with this amendment. None of the regulatory bases or requirements for these items were changed by this permit action. This modification only affects monitoring and recordkeeping requirements that are contained within the items in the table below. All requirements for each item are included to provide a complete overview even if the applicable regulation did not change as a result of this permit action. The monitoring and recordkeeping requirements that were affected are as follows. The fabric filter pulse rate monitoring requirements for GPs 003-008 were removed with the installation of bag leak detectors. The differential pressure lower

limit was revised from 2.0 to 1.0 inches of water column for GP 009. Operating parameters updated through MPCA initiated re-openings include the pressure drop range for the EU 005 fabric filter, and the water flow rate for GP 014.

Table 7. Monitoring

Subject Item*	Requirement (rule basis)	Monitoring	Discussion
GP 003 (Crude Ore Rail Car Unloading)	PM ≤ 0.0025 gr/dscf PM_{10} ≤ 0.0025 gr/dscf (Title I Modeling Limit)	Performance testing for PM and PM_{10}	The use of performance testing for these units is sufficient to have a reasonable assurance of compliance.
	PM ≤ 0.020 gr/dscf Opacity ≤ 7% opacity Opacity ≤ 10% opacity for process fugitive emissions (NSPS Limits)	Bag leak detectors	The use of bag leak detectors in addition to the performance testing for PM required for this group provide a reasonable assurance of compliance.
GP 004 (Crushed Ore Storage)	PM ≤ 0.0025 gr/dscf PM_{10} ≤ 0.0025 gr/dscf (Title I Modeling Limit)	Performance testing for PM and PM_{10}	The use of performance testing for these units provides a reasonable assurance of compliance.
	PM limit variable based on process weight rate and source gas volume Opacity ≤ 20% opacity, with exceptions (Minn. R. 7011.0710)	Bag leak detectors	Note that for these units, the opacity limit also includes an exception for one six-minute period per hour of not more than 60 percent opacity. The use of bag leak detectors in addition to the performance testing for PM required for this group provide a reasonable assurance of compliance.
GP 005 (Tertiary Crushing)	PM ≤ 0.0025 gr/dscf PM_{10} ≤ 0.0025 gr/dscf (Title I Modeling Limit)	Performance testing for PM and PM_{10}	The use of performance testing for these units provides a reasonable assurance of compliance.
	PM ≤ 0.0025 gr/dscf for EU 011 and EU 020 individually PM_{10} ≤ 0.0025 gr/dscf for EU 011 and EU 020 individually (Title I BACT Limit)	Performance testing for PM and PM_{10}	The use of performance testing for these units provides a reasonable assurance of compliance.
	PM limit variable based on process weight rate and source gas volume Opacity ≤ 20% opacity, with exceptions (Minn. R. 7011.0710)	Bag leak detectors	Note that for these units, the opacity limit also includes an exception for one six-minute period per hour of not more than 60 percent opacity. The use of bag leak detectors in addition to the performance testing for PM required for this group provide a reasonable assurance of compliance.
GP 006 (Crushed Ore Conveying)	PM ≤ 0.0025 gr/dscf PM_{10} ≤ 0.0025 gr/dscf (Title I Modeling Limit)	Performance testing for PM and PM_{10}	The use of performance testing for these units provides a reasonable assurance of compliance.

Subject Item*	Requirement (rule basis)	Monitoring	Discussion
	PM limit variable based on process weight rate and source gas volume Opacity $\leq$ 20% opacity, with exceptions (Minn. R. 7011.0710)	Bag leak detectors	Note that for these units, the opacity limit also includes an exception for one six-minute period per hour of not more than 60 percent opacity. The use of bag leak detectors in addition to the performance testing for PM required for this group provide a reasonable assurance of compliance.
GP 007 (Dry Cobbing & Conveying)	PM ≤ 0.0052 gr/dscf PM_{10} ≤ 0.0052 gr/dscf (Title I Modeling Limit)	Performance testing for PM and PM_{10}	The use of performance testing for these units provides a reasonable assurance of compliance.
	PM limit variable based on process weight rate and source gas volume Opacity $\leq$ 20% opacity, with exceptions (Minn. R. 7011.0710)	Bag leak detectors	Note that for these units, the opacity limit also includes an exception for one six-minute period per hour of not more than 60 percent opacity. The use of bag leak detectors in addition to the performance testing for PM required for this group provide a reasonable assurance of compliance.
GP 008 (Coarse Tails Handling)	PM ≤ 0.0025 gr/dscf PM_{10} ≤ 0.0025 gr/dscf (Title I Modeling Limit)	Performance testing for PM and PM_{10}	The use of performance testing for these units provides a reasonable assurance of compliance.
	PM limit variable based on process weight rate and source gas volume Opacity $\leq$ 20% opacity, with exceptions (Minn. R. 7011.0710)	Bag leak detectors	Note that for these units, the opacity limit also includes an exception for one six-minute period per hour of not more than 60 percent opacity. The use of bag leak detectors in addition to the performance testing for PM required for this group provide a reasonable assurance of compliance.
GP 009 (Concentrator Bins - W or E; with Cartridge Collectors)	PM ≤ 0.0020 gr/dscf PM_{10} ≤ 0.0020 gr/dscf (Title I Modeling Limit)	Performance testing for PM and PM_{10}	The use of performance testing for these units provides a reasonable assurance of compliance.
	PM limit variable based on process weight rate and source gas volume Opacity $\leq$ 20% opacity, with exceptions (Minn. R. 7011.0710)	Bag leak detectors	Note that for these units, the opacity limit also includes an exception for one six-minute period per hour of not more than 60 percent opacity. The use of bag leak detectors in addition to the performance testing for PM required for this group provide a reasonable assurance of compliance.
	Pressure drop ≥ 1.0 inches of water (Minn. R. 7007.0800)	Daily pressure drop monitoring and recordkeeping	Daily pressure drop monitoring and recordkeeping for these units provides a reasonable assurance of compliance.

Subject Item*	Requirement (rule basis)	Monitoring	Discussion
GP 014 (Pellet Indurating Furnaces)	PM ≤ 0.020 gr/dscf for EU 100 and EU 110 individually PM ≤ 0.01gr/dscf for EU 104, EU 114, EU 262, and EU 634 individually PM ≤ 0.18 lb/MMBtu for EU 634 individually PM_{10} ≤ 0.020 gr/dscf for EU 100 and EU 110 individually PM_{10} ≤ 0.01 gr/dscf for EU 104, EU 114, EU 262, and EU 634 individually PM_{10} ≤ 0.18 lb/MMBtu for EU 634 individually SO_2 ≤ 0.22 lb/MMBtu for EU 100 and EU 110 individually SO_2 ≤ 0.074 lb/MMBtu for EU 104 and EU 114 individually SO_2 ≤ 0.13 lb/MMBtu for EU 262 and EU 634 individually SO_2 ≤ 0.072 lb/MMBtu for EU 634 individually when burning natural gas (Title I Modeling Limit)	Performance testing for PM, PM_{10}, and SO_2; Control equipment operation	The use of performance testing for PM, PM_{10}, and SO_2 for these units in addition to the requirement to operate all wet electrostatic precipitators associated with each furnace provides a reasonable assurance of compliance.
	PM ≤ 0.18 lb/MMBtu for EU 634 individually PM_{10} ≤ 0.18 lb/MMBtu for EU 634 individually SO_2 ≤ 0.13 lb/MMBtu for EU 634 individually SO_2 ≤ 0.072 lb/MMBtu for EU 634 individually when burning natural gas NO_X ≤ 40 ppm for EU 634 individually NO_X ≤ 46 lb/hr for EU 634 individually (Title I BACT Limit)	Performance testing for PM, PM_{10}, and SO_2; CEMS for NO_X emissions; Control equipment operation	The use of performance testing for PM, PM_{10}, and SO_2 for these units in addition to the requirement to operate all wet electrostatic precipitators associated with each furnace provides a reasonable assurance of compliance. In addition, the use of a CEMS to measure NO_X emissions from EU 634 provides a reasonable assurance of compliance for the NO_X emission limits.

Subject Item*	Requirement (rule basis)	Monitoring	Discussion
	PM variable based on process weight rate and source gas volume SO_2 ≤ 2.0 lb/MMBtu when fired with a liquid fossil fuel Opacity ≤ 20% opacity, with exceptions (Minn. R. 7011.0610)	No additional monitoring	Note that for these units, the opacity limit also includes an exception for one six-minute period per hour of not more than 60 percent opacity. Required operation of control equipment and the performance testing for PM and SO_2 required for this group provide a reasonable assurance of compliance.
	Water Flow Rate ≥ 145 gal/min (Minn. R. 7007.0800)	Monitoring and recordkeeping of water flow rate, amperage, voltage, and inlet gas temperature	Monitoring and recordkeeping of water flow rate, amperage, voltage, and inlet gas temperature for these units provides a reasonable assurance of compliance.
EU 005 (Coal Transfer & Coal Bunkers)	PM ≤ 0.0062 gr/dscf PM_{10} ≤ 0.0062 gr/dscf (Title I Modeling Limit)	Performance testing for PM and PM_{10}	The use of performance testing for these units provides a reasonable assurance of compliance.
	PM limit variable based on process weight rate and source gas volume Opacity ≤ 20% opacity, with exceptions (Minn. R. 7011.0710)	Visible emission checks	Note that for these units, the opacity limit also includes an exception for one six-minute period per hour of not more than 60 percent opacity. Visible emission checks in addition to the performance testing for PM required for this group provide a reasonable assurance of compliance.
	Pressure Drop ≥ 1.0 inches of water Pressure Drop ≤ 6.0 inches of water (Minn. R. 7007.0800)	Daily pressure drop monitoring and recordkeeping	Daily pressure drop monitoring and recordkeeping for this unit provides a reasonable assurance of compliance. Since this is a permit condition, the semi-annual deviations report will document any deviations from this condition.

*Where the requirement appears in the permit (e.g., EU, SV, GP, etc.).

3.2 Insignificant Activities

Northshore Mining - Silver Bay has several operations which are classified as insignificant activities under the MPCA's permitting rules. These are listed in Appendix F to the permit. The permit is required to include periodic monitoring for all emissions units, including insignificant activities, per EPA guidance. The insignificant activities at this Facility are only subject to general applicable requirements. Using the criteria outlined earlier in this TSD, the following table documents the justification why no additional periodic monitoring is necessary for the current insignificant activities. None of these activities changed with this permit action.

Table 8. Insignificant Activities

Insignificant Activity	General Applicable Emission limit	Discussion
Emissions from a laboratory, as defined in Minn. R. 7007.1300, subp. 3(G)	PM, variable depending on airflow Opacity $\leq$ 20% (Minn. R. 7011.0710/715)	Northshore Mining - Silver Bay operates a quality control laboratory. These are very small, intermittent, bench-top operations that typically do not even have any emissions. It is highly unlikely that they could violate the applicable requirement.
Brazing, soldering or welding equipment	PM, variable depending on airflow Opacity $\leq$ 20% (Minn. R. 7011.0710/715)	Northshore Mining - Silver Bay operates welding machines. For these units, based on EPA published emissions factors, it is highly unlikely that they could violate the applicable requirement. In addition, these units are typically operated and vented inside a building, so testing for PM or opacity is not feasible.
Cleaning operations: alkaline/phosphate cleaners and associated cleaners	PM, variable depending on airflow Opacity $\leq$ 20% (Minn. R. 7011.0710/715)	Northshore Mining - Silver Bay uses solvent based parts washers. For these units, there is very little information regarding the cleaning operation itself. However, based on general knowledge of how they operate, it is highly unlikely that they could violate the applicable requirement or that testing would be feasible.
Individual units with potential emissions less than 2000 lb/year of certain pollutants	PM, variable depending on airflow Opacity $\leq$ 20% (with exceptions) (Minn. R. 7011.0710/715 and Minn. R. 7011.610) $SO_2 \leq$ 0.5 lb/MMBtu Opacity $\leq$ 20% (Minn. R. 7011.2300)	Northshore Mining - Silver Bay has a crusher zincing furnace (melts zinc for crusher relining), a METCO 5P thermospray gun for powder-coating small parts, four emergency use generators, a Radiac hose cutoff saw, an acetic acid aboveground storage tank (7,000 gallons), a Frother underground storage tank (15,000 gallons), a MP7 truck shop space heater (Propane fueled, 3.4 MMBtu), a soda ash mix tank, soda ash unloading (vented indoors), filter cake loadout conveyors (two belts), and an additive silo (over filter cake belts). The four emergency use generators are subject to the requirements of Minn. R. 7011.2300, the crusher zincing furnace is subject to the requirements of Minn. R. 7011.0610, and the remaining activities are subject to the requirements of Minn. R. 7011.0710/715. Based on the fuels used and EPA published emissions factors, it is highly unlikely that these units could violate the applicable requirements.

Insignificant Activity	General Applicable Emission limit	Discussion
Fugitive Emissions from unpaved roads and parking lots	Requirement to take reasonable measures to prevent PM from becoming airborne (Minn. R. 7011.0150)	The Facility has paved parking lots and a few private roads. The permit does contain a general requirement that this standard must be met.
Infrequent use of spray paint equipment for routine housekeeping or plant upkeep activities not associated with primary production processes at the stationary source	PM, variable depending on airflow or process weight rate Opacity ≤ 20% (Minn. R. 7011.0715)	While spray equipment will have the potential to emit particulate matter, these particular activities are those not associated with production, so they would be infrequent and usually occur outdoors. Testing or monitoring is not feasible.

3.3 Permit Organization

In general, the permit meets the MPCA Delta Guidance for ordering and grouping of requirements. One area where this permit deviates slightly from Delta guidance is in the use of appendices. While appendices are fully enforceable parts of the permit, in general, any requirement that the MPCA thinks should be electronically tracked (e.g., limits, submittals, etc.), should be in Table A or B of the permit. The main reason is that the appendices are word processing sections and are not part of the electronic tracking system. Violation of the appendices can be enforced, but the computer system will not automatically generate the necessary enforcement notices or documents. Staff must generate these.

Appendix A contains the Operator's Summary. This is a listing of all the requirements of Table A of the permit without the rule citations. This appendix was not used in this permit action.

Appendix B contains the fugitive dust control actions required for the Mile Post 7 Tailings Basin Area.

Appendix C contains an explanation and an example of daily visible emission checklists for stacks equipped with dry control equipment.

Appendix D contains the current status and plan for TSP compliance.

Appendix E contains modeling parameters used for the Northshore Mining Company Furnace 5 reactivation project.

Appendix F contains a listing of the facility's insignificant activities and their applicable requirements.

Exhibit M contains ambient air monitoring procedures for determination of compliance for emission facilities that are required to perform ambient air monitoring to demonstrate compliance of State and Federal ambient air quality standards or permit conditions.

Another area that deviates from the guidance is in the use of groups where the requirements in the group apply to the members of the group individually. This was done in order to shorten the permit and where no testing or tracking specific to a unit is in the permit.

3.4 Comments Received

To be completed after end of the referenced review periods.

Public Notice Period: <start date> - <end date>
EPA 45-day Review Period: <start date> - <end date>

4. Permit Fee Assessment

Attachment 3 to this TSD contains the MPCA's assessment of Application and Additional Points used to determine the permit application fee for this permit action as required by Minn. R. 7002.0019. The permit action includes four permit applications, three of which were received after the effective date of the rule (July 1, 2009). The administrative amendment application that was received June 12, 2009, was before the effective date of the rule, so only the additional fees apply to the changes requested by that application. The permit also includes updates to operating parameter limits and monitoring equipment information. However, this is not a chargeable activity as these updates fall under permit re-openings.

5. Conclusion

Based on the information provided by Northshore Mining - Silver Bay, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 07500003-008 and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Hassan Bouchareb (permit engineer)
Dave Crowell (enforcement)
Marc Severin (stack testing)
Adriane Lenshek (peer reviewer)
Beckie Olson (permit writing assistant)
Rachel Mueller (administrative support)

AQ File No. 27A; Major Amendment (DQ 4379), Administrative Amendments (DQ 2688, DQ 3245, DQ 3629), Re-openings (DQ 2084, DQ 3406, DQ 3565, DQ 3682, DQ 3834, DQ 4234)

Attachments:
1. Facility Description
2. CD-01 Forms
3. Points Calculator

ATTACHMENT 1
FACILITY DESCRIPTION
(Available Electronically in Delta Central File)

MINNESOTA POLLUTION CONTROL AGENCY
AIR QUALITY
520 LAFAYETTE ROAD
ST. PAUL, MN 55155-4194

15 April, 2014 10:12

FACILITY DESCRIPTION: BUILDINGS (BG)

Show: Active and Pending Records
Action: PER 008
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

	ID No.	Added By (Action)	Retired By (Action)	Operator ID for Item	Length (feet)	Width (feet)	Roof Height from Ground (feet)	Description/Comment	Building Status

MINNESOTA POLLUTION CONTROL AGENCY
AIR QUALITY
520 LAFAYETTE ROAD
ST. PAUL, MN 55155-4194

FACILITY DESCRIPTION: STACK/VENTS (SV)

Show: Active and Pending Records
Action: PER 008
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

	ID No.	Stack/ Vent Status	Added By (Action)	Retired By (Action)	Operator ID for Item	Operators Description	Height of Opening From Ground (feet)	Inside Dimensions		Design Flow Rate at Top (ACFM)	Exit Gas Temperature at Top (ºF)	Flow Rate/ Temperature Information Source	Discharge Direction
								Diameter or Length (feet)	Width (feet)				
1	SV 001	Active	PER 003			Power House Unit #1	216	7.5		230100	300	Manufacturer	Up, No Cap
2	SV 002	Active	PER 001			Power House Unit #2	216	10.2		300000	300	Manufacturer	Up, No Cap
3	SV 003	Active	PER 003			Process Boiler #1 & #2	131	6.5		59900	450	Manufacturer	Up, No Cap
4	SV 005	Active	PER 001			Coal Transfer & Bunkers	128	1.5		4500	77	Estimate	Up, No Cap
5	SV 007	Active	PER 003			East Car Dump	83	5		62600	77	Manufacturer	Up, No Cap
6	SV 008	Active	PER 003			East Car Dump	83	5		62600	77	Manufacturer	Up, No Cap
7	SV 009	Active	PER 003			Fine Crusher Bin Storage - W	101	6		90100	77	Manufacturer	Up, No Cap
8	SV 010	Active	PER 003			Fine Crusher Bin Storage - E	101	6		90100	77	Manufacturer	Up, No Cap
9	SV 011	Active	PER 001			Fine Crushing Line 4	69	2.7		15000	77	Manufacturer	Up, No Cap
10	SV 012	Active	PER 001			Fine Crushing Line 3	69	2.7		15000	77	Manufacturer	Up, No Cap
11	SV 013	Active	PER 001			Fine Crushing Line 2	69	2.7		15000	77	Manufacturer	Up, No Cap
12	SV 014	Active	PER 001			Fine Crushing Line 1	69	2.7		15000	77	Manufacturer	Up, No Cap
13	SV 015	Active	PER 003			Crushed Ore Conveyors - W	69	3.3		22400	77	Manufacturer	Up, No Cap
14	SV 016	Active	PER 003			Crushed Ore Conveyors - E	69	3.3		22400	77	Manufacturer	Up, No Cap
15	SV 017	Active	PER 001			Fine Crushing Line 101	69	2.7		15000	77	Manufacturer	Up, No Cap
16	SV 018	Active	PER 001			Fine Crushing Line 102	69	2.7		15000	77	Manufacturer	Up, No Cap
17	SV 019	Active	PER 001			Fine Crushing Line 103	69	2.7		15000	77	Manufacturer	Up, No Cap
18	SV 020	Active	PER 001			Fine Crushing Line 104	69	2.7		15000	77	Manufacturer	Up, No Cap
19	SV 021	Active	PER 001			Dry Cobber - West	125	5.2		67000	77	Manufacturer	Up, No Cap
20	SV 022	Active	PER 001			Dry Cobber - East	125	5.2		67000	77	Manufacturer	Up, No Cap
21	SV 023	Active	PER 003			Dry Cobber - West Center	125	4.8		58000	77	Manufacturer	Up, No Cap
22	SV 024	Active	PER 001			Dry Cobber - Center	125	3.2		24000	77	Manufacturer	Up, No Cap
23	SV 025	Active	PER 003			Dry Cobber - East Center	125	4		38000	77	Manufacturer	Up, No Cap
24	SV 026	Active	PER 003			Tails Belts	16	2		9000	77	Manufacturer	Horizontal
25	SV 027	Active	PER 003			Tails Belts	19	2		9000	77	Manufacturer	Horizontal
26	SV 028	Active	PER 003			Tails Belts	29	1.7		7000	77	Manufacturer	Horizontal
27	SV 029	Active	PER 003			Tails Belts	121	1.3		3500	77	Manufacturer	Horizontal

MINNESOTA POLLUTION CONTROL AGENCY
AIR QUALITY
520 LAFAYETTE ROAD
ST. PAUL, MN 55155-4194

FACILITY DESCRIPTION: STACK/VENTS (SV)

Show: Active and Pending Records
Action: PER 008
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

	ID No.	Stack/ Vent Status	Added By (Action)	Retired By (Action)	Operator ID for Item	Operators Description	Height of Opening From Ground (feet)	Inside Dimensions		Design Flow Rate at Top (ACFM)	Exit Gas Temperature at Top (ºF)	Flow Rate/ Temperature Information Source	Discharge Direction
								Diameter or Length (feet)	Width (feet)				
28	SV 030	Active	PER 003			Concentrator Transfer Bin - W	79	2.7		18000	77	Manufacturer	Up, No Cap
29	SV 031	Active	PER 003			Concentrator Transfer Bin - E	83	2.7		18000	77	Manufacturer	Up, No Cap
30	SV 032	Removed	PER 003			Conc Bin - Section 1	114	3.3		29200	77	Manufacturer	Up, No Cap
31	SV 033	Active	PER 003			Conc Bin - Section 2	114	3.3		29200	77	Manufacturer	Up, No Cap
32	SV 034	Active	PER 003			Conc Bin - Section 3	114	3.3		29200	77	Manufacturer	Up, No Cap
33	SV 035	Active	PER 003			Conc Bin - Section 4	114	3.3		29200	77	Manufacturer	Up, No Cap
34	SV 036	Active	PER 003			Conc Bin - Section 5	114	3.3		29200	77	Manufacturer	Up, No Cap
35	SV 037	Active	PER 003			Conc Bin - Section 6	114	3.3		29200	77	Manufacturer	Up, No Cap
36	SV 038	Active	PER 003			Conc Bin - Section 7	114	3.3		29200	77	Manufacturer	Up, No Cap
37	SV 039	Active	PER 003			Conc Bin - Section 8	114	3.3		29200	77	Manufacturer	Up, No Cap
38	SV 040	Active	PER 003			Conc Bin - Section 9	114	3.3		29200	77	Manufacturer	Up, No Cap
39	SV 041	Active	PER 003			Conc Bin - Section 10	114	3.3		29200	77	Manufacturer	Up, No Cap
40	SV 042	Active	PER 003			Conc Bin - Section 11	114	3.3		29200	77	Manufacturer	Up, No Cap
41	SV 043	Active	PER 003			Conc Bin - Section 12 - Fluxstone	114	3.3		29200	77	Manufacturer	Up, No Cap
42	SV 044	Active	PER 003			Conc Bin - Section 101	93	3.3		29200	77	Manufacturer	Up, No Cap
43	SV 045	Active	PER 003			Conc Bin - Section 102	93	3.3		29200	77	Manufacturer	Up, No Cap
44	SV 046	Active	PER 003			Conc Bin - Section 103	93	3.3		29200	77	Manufacturer	Up, No Cap
45	SV 047	Active	PER 003			Conc Bin - Section 104	93	3.3		29200	77	Manufacturer	Up, No Cap
46	SV 048	Active	PER 003			Conc Bin - Section 105	93	3.3		29200	77	Manufacturer	Up, No Cap
47	SV 049	Active	PER 003			Conc Bin - Section 106	93	3.3		29200	77	Manufacturer	Up, No Cap
48	SV 050	Active	PER 003			Conc Bin - Section 107	93	3.3		29200	77	Manufacturer	Up, No Cap
49	SV 051	Active	PER 003			Conc Bin - Section 108	93	3.3		29200	77	Manufacturer	Up, No Cap
50	SV 053	Active	PER 003			Conc Bin - Section 110	93	3.3		29200	77	Manufacturer	Up, No Cap
51	SV 070	Active	PER 003			Additive Silo	8	0.7		600	77	Manufacturer	Down
52	SV 071	Active	PER 003			Additive Distribution	54	1.3	1	1800	77	Manufacturer	Up, With Cap
53	SV 072	Active	PER 001			West Pel Bentonite Storage 2	85	0.8		1300	77	Manufacturer	Up, With Cap
54	SV 073	Active	PER 001			West Pel Bentonite Storage 1	85	0.8		1300	77	Manufacturer	Up, With Cap

MINNESOTA POLLUTION CONTROL AGENCY
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ST. PAUL, MN 55155-4194

FACILITY DESCRIPTION: STACK/VENTS (SV)

Show: Active and Pending Records
Action: PER 008
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

	ID No.	Stack/ Vent Status	Added By (Action)	Retired By (Action)	Operator ID for Item	Operators Description	Height of Opening From Ground (feet)	Inside Dimensions		Design Flow Rate at Top (ACFM)	Exit Gas Temperature at Top (ºF)	Flow Rate/ Temperature Information Source	Discharge Direction
								Diameter or Length (feet)	Width (feet)				
55	SV 074	Active	PER 003			Fce 1,2 Bentonite Day Bin & Air Slide	88	1.6		4800	77	Manufacturer	Up, With Cap
56	SV 075	Active	PER 001			Fce 3,4 Bentonite Day Bin & Air Slide	88	1.6		4800	77	Manufacturer	Up, With Cap
57	SV 076	Active	PER 001			Fce 5,6 Bentonite Day Bin & Air Slide	88	1.6		4800	77	Manufacturer	Up, With Cap
58	SV 077	Active	PER 001			Furnace 11 Day Bin Collector	97	0.8		1800	77	Manufacturer	Up, With Cap
59	SV 078	Active	PER 003			Furnace 11 Air Slide Collector	97	0.7		1800	77	Manufacturer	Up, With Cap
60	SV 079	Active	PER 001			Furnace 12 Day Bin Collector	97	0.8		1800	77	Manufacturer	Up, With Cap
61	SV 080	Active	PER 003			Furnace 12 Air Slide Collector	97	0.8		1800	77	Manufacturer	Up, With Cap
62	SV 081	Active	PER 003			East Pel Ben Storage Bin 3,4	129	0.7		1800	77	Manufacturer	Up, With Cap
63	SV 082	Active	PER 003			East Pel Ben Storage Bin 5,6	130	0.7		1800	77	Manufacturer	Up, With Cap
64	SV 083	Active	PER 003			Bentonite Unloading Collector	127	0.7		1800	77	Manufacturer	Up, With Cap
65	SV 084	Active	PER 001			Supplemental Ben Unload Col	117	1.7		4900	77	Manufacturer	Up, With Cap
66	SV 097	Active	PER 003			Hearth Layer	29	3.2		17000	150	Manufacturer	Horizontal
67	SV 101	Active	PER 003			Furnace 11 Hood Exhaust	121	6		70700	142	Manufacturer	Up, No Cap
68	SV 102	Active	PER 003			Furnace 11 Hood Exhaust	121	6		74300	142	Manufacturer	Up, No Cap
69	SV 103	Active	PER 003			Furnace 11 Hood Exhaust	121	6		77400	142	Manufacturer	Up, No Cap
70	SV 104	Active	PER 001			Furnace 11 Waste Gas	134	6		93000	140	Manufacturer	Up, No Cap
71	SV 105	Active	PER 001			Furnace 11 Waste Gas	134	6		93000	140	Manufacturer	Up, No Cap
72	SV 111	Active	PER 003			Furnace 12 Hood Exhaust	121	6		70700	142	Manufacturer	Up, No Cap
73	SV 112	Active	PER 003			Furnace 12 Hood Exhaust	121	6		74300	142	Manufacturer	Up, No Cap
74	SV 113	Active	PER 003			Furnace 12 Hood Exhaust	121	6		77400	142	Manufacturer	Up, No Cap
75	SV 114	Active	PER 001			Furnace 12 Waste Gas	134	6		93000	140	Manufacturer	Up, No Cap
76	SV 115	Active	PER 001			Furnace 12 Waste Gas	134	6		93000	140	Manufacturer	Up, No Cap
77	SV 120	Active	PER 001			Furnace 11 Discharge	91	3.8		48000	150	Manufacturer	Up, No Cap
78	SV 121	Active	PER 001			Furnace 12 Discharge	91	3.8		48000	150	Manufacturer	Up, No Cap
79	SV 122	Active	PER 001			Furnace 11 Screening	90	3.8		48000	150	Manufacturer	Up, No Cap
80	SV 123	Active	PER 001			East Furnace Screen House	90	3.8		48000	150	Manufacturer	Up, No Cap
81	SV 124	Active	PER 001			Furnace 12 Screening	90	3.8		48000	150	Manufacturer	Up, No Cap

MINNESOTA POLLUTION CONTROL AGENCY
AIR QUALITY
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ST. PAUL, MN 55155-4194

FACILITY DESCRIPTION: STACK/VENTS (SV)

Show: Active and Pending Records
Action: PER 008
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

	ID No.	Stack/ Vent Status	Added By (Action)	Retired By (Action)	Operator ID for Item	Operators Description	Height of Opening From Ground (feet)	Inside Dimensions		Design Flow Rate at Top (ACFM)	Exit Gas Temperature at Top (ºF)	Flow Rate/ Temperature Information Source	Discharge Direction
								Diameter or Length (feet)	Width (feet)				
82	SV 125	Active	PER 003			East Furnace Screen House	59	3.8		33400	130	Manufacturer	Up, No Cap
83	SV 201	Retired	PER 007		PDRDP	Rotary Hearth Furnace and Iron Nugget Green Ball Processor	100	3.5		31200	165	Estimate	Up, No Cap
84	SV 202	Retired	PER 007		PDRDP	Iron Nugget Coal Pulverizer	24	1		3900	145	Manufacturer	Horizontal
85	SV 203	Retired	PER 007		PDRDP	Auxiliary Reductant Equipment	4	1.67		8000	250	Manufacturer	Horizontal
86	SV 204	Removed	PER 001					6			142		
87	SV 205	Removed	PER 001			Rotary Hearth/Submerged Arc		6			142		
88	SV 206	Removed	PER 001			Rotary Hearth/Submerged Arc		6			142		
89	SV 207	Removed	PER 001			Rotary Hearth/Submerged Arc		6			142		
90	SV 208	Removed	PER 001			Rotary Hearth/Submerged Arc		6			142		
91	SV 209	Removed	PER 001			Rotary Hearth/Submerged Arc		6			142		
92	SV 261	Active	PER 003			Furnace 6 Hood Exhaust-Waste Gas	162	6		70700	140	Manufacturer	Up, No Cap
93	SV 262	Active	PER 003			Furnace 6 Hood Exhaust-Waste Gas	162	6		74300	140	Manufacturer	Up, No Cap
94	SV 263	Active	PER 003			Furnace 6 Hood Exhaust-Waste Gas	162	6		77400	140	Manufacturer	Up, No Cap
95	SV 265	Active	PER 001			Furnace 6 Discharge	90	4		32800	150	Manufacturer	Up, No Cap
96	SV 266	Active	PER 003			Fce 5 HE-WG #501;#502;#503	162	6		70700	140	Manufacturer	Up, No Cap
97	SV 267	Active	PER 003			Fce 5 HE-WG #501;#502;#503	162	6		74300	140	Manufacturer	Up, No Cap
98	SV 268	Active	PER 003			Fce 5 HE-WG #501;#502;#503	162	6		77400	140	Manufacturer	Up, No Cap
99	SV 269	Active	PER 003			Furnace 5 Discharge	90	4		32800	150	Manufacturer	Up, No Cap
100	SV 270	Active	PER 001			Fce 11 Hood Exhaust Bypass	121	8.6				Not Provided	Up, No Cap
101	SV 271	Active	PER 001			Fce 11 Waste Gas Bypass	134	7.8				Not Provided	Up, No Cap
102	SV 272	Active	PER 001			Fce 12 Hood Exhaust Bypass	121	8.6				Not Provided	Up, No Cap
103	SV 273	Active	PER 001			Fce 12 Waste Gas Bypass	134	7.8				Not Provided	Up, No Cap
104	SV 274	Active	PER 001			Fce 5 HE-WG Bypass	162	8				Not Provided	Up, No Cap
105	SV 275	Active	PER 001			Fce 6 HE-WG Bypass	162	8				Not Provided	Up, No Cap
106	SV 276	Active	PER 003			Conc Bin - Section 109	93	3.3		29200	77	Manufacturer	Up, No Cap

MINNESOTA POLLUTION CONTROL AGENCY
AIR QUALITY
520 LAFAYETTE ROAD
ST. PAUL, MN 55155-4194

FACILITY DESCRIPTION: CONTROL EQUIPMENT (CE)

Show: Active and Pending Records
Action: PER 008
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

	ID No.	Control Equip. Status	Added By (Action)	Retired By (Action)	Operator ID for Item	Control Equip. Type	Control Equipment Description	Manufacturer	Model	Pollutants Controlled	Capture Efficiency (%)	Destruction/ Collection Efficiency (%)	Afterburner Combustion Parameters
1	CE 001	Active	PER 001		BagHse	016	Fabric Filter - High Temperature, i.e., T>250 Degrees F	American Air Filter	10-156 Amertherm	PM10 PM	100 100	99 99	
2	CE 002	Active	PER 001		BagHse	016	Fabric Filter - High Temperature, i.e., T>250 Degrees F	American Air Filter	10-156 Amertherm	PM10 PM	100 100	99 99	
3	CE 007	Active	PER 001		BagHse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Flex Kleen	100 MW 330 (III)	PM10 PM	100 100	99 99	
4	CE 008	Active	PER 001		BagHse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Flex Kleen	100 MW 330 (III)	PM10 PM	100 100	99 99	
5	CE 009	Active	PER 001		BagHse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Flex Kleen	100 MW 240 (III)	PM10 PM	100 100	99 99	
6	CE 010	Active	PER 001		BagHse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Flex Kleen	100 MW 240 (III)	PM10 PM	100 100	99 99	
7	CE 011	Active	PER 001		BagHse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Flex Kleen	100 MW 180 (III)	PM10 PM	100 100	99 99	
8	CE 012	Active	PER 001		BagHse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Flex Kleen	100 MW 180 (III)	PM10 PM	100 100	99 99	
9	CE 013	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Flex Kleen	100 MW 180 (III)	PM10 PM	100 100	99 99	
10	CE 014	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Flex Kleen	100 MW 180 (III)	PM10 PM	100 100	99 99	
11	CE 015	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Flex Kleen	WUDCR 180 (III)	PM10 PM	100 100	99 99	
12	CE 016	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Flex Kleen	WUDCR 180 (III)	PM10 PM	100 100	99 99	
13	CE 017	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Flex Kleen	100 MW 180 (III)	PM10 PM	100 100	99 99	
14	CE 018	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Flex Kleen	100 MW 180 (III)	PM10 PM	100 100	99 99	
15	CE 019	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Flex Kleen	100 MW 180 (III)	PM10 PM	100 100	99 99	
16	CE 020	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Flex Kleen	100 MW 180 (III)	PM10 PM	100 100	99 99	
17	CE 021	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Flex Kleen	100 MW 780 (III)	PM10 PM	100 100	99 99	
18	CE 022	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Flex Kleen	100 MW 780 (III)	PM10 PM	100 100	99 99	
19	CE 023	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Flex Kleen	100 MW 480	PM10 PM	100 100	99 99	
20	CE 024	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Flex Kleen	100 MW 300	PM10 PM	100 100	99 99	

MINNESOTA POLLUTION CONTROL AGENCY
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ST. PAUL, MN 55155-4194

FACILITY DESCRIPTION: CONTROL EQUIPMENT (CE)

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Action: PER 008
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

	ID No.	Control Equip. Status	Added By (Action)	Retired By (Action)	Operator ID for Item	Control Equip. Type	Control Equipment Description	Manufacturer	Model	Pollutants Controlled	Capture Efficiency (%)	Destruction/ Collection Efficiency (%)	Afterburner Combustion Parameters
21	CE 025	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Flex Kleen	100 MW 660	PM10 PM	100 100	99 99	
22	CE 026	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Flex Kleen	100 WRT 112	PM10 PM	100 100	99 99	
23	CE 027	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Flex Kleen	100 WRT 112	PM10 PM	100 100	99 99	
24	CE 028	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Flex Kleen	100 WRT 80	PM10 PM	100 100	99 99	
25	CE 029	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Flex Kleen	100 WRT 48	PM10 PM	100 100	99 99	
26	CE 030	Active	PER 003		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F			PM10 PM	100 100	99 99	
27	CE 031	Active	PER 003		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F			PM10 PM	100 100	99 99	
28	CE 032	Removed	PER 003		Cartridge	076	Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones			PM10 PM	100 100	99 99	
29	CE 033	Active	PER 003		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F			PM10 PM	100 100	99 99	
30	CE 034	Active	PER 003		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F			PM10 PM	100 100	99 99	
31	CE 035	Active	PER 003		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F			PM10 PM	100 100	99 99	
32	CE 036	Active	PER 003		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F			PM10 PM	100 100	99 99	
33	CE 037	Active	PER 003		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F			PM10 PM	100 100	99 99	
34	CE 038	Active	PER 003		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F			PM10 PM	100 100	99 99	
35	CE 039	Active	PER 003		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F			PM10 PM	100 100	99 99	
36	CE 040	Active	PER 003		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F			PM10 PM	100 100	99 99	
37	CE 041	Active	PER 003		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F			PM10 PM	100 100	99 99	
38	CE 042	Active	PER 003		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F			PM10 PM	100 100	99 99	
39	CE 042	Active	PER 008		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Torit-Donaldson	DFT-96	PM10 PM	100 100	99 99	
40	CE 043	Active	PER 003		M-clone	076	Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones			PM10 PM	100 100	80 80	

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Action: PER 008
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Facility Name: Northshore Mining - Silver Bay

	ID No.	Control Equip. Status	Added By (Action)	Retired By (Action)	Operator ID for Item	Control Equip. Type	Control Equipment Description	Manufacturer	Model	Pollutants Controlled	Capture Efficiency (%)	Destruction/ Collection Efficiency (%)	Afterburner Combustion Parameters
41	CE 044	Active	PER 003		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F			PM10 PM	100 100	99 99	
42	CE 045	Active	PER 003		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F			PM10 PM	100 100	99 99	
43	CE 045	Active	PER 008		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Torit-Donaldson	DFT-96	PM10 PM	100 100	99 99	
44	CE 046	Active	PER 003		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F			PM10 PM	100 100	99 99	
45	CE 046	Active	PER 008		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Torit-Donaldson	DFT-96	PM10 PM	100 100	99 99	
46	CE 047	Active	PER 003		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F			PM10 PM	100 100	99 99	
47	CE 047	Active	PER 008		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Torit-Donaldson	DFT-96	PM10 PM	100 100	99 99	
48	CE 048	Active	PER 003		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F			PM10 PM	100 100	99 99	
49	CE 048	Active	PER 008		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Torit-Donaldson	DFT-96	PM10 PM	100 100	99 99	
50	CE 049	Active	PER 003		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F			PM10 PM	100 100	99 99	
51	CE 049	Active	PER 008		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Torit-Donaldson	DFT-96	PM10 PM	100 100	99 99	
52	CE 050	Active	PER 003		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F			PM10 PM	100 100	99 99	
53	CE 050	Active	PER 008		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Torit-Donaldson	DFT-96	PM10 PM	100 100	99 99	
54	CE 051	Active	PER 003		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F			PM10 PM	100 100	99 99	
55	CE 052	Active	PER 003		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F			PM10 PM	100 100	99 99	
56	CE 053	Active	PER 003		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F			PM10 PM	100 100	99 99	
57	CE 070	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Dynaquip	58BV16 (III)	PM10 PM	100 100	99 99	
58	CE 071	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Dynaquip	58BV16 (III)	PM10 PM	100 100	99 99	
59	CE 072	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	W W Sly Mfg Co	Type 34C Unit Dust Filter	PM10 PM	100 100	99 99	
60	CE 073	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	W W Sly Mfg Co	Type 34C Unit Dust Filter	PM10 PM	100 100	99 99	

MINNESOTA POLLUTION CONTROL AGENCY
AIR QUALITY
520 LAFAYETTE ROAD
ST. PAUL, MN 55155-4194

FACILITY DESCRIPTION: CONTROL EQUIPMENT (CE)

Show: Active and Pending Records
Action: PER 008
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

	ID No.	Control Equip. Status	Added By (Action)	Retired By (Action)	Operator ID for Item	Control Equip. Type	Control Equipment Description	Manufacturer	Model	Pollutants Controlled	Capture Efficiency (%)	Destruction/ Collection Efficiency (%)	Afterburner Combustion Parameters
61	CE 074	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Dracco	Mk II, H-20-E5388	PM10 PM	100 100	99 99	
62	CE 075	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Dracco	Mk II, H-20-E5388	PM10 PM	100 100	99 99	
63	CE 076	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Dracco	Mk II, H-20-E5388	PM10 PM	100 100	99 99	
64	CE 077	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	W W Sly Mfg Co	No 6, Type C	PM10 PM	100 100	99 99	
65	CE 078	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	W W Sly Mfg Co	No 44, Unit Dust Filter	PM10 PM	100 100	99 99	
66	CE 079	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	W W Sly Mfg Co	No 6, Type C	PM10 PM	100 100	99 99	
67	CE 080	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	W W Sly Mfg Co	No 44, Unit Dust Filter	PM10 PM	100 100	99 99	
68	CE 081	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	W W Sly Mfg Co	No 34, Unit Dust Filter	PM10 PM	100 100	99 99	
69	CE 082	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	W W Sly Mfg Co	No 34, Unit Dust Filter	PM10 PM	100 100	99 99	
70	CE 083	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	American Air Filter	Size 1-76 Fabric Dust Coll	PM10 PM	100 100	99 99	
71	CE 084	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	W W Sly Mfg Co	No 34, Unit Dust Filter	PM10 PM	100 100	99 99	
72	CE 097	Active	PER 001		Baghse	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Flex Kleen	100 MW 180 (III)	PM10 PM	100 100	99 99	
73	CE 101	Active	PER 001		WWesp	010	Electrostatic Precipitator - High Efficiency	Fluid Ionics	28-60-10	PM10 PM SO2	100 100 100	98 98 80	
74	CE 102	Active	PER 001		WWesp	010	Electrostatic Precipitator - High Efficiency	Fluid Ionics	28-60-10	PM10 PM SO2	100 100 100	98 98 80	
75	CE 103	Active	PER 001		WWesp	010	Electrostatic Precipitator - High Efficiency	Fluid Ionics	28-60-10	PM10 PM SO2	100 100 100	98 98 80	
76	CE 104	Active	PER 001		WWesp	010	Electrostatic Precipitator - High Efficiency	Fluid Ionics	28-60-10	PM10 PM SO2	100 100 100	98 98 80	
77	CE 105	Active	PER 001		WWesp	010	Electrostatic Precipitator - High Efficiency	Fluid Ionics	28-60-10	PM10 PM SO2	100 100 100	98 98 80	

FACILITY DESCRIPTION: CONTROL EQUIPMENT (CE)

Show: Active and Pending Records
Action: PER 008
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

	ID No.	Control Equip. Status	Added By (Action)	Retired By (Action)	Operator ID for Item	Control Equip. Type	Control Equipment Description	Manufacturer	Model	Pollutants Controlled	Capture Efficiency (%)	Destruction/ Collection Efficiency (%)	Afterburner Combustion Parameters
78	CE 111	Active	PER 001		WWesp	010	Electrostatic Precipitator - High Efficiency	Fluid Ionics	28-60-10	PM10 PM SO2	100 100 100	98 98 80	
79	CE 112	Active	PER 001		WWesp	010	Electrostatic Precipitator - High Efficiency	Fluid Ionics	28-60-10	PM10 PM SO2	100 100 100	98 98 80	
80	CE 113	Active	PER 001		WWesp	010	Electrostatic Precipitator - High Efficiency	Fluid Ionics	28-60-10	PM10 PM SO2	100 100 100	98 98 80	
81	CE 114	Active	PER 001		WWesp	010	Electrostatic Precipitator - High Efficiency	Fluid Ionics	28-60-10	PM10 PM SO2	100 100 100	98 98 80	
82	CE 115	Active	PER 001		WWesp	010	Electrostatic Precipitator - High Efficiency	Fluid Ionics	28-60-10	PM10 PM SO2	100 100 100	98 98 80	
83	CE 120	Active	PER 001			113	Rotoclone	American Air Filter	Size 48, Type N Roto-Clone	PM10 PM	100 100	90 90	
84	CE 121	Active	PER 001			113	Rotoclone	American Air Filter	Size 48, Type N Roto-Clone	PM10 PM	100 100	90 90	
85	CE 122	Active	PER 001			113	Rotoclone	American Air Filter	Size 48, Type N Roto-Clone	PM10 PM	100 100	90 90	
86	CE 123	Active	PER 001			113	Rotoclone	American Air Filter	Size 48, Type N Roto-Clone	PM10 PM	100 100	90 90	
87	CE 124	Active	PER 001			113	Rotoclone	American Air Filter	Size 48, Type N Roto-Clone	PM10 PM	100 100	90 90	
88	CE 125	Active	PER 003			113	Rotoclone	American Air Filter	Size 32, Type N Roto-Clone	PM10 PM	100 100	90 90	
89	CE 201	Retired	PER 007		PDRDP	912	Wet Scrubber-High Efficiency	Midrex		Hyd. Acid PM10 PM SO2	100 100 100 100	90 90 90 90	
90	CE 202	Retired	PER 007		PDRDP	017	Fabric Filter - Medium Temperature i.e., 180 F<T<250 F	Mikropol	392Rt(6.0)-10-20-TR	PM	100	99	
91	CE 203	Retired	PER 007		PDRDP	017	Fabric Filter - Medium Temperature i.e., 180 F<T<250 F	MAC	55RTC39 Style 111	PM	100	99	
92	CE 204	Retired	PER 007		PDRDP	017	Fabric Filter - Medium Temperature i.e., 180 F<T<250 F	Wheelabrator	55WCC Mod.36 Pulse	PM	100	99	
93	CE 205	Active	PER 003		Fltr cake	904	6% or Greater Moisture Content			PM	100	100	
94	CE 206	Removed	PER 001		REDesp	010	Electrostatic Precipitator - High Efficiency	Fluid Ionics	28-60-10				
95	CE 207	Removed	PER 001		REDesp	010	Electrostatic Precipitator - High Efficiency	Fluid Ionics	28-60-10				

MINNESOTA POLLUTION CONTROL AGENCY
AIR QUALITY
520 LAFAYETTE ROAD
ST. PAUL, MN 55155-4194

FACILITY DESCRIPTION: CONTROL EQUIPMENT (CE)

Show: Active and Pending Records
Action: PER 008
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

	ID No.	Control Equip. Status	Added By (Action)	Retired By (Action)	Operator ID for Item	Control Equip. Type	Control Equipment Description	Manufacturer	Model	Pollutants Controlled	Capture Efficiency (%)	Destruction/ Collection Efficiency (%)	Afterburner Combustion Parameters
96	CE 208	Removed	PER 001		REDesp	010	Electrostatic Precipitator - High Efficiency	Fluid Ionics	28-60-10				
97	CE 209	Removed	PER 001		REDesp	010	Electrostatic Precipitator - High Efficiency	Fluid Ionics	28-60-10				
98	CE 215	Removed	PER 001		REDroto	085	Wet Cyclonic Separator - Wet Cyclone	American Air Filter	Size 48, Type N Roto-Clone	PM	100	90	
99	CE 220	Removed	PER 001		REDroto	085	Wet Cyclonic Separator - Wet Cyclone	American Air Filter	Size 6, Type R Roto-Clone	PM	100	90	
100	CE 225	Removed	PER 001		REDroto	085	Wet Cyclonic Separator - Wet Cyclone	American Air Filter	Size 48, Type N Roto-Clone	PM	100	90	
101	CE 235	Removed	PER 001		REDroto	085	Wet Cyclonic Separator - Wet Cyclone	American Air Filter	Size 48, Type N Roto-Clone	PM	100	90	
102	CE 240	Removed	PER 001		REDroto	085	Wet Cyclonic Separator - Wet Cyclone	American Air Filter	Size 6, Type R Roto-Clone	PM	100	90	
103	CE 241	Removed	PER 001		REDesp	010	Electrostatic Precipitator - High Efficiency	Fluid Ionics	28-60-10	PM SO2	100 100	98 80	
104	CE 242	Removed	PER 001		REDesp	010	Electrostatic Precipitator - High Efficiency	Fluid Ionics	28-60-10	PM SO2	100 100	98 80	
105	CE 243	Removed	PER 001		REDesp	010	Electrostatic Precipitator - High Efficiency	Fluid Ionics	28-60-10	PM SO2	100 100	98 80	
106	CE 245	Removed	PER 001		REDroto	085	Wet Cyclonic Separator - Wet Cyclone	American Air Filter	Size 48, Type N Roto-Clone	PM	100	90	
107	CE 251	Removed	PER 001		NEUesp	010	Electrostatic Precipitator - High Efficiency	Fluid Ionics	28-60-10	PM SO2	100 100	98 80	
108	CE 252	Removed	PER 001		NEUesp	010	Electrostatic Precipitator - High Efficiency	Fluid Ionics	28-60-10	PM SO2	100 100	98 80	
109	CE 253	Removed	PER 001		NEUesp	010	Electrostatic Precipitator - High Efficiency	Fluid Ionics	28-60-10	PM SO2	100 100	98 80	
110	CE 255	Removed	PER 001		NEUroto	085	Wet Cyclonic Separator - Wet Cyclone	American Air Filter	Size 48, Type N Roto-Clone	PM	100	90	
111	CE 260	Removed	PER 001		REDroto	085	Wet Cyclonic Separator - Wet Cyclone	American Air Filter	Size 6, Type R Roto-Clone	PM	100	90	
112	CE 261	Active	PER 001		WWesp	010	Electrostatic Precipitator - High Efficiency	Fluid Ionics	28-60-10	PM10 PM SO2	100 100 100	98 98 80	
113	CE 262	Active	PER 001		WWesp	010	Electrostatic Precipitator - High Efficiency	Fluid Ionics	28-60-10	PM10 PM SO2	100 100 100	98 98 80	
114	CE 263	Active	PER 001		WWesp	010	Electrostatic Precipitator - High Efficiency	Fluid Ionics	28-60-10	PM10 PM SO2	100 100 100	98 98 80	

MINNESOTA POLLUTION CONTROL AGENCY
AIR QUALITY
520 LAFAYETTE ROAD
ST. PAUL, MN 55155-4194

FACILITY DESCRIPTION: CONTROL EQUIPMENT (CE)

Show: Active and Pending Records
Action: PER 008
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

	ID No.	Control Equip. Status	Added By (Action)	Retired By (Action)	Operator ID for Item	Control Equip. Type	Control Equipment Description	Manufacturer	Model	Pollutants Controlled	Capture Efficiency (%)	Destruction/ Collection Efficiency (%)	Afterburner Combustion Parameters
115	CE 265	Active	PER 001			113	Rotoclone	American Air Filter	Size 48, Type N Roto-Clone	PM10 PM	100 100	90 90	
116	CE 266	Removed	PER 001			904	6% or Greater Moisture Content						
117	CE 267	Removed	PER 001			061	Dust Suppression by Water Spray						
118	CE 268	Removed	PER 001			062	Dust Suppression by Chemical Stabilizers or Wetting Agents						
119	CE 269	Active	PER 001		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Torit-Donaldson	DFT 4-64	PM10 PM	100 100	99 99	
120	CE 270	Active	PER 001		Cartridge	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Torit-Donaldson	DFT 4-64	PM10 PM	100 100	99 99	
121	CE 271	Active	PER 001		WWesp	010	Electrostatic Precipitator - High Efficiency	Fluid Ionics	28-60-10	PM10 PM SO2	100 100 100	98 98 80	
122	CE 272	Active	PER 001		WWesp	010	Electrostatic Precipitator - High Efficiency	Fluid Ionics	28-60-10	PM10 PM SO2	100 100 100	98 98 80	
123	CE 273	Active	PER 001		WWesp	010	Electrostatic Precipitator - High Efficiency	Fluid Ionics	28-60-10	PM10 PM SO2	100 100 100	98 98 80	
124	CE 274	Active	PER 003			912	Wet Scrubber-High Efficiency		Size 48, Type N Rotoclone	PM10 PM	100 100	90 90	
125	CE 275	Active	PER 003			904	6% or Greater Moisture Content						
126	CE 276	Active	PER 003			904	6% or Greater Moisture Content						
127	CE 277	Active	PER 003			904	6% or Greater Moisture Content						
128	CE 278	Active	PER 003			904	6% or Greater Moisture Content						
129	CE 279	Active	PER 003			904	6% or Greater Moisture Content						

MINNESOTA POLLUTION CONTROL AGENCY
AIR QUALITY
520 LAFAYETTE ROAD
ST. PAUL, MN 55155-4194

FACILITY DESCRIPTION: EMISSION UNIT (EU)

Show: Active and Pending Records
Action: PER 008
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

	ID No.	Emission Unit Status	Added By (Action)	Retired By (Action)	Insignif-icant Activity	Operator ID for Item	Stack/ Vent ID No(s).	Control Equip. ID No(s).	Operator Description	Manufacturer	Model Number	SIC	Max. Design Capacity	Maximum Design Capacity			Max Fuel Input (mil Btu)
														Materials	Units n	Units d	
1	EU 001	Active	PER 001		☐		SV 001 (M)	CE 001	Power Boiler 1	Babcock & Wilcox		1011	540000		Lb	Hr	517
2	EU 002	Active	PER 001		☐		SV 002 (M)	CE 002	Power Boiler 2	Babcock & Wilcox		1011	575000		Lb	Hr	765
3	EU 003	Active	PER 003		☐		SV 003 (M)		Process Boiler 1	Babcock & Wilcox		1011	70000		Lb	Hr	79
4	EU 004	Active	PER 003		☐		SV 003 (M)		Process Boiler 2	Babcock & Wilcox		1011	70000		Lb	Hr	79
5	EU 005	Active	PER 001		☐		SV 005 (M)		Coal Transfer & Coal Bunkers	RMCo		1011	300		Ton	Hr	
6	EU 007	Active	PER 001		☐		SV 007 (M)	CE 007	West Car Dump	Wellman Engineer		1011	4000		Tonne	Hr	
7	EU 008	Active	PER 001		☐		SV 008 (M)	CE 008	East Car Dump	Wellman Engineer		1011	4000		Tonne	Hr	
8	EU 009	Active	PER 001		☐		SV 009 (M)	CE 009	Fine Crusher Bin Storage - West	RMCo		1011	4000		Tonne	Hr	
9	EU 010	Active	PER 001		☐		SV 010 (M)	CE 010	Fine Crusher Bin Storage - East	RMCo		1011	4000		Tonne	Hr	
10	EU 011	Active	PER 001		☐		SV 011 (M)	CE 011	Crusher Line 4	Symons		1011	700		Tonne	Hr	
11	EU 012	Active	PER 001		☐		SV 012 (M)	CE 012	Crusher Line 3	Symons		1011	700		Tonne	Hr	
12	EU 013	Active	PER 001		☐		SV 013 (M)	CE 013	Crusher Line 2	Symons		1011	700		Tonne	Hr	
13	EU 014	Active	PER 001		☐		SV 014 (M)	CE 014	Crusher Line 1	Symons		1011	700		Tonne	Hr	
14	EU 015	Active	PER 001		☐		SV 015 (M)	CE 015	Crushed Ore Conveyors - West	RMCo		1011	3000		Tonne	Hr	
15	EU 016	Active	PER 001		☐		SV 016 (M)	CE 016	Crushed Ore Conveyors - East	RMCo		1011	3000		Tonne	Hr	
16	EU 017	Active	PER 001		☐		SV 017 (M)	CE 017	Crusher Line 101	Symons		1011	700		Tonne	Hr	
17	EU 018	Active	PER 001		☐		SV 018 (M)	CE 018	Crusher Line 102	Symons		1011	700		Tonne	Hr	
18	EU 019	Active	PER 001		☐		SV 019 (M)	CE 019	Crusher Line 103	Symons		1011	700		Tonne	Hr	
19	EU 020	Active	PER 001		☐		SV 020 (M)	CE 020	Crusher Line 104	Symons		1011	700		Tonne	Hr	
20	EU 021	Active	PER 001		☐		SV 021 (M)	CE 021	Dry Cobbing	RMCo		1011	1842		Tonne	Hr	
21	EU 022	Active	PER 001		☐		SV 022 (M)	CE 022	Dry Cobbing	RMCo		1011	1842		Tonne	Hr	
22	EU 023	Active	PER 001		☐		SV 023 (M)	CE 023	Dry Cobbing	RMCo		1011	1842		Tonne	Hr	
23	EU 024	Active	PER 001		☐		SV 024 (M)	CE 024	Dry Cobbing	RMCo		1011	3000		Tonne	Hr	
24	EU 025	Active	PER 001		☐		SV 025 (M)	CE 025	Dry Cobbing	RMCo		1011	1842		Tonne	Hr	
25	EU 026	Active	PER 001		☐		SV 026 (M)	CE 026	Coarse Tails Conveying	RMCo		1011	780		Tonne	Hr	

FACILITY DESCRIPTION: EMISSION UNIT (EU)

	ID No.	Emission Unit Status	Added By (Action)	Comm-ence Const. Date	Initial Startup Date	Removal Date	Firing Method	Pct. Fuel/ Space Heat	Bottleneck	Elevator Type
1	EU 001	Active	PER 001	12/31/1959	12/31/1959					
2	EU 002	Active	PER 001	01/01/1962	01/01/1963					
3	EU 003	Active	PER 003	01/01/1964	01/01/1965					
4	EU 004	Active	PER 003	01/01/1964	01/01/1965					
5	EU 005	Active	PER 001	12/31/1959	12/31/1959					
6	EU 007	Active	PER 001	12/31/1962	01/01/1963					
7	EU 008	Active	PER 001	12/30/1959	12/30/1959					
8	EU 009	Active	PER 001	12/30/1959	12/30/1959					
9	EU 010	Active	PER 001	12/31/1962	01/01/1963					
10	EU 011	Active	PER 001	12/30/1959	12/30/1959					
11	EU 012	Active	PER 001	12/30/1959	12/30/1959					
12	EU 013	Active	PER 001	12/30/1959	12/30/1959					
13	EU 014	Active	PER 001	12/30/1959	12/30/1959					
14	EU 015	Active	PER 001	12/30/1959	12/30/1959					
15	EU 016	Active	PER 001	12/30/1962	01/01/1963					
16	EU 017	Active	PER 001	12/31/1962	01/01/1963					
17	EU 018	Active	PER 001	12/31/1962	01/01/1963					
18	EU 019	Active	PER 001	12/31/1962	01/01/1963					
19	EU 020	Active	PER 001	12/31/1962	01/01/1963					
20	EU 021	Active	PER 001	01/01/1978	01/01/1978					
21	EU 022	Active	PER 001	01/01/1978	01/01/1978					
22	EU 023	Active	PER 001	01/01/1978	01/01/1978					
23	EU 024	Active	PER 001	01/01/1978	01/01/1978					
24	EU 025	Active	PER 001	01/01/1978	01/01/1978					
25	EU 026	Active	PER 001	01/01/1978	01/01/1978					

MINNESOTA POLLUTION CONTROL AGENCY
AIR QUALITY
520 LAFAYETTE ROAD
ST. PAUL, MN 55155-4194

FACILITY DESCRIPTION: EMISSION UNIT (EU)

Show: Active and Pending Records
Action: PER 008
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

	ID No.	Emission Unit Status	Added By (Action)	Retired By (Action)	Insignif-icant Activity	Operator ID for Item	Stack/ Vent ID No(s).	Control Equip. ID No(s).	Operator Description	Manufacturer	Model Number	SIC	Max. Design Capacity	Maximum Design Capacity			Max Fuel Input (mil Btu)
														Materials	Units n	Units d	
26	EU 027	Active	PER 001		☐		SV 027 (M)	CE 027	Coarse Tails Conveying	RMCo		1011	2420		Tonne	Hr	
27	EU 028	Active	PER 001		☐		SV 028 (M)	CE 028	Coarse Tails Transfer	RMCo		1011	2420		Tonne	Hr	
28	EU 029	Active	PER 001		☐		SV 029 (M)	CE 029	Coarse Tails Loadout	RMCo		1011	2420		Tonne	Hr	
29	EU 030	Active	PER 001		☐		SV 030 (M)	CE 269	West Transfer Bin	RMCo		1011	1800		Tonne	Hr	
30	EU 031	Active	PER 001		☐		SV 031 (M)	CE 270	East Transfer Bin	RMCo		1011	1800		Tonne	Hr	
31	EU 032	Removed	PER 003		☐				West Storage Bin #1	RMCo		1011	200		Tonne	Hr	
32	EU 033	Active	PER 003		☐		SV 033 (M)	CE 033	West Storage Bin #2	RMCo		1011	200		Tonne	Hr	
33	EU 034	Active	PER 001		☐		SV 034 (M)	CE 034	West Storage Bins #3	RMCo		1011	200		Tonne	Hr	
34	EU 035	Active	PER 001		☐		SV 035 (M)	CE 035	West Storage Bins #4	RMCo		1011	200		Tonne	Hr	
35	EU 036	Active	PER 001		☐		SV 036 (M)	CE 036	West Storage Bins #5	RMCo		1011	200		Tonne	Hr	
36	EU 037	Active	PER 001		☐		SV 037 (M)	CE 037	West Storage Bin #6	RMCo		1011	200		Tonne	Hr	
37	EU 038	Active	PER 001		☐		SV 038 (M)	CE 038	West Storage Bin #7	RMCo		1011	200		Tonne	Hr	
38	EU 039	Active	PER 001		☐		SV 039 (M)	CE 039	West Storage Bin #8	RMCo		1011	200		Tonne	Hr	
39	EU 040	Active	PER 001		☐		SV 040 (M)	CE 040	West Storage Bin #9	RMCo		1011	200		Tonne	Hr	
40	EU 041	Active	PER 001		☐		SV 041 (M)	CE 041	West Storage Bin #10	RMCo		1011	200		Tonne	Hr	
41	EU 042	Active	PER 001		☐		SV 042 (M)	CE 042	West Storage Bin #11	RMCo		1011	200		Tonne	Hr	
42	EU 043	Active	PER 001		☐		SV 043 (M)	CE 043	West Storage Bin #12	RMCo		1011	200		Tonne	Hr	
43	EU 044	Active	PER 001		☐		SV 044 (M)	CE 044	East Storage Bin #101	RMCo		1011	200		Tonne	Hr	
44	EU 045	Active	PER 001		☐		SV 045 (M)	CE 045	East Storage Bin #102	RMCo		1011	200		Tonne	Hr	
45	EU 046	Active	PER 001		☐		SV 046 (M)	CE 046	East Storage Bin #103	RMCo		1011	200		Tonne	Hr	
46	EU 047	Active	PER 001		☐		SV 047 (M)	CE 047	East Storage Bin #104	RMCo		1011	200		Tonne	Hr	
47	EU 048	Active	PER 001		☐		SV 048 (M)	CE 048	East Storage Bin #105	RMCo		1011	200		Tonne	Hr	
48	EU 049	Active	PER 001		☐		SV 049 (M)	CE 049	East Storage Bin #106	RMCo		1011	200		Tonne	Hr	
49	EU 050	Active	PER 001		☐		SV 050 (M)	CE 050	East Storage Bin #107	RMCo		1011	200		Tonne	Hr	
50	EU 051	Active	PER 001		☐		SV 051 (M)	CE 051	East Storage Bin #108	RMCo		1011	200		Tonne	Hr	
51	EU 052	Active	PER 001		☐		SV 276 (M)	CE 052	East Storage Bin #109	RMCo		1011	200		Tonne	Hr	

FACILITY DESCRIPTION: EMISSION UNIT (EU)

	ID No.	Emission Unit Status	Added By (Action)	Comm-ence Const. Date	Initial Startup Date	Removal Date	Firing Method	Pct. Fuel/ Space Heat	Bottleneck	Elevator Type
26	EU 027	Active	PER 001	01/01/1978	01/01/1978					
27	EU 028	Active	PER 001	01/01/1978	01/01/1978					
28	EU 029	Active	PER 001	01/01/1978	01/01/1978					
29	EU 030	Active	PER 001	12/31/1959	12/31/1959					
30	EU 031	Active	PER 001	12/31/1962	01/01/1963					
31	EU 032	Removed	PER 003	12/31/1959	12/31/1959					
32	EU 033	Active	PER 003	12/31/1959	12/31/1959					
33	EU 034	Active	PER 001	12/31/1959	12/31/1959					
34	EU 035	Active	PER 001	12/31/1959	12/31/1959					
35	EU 036	Active	PER 001	12/31/1959	12/31/1959					
36	EU 037	Active	PER 001	12/31/1959	12/31/1959					
37	EU 038	Active	PER 001	12/31/1959	12/31/1959					
38	EU 039	Active	PER 001	12/31/1959	12/31/1959					
39	EU 040	Active	PER 001	12/31/1959	12/31/1959					
40	EU 041	Active	PER 001	12/31/1959	12/31/1959					
41	EU 042	Active	PER 001	12/31/1959	12/31/1959					
42	EU 043	Active	PER 001	12/31/1959	12/31/1959					
43	EU 044	Active	PER 001	12/31/1962	01/01/1963					
44	EU 045	Active	PER 001	12/31/1962	01/01/1963					
45	EU 046	Active	PER 001	12/31/1962	01/01/1963					
46	EU 047	Active	PER 001	12/31/1962	01/01/1963					
47	EU 048	Active	PER 001	12/31/1962	01/01/1963					
48	EU 049	Active	PER 001	12/31/1962	01/01/1963					
49	EU 050	Active	PER 001	12/31/1962	01/01/1963					
50	EU 051	Active	PER 001	12/31/1962	01/01/1963					
51	EU 052	Active	PER 001	12/31/1962	01/01/1963					

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FACILITY DESCRIPTION: EMISSION UNIT (EU)

Show: Active and Pending Records
Action: PER 008
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

	ID No.	Emission Unit Status	Added By (Action)	Retired By (Action)	Insignif-icant Activity	Operator ID for Item	Stack/ Vent ID No(s).	Control Equip. ID No(s).	Operator Description	Manufacturer	Model Number	SIC	Max. Design Capacity	Maximum Design Capacity			Max Fuel Input (mil Btu)
														Materials	Units n	Units d	
52	EU 053	Active	PER 001		☐		SV 053 (M)	CE 053	East Storage Bin #110	RMCo		1011	200		Tonne	Hr	
53	EU 070	Active	PER 001		☒		SV 070 (M)	CE 070	Additive Silo Collector	Dynequip		1011	3750		Lb	Hr	
54	EU 071	Active	PER 001		☒		SV 071 (M)	CE 071	Additive Distribution Collector	Dynequip		1011	3750		Lb	Hr	
55	EU 072	Active	PER 001		☐		SV 072 (M)	CE 072	West Additive Bin 2	RMCo		1011	650		Ton		
56	EU 073	Active	PER 001		☐		SV 073 (M)	CE 073	West Additive Bin 1	RMCo		1011	650		Ton		
57	EU 074	Active	PER 001		☐		SV 074 (M)	CE 074	West Additive Blending 1 & 2	RMCo		1011	9900		Lb	Hr	
58	EU 075	Active	PER 001		☐		SV 075 (M)	CE 075	West Additive Blending 3 & 4	RMCo		1011	9900		Lb	Hr	
59	EU 076	Active	PER 001		☐		SV 076 (M)	CE 076	West Additive Blending 5 & 6	RMCo		1011	9900		Lb	Hr	
60	EU 077	Active	PER 001		☐		SV 077 (M)	CE 077	East Additive Blending - Fce 11 Day Bin	RMCo		1011	4500		Lb	Hr	
61	EU 078	Active	PER 001		☐		SV 078 (M)	CE 078	East Additive Blending - Fce 11 Air Slide	RMCo		1011	4500		Lb	Hr	
62	EU 079	Active	PER 001		☐		SV 079 (M)	CE 079	East Additive Blending - Fce 12 Day Bin	RMCo		1011	4500		Lb	Hr	
63	EU 080	Active	PER 001		☐		SV 080 (M)	CE 080	East Additive Blending - Fce 12 Air Slide	RMCo		1011	4500		Lb	Hr	
64	EU 081	Active	PER 001		☐		SV 081 (M)	CE 081	East Additive Bins 3-4	RMCo		1011	1100		Ton		
65	EU 082	Active	PER 001		☐		SV 082 (M)	CE 082	East Additive Bins 5-6	RMCo		1011	1100		Ton		
66	EU 083	Active	PER 001		☐		SV 083 (M)	CE 083	East Additive Unload	RMCo		1011	50		Ton	Hr	
67	EU 084	Active	PER 001		☐		SV 084 (M)	CE 084	East Additive Unload, Supplemental	RMCo		1011	50		Ton	Hr	
68	EU 097	Active	PER 001		☐		SV 097 (M)	CE 097	Hearth Layer	Cyprus Northshore		1011	400		Tonne	Hr	
69	EU 100	Active	PER 001		☐		SV 101 (M) SV 102 (M) SV 103 (M) SV 270 (B)	CE 101 CE 102 CE 103	Furnace 11 Hood Exhaust #1101, #1102, & #1103	Arthur G. McKee		1011	300		Tonne	Hr	
70	EU 104	Active	PER 001		☐		SV 104 (M) SV 105 (M) SV 271 (B)	CE 104 CE 105	Furnace 11 Waste Gas #1105 & #1104	Arthur G. McKee		1011	300		Tonne	Hr	150
71	EU 110	Active	PER 001		☐		SV 111 (M) SV 112 (M) SV 113 (M) SV 272 (B)	CE 111 CE 112 CE 113	Furnace 12 Hood Exhaust #1201, #1202, & #1203	Arthur G. McKee		1011	300		Tonne	Hr	

FACILITY DESCRIPTION: EMISSION UNIT (EU)

	ID No.	Emission Unit Status	Added By (Action)	Comm-ence Const. Date	Initial Startup Date	Removal Date	Firing Method	Pct. Fuel/ Space Heat	Bottleneck	Elevator Type
52	EU 053	Active	PER 001	12/31/1962	01/01/1963					
53	EU 070	Active	PER 001	09/01/1989	03/28/1990					
54	EU 071	Active	PER 001	09/01/1989	03/28/1990					
55	EU 072	Active	PER 001	12/31/1959	12/31/1959					
56	EU 073	Active	PER 001	12/31/1959	12/31/1959					
57	EU 074	Active	PER 001	12/31/1959	12/31/1959					
58	EU 075	Active	PER 001	12/31/1959	12/31/1959					
59	EU 076	Active	PER 001	12/31/1959	12/31/1959					
60	EU 077	Active	PER 001	12/31/1962	01/01/1963					
61	EU 078	Active	PER 001	12/31/1962	01/01/1963					
62	EU 079	Active	PER 001	12/31/1962	01/01/1963					
63	EU 080	Active	PER 001	12/31/1962	01/01/1963					
64	EU 081	Active	PER 001	12/31/1962	01/01/1963					
65	EU 082	Active	PER 001	12/31/1962	01/01/1963					
66	EU 083	Active	PER 001	12/31/1962	01/01/1963					
67	EU 084	Active	PER 001	12/31/1962	01/01/1963					
68	EU 097	Active	PER 001	08/01/1989	01/21/1990					
69	EU 100	Active	PER 001	12/31/1962	01/01/1963					
70	EU 104	Active	PER 001	12/31/1962	01/01/1963					
71	EU 110	Active	PER 001	12/31/1962	01/01/1963					

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FACILITY DESCRIPTION: EMISSION UNIT (EU)

Show: Active and Pending Records
Action: PER 008
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

	ID No.	Emission Unit Status	Added By (Action)	Retired By (Action)	Insignif-icant Activity	Operator ID for Item	Stack/ Vent ID No(s).	Control Equip. ID No(s).	Operator Description	Manufacturer	Model Number	SIC	Max. Design Capacity	Maximum Design Capacity			Max Fuel Input (mil Btu)
														Materials	Units n	Units d	
72	EU 114	Active	PER 001		☐		SV 114 (M) SV 115 (M) SV 273 (B)	CE 114 CE 115	Furnace 12 Waste Gas #1205 & #1204	Arthur G. McKee		1011	300		Tonne	Hr	150
73	EU 120	Active	PER 001		☐		SV 120 (M)	CE 120	Furnace 11 Discharge	Arthur G. McKee		1011	300		Tonne	Hr	
74	EU 121	Active	PER 001		☐		SV 121 (M)	CE 121	Furnace 12 Discharge	Arthur G. McKee		1011	300		Tonne	Hr	
75	EU 122	Active	PER 001		☐		SV 122 (M)	CE 122	Furnace 11 Pellet Screen	Arthur G. McKee		1011	300		Tonne	Hr	
76	EU 123	Active	PER 003		☐		SV 123 (M)	CE 123	Screen House North	Northshore		1011	600		Tonne	Hr	
77	EU 124	Active	PER 001		☐		SV 124 (M)	CE 124	Furnace 12 Pellet Screen	Arthur G. McKee		1011	300		Tonne	Hr	
78	EU 125	Active	PER 003		☐		SV 125 (M)	CE 125	Screen House South	Northshore		1011	600		Tonne	Hr	
79	EU 262	Active	PER 001		☐		SV 261 (M) SV 262 (M) SV 263 (M) SV 275 (B)	CE 261 CE 262 CE 263	Furnace 6 H.E./W.G. #601, #602, & #603	Arthur G. McKee		1011	160		Tonne	Hr	100
80	EU 265	Active	PER 001		☐		SV 265 (M)	CE 265	Furnace 6 Discharge	Arthur G. McKee		1011	160		Tonne	Hr	
81	EU 630	Retired	PER 007		☐	PDRDP			Rotary Hearth Furnace		3.0 Mt/hr ==>	1011	3.0				42.38
82	EU 630	Retired	PER 008		☐	PDRDP			Rotary Hearth Furnace		3.0 Mt/hr ==>	1011	3.0				42.38
83	EU 631	Retired	PER 007		☐	PDRDP	SV 201 (M)	CE 202	Iron Nugget Green Ball Processor			1011	10.5				16.1
84	EU 631	Retired	PER 008		☐	PDRDP	SV 201 (M)		Iron Nugget Green Ball Processor			1011	10.5				16.1
85	EU 632	Retired	PER 007		☐	PDRDP	SV 202 (M)		Iron Nugget Coal Pulverizer			1011	4123		Lb	Hr	
86	EU 632	Retired	PER 008		☐	PDRDP	SV 202 (M)		Iron Nugget Coal Pulverizer			1011	4123		Lb	Hr	
87	EU 633	Retired	PER 007		☐	PDRDP	SV 203 (M)		Auxiliary Reductant Equipment			1011	1.0				
88	EU 633	Retired	PER 008		☐	PDRDP	SV 203 (M)		Auxiliary Reductant Equipment			1011	1.0				
89	EU 634	Active	PER 001		☐		SV 266 (M) SV 267 (M) SV 268 (M) SV 274 (B)	CE 271 CE 272 CE 273	Fce 5 HE-WG #501; #502; #503	Arthur G. McKee		1011	160		Tonne	Hr	100
90	EU 635	Active	PER 001		☐		SV 269 (M)	CE 274	Furnace 5 Discharge	Arthur G. McKee		1011	160		Tonne	Hr	
91	EU 636	Active	PER 003		☐	Barr 97			60A to 60B transfer and 5x12 screen			1011					
92	EU 637	Active	PER 003		☐			CE 205	Concentrate Loadout Conveyor			1011					

FACILITY DESCRIPTION: EMISSION UNIT (EU)

	ID No.	Emission Unit Status	Added By (Action)	Comm-ence Const. Date	Initial Startup Date	Removal Date	Firing Method	Pct. Fuel/ Space Heat	Bottleneck	Elevator Type
72	EU 114	Active	PER 001	12/31/1962	01/01/1963					
73	EU 120	Active	PER 001	12/31/1962	01/01/1963					
74	EU 121	Active	PER 001	12/31/1962	01/01/1963					
75	EU 122	Active	PER 001	12/31/1962	01/01/1963					
76	EU 123	Active	PER 003	01/01/1994	01/01/1995					
77	EU 124	Active	PER 001	12/31/1962	01/01/1963					
78	EU 125	Active	PER 003	01/01/1994	01/01/1995					
79	EU 262	Active	PER 001	12/31/1959	12/31/1959					
80	EU 265	Active	PER 001	12/31/1959	12/31/1959					
81	EU 630	Retired	PER 007		06/21/2003					
82	EU 630	Retired	PER 008		06/21/2003	01/21/2008				
83	EU 631	Retired	PER 007		06/21/2003					
84	EU 631	Retired	PER 008		06/21/2003	01/21/2008				
85	EU 632	Retired	PER 007		06/21/2003					
86	EU 632	Retired	PER 008		06/21/2003	01/21/2008				
87	EU 633	Retired	PER 007		06/21/2003					
88	EU 633	Retired	PER 008		06/21/2003	02/14/2008				
89	EU 634	Active	PER 001	12/31/1959	12/31/1959					
90	EU 635	Active	PER 001	12/31/1959	12/31/1959					
91	EU 636	Active	PER 003	12/31/1990	12/31/1990					
92	EU 637	Active	PER 003		06/21/2003					

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FACILITY DESCRIPTION: EMISSION UNIT (EU)

Show: Active and Pending Records
Action: PER 008
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

	ID No.	Emission Unit Status	Added By (Action)	Retired By (Action)	Insignif-icant Activity	Operator ID for Item	Stack/ Vent ID No(s).	Control Equip. ID No(s).	Operator Description	Manufacturer	Model Number	SIC	Max. Design Capacity	Maximum Design Capacity			Max Fuel Input (mil Btu)
														Materials	Units n	Units d	
93	EU 638	Active	PER 003		☐			CE 275	Concentrate Elevating Conveyor			1011					
94	EU 639	Active	PER 003		☐			CE 276	Concentrate Transfer Conveyor			1011					
95	EU 640	Active	PER 003		☐			CE 277	Concentrate Shuttle Conveyor			1011					
96	EU 641	Active	PER 003		☐			CE 278	Concentrate Silo 1 Loadout to Railcar			1011					
97	EU 642	Active	PER 003		☐			CE 279	Concentrate Silo 2 Loadout to Railcar			1011					

FACILITY DESCRIPTION: EMISSION UNIT (EU)

	ID No.	Emission Unit Status	Added By (Action)	Comm-ence Const. Date	Initial Startup Date	Removal Date	Firing Method	Pct. Fuel/ Space Heat	Bottleneck	Elevator Type
93	EU 638	Active	PER 003							
94	EU 639	Active	PER 003							
95	EU 640	Active	PER 003							
96	EU 641	Active	PER 003							
97	EU 642	Active	PER 003							

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FACILITY DESCRIPTION: STORAGE TANKS (TK)

Show: Active and Pending Records
Action: PER 008
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

	ID No.	Tank Status	Added By (Action)	Retired By (Action)	Insignif-icant Activity	Operator ID for Item	Control Equip. ID No(s).	Product Stored	Interior Height (ft.)	Interior Diameter (ft.)	Capacity (1000 gal)	Construction Type

FACILITY DESCRIPTION: STORAGE TANKS (TK)

	ID No.	Tank Status	Added By (Action)	Support Type (floating roof only)	Column Count	Column Diameter (ft.)	Deck Type (floating roof only)	Seal Type (floating roof only)	Year Installed	Year Removed

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FACILITY DESCRIPTION: FUGITIVE SOURCES (FS)

Show: Active and Pending Records
Action: PER 008
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

	ID No.	Fugitive Source Status	Added By (Action)	Retired By (Action)	Insignif-icant Activity	Operator ID for Item	Pollutant(s) Emitted	Control Equip. ID No(s).	Fugitive Source Description	Year Installed	Year Removed
1	FS 001	Active	PER 001		☐		PM10 PM		Coal yard - transfer from ship to pile		
2	FS 002	Active	PER 001		☐		PM PM10		Coal yard - scraper traffic on pile		
3	FS 003	Active	PER 001		☐		PM10 PM		Coal yard - wind erosion from pile		
4	FS 004	Active	PER 001		☐		PM PM10		Fluxstone - transfer from ship to pile		
5	FS 005	Active	PER 001		☐		PM10 PM		Fluxstone - hauling on unpaved road		
6	FS 006	Active	PER 001		☐		PM PM10		Fluxstone - moving flux in Section 12 area		
7	FS 007	Active	PER 001		☐		PM PM10		Fluxstone - wind erosion from pile		
8	FS 008	Removed	PER 003		☐		PM		Concentrate hauling		
9	FS 009	Active	PER 001		☐		PM10 PM		Coarse tails handling (dry cobb & belt filter rejects)		
10	FS 010	Active	PER 001		☐	EU A04	PM10 PM		Pellet cooling - transfer tower (A04 in Barr 97 report): 60A to 40 or 42		
11	FS 011	Active	PER 001		☐	EU A07	PM PM10		Pellet cooling - pile discharge (A07 in Barr 97 report): 40 to cooling pile		
12	FS 012	Active	PER 001		☐		PM PM10		Pellet cooling - Wind erosion from pile		
13	FS 013	Active	PER 001		☐		PM PM10		Pellet handling - pellet discharged from bridge to yard: 64 to yard		
14	FS 014	Active	PER 001		☐		PM PM10		Pellet handling - boat loading: 66 to boat		
15	FS 015	Active	PER 001		☐		PM PM10		Pellet handling - wind erosion from pellet yard		
16	FS 016	Active	PER 001		☐	EU Bs	PM PM10		Pellet reclaiming - (EU B2, B4, B5, B6 in Barr 97): Loader to H1, Loader to H2, H1 to 67, H2 to 67, 67 to dump pocket		
17	FS 017	Active	PER 001		☐		PM10 PM		Pellet screening at yard (contractor did in the past, now proposed to be performed by plant personnel)		
18	FS 018	Active	PER 001		☐		PM PM10		Mile Post 7 (tailings basin) untreated beach		
19	FS 019	Active	PER 001		☐		PM10 PM		Secondary vehicles traffic on unpaved roads		
20	FS 020	Active	PER 003		☐		VOC		Floatation Reagent		

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FACILITY DESCRIPTION: GROUPS (GP)

Show: Active and Pending Records
Action: PER 008
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

	ID No.	Group Status	Added By (Action)	Retired By (Action)	Include in EI	Operator ID for Item	Group Description	Group Items
1	GP 001	Active	PER 001		☐		Power Boilers	CE 001, CE 002, CM 001, CM 008, EU 001, EU 002, SV 001, SV 002
2	GP 002	Active	EIS 001		☐		Process Boilers	EU 003, EU 004, SV 003
3	GP 003	Active	EIS 001		☐		Crude Ore Rail Car Unloading	CE 007, CE 008, EU 007, EU 008, SV 007, SV 008
4	GP 004	Active	EIS 001		☐		Crushed Ore Storage	CE 009, CE 010, EU 009, EU 010, SV 009, SV 010
5	GP 005	Active	EIS 001		☐		Tertiary Crushing	CE 011, CE 012, CE 013, CE 014, CE 017, CE 018, CE 019, CE 020, EU 011, EU 012, EU 013, EU 014, EU 017, EU 018, EU 019, EU 020, SV 011, SV 012, SV 013, SV 014, SV 017, SV 018, SV 019, SV 020
6	GP 006	Active	EIS 001		☐		Crushed Ore Conveying	CE 015, CE 016, EU 015, EU 016, SV 015, SV 016
7	GP 007	Active	PER 001		☐		Dry Cobbing & Conveying	CE 021, CE 022, CE 023, CE 024, CE 025, EU 021, EU 022, EU 023, EU 024, EU 025, SV 021, SV 022, SV 023, SV 024, SV 025
8	GP 008	Active	PER 001		☐		Coarse Tails Handling	CE 026, CE 027, CE 028, CE 029, EU 026, EU 027, EU 028, EU 029, SV 026, SV 027, SV 028, SV 029
9	GP 009	Active	PER 001		☐		Concentrator Bins - W or E; with Cartridge Collectors	CE 269, CE 270, EU 030, EU 031, SV 030, SV 031
10	GP 010	Active	PER 003		☐		Concentrator Bins	CE 033, CE 034, CE 035, CE 036, CE 037, CE 038, CE 039, CE 040, CE 041, CE 042, CE 044, CE 045, CE 046, CE 047, CE 048, CE 049, CE 050, CE 051, CE 052, CE 053, EU 032, EU 033, EU 034, EU 035, EU 036, EU 037, EU 038, EU 039, EU 040, EU 041, EU 042, EU 044, EU 045, EU 046, EU 047, EU 048, EU 049, EU 050, EU 051, EU 052, EU 053, SV 032, SV 033, SV 034, SV 035, SV 036, SV 037, SV 038, SV 039, SV 040, SV 041, SV 042, SV 044, SV 045, SV 046, SV 047, SV 048, SV 049, SV 050, SV 051, SV 053, SV 276
11	GP 011	Retired	PER 003		☐		Concentrator Bins - East; with Multiclones	
12	GP 012	Active	PER 001		☐		Additive Handling & Storage - West (by SV locations)	CE 072, CE 073, CE 074, CE 075, CE 076, EU 072, EU 073, EU 074, EU 075, EU 076, SV 072, SV 073, SV 074, SV 075, SV 076
13	GP 013	Active	PER 001		☐		Additive Handling & Storage - East (by SV locations)	CE 077, CE 078, CE 079, CE 080, CE 081, CE 082, CE 083, CE 084, EU 077, EU 078, EU 079, EU 080, EU 081, EU 082, EU 083, EU 084, SV 077, SV 078, SV 079, SV 080, SV 081, SV 082, SV 083, SV 084
14	GP 014	Active	PER 001		☐		Pellet Indurating Furnaces	CE 101, CE 102, CE 103, CE 104, CE 105, CE 111, CE 112, CE 113, CE 114, CE 115, CE 261, CE 262, CE 263, CE 271, CE 272, CE 273, EU 100, EU 104, EU 110, EU 114, EU 262, EU 634, SV 101, SV 102, SV 103, SV 104, SV 105, SV 111, SV 112, SV 113, SV 114, SV 115, SV 261, SV 262, SV 263, SV 266, SV 267, SV 268, SV 270, SV 271, SV 272, SV 273, SV 274, SV 275
15	GP 015	Active	PER 001		☐		Furnace Discharge of Finished Pellets	CE 120, CE 121, CE 265, CE 274, EU 120, EU 121, EU 265, EU 635, SV 120, SV 121, SV 265, SV 269
16	GP 016	Active	PER 001		☐		Pellet Screening (indoor - product & hearth layer)	CE 097, CE 122, CE 123, CE 124, CE 125, EU 097, EU 122, EU 123, EU 124, EU 125, SV 097, SV 122, SV 123, SV 124, SV 125
17	GP 017	Retired	PER 007		☐	PDRDP	Pilot Demonstration Research & Development (PDRDP)	CE 201, CE 202, CE 203, CE 204, EU 630, EU 631, EU 632, EU 633, SV 201, SV 202, SV 203
18	GP 018	Retired	PER 003		☐		Idle	

MINNESOTA POLLUTION CONTROL AGENCY
AIR QUALITY
520 LAFAYETTE ROAD
ST. PAUL, MN 55155-4194

FACILITY DESCRIPTION: GROUPS (GP)

Show: Active and Pending Records
Action: PER 008
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

	ID No.	Group Status	Added By (Action)	Retired By (Action)	Include in EI	Operator ID for Item	Group Description	Group Items
19	GP 019	Active	PER 003		☐		Concentrate Loadout Operations	CE 205, CE 275, CE 276, CE 277, CE 278, CE 279, EU 637, EU 638, EU 639, EU 640, EU 641, EU 642

MINNESOTA POLLUTION CONTROL AGENCY
AIR QUALITY
520 LAFAYETTE ROAD
ST. PAUL, MN 55155-4194

FACILITY DESCRIPTION: Potential-to-emit (by item)

Show: Active and Pending Records
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

Item	Pollutant	Added By (Action)	Retired By (Action)	Hourly Potential (lbs per hr)	Unrestricted Potential (tons per yr)	Limited Potential (tons per yr)	Actual Emissions (tons per yr)
EU 001							
	Carbon Monoxide	PER 001		4.14E+01	1.81E+02	1.81E+02	
	Formaldehyde	PER 003		2.25E-01	9.87E-01	9.87E-01	
	Hydrogen fluoride	PER 003		8.51E-01	3.73E+00	3.73E+00	
	Mercury	PER 003		1.55E-03	6.79E-03	6.79E-03	
	Hydrochloric acid	PER 003		1.91E+00	8.38E+00	8.38E+00	
	Nitrogen Oxides	PER 003		4.65E+02	2.04E+03	2.04E+03	
	Lead	PER 003		4.70E-03	2.00E-02	2.00E-02	
	PM < 10 micron	PER 003		4.76E+01	2.08E+02	2.08E+02	
	Total Particulate Matter	PER 003		4.76E+01	2.08E+02	2.08E+02	
	Sulfur Dioxide	PER 003		7.76E+02	3.40E+03	3.40E+03	
	Volatile Organic Compounds	PER 003		1.82E+00	7.99E+00	7.99E+00	
EU 002							
	Carbon Monoxide	PER 001		6.12E+01	2.68E+02	2.68E+02	
	Formaldehyde	PER 003		8.34E-03	3.65E-02	3.65E-02	
	Hydrogen fluoride	PER 003		1.26E+00	5.51E+00	5.51E+00	
	Mercury	PER 003		2.63E-04	1.15E-03	1.15E-03	
	Hydrochloric acid	PER 003		2.83E+00	1.24E+01	1.24E+01	
	Nitrogen Oxides	PER 003		6.89E+02	3.02E+03	3.02E+03	
	Lead	PER 003		3.00E-03	1.70E+00	1.30E-02	
	PM < 10 micron	PER 003		7.93E+01	3.47E+02	3.47E+02	
	Total Particulate Matter	PER 003		7.93E+01	3.47E+02	3.47E+02	
	Sulfur Dioxide	PER 003		1.15E+03	5.03E+03	5.03E+03	
	Volatile Organic Compounds	PER 003		2.70E+00	1.18E+01	1.18E+01	
EU 003							
	Carbon Monoxide	PER 001		6.32E+00	2.77E+01	2.77E+01	
	Formaldehyde	PER 003		3.44E-02	1.50E-01	1.50E-01	
	Mercury	PER 003		2.37E-04	1.04E-03	1.04E-03	
	Nitrogen Oxides	PER 003		1.16E+01	5.09E+01	5.09E+01	
	Lead	PER 001		7.11E-04	3.11E-03	3.10E-03	
	PM < 10 micron	PER 003		1.90E+00	8.34E+00	8.34E+00	
	Total Particulate Matter	PER 003		1.90E+00	8.34E+00	8.34E+00	
	Sulfur Dioxide	PER 003		1.68E+01	7.34E+01	7.34E+01	
	Volatile Organic Compounds	PER 001		4.14E-01	1.81E+00	1.81E+00	
EU 004							
	Carbon Monoxide	PER 001		6.32E+00	2.77E+01	2.77E+01	
	Formaldehyde	PER 003		3.44E-02	1.50E-01	1.50E-01	
	Mercury	PER 003		2.37E-04	1.04E-03	1.04E-03	
	Nitrogen Oxides	PER 003		1.16E+01	5.09E+01	5.09E+01	
	Lead	PER 001		7.11E-04	3.11E-03	3.10E-03	
	PM < 10 micron	PER 003		1.90E+00	8.34E+00	8.34E+00	
	Total Particulate Matter	PER 003		1.90E+00	8.34E+00	8.34E+00	
	Sulfur Dioxide	PER 003		1.68E+01	7.34E+01	7.34E+01	
	Volatile Organic Compounds	PER 001		4.14E-01	1.81E+00	1.81E+00	
EU 005							
	Mercury	PER 003		1.38E-08	6.03E-08	6.03E-08	
	Lead	PER 003		5.56E-06	1.30E-06	1.30E-06	

FACILITY DESCRIPTION: Potential-to-emit (by item)

Show: Active and Pending Records
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

Item	Pollutant	Added By (Action)	Retired By (Action)	Hourly Potential (lbs per hr)	Unrestricted Potential (tons per yr)	Limited Potential (tons per yr)	Actual Emissions (tons per yr)
EU 005							
	PM < 10 micron	PER 003		2.40E-01	1.04E+00	1.04E+00	
	Total Particulate Matter	PER 003		2.40E-01	1.04E+00	1.04E+00	
EU 007							
	Mercury	PER 003		1.00E-09	4.40E-09	4.40E-09	
	Lead	PER 003		6.60E-07	2.90E-06	2.90E-06	
	PM < 10 micron	PER 003		1.32E+00	5.80E+00	5.80E+00	
	Total Particulate Matter	PER 003		1.32E+00	5.80E+00	5.80E+00	
EU 008							
	Mercury	PER 003		1.00E-09	4.40E-09	4.40E-09	
	Lead	PER 003		6.60E-07	2.90E-06	2.90E-06	
	PM < 10 micron	PER 003		1.32E+00	5.80E+00	5.80E+00	
	Total Particulate Matter	PER 003		1.32E+00	5.80E+00	5.80E+00	
EU 009							
	Mercury	PER 003		1.50E-09	6.30E-09	6.30E-09	
	Lead	PER 003		9.50E-07	4.20E-06	4.20E-06	
	PM < 10 micron	PER 003		1.91E+00	8.34E+00	8.34E+00	
	Total Particulate Matter	PER 003		1.91E+00	8.34E+00	8.34E+00	
EU 010							
	Mercury	PER 003		1.50E-09	6.30E-09	6.30E-09	
	Lead	PER 003		9.50E-07	4.20E-06	4.20E-06	
	PM < 10 micron	PER 003		1.91E+00	8.34E+00	8.34E+00	
	Total Particulate Matter	PER 003		1.91E+00	8.34E+00	8.34E+00	
EU 011							
	Mercury	PER 003		2.00E-10	1.10E-09	1.10E-09	
	Lead	PER 003		1.60E-07	6.90E-07	6.90E-07	
	PM < 10 micron	PER 003		3.20E-01	1.39E+00	1.39E+00	
	Total Particulate Matter	PER 003		3.20E-01	1.39E+00	1.39E+00	
EU 012							
	Mercury	PER 003		2.00E-10	1.10E-09	1.10E-09	
	Lead	PER 003		1.60E-07	6.90E-07	6.90E-07	
	PM < 10 micron	PER 003		3.20E-01	1.39E+00	1.39E+00	
	Total Particulate Matter	PER 003		3.20E-01	1.39E+00	1.39E+00	
EU 013							
	Mercury	PER 003		2.00E-10	1.10E-09	1.10E-09	
	Lead	PER 003		1.60E-07	6.90E-07	6.90E-07	
	PM < 10 micron	PER 003		3.20E-01	1.39E+00	1.39E+00	
	Total Particulate Matter	PER 003		3.20E-01	1.39E+00	1.39E+00	
EU 014							
	Mercury	PER 003		2.00E-10	1.10E-09	1.10E-09	
	Lead	PER 003		1.60E-07	6.90E-07	6.90E-07	
	PM < 10 micron	PER 003		3.20E-01	1.39E+00	1.39E+00	
	Total Particulate Matter	PER 003		3.20E-01	1.39E+00	1.39E+00	
EU 015							
	Mercury	PER 003		4.00E-10	1.60E-09	1.60E-09	

FACILITY DESCRIPTION: Potential-to-emit (by item)

Show: Active and Pending Records
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

Item	Pollutant	Added By (Action)	Retired By (Action)	Hourly Potential (lbs per hr)	Unrestricted Potential (tons per yr)	Limited Potential (tons per yr)	Actual Emissions (tons per yr)
EU 015							
	Lead	PER 003		2.40E-07	1.00E-06	1.00E-06	
	PM < 10 micron	PER 003		4.70E-01	2.07E+00	2.07E+00	
	Total Particulate Matter	PER 003		4.70E-01	2.07E+00	2.07E+00	
EU 016							
	Mercury	PER 003		4.00E-10	1.60E-09	1.60E-09	
	Lead	PER 003		2.40E-07	1.00E-06	1.00E-06	
	PM < 10 micron	PER 003		4.70E-01	2.07E+00	2.07E+00	
	Total Particulate Matter	PER 003		4.70E-01	2.07E+00	2.07E+00	
EU 017							
	Mercury	PER 003		2.00E-10	1.10E-09	1.10E-09	
	Lead	PER 003		1.60E-07	6.90E-07	6.90E-07	
	PM < 10 micron	PER 003		3.20E-01	1.39E+00	1.39E+00	
	Total Particulate Matter	PER 003		3.20E-01	1.39E+00	1.39E+00	
EU 018							
	Mercury	PER 003		2.00E-10	1.10E-09	1.10E-09	
	Lead	PER 003		1.60E-07	6.90E-07	6.90E-07	
	PM < 10 micron	PER 003		3.20E-01	1.39E+00	1.39E+00	
	Total Particulate Matter	PER 003		3.20E-01	1.39E+00	1.39E+00	
EU 019							
	Mercury	PER 003		2.00E-10	1.10E-09	1.10E-09	
	Lead	PER 003		1.60E-07	6.90E-07	6.90E-07	
	PM < 10 micron	PER 003		3.20E-01	1.39E+00	1.39E+00	
	Total Particulate Matter	PER 003		3.20E-01	1.39E+00	1.39E+00	
EU 020							
	Mercury	PER 003		2.00E-10	1.10E-09	1.10E-09	
	Lead	PER 003		1.60E-07	6.90E-07	6.90E-07	
	PM < 10 micron	PER 003		3.20E-01	1.39E+00	1.39E+00	
	Total Particulate Matter	PER 003		3.20E-01	1.39E+00	1.39E+00	
EU 021							
	Mercury	PER 003		2.30E-09	1.00E-08	1.00E-08	
	Lead	PER 003		1.50E-06	6.60E-06	6.60E-06	
	PM < 10 micron	PER 003		3.01E+00	1.32E+01	1.32E+01	
	Total Particulate Matter	PER 003		3.01E+00	1.32E+01	1.32E+01	
EU 022							
	Mercury	PER 003		2.30E-09	1.00E-08	1.00E-08	
	Lead	PER 003		1.50E-06	6.60E-06	6.60E-06	
	PM < 10 micron	PER 003		3.01E+00	1.32E+01	1.32E+01	
	Total Particulate Matter	PER 003		3.01E+00	1.32E+01	1.32E+01	
EU 023							
	Mercury	PER 003		2.00E-09	8.70E-09	8.70E-09	
	Lead	PER 003		1.30E-06	5.70E-06	5.70E-06	
	PM < 10 micron	PER 003		2.61E+00	1.14E+01	1.14E+01	
	Total Particulate Matter	PER 003		2.61E+00	1.14E+01	1.14E+01	

FACILITY DESCRIPTION: Potential-to-emit (by item)

Show: Active and Pending Records
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

Item	Pollutant	Added By (Action)	Retired By (Action)	Hourly Potential (lbs per hr)	Unrestricted Potential (tons per yr)	Limited Potential (tons per yr)	Actual Emissions (tons per yr)
EU 024							
	Mercury	PER 003		8.00E-10	3.60E-09	3.60E-09	
	Lead	PER 003		5.40E-07	2.40E-06	2.40E-06	
	PM < 10 micron	PER 003		1.08E+00	4.73E+00	4.73E+00	
	Total Particulate Matter	PER 003		1.08E+00	4.73E+00	4.73E+00	
EU 025							
	Mercury	PER 003		1.30E-09	5.70E-09	5.70E-09	
	Lead	PER 003		8.50E-07	3.70E-06	3.70E-06	
	PM < 10 micron	PER 003		1.71E+00	4.79E+00	4.79E+00	
	Total Particulate Matter	PER 003		1.71E+00	7.49E+00	7.49E+00	
EU 026							
	Mercury	PER 003		2.00E-10	7.00E-10	7.00E-10	
	Lead	PER 003		1.50E-07	6.70E-07	6.70E-07	
	PM < 10 micron	PER 003		1.90E-01	8.30E-01	8.30E-01	
	Total Particulate Matter	PER 003		1.90E-01	8.30E-01	8.30E-01	
EU 027							
	Mercury	PER 003		2.00E-10	7.00E-10	7.00E-10	
	Lead	PER 003		1.50E-07	6.70E-07	6.70E-07	
	PM < 10 micron	PER 003		1.90E-01	8.30E-01	8.30E-01	
	Total Particulate Matter	PER 003		1.90E-01	8.30E-01	8.30E-01	
EU 028							
	Mercury	PER 003		1.00E-10	5.00E-10	5.00E-10	
	Lead	PER 003		1.20E-07	5.20E-07	5.20E-07	
	PM < 10 micron	PER 003		1.50E-01	6.50E-01	6.50E-01	
	Total Particulate Matter	PER 003		1.50E-01	6.50E-01	6.50E-01	
EU 029							
	Mercury	PER 003		1.00E-10	3.00E-10	3.00E-10	
	Lead	PER 003		5.80E-08	2.60E-07	2.60E-07	
	PM < 10 micron	PER 003		7.00E-02	3.20E-01	3.20E-01	
	Total Particulate Matter	PER 003		7.00E-02	3.20E-01	3.20E-01	
EU 030							
	Mercury	PER 003		2.00E-10	1.00E-09	1.00E-09	
	Lead	PER 003		1.50E-07	6.80E-07	6.80E-07	
	PM < 10 micron	PER 003		3.10E-01	1.35E+00	1.35E+00	
	Total Particulate Matter	PER 003		3.10E-01	1.35E+00	1.35E+00	
EU 031							
	Mercury	PER 003		2.00E-10	1.00E-09	1.00E-09	
	Lead	PER 003		1.50E-07	6.80E-07	5.17E-06	
	PM < 10 micron	PER 003		3.10E-01	1.35E+00	1.35E+00	
	Total Particulate Matter	PER 003		3.10E-01	1.35E+00	1.35E+00	
EU 032							
	Mercury	PER 003					
	Lead	PER 003					
	PM < 10 micron	PER 003					
	Total Particulate Matter	PER 003					

FACILITY DESCRIPTION: Potential-to-emit (by item)

Show: Active and Pending Records
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

Item	Pollutant	Added By (Action)	Retired By (Action)	Hourly Potential (lbs per hr)	Unrestricted Potential (tons per yr)	Limited Potential (tons per yr)	Actual Emissions (tons per yr)
EU 033							
	Mercury	PER 003		6.00E-10	2.50E-09	2.50E-09	
	Lead	PER 003		3.80E-07	1.60E-06	1.60E-06	
	PM < 10 micron	PER 003		7.50E-01	3.29E+00	3.29E+00	
	Total Particulate Matter	PER 003		7.50E-01	3.29E+00	3.29E+00	
EU 034							
	Mercury	PER 003		6.00E-10	2.50E-09	2.50E-09	
	Lead	PER 003		3.80E-07	1.60E-06	1.60E-06	
	PM < 10 micron	PER 003		7.50E-01	3.29E+00	3.29E+00	
	Total Particulate Matter	PER 003		7.50E-01	3.29E+00	3.29E+00	
EU 035							
	Mercury	PER 003		6.00E-10	2.50E-09	2.50E-09	
	Lead	PER 003		3.80E-07	1.60E-06	1.60E-06	
	PM < 10 micron	PER 003		7.50E-01	3.29E+00	3.29E+00	
	Total Particulate Matter	PER 003		7.50E-01	3.29E+00	3.29E+00	
EU 036							
	Mercury	PER 003		6.00E-10	2.50E-09	2.50E-09	
	Lead	PER 003		3.80E-07	1.60E-06	1.60E-06	
	PM < 10 micron	PER 003		7.50E-01	3.29E+00	3.29E+00	
	Total Particulate Matter	PER 003		7.50E-01	3.29E+00	3.29E+00	
EU 037							
	Mercury	PER 003		6.00E-10	2.50E-09	2.50E-09	
	Lead	PER 003		3.80E-07	1.60E-06	1.60E-06	
	PM < 10 micron	PER 003		7.50E-01	3.29E+00	3.29E+00	
	Total Particulate Matter	PER 003		7.50E-01	3.29E+00	3.29E+00	
EU 038							
	Mercury	PER 003		6.00E-10	2.50E-09	2.50E-09	
	Lead	PER 003		3.80E-07	1.60E-06	1.60E-06	
	PM < 10 micron	PER 003		7.50E-01	3.29E+00	3.29E+00	
	Total Particulate Matter	PER 003		7.50E-01	3.29E+00	3.29E+00	
EU 039							
	Mercury	PER 003		6.00E-10	2.50E-09	2.50E-09	
	Lead	PER 003		3.80E-07	1.60E-06	1.60E-06	
	PM < 10 micron	PER 003		7.50E-01	3.29E+00	3.29E+00	
	Total Particulate Matter	PER 003		7.50E-01	3.29E+00	3.29E+00	
EU 040							
	Mercury	PER 003		6.00E-10	2.50E-09	2.50E-09	
	Lead	PER 003		3.80E-07	1.60E-06	1.60E-06	
	PM < 10 micron	PER 003		7.50E-01	3.29E+00	3.29E+00	
	Total Particulate Matter	PER 003		7.50E-01	3.29E+00	3.29E+00	
EU 041							
	Mercury	PER 003		6.00E-10	2.50E-09	2.50E-09	
	Lead	PER 003		3.80E-07	1.60E-06	1.60E-06	
	PM < 10 micron	PER 003		7.50E-01	3.29E+00	3.29E+00	
	Total Particulate Matter	PER 003		7.50E-01	3.29E+00	3.29E+00	

FACILITY DESCRIPTION: Potential-to-emit (by item)

Show: Active and Pending Records
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

Item	Pollutant	Added By (Action)	Retired By (Action)	Hourly Potential (lbs per hr)	Unrestricted Potential (tons per yr)	Limited Potential (tons per yr)	Actual Emissions (tons per yr)
EU 042							
	Mercury	PER 003		6.00E-10	2.50E-09	2.50E-09	
	Lead	PER 003		3.80E-07	1.60E-06	1.60E-06	
	PM < 10 micron	PER 003		7.50E-01	3.29E+00	3.29E+00	
	Total Particulate Matter	PER 003		7.50E-01	3.29E+00	3.29E+00	
EU 043							
	Mercury	PER 003		1.20E-09	5.30E-09	5.30E-09	
	Lead	PER 003		7.90E-07	3.50E-06	3.50E-06	
	PM < 10 micron	PER 003		1.59E+00	6.95E+00	6.95E+00	
	Total Particulate Matter	PER 003		1.59E+00	6.95E+00	6.95E+00	
EU 044							
	Mercury	PER 003		6.00E-10	2.50E-09	2.50E-09	
	Lead	PER 003		3.80E-07	1.60E-06	1.60E-06	
	PM < 10 micron	PER 003		7.50E-01	3.29E+00	3.29E+00	
	Total Particulate Matter	PER 003		7.50E-01	3.29E+00	3.29E+00	
EU 045							
	Mercury	PER 003		6.00E-10	2.50E-09	2.50E-09	
	Lead	PER 003		3.80E-07	1.60E-06	1.60E-06	
	PM < 10 micron	PER 003		7.50E-01	3.29E+00	3.29E+00	
	Total Particulate Matter	PER 003		7.50E-01	3.29E+00	3.29E+00	
EU 046							
	Mercury	PER 003		6.00E-10	2.50E-09	2.50E-09	
	Lead	PER 003		3.80E-07	1.60E-06	1.60E-06	
	PM < 10 micron	PER 003		7.50E-01	3.29E+00	3.29E+00	
	Total Particulate Matter	PER 003		7.50E-01	3.29E+00	3.29E+00	
EU 047							
	Mercury	PER 003		6.00E-10	2.50E-09	2.50E-09	
	Lead	PER 003		3.80E-07	1.60E-06	1.60E-06	
	PM < 10 micron	PER 003		7.50E-01	3.29E+00	3.29E+00	
	Total Particulate Matter	PER 003		7.50E-01	3.29E+00	3.29E+00	
EU 048							
	Mercury	PER 003		6.00E-10	2.50E-09	2.50E-09	
	Lead	PER 003		3.80E-07	1.60E-06	1.60E-06	
	PM < 10 micron	PER 003		7.50E-01	3.29E+00	3.29E+00	
	Total Particulate Matter	PER 003		7.50E-01	3.29E+00	3.29E+00	
EU 049							
	Mercury	PER 003		6.00E-10	2.50E-09	2.50E-09	
	Lead	PER 003		3.80E-07	1.60E-06	1.60E-06	
	PM < 10 micron	PER 003		7.50E-01	3.29E+00	3.29E+00	
	Total Particulate Matter	PER 003		7.50E-01	3.29E+00	3.29E+00	
EU 050							
	Mercury	PER 003		6.00E-10	2.50E-09	2.50E-09	
	Lead	PER 003		3.80E-07	1.60E-06	1.60E-06	
	PM < 10 micron	PER 003		7.50E-01	3.29E+00	3.29E+00	
	Total Particulate Matter	PER 003		7.50E-01	3.29E+00	3.29E+00	

FACILITY DESCRIPTION: Potential-to-emit (by item)

Show: Active and Pending Records
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

Item	Pollutant	Added By (Action)	Retired By (Action)	Hourly Potential (lbs per hr)	Unrestricted Potential (tons per yr)	Limited Potential (tons per yr)	Actual Emissions (tons per yr)
EU 051							
	Mercury	PER 003		6.00E-10	2.50E-09	2.50E-09	
	Lead	PER 003		3.80E-07	1.60E-06	1.60E-06	
	PM < 10 micron	PER 003		7.50E-01	3.29E+00	3.29E+00	
	Total Particulate Matter	PER 003		7.50E-01	3.29E+00	3.29E+00	
EU 052							
	Mercury	PER 003		6.00E-10	2.50E-09	2.50E-09	
	Lead	PER 003		3.80E-07	1.60E-06	1.60E-06	
	PM < 10 micron	PER 003		7.50E-01	3.29E+00	3.29E+00	
	Total Particulate Matter	PER 003		7.50E-01	3.29E+00	3.29E+00	
EU 053							
	Mercury	PER 003		6.00E-10	2.50E-09	2.50E-09	
	Lead	PER 003		3.80E-07	1.60E-06	1.60E-06	
	PM < 10 micron	PER 003		7.50E-01	3.29E+00	3.29E+00	
	Total Particulate Matter	PER 003		7.50E-01	3.29E+00	3.29E+00	
EU 070							
	Mercury	PER 003		1.00E-10	3.20E-08	3.00E-10	
	Lead	PER 003		7.00E-08	3.10E-05	3.10E-07	
	PM < 10 micron	PER 003		5.00E-02	2.19E+01	2.20E-01	
	Total Particulate Matter	PER 003		5.00E-02	2.19E+01	2.20E-01	
EU 071							
	Mercury	PER 003		1.00E-10	3.20E-08	3.00E-10	
	Lead	PER 003		7.00E-08	3.10E-05	3.10E-07	
	PM < 10 micron	PER 003		5.00E-02	2.19E+01	2.20E-01	
	Total Particulate Matter	PER 003		1.10E-01	4.80E-01	4.80E-01	
EU 072							
	Mercury	PER 003		2.10E-09	9.40E-09	9.40E-09	
	Lead	PER 003		3.60E-06	1.60E-05	1.60E-05	
	PM < 10 micron	PER 003		1.10E-01	4.80E-01	4.80E-01	
	Total Particulate Matter	PER 003		1.10E-01	4.80E-01	4.80E-01	
EU 073							
	Mercury	PER 003		2.10E-09	9.40E-09	9.40E-09	
	Lead	PER 003		3.60E-06	1.60E-05	1.60E-05	
	PM < 10 micron	PER 003		1.10E-01	4.80E-01	4.80E-01	
	Total Particulate Matter	PER 001		1.10E-01	4.80E+01	4.80E-01	
EU 074							
	Mercury	PER 003		7.90E-09	3.46E-08	3.46E-08	
	Lead	PER 003		1.30E-05	5.80E-05	5.80E-05	
	PM < 10 micron	PER 003		4.10E-01	1.78E+00	1.78E+00	
	Total Particulate Matter	PER 003		4.10E-01	1.78E+00	1.78E+00	
EU 075							
	Mercury	PER 003		7.90E-09	3.46E-08	3.46E-08	
	Lead	PER 003		1.30E-05	5.80E-05	5.80E-05	
	PM < 10 micron	PER 003		4.10E-01	1.78E+00	1.78E+00	
	Total Particulate Matter	PER 003		4.10E-01	1.78E+00	1.78E+00	

FACILITY DESCRIPTION: Potential-to-emit (by item)

Show: Active and Pending Records
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

Item	Pollutant	Added By (Action)	Retired By (Action)	Hourly Potential (lbs per hr)	Unrestricted Potential (tons per yr)	Limited Potential (tons per yr)	Actual Emissions (tons per yr)
EU 076							
	Mercury	PER 003		7.90E-09	3.46E-08	3.46E-08	
	Lead	PER 003		1.30E-05	5.80E-05	5.80E-05	
	PM < 10 micron	PER 003		4.10E-01	1.78E+00	1.78E+00	
	Total Particulate Matter	PER 003		4.10E-01	1.78E+00	1.78E+00	
EU 077							
	Mercury	PER 003		3.00E-09	1.30E-08	1.30E-08	
	Lead	PER 003		5.00E-06	2.20E-05	2.20E-05	
	PM < 10 micron	PER 003		1.50E-01	6.70E-01	6.70E-01	
	Total Particulate Matter	PER 003		1.50E-01	6.70E-01	6.70E-01	
EU 078							
	Mercury	PER 003		3.00E-09	1.30E-08	1.30E-08	
	Lead	PER 003		5.00E-06	2.20E-05	2.20E-05	
	PM < 10 micron	PER 003		1.50E-01	6.70E-01	6.70E-01	
	Total Particulate Matter	PER 003		1.50E-01	6.70E-01	6.70E-01	
EU 079							
	Mercury	PER 003		3.00E-09	1.30E-08	1.30E-08	
	Lead	PER 003		5.00E-06	2.20E-05	2.20E-05	
	PM < 10 micron	PER 003		1.50E-01	6.70E-01	6.70E-01	
	Total Particulate Matter	PER 003		1.50E-01	6.70E-01	6.70E-01	
EU 080							
	Mercury	PER 003		3.00E-09	1.30E-08	1.30E-08	
	Lead	PER 003		5.00E-06	2.20E-05	2.20E-05	
	PM < 10 micron	PER 003		1.50E-01	6.70E-01	6.70E-01	
	Total Particulate Matter	PER 003		1.50E-01	6.70E-01	6.70E-01	
EU 081							
	Mercury	PER 003		3.00E-09	1.30E-08	1.30E-08	
	Lead	PER 003		5.00E-06	2.20E-05	2.20E-05	
	PM < 10 micron	PER 003		1.50E-01	6.70E-01	6.70E-01	
	Total Particulate Matter	PER 003		1.50E-01	6.70E-01	6.70E-01	
EU 082							
	Mercury	PER 003		3.00E-09	1.30E-08	1.30E-08	
	Lead	PER 003		5.00E-06	2.20E-05	2.20E-05	
	PM < 10 micron	PER 003		1.50E-01	6.70E-01	6.70E-01	
	Total Particulate Matter	PER 003		1.50E-01	6.70E-01	6.70E-01	
EU 083							
	Mercury	PER 003		3.00E-09	1.30E-08	1.30E-08	
	Lead	PER 003		5.00E-06	2.20E-05	2.20E-05	
	PM < 10 micron	PER 003		1.50E-01	6.70E-01	6.70E-01	
	Total Particulate Matter	PER 003		1.50E-01	6.70E-01	6.70E-01	
EU 084							
	Mercury	PER 003		8.10E-09	3.53E-08	3.53E-08	
	Lead	PER 003		1.40E-05	5.90E-05	5.90E-05	
	PM < 10 micron	PER 003		4.20E-01	1.82E+00	1.82E+00	
	Total Particulate Matter	PER 003		4.20E-01	1.82E+00	1.82E+00	

FACILITY DESCRIPTION: Potential-to-emit (by item)

Show: Active and Pending Records
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

Item	Pollutant	Added By (Action)	Retired By (Action)	Hourly Potential (lbs per hr)	Unrestricted Potential (tons per yr)	Limited Potential (tons per yr)	Actual Emissions (tons per yr)
EU 097							
	Mercury	PER 003		7.00E-10	2.90E-09	2.90E-09	
	Lead	PER 003		4.00E-07	1.70E-06	1.70E-06	
	PM < 10 micron	PER 003		7.90E-01	3.47E+00	3.47E+00	
	Total Particulate Matter	PER 003		7.90E-01	3.47E+00	3.47E+00	
EU 100							
	Carbon Monoxide	PER 003		3.72E+00	1.63E+01	1.63E+01	
	Formaldehyde	PER 003		1.48E+00	6.50E+00	6.50E+00	
	Hydrogen fluoride	PER 003		1.14E+00	4.97E+00	4.97E+00	
	Mercury	PER 003		1.05E-04	4.58E-04	4.58E-04	
	Hydrochloric acid	PER 003		3.45E-01	1.51E+00	1.51E+00	
	Nitrogen Oxides	PER 003		5.12E+01	2.24E+02	2.24E+02	
	Lead	PER 003		6.10E-03	2.70E-02	2.70E-02	
	PM < 10 micron	PER 003		3.40E+01	1.49E+02	1.49E+02	
	Total Particulate Matter	PER 003		3.40E+01	1.49E+02	1.49E+02	
	Sulfur Dioxide	PER 003		3.54E+01	1.55E+02	1.55E+02	
	Volatile Organic Compounds	PER 003					
EU 104							
	Carbon Monoxide	PER 003		9.08E+00	3.98E+01	3.98E+01	
	Formaldehyde	PER 003		2.38E+00	1.04E+01	1.04E+01	
	Hydrogen fluoride	PER 003		8.98E-01	3.93E+00	3.93E+00	
	Mercury	PER 003		1.40E-04	6.15E-04	6.15E-04	
	Hydrochloric acid	PER 003		4.60E-01	2.01E+00	2.01E+00	
	Nitrogen Oxides	PER 003		1.25E+02	5.47E+02	5.47E+02	
	Lead	PER 003		5.30E-03	2.30E-02	2.30E-02	
	PM < 10 micron	PER 003		2.13E+01	9.31E+01	9.31E+01	
	Total Particulate Matter	PER 003		2.13E+01	9.31E+01	9.31E+01	
	Sulfur Dioxide	PER 003		1.18E+01	5.18E+01	5.18E+01	
	Volatile Organic Compounds	PER 003		2.86E+00	1.25E+01	1.25E+01	
EU 110							
	Carbon Monoxide	PER 003		3.72E+00	1.63E+01	1.63E+01	
	Formaldehyde	PER 003		1.48E+00	6.50E+00	6.50E+00	
	Hydrogen fluoride	PER 003		1.14E+00	4.97E+00	4.97E+00	
	Mercury	PER 003		1.05E-04	4.58E-04	4.58E-04	
	Hydrochloric acid	PER 003		3.45E-01	1.51E+00	1.51E+00	
	Nitrogen Oxides	PER 003		5.12E+01	2.24E+02	2.24E+02	
	Lead	PER 003		6.10E-03	2.70E-02	2.70E-02	
	PM < 10 micron	PER 003		3.40E+01	1.49E+02	1.49E+02	
	Total Particulate Matter	PER 003		3.40E+01	1.49E+02	1.49E+02	
	Sulfur Dioxide	PER 003		3.54E+01	1.55E+02	1.55E+02	
	Volatile Organic Compounds	PER 003					
EU 114							
	Carbon Monoxide	PER 003		9.08E+00	3.98E+01	3.98E+01	
	Formaldehyde	PER 003		2.38E+00	1.04E+01	1.04E+01	
	Hydrogen fluoride	PER 003		8.98E-01	3.93E+00	3.93E+00	
	Mercury	PER 003		1.40E-04	6.15E-04	6.15E-04	
	Hydrochloric acid	PER 003		4.60E-01	2.01E+00	2.01E+00	

FACILITY DESCRIPTION: Potential-to-emit (by item)

Show: Active and Pending Records
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

Item	Pollutant	Added By (Action)	Retired By (Action)	Hourly Potential (lbs per hr)	Unrestricted Potential (tons per yr)	Limited Potential (tons per yr)	Actual Emissions (tons per yr)
EU 114							
	Nitrogen Oxides	PER 003		1.25E+02	5.47E+02	5.47E+02	
	Lead	PER 003		5.30E-03	2.30E-02	2.30E-02	
	PM < 10 micron	PER 003		2.13E+01	9.31E+01	9.31E+01	
	Total Particulate Matter	PER 003		2.13E+01	9.31E+01	9.31E+01	
	Sulfur Dioxide	PER 003		1.18E+01	5.18E+01	5.15E+01	
	Volatile Organic Compounds	PER 003		2.86E+00	1.25E+01	1.25E+01	
EU 120							
	Mercury	PER 003		1.20E-09	5.00E-09	5.00E-09	
	Lead	PER 003		2.40E-06	1.00E-05	1.00E-05	
	PM < 10 micron	PER 003		3.96E+00	1.74E+01	1.74E+01	
	Total Particulate Matter	PER 003		3.96E+00	1.74E+01	1.74E+01	
EU 121							
	Mercury	PER 003		1.20E-09	5.00E-09	5.00E-09	
	Lead	PER 003		2.40E-06	1.00E-05	1.00E-05	
	PM < 10 micron	PER 003		3.96E+00	1.74E+01	1.74E+01	
	Total Particulate Matter	PER 003		3.96E+00	1.74E+01	1.74E+01	
EU 122							
	Mercury	PER 003		1.20E-09	5.00E-09	5.00E-09	
	Lead	PER 003		2.40E-06	1.00E-05	1.00E-05	
	PM < 10 micron	PER 003		3.96E+00	1.74E+01	1.74E+01	
	Total Particulate Matter	PER 003		3.96E+00	1.74E+01	1.74E+01	
EU 123							
	Mercury	PER 003		1.20E-09	5.00E-09	5.00E-09	
	Lead	PER 003		2.40E-06	1.00E-05	1.00E-05	
	PM < 10 micron	PER 003		3.96E+00	1.74E+01	1.74E+01	
	Total Particulate Matter	PER 003		3.96E+00	1.74E+01	1.74E+01	
EU 124							
	Mercury	PER 003		1.20E-09	5.00E-09	5.00E-09	
	Lead	PER 003		2.40E-06	1.00E-05	1.00E-05	
	PM < 10 micron	PER 003		3.96E+00	1.74E+01	1.74E+01	
	Total Particulate Matter	PER 003		3.96E+00	1.74E+01	1.74E+01	
EU 125							
	Mercury	PER 003		1.20E-09	5.00E-09	5.00E-09	
	Lead	PER 003		2.40E-06	1.00E-05	1.00E-05	
	PM < 10 micron	PER 003		3.96E+00	1.74E+01	1.74E+01	
	Total Particulate Matter	PER 003		3.96E+00	1.74E+01	1.74E+01	
EU 262							
	Carbon Monoxide	PER 003		1.28E+01	5.61E+01	5.61E+01	
	Formaldehyde	PER 003		1.97E+00	8.61E+00	8.61E+00	
	Hydrogen fluoride	PER 003		1.27E+00	5.56E+00	5.56E+00	
	Mercury	PER 003		1.53E-04	6.71E-04	6.71E-04	
	Hydrochloric acid	PER 003		5.03E-01	2.20E+00	2.20E+00	
	Nitrogen Oxides	PER 003		4.57E+01	2.00E+02	2.00E+02	
	Lead	PER 003		7.10E-03	3.10E-02	3.10E-02	
	PM < 10 micron	PER 003		2.54E+01	1.11E+02	1.11E+02	

FACILITY DESCRIPTION: Potential-to-emit (by item)

Show: Active and Pending Records
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

Item	Pollutant	Added By (Action)	Retired By (Action)	Hourly Potential (lbs per hr)	Unrestricted Potential (tons per yr)	Limited Potential (tons per yr)	Actual Emissions (tons per yr)
EU 262							
	Total Particulate Matter	PER 003		2.54E+01	1.11E+02	1.11E+02	
	Sulfur Dioxide	PER 003		1.28E+01	5.58E+01	5.58E+01	
	Volatile Organic Compounds	PER 003		2.36E+00	1.03E+01	1.03E+01	
EU 265							
	Mercury	PER 003		4.00E-10	1.60E-09	1.60E-09	
	Lead	PER 003		1.80E-06	7.90E-06	7.90E-06	
	PM < 10 micron	PER 003		3.01E+00	1.32E+01	1.32E+01	
	Total Particulate Matter	PER 003		3.01E+00	1.32E+01	1.32E+01	
EU 630							
	Carbon Monoxide	PER 003					
	Hydrogen fluoride	PER 003					
	Nitrogen Oxides	PER 003					
	Lead	PER 003					
	PM < 10 micron	PER 003					
	Total Particulate Matter	PER 003					
	Sulfur Dioxide	PER 003					
	Volatile Organic Compounds	PER 003					
EU 631							
	Carbon Monoxide	PER 003					
	Hydrogen fluoride	PER 003					
	Nitrogen Oxides	PER 003					
	Lead	PER 003					
	PM < 10 micron	PER 003					
	Total Particulate Matter	PER 003					
	Sulfur Dioxide	PER 003					
	Volatile Organic Compounds	PER 003					
EU 632							
	Carbon Monoxide	PER 003					
	Hydrogen fluoride	PER 003					
	Nitrogen Oxides	PER 003					
	Lead	PER 003					
	PM < 10 micron	PER 003					
	Total Particulate Matter	PER 003					
	Sulfur Dioxide	PER 003					
	Volatile Organic Compounds	PER 003					
EU 633							
	PM < 10 micron	PER 003					
	Total Particulate Matter	PER 003					
EU 634							
	Carbon Monoxide	PER 003		1.28E+01	5.61E+01	5.61E+01	
	Formaldehyde	PER 003		1.97E+00	8.61E+00	8.61E+00	
	Hydrogen fluoride	PER 003		1.27E+00	5.56E+00	5.56E+00	
	Mercury	PER 003		1.53E-04	6.71E-04	6.71E-04	
	Hydrochloric acid	PER 003		5.03E-01	2.20E+00	2.20E+00	
	Nitrogen Oxides	PER 003		4.57E+01	2.00E+02	2.00E+02	

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AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

Item	Pollutant	Added By (Action)	Retired By (Action)	Hourly Potential (lbs per hr)	Unrestricted Potential (tons per yr)	Limited Potential (tons per yr)	Actual Emissions (tons per yr)
EU 634							
	Lead	PER 003		7.10E-03	3.10E-02	3.10E-02	
	PM < 10 micron	PER 003		2.54E+01	1.11E+02	1.11E+02	
	Total Particulate Matter	PER 003		2.54E+01	1.11E+02	1.11E+02	
	Sulfur Dioxide	PER 003		1.28E+01	5.58E+01	5.58E+01	
	Volatile Organic Compounds	PER 003		2.36E+00	1.03E+01	1.03E+01	
EU 635							
	Mercury	PER 003		9.00E-10	3.80E-09	3.80E-09	
	Lead	PER 003		7.40E-07	3.30E-06	3.30E-06	
	PM < 10 micron	PER 003		1.24E+00	5.42E+00	5.42E+00	
	Total Particulate Matter	PER 003		1.24E+00	5.42E+00	5.42E+00	
EU 636							
	PM < 10 micron	PER 001					
	Total Particulate Matter	PER 001					
EU 637							
	PM < 10 micron	PER 001					
	Total Particulate Matter	PER 001					
FC 000							
	HAPs - Total	PER 003		3.06E+01	1.34E+02	1.34E+02	
	Mercury	PER 003					
	HAP-Metal	PER 001			5.55E+00	5.55E+00	
FS 001							
	Mercury	PER 003		1.51E-08	8.00E-10	8.00E-10	
	Lead	PER 003		3.13E-07	1.72E-08	1.72E-08	
	PM < 10 micron	PER 003			7.00E-03	7.00E-03	
	Total Particulate Matter	PER 003			1.40E-02	1.40E-02	
FS 002							
	Mercury	PER 003		1.15E-08	1.00E-08	1.00E-08	
	Lead	PER 003		2.38E-07	2.07E-07	2.07E-07	
	PM < 10 micron	PER 003			1.85E+00	4.36E-01	
	Total Particulate Matter	PER 003			8.46E+00	1.83E+00	
FS 003							
	PM < 10 micron	PER 003					
	Total Particulate Matter	PER 003					
FS 004							
	Mercury	PER 003		1.30E-09	1.30E-09	1.00E-10	
	Lead	PER 003		1.57E-06	1.57E-06	7.84E-08	
	PM < 10 micron	PER 003			6.74E-01	3.40E-02	
	Total Particulate Matter	PER 003			1.42E+00	7.10E-02	
FS 005							
	PM < 10 micron	PER 003			6.21E+00	1.24E+00	
	Total Particulate Matter	PER 003			2.49E+01	4.98E+00	
FS 006							
	Mercury	PER 003		2.00E-10	5.00E-10	5.00E-10	
	Lead	PER 003		2.51E-07	6.27E-07	6.27E-07	

FACILITY DESCRIPTION: Potential-to-emit (by item)

Show: Active and Pending Records
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

Item	Pollutant	Added By (Action)	Retired By (Action)	Hourly Potential (lbs per hr)	Unrestricted Potential (tons per yr)	Limited Potential (tons per yr)	Actual Emissions (tons per yr)
FS 006							
	PM < 10 micron	PER 003			2.70E-01	2.70E-01	
	Total Particulate Matter	PER 003			5.70E-01	5.70E-01	
FS 007							
	PM < 10 micron	PER 003					
	Total Particulate Matter	PER 003					
FS 008							
	PM < 10 micron	PER 003					
	Total Particulate Matter	PER 003					
FS 009							
	PM < 10 micron	PER 003					
	Total Particulate Matter	PER 003					
FS 010							
	Mercury	PER 003		3.00E-10	5.10E-09	1.50E-09	
	Lead	PER 003		7.20E-07	1.05E-05	3.15E-06	
	PM < 10 micron	PER 003			8.29E+00	2.49E+00	
	Total Particulate Matter	PER 003			1.75E+01	5.26E+00	
FS 011							
	Mercury	PER 003		7.00E-10	1.02E-08	3.10E-09	
	Lead	PER 003		1.44E-06	2.10E-05	6.31E-06	
	PM < 10 micron	PER 003			1.66E+01	4.97E+00	
	Total Particulate Matter	PER 003			3.50E+01	1.05E+01	
FS 012							
	PM < 10 micron	PER 003					
	Total Particulate Matter	PER 003					
FS 013							
	Mercury	PER 003		3.50E-09	4.11E-08	1.42E-08	
	Lead	PER 003		6.00E-06	7.36E-05	2.63E-05	
	PM < 10 micron	PER 003			5.80E+01	2.07E+01	
	Total Particulate Matter	PER 003			1.23E+02	4.38E+01	
FS 014							
	Mercury	PER 003		4.00E-09	1.02E-08	2.00E-09	
	Lead	PER 003		8.35E-06	2.10E-05	4.20E-06	
	PM < 10 micron	PER 003			1.66E+01	3.31E+00	
	Total Particulate Matter	PER 003			3.50E+01	7.01E+00	
FS 015							
	Mercury	PER 003		2.00E-10	9.70E-09	1.00E-09	
	Lead	PER 003		4.56E-07	2.00E-05	2.00E-06	
	PM < 10 micron	PER 003			1.67E+01	1.67E+00	
	Total Particulate Matter	PER 003			3.33E+01	3.33E+00	
FS 016							
	Mercury	PER 003		1.00E-09	7.40E-09	4.30E-09	
	Lead	PER 003		2.05E-06	1.53E-05	8.82E-06	
	PM < 10 micron	PER 003			1.20E+01	6.95E+00	
	Total Particulate Matter	PER 003			2.54E+01	1.47E+01	

FACILITY DESCRIPTION: Potential-to-emit (by item)

Show: Active and Pending Records
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

Item	Pollutant	Added By (Action)	Retired By (Action)	Hourly Potential (lbs per hr)	Unrestricted Potential (tons per yr)	Limited Potential (tons per yr)	Actual Emissions (tons per yr)
FS 017							
	Mercury	PER 003		3.00E-10	4.56E-08	1.10E-09	
	Lead	PER 003		6.50E-07	9.43E-05	2.19E-06	
	PM < 10 micron	PER 003			1.47E+02	2.61E+00	
	Total Particulate Matter	PER 003			1.57E+02	3.65E+00	
FS 018							
	PM < 10 micron	PER 003			3.24E+01	3.24E+01	
	Total Particulate Matter	PER 003			6.48E+01	6.48E+01	
FS 019							
	PM < 10 micron	PER 003			4.02E+01	8.22E+00	
	Total Particulate Matter	PER 003			1.57E+02	3.24E+01	
FS 020							
	Volatile Organic Compounds	PER 003		6.20E-01	2.71E+00	2.71E+00	

MINNESOTA POLLUTION CONTROL AGENCY
AIR QUALITY
520 LAFAYETTE ROAD
ST. PAUL, MN 55155-4194

FACILITY DESCRIPTION: CONTINUOUS MONITORS (MR)

Show: Active and Pending Records
Action: PER 008
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

	ID No.	Monitor Status	Added By (Action)	Retired By (Action)	Monitored Item (ID No(s).)	Operator ID for Item	Monitor Description	Manufacturer	Model Number	Serial Number	Parameters Monitored
1	MR 001	Active	PER 003		EU 001		Opacity for EU 001	Teledyne Labs	Lighthawk 560	5600653	Opacity
2	MR 001	Active	PER 008		EU 001		Opacity for EU 001	Teledyne Labs	Lighthawk 560	5600653	Opacity
3	MR 004	Active	PER 003		EU 002		Opacity for EU 002	Teledyne Labs	Lighthawk 560	5600654	Opacity
4	MR 004	Active	PER 008		EU 002		Opacity for EU 002	Teledyne Labs	Lighthawk 560	5600654	Opacity
5	MR 005	Active	PER 003		EU 634 SV 266		NOx monitor for SV266				NOx
6	MR 005	Active	PER 008		EU 634 SV 266		NOx monitor for SV266	Sick Maihak	GM 31-2	7368044	NOx NOx
7	MR 006	Active	PER 003		EU 634 SV 267		NOx monitor for SV267				NOx
8	MR 006	Active	PER 008		EU 634 SV 267		NOx monitor for SV267	Sick Maihak	GM 31	7368043	NOx NOx
9	MR 007	Active	PER 003		EU 634 SV 268		NOx monitor for SV268				NOx
10	MR 007	Active	PER 008		EU 634 SV 268		NOx monitor for SV268	Sick Maihak	GM 31	7368042	NOx NOx
11	MR 008	Active	PER 003		EU 634 SV 266		Flow monitor for SV266				Air Flow
12	MR 008	Active	PER 008		EU 634 SV 266		Flow monitor for SV266	Sick Maihak	FlowSic 100	7388546	Air Flow
13	MR 009	Active	PER 003		EU 634 SV 267		Flow monitor for SV267				Air Flow
14	MR 009	Active	PER 008		EU 634 SV 267		Flow monitor for SV267	Sick Maihak	FlowSic 100	7388544	Air Flow
15	MR 010	Active	PER 003		EU 634 SV 268		Flow monitor for SV268				Air Flow
16	MR 010	Active	PER 008		EU 634 SV 268		Flow monitor for SV268	Sick Maihak	FlowSic 100	7388545	Air Flow

FACILITY DESCRIPTION: CONTINUOUS MONITORS (MR)

	ID No.	Monitor Status	Added By (Action)	Span Value	System Full-Scale Value	Bypass Capa-bility?	Optical Path Length Ratio	Installation Date	Removal Date
1	MR 001	Active	PER 003		100				
2	MR 001	Active	PER 008		100	No	0.50	10/20/2004	
3	MR 004	Active	PER 003		100				
4	MR 004	Active	PER 008		100	No	0.50	10/20/2004	
5	MR 005	Active	PER 003						
6	MR 005	Active	PER 008	60	2000	Yes		07/25/2008	
7	MR 006	Active	PER 003						
8	MR 006	Active	PER 008	60	2000	Yes		07/25/2008	
9	MR 007	Active	PER 003						
10	MR 007	Active	PER 008	60	2000	Yes		07/25/2008	
11	MR 008	Active	PER 003						
12	MR 008	Active	PER 008			Yes		07/25/2008	
13	MR 009	Active	PER 003						
14	MR 009	Active	PER 008			Yes		07/25/2008	
15	MR 010	Active	PER 003						
16	MR 010	Active	PER 008			Yes		07/25/2008	

MINNESOTA POLLUTION CONTROL AGENCY
AIR QUALITY
520 LAFAYETTE ROAD
ST. PAUL, MN 55155-4194

FACILITY DESCRIPTION: DATA ACQUISITION SYSTEMS (DA)

Show: Active and Pending Records
Action: PER 008
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

	ID No.	DAS Status	Added By (Action)	Retired By (Action)	Operator ID for Item	Data Acquisition System Description	Manufacturer	Model Number	Serial Number	Data Storage Medium	Installation Date	Removal Date
1	DA 001	Active	PER 001									
2	DA 002	Active	PER 003									
3	DA 001	Active	PER 008			RegPerfect	Teledyne	RegPerfect	RP-P75-00241 08/07	Electronic	10/20/2004	
4	DA 002	Active	PER 008			Cirrus	Cirrus	Dell PE2850	3XWHLB1	Electronic	07/25/2008	

MINNESOTA POLLUTION CONTROL AGENCY
AIR QUALITY
520 LAFAYETTE ROAD
ST. PAUL, MN 55155-4194

15 April, 2014 10:12

FACILITY DESCRIPTION: CONTINUOUS MONITORING SYSTEMS (CM)

Show: Active and Pending Records
Action: PER 008
AQD Facility ID: 07500003
Facility Name: Northshore Mining - Silver Bay

	ID No.	CMS Status	Added By (Action)	Retired By (Action)	Monitor ID No(s).	DAS ID No(s).	Operator ID for Item	CMS Description	Parameter	Month/ Year Installed	Month/ Year Removed	Cert. Date	Cert. Basis
1	CM 001	Active	PER 003		MR 001	DA 001		Boiler 1, EU001, Opacity, 6-min avg.	Opacity			11/29/2004	40CFR60
2	CM 001	Active	PER 008		MR 001	DA 001		Boiler 1, EU001, Opacity, 6-min avg.	Opacity	10/2004		11/29/2004	40CFR60
3	CM 008	Active	PER 003		MR 004	DA 001		Boiler 2, EU002, Opacity, 6-min avg.	Opacity			11/29/2004	40CFR60
4	CM 008	Active	PER 008		MR 004	DA 001		Boiler 2, EU002, Opacity, 6-min avg.	Opacity	10/2004		11/29/2004	40CFR60
5	CM 009	Active	PER 003		MR 005 MR 006 MR 007 MR 008 MR 009 MR 010	DA 002		Furnace 5, EU634, NOx, ppm and lb/hr	Nitrogen Oxides				
6	CM 009	Active	PER 008		MR 005 MR 006 MR 007 MR 008 MR 009 MR 010	DA 002		Furnace 5, EU634, NOx, ppm and lb/hr	Nitrogen Oxides	07/2008		12/30/2010	40CFR60

ATTACHMENT 2
CD-01 FORMS
(Available Electronically in Delta)

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Subject Item: **Total Facility**

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	SOURCE-SPECIFIC REQUIREMENTS
2.0		CD	Minn. R. 7007.0800, subp. 2	Permit Appendices: This permit contains appendices as listed in the permit Table of Contents. The Permittee shall comply with all requirements contained in the Appendices. Modeling parameters in Appendix E: Modeling Information are included for reference only as described elsewhere in Table A.
3.0		CD	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0100; Minn. R. 7007.0800, subp. 2; Minn. R. 7011.0150; Minn. R. 7009.0020	Comply with the Fugitive Control Plan for the Silver Bay Facility: Follow the actions and recordkeeping specified in the plan. The plan may be amended with the Commissioner's approval. If the Commissioner determines the Permittee is out of compliance with Minn. R. 7011.0150, or the fugitive control plan, then the Permittee may be required to amend the fugitive control plan. Note that the required fugitive dust control actions during Mile Post 7 tailings basin area operations, found in Appendix B of this permit, are a special set of requirements for this permit, which is excluded from the fugitive control plan for the Silver Bay Facility.
4.0		CD	Minn. R. ch. 4410	EIS Required. The Permittee is prohibited from initiating construction of any proposed commercial scale ITmk3 plant at the Silver Bay facility and the Peter Mitchell mine until an Environmental Impact Statement (EIS) under Minn. R. chapter 4410 has been prepared for the proposed commercial scale ITmk3 plant, the EIS process under Minn. R. chapter 4410 has been completed and any applicable regulatory permitting process has been completed in regard to construction initiation.
5.0		CD	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subp. 7(A), 7(L), & 7(M); Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080	The parameters used in modeling for permit number 07500003-003 are listed in Appendix E of this permit. The parameters describe the operation of the facility at maximum permitted capacity. For any changes that affect any modeled parameter or emission rate documented in Appendix E, or are an addition to information documented in Appendix E, a Remodeling Submittal requirement is triggered. This includes changes that do not require a permit amendment as well as changes that require any type of permit amendment.
6.0		CD	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subp. 7(A), 7(L), & 7(M); Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080	Remodeling Submittal: The Permittee must submit to the MPCA for approval any revisions of these parameters and must wait for a written approval before making such changes (see introduction for Table B of this permit for MPCA mailing information). For changes that don't require a moderate or major amendment, written approval of the modeling may be given before permit issuance; however, the approval applies only to the modeling and not to any other changes. The information submitted must include, for stack and vent sources, source emission rate, location, height, diameters, exit velocity, exit temperature, discharge direction, use of rain caps or rain hats, and, if applicable, locations and dimensions of nearby buildings. For non-stack/vent sources, this includes the source emission rate, location, size and shape, release height, and, if applicable, any emission rate scalars, and the initial lateral dimensions and initial vertical dimensions and adjacent building heights.
7.0		CD	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subp. 7(A), 7(L), & 7(M); Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080	The plume dispersion characteristics due to the revisions of the information must be equivalent to or better than the dispersion characteristics modeled in the most recent air quality impacts analysis. The Permittee shall demonstrate this equivalency in the proposal. If the information does not demonstrate equivalent or better dispersion characteristics, or if a conclusion cannot readily be made about the dispersion, the Permittee must submit full remodeling. For changes that do not require a permit amendment or require a minor permit amendment, the proposal must be submitted as soon as practicable, but no less than 60 days before beginning actual construction on the stack or associated emission unit. For changes that require a permit amendment other than a minor amendment, the proposal must be submitted with the permit application.

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

8.0		CD	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7009.0020; Minn. R. 7011.0150; Minn. R. 7007.0100; Minn. R. 7007.0800, subps. 2 & 4	For any future re-modeling (or new modeling) subject to 40 CFR Section 52.21 (Prevention of Significant Deterioration, PSD) or Minn. R. ch. 7009 (Minnesota Ambient Air Quality Standards), the Permittee shall follow all applicable rules or regulations.
9.0		CD	40 CFR 63.9580 to 63.9652; Tables to Subpart RRRRR of 40 CFR 63; 40 CFR 63, subp. A; Minn. R. 7011.7000	Comply with Subpart RRRRR - National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing: a. For an existing affected source, comply with each emission limitation, work practice standard, and operation and maintenance requirement that applies to the source no later than October 30, 2006; b. For a new affected source with an initial startup date on or before October 30, 2003, comply with each emission limitation, work practice standard, and O&M requirement that applies to the source by October 30, 2003; c. For a new affected source with an initial startup date after October 30, 2003, comply with each emission limitation, work practice standard, and O&M requirement that applies to the source upon initial startup. Also comply with applicable requirements of 40 CFR 63, General Provisions.
10.0		CD	40 CFR 63.7480 to 63.7585; Tables to Subpart DDDDD of 40 CFR 63; 40 CFR 63, subp. A; Minn. R. 7011.7000	Comply with Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants: Industrial, Commercial, and Institutional Boilers and Process Heaters: a. Submit an Initial Notification not later than March 12, 2005 or within 120 calendar days after a boiler or process heater becomes subject to Subpart DDDDD, whichever is later. b. For an existing affected source, comply with applicable requirements no later than, September 13, 2007; c. For a new affected source with an initial startup date on or before January 13, 2003, comply with applicable requirements by January 13, 2003; d. For a new affected source with an initial startup date after January 13, 2003, comply with requirements upon initial startup. Also comply with applicable requirements of 40 CFR 63, General Provisions.
11.0		CD	Minn. R. 7007.0800, subp. 2	With respect to fibers, the air quality standards at or beyond the property line of the Silver Bay facility to which the Permittee shall adhere, consistent with the determination of the Minnesota Supreme Court, are: a. Fibers in the ambient air shall be below a medically significant level; b. The ambient air shall contain no more fibers than that level ordinarily found in the ambient air of a control city such as St. Paul; c. The fibers in the ambient air shall be maintained below a level which is injurious to human health or welfare in violation of Minn. Stat. Sec. 116.06 (3); and d. Such other standards which now or in the future may be applied to the Permittee's fiber emissions. The MPCA recognizes that the above fiber level standards or measurements applicable to fiber emissions emanating from the Permittee's operations are to be determined in the future to a degree which approaches reliable scientific and medical precision.
12.0		CD	Minn. R. 7007.0800, subp. 2	The control city standard set forth in paragraph (b) was found by the federal courts to be based on a reasonable medical theory. Any future fiber level standards applied pursuant to paragraphs (a), (c) and (d) must likewise be based on a reasonable medical theory. "Fibers," for the purpose of this permit, are defined as chrysotile and amphibole mineral particles with 3-to-1 or greater aspect ratios.
13.0		CD	Minn. R. 7007.0800, subps. 4(D), 14, & 16(J)	Daily Visible Emission Checklists for the O&M Plan: All stacks equipped with dry control equipment must appear individually in at least one of the Daily Visible Emission Checklists. Observations and observation dates, weather condition codes, whether and what corrective action(s) had been taken, and observer's ID must be included in the checklists. Appendix C provides explanations for the checklists and an example checklist. Note that fabric filters (baghouses) that are equipped with MPCA-approved broken bag detectors are not subject to daily visible emission inspection.
14.0		CD	Minn. R. 7007.0800, subps. 4(D), 14, & 16(J)	Check visible emissions from GP 003 through GP 013, SV 005, SV 043, and SV 097 once daily when in operation during daylight hours. Use the daily visible emission checklists in the O&M Plan (see Appendix C for detail) as a means to indicate when appropriate corrective actions in the O&M Plan should be taken.

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

15.0		CD	Minn. R. 7007.0800, subps. 4(D), 14, & 16(J)	Daily Visible Emission Checklists for the Fugitive Control Plan at the Silver Bay Facility: FS 001 through FS 017 and FS 019 must appear individually in at least one of the Daily Visible Emission Checklists. Observations and observation dates, weather condition codes, whether and what corrective action(s) had been taken, and observer's ID must be included in the checklists. Appendix C provides explanations for the checklists.
16.0		CD	Minn. R. 7007.0800, subps. 4(D), 14, & 16(J)	Observe fugitive dust sources FS 001 through FS 017 and FS 019 once daily during daylight hours. Use the daily visible emission checklist(s) in the fugitive dust control plan (see Appendix C for detail) as a means to indicate when appropriate corrective actions in the fugitive control plan are taken.
17.0		CD	Minn. R. 7007.0800, subps. 4(D), 14, & 16(J)	Visible Emissions Training: The Permittee shall (1) ensure that one plant employee obtains an initial EPA Method 9 certification and be recertified every three years or (2) employ a similarly certified contractor. This person will train other plant employees to perform the daily visible emission check as detailed in the O&M Plan and Fugitive Control Plan.
18.0		CD	Minn. R. 7007.0800, subps. 4(D) & 16(J)	Ambient Air Quality Monitoring: The Permittee shall continue to operate TSP and PM-10 ambient air quality monitors at the existing sites, in accordance with the MPCA approved ambient monitoring plans and MPCA Exhibit M. The Permittee shall continue to operate fiber ambient air monitors at Stations 1 (Beaver Bay) and 7 (Silver Bay) at a monitoring frequency of one sample per 21 days, while meeting other requirements in the existing, MPCA approved ambient monitoring plans and MPCA Exhibit M.
19.0		S/A	Minn. R. 7007.0800, subps. 4(D) & 16(J)	Ambient Air Monitoring Report: due 45 days after end of each calendar quarter starting 07/14/2006 to provide ambient air quality data on TSP and PM10 to compare with ambient air quality standards. If ambient PM10 measurements are greater than 145 micrograms/cubic meter, the Permittee shall submit, along with the quarterly ambient air monitoring report, an analysis of such instances and a description of any corrective action(s) taken.
20.0		CD	hdr	DETERMINING IF A PROJECT/MODIFICATION IS SUBJECT TO NSR
21.0		CD	Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2	These requirements apply if a reasonable possibility (RP) as defined in 40 CFR Section 52.21(r)(6)(vi) exists that a proposed project, analyzed using the actual-to-projected-actual (ATPA) test (either by itself or as part of the hybrid test at Section 52.21(a)(2)(iv)(f)) and found to not be part of a major modification, may result in a significant emissions increase (SEI). If the ATPA test is not used for the project, or if there is no RP that the proposed project could result in a SEI, these requirements do not apply to that project. The Permittee is only subject to the Preconstruction Documentation requirement for a project where a RP occurs only within the meaning of Section 52.21(r)(6)(vi)(b). Even though a particular modification is not subject to New Source Review (NSR), or where there isn't a RP that a proposed project could result in a SEI, a permit amendment, recordkeeping, or notification may still be required by Minn. R. 7007.1150 - 7007.1500.
22.0		CD	Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.1200, subp. 4; Minn. R. 7007.0800, subps. 4 & 5	Preconstruction Documentation -- Before beginning actual construction on a project, the Permittee shall document the following: 1. Project description 2. Identification of any emission unit (EU) whose emissions of an NSR pollutant could be affected 3. Pre-change potential emissions of any affected existing EU, and the projected post-change potential emissions of any affected existing or new EU. 4. A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded due to increases not associated with the modification and that the EU could have accommodated during the baseline period, an explanation of why the amounts were excluded, and any creditable contemporaneous increases and decreases that were considered in the determination. The Permittee shall maintain records of this documentation.

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23.0		CD	Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 & 5	The Permittee shall monitor the actual emissions of any regulated NSR pollutant that could increase as a result of the project and that were analyzed using the ATPA test, and the potential emissions of any regulated NSR pollutant that could increase as a result of the project and that were analyzed using potential emissions in the hybrid test. The Permittee shall calculate and maintain a record of the sum of the actual and potential (if the hybrid test was used in the analysis) emissions of the regulated pollutant, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity of or potential to emit of any unit associated with the project.
24.0		CD	Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 & 5	The Permittee must submit a report to the Agency if the annual summed (actual, plus potential if used in hybrid test) emissions differ from the preconstruction projection and exceed the baseline actual emissions by a significant amount as listed at 40 CFR Section 52.21(b)(23). Such report shall be submitted to the Agency within 60 days after the end of the year in which the exceedances occur. The report shall contain: a. The name and ID number of the facility, and the name and telephone number of the facility contact person b. The annual emissions (actual, plus potential if any part of the project was analyzed using the hybrid test) for each pollutant for which the preconstruction projection and significant emissions increase are exceeded. c. Any other information, such as an explanation as to why the summed emissions differ from the preconstruction projection.
25.0		CD	hdr	OPERATIONAL REQUIREMENTS
26.0		CD	Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subp. 7(A), 7(L), & 7(M); Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080	The Permittee shall comply with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50, and the Minnesota Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0080. Compliance shall be demonstrated upon written request by the MPCA.
27.0		CD	Minn. R. 7011.0020	Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.
28.0		CD	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)	Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated.
29.0		CD	Minn. R. 7007.0800 subps. 14 and 16(J)	Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment and control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment and practices, and the records kept to demonstrate plan implementation.
30.0		CD	Minn. R. 7019.1000, subp. 4	Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate.
31.0		CD	Minn. R. 7011.0150	Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.
32.0		CD	Minn. R. 7030.0010 - 7030.0080	Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.
33.0		CD	Minn. R. 7007.0800, subp. 9(A)	Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A).
34.0		CD	Minn. R. 7007.0800, subp. 16	The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.
35.0		CD	hdr	PERFORMANCE TESTING

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36.0		CD	Minn. R. ch. 7017	Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, B, and/or C.
37.0		CD	Minn. R. 7017.2018; Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2	Performance Test Notifications and Submittals: Performance Tests are due as outlined in Table A of the permit. See Table B for additional testing requirements. Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due 7 days before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy: due 105 days after each Performance Test The Notification, Test Plan, and Test Report may be submitted in an alternative format as allowed by Minn. R. 7017.2018.
38.0		CD	Minn. R. 7017.2025, subp. 3	Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as stated in the MPCA's Notice of Compliance letter granting preliminary approval. Preliminary approval is based on formal review of a subsequent performance test on the same unit as specified by Minn. R. 7017.2025, subp. 3. The limit is final upon issuance of a permit amendment incorporating the change.
39.0		CD	hdr	MONITORING REQUIREMENTS
40.0		CD	Minn. R. 7007.0800, subp. 4(D)	Monitoring Equipment Calibration - The Permittee shall either: 1. Calibrate or replace required monitoring equipment every 12 months; or 2. Calibrate at the frequency stated in the manufacturer's specifications. For each monitor, the Permittee shall maintain a record of all calibrations, including the date conducted, and any corrective action that resulted. The Permittee shall include the calibration frequencies, procedures, and manufacturer's specifications (if applicable) in the Operations and Maintenance Plan. Any requirements applying to continuous emission monitors are listed separately in this permit.
41.0		CD	Minn. R. 7007.0800, subp. 4(D)	Operation of Monitoring Equipment: Unless otherwise noted in Tables A, B, and/or C, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.
42.0		CD	hdr	RECORDKEEPING REQUIREMENTS
43.0		CD	Minn. R. 7007.0800, subp. 5(C)	Recordkeeping: Retain all records at the stationary source, unless otherwise specified within this permit, for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).
44.0		CD	Minn. R. 7007.0800, subp. 5(B)	Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350, subp. 2), including records of the emissions resulting from those changes.
45.0		CD	Minn. R. 7007.1200, subp. 4	If the Permittee determines that no permit amendment or notification is required prior to making a change, the Permittee must retain records of all calculations required under Minn. R. 7007.1200. For expiring permits, these records shall be kept for a period of five years from the date the change was made or until permit reissuance, whichever is longer. The records shall be kept at the stationary source for the current calendar year of operation and may be kept at the stationary source or office of the stationary source for all other years. The records may be maintained in either electronic or paper format.
46.0		CD	hdr	CONTRACTORS

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47.0		CD	Minn. R. 7007.0800, subps. 2, 4 and 5	Contractors: The Permittee shall retain records on site of all contractors allowed on site that include any crushers, screens and conveyors. The Permittee shall also retain records on site of all contractors whose operations would require an Air Emission Permit from the MPCA. The records shall include the contractor's company name, MPCA air emissions permit number, short description of activities undertaken by the contractor, estimate of emissions or materials handled and the dates the contractor was on site. The record shall be updated at least monthly. The Permittee shall evaluate if the activities of any contractor required NSR permitting prior to the contractor performing such activities. If a contractor has its own permit, but it is determined that the contractor is under the common control of the taconite plant then the contractor's permit does not shield the taconite plant or the contractor from the NSR & Part 70 modification regulations or enforcement actions.
48.0		CD	hdr	REPORTING/SUBMITTALS
49.0		CD	Minn. R. 7019.1000, subp. 3	Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3. At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.
50.0		CD	Minn. R. 7019.1000, subp. 2	Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2. At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.
51.0		CD	Minn. R. 7019.1000, subp. 1	Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.
52.0		CD	Minn. R. 7019.1000, subp. 1	Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description: 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.
53.0		S/A	Minn. R. 7007.0800, subp. 6(A)(2)	Semiannual Deviations Report: due 30 days after end of each calendar half-year starting 07/14/2006. The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations have occurred, the Permittee shall submit the report stating no deviations.
54.0		CD	Minn. R. 7007.1150 - 7007.1500	Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.
55.0		S/A	Minn. R. 7007.0400, subp. 2	Application for Permit Reissuance: due 180 days before expiration of Existing Permit

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56.0		CD	Minn. R. 7007.1400, subp. 1(H)	Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H). Performance testing deadlines from the General Provisions of 40 CFR pt. 60 and pt. 63 are examples of deadlines for which the MPCA does not have authority to grant extensions and therefore do not meet the requirements of Minn. R. 7007.1400, subp. 1(H).
57.0		S/A	Minn. R. 7007.0800, subp. 6 (C)	Compliance Certification: due 31 days after end of each calendar year starting 07/14/2006 (for the previous calendar year). The Permittee shall submit this on a form approved by the Commissioner, both to the Commissioner and to the US EPA regional office in Chicago. This report covers all deviations experienced during the calendar year.
58.0		CD	Minn. R. 7019.3000 - 7019.3100	Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance, to be submitted on a form approved by the Commissioner.
59.0		CD	Minn. R. 7002.0005 - 7002.0095	Emission Fees: due 30 days after receipt of an MPCA bill.

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Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Subject Item: **GP 001 Power Boilers**

Associated Items: CE 001 Fabric Filter - High Temperature, i.e., T>250 Degrees F

CE 002 Fabric Filter - High Temperature, i.e., T>250 Degrees F

CM 001 Boiler 1, EU001, Opacity, 6-min avg.

CM 008 Boiler 2, EU002, Opacity, 6-min avg.

EU 001 Power Boiler 1

EU 002 Power Boiler 2

SV 001 Power House Unit #1

SV 002 Power House Unit #2

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	POLLUTANT LIMITS
2.0		LIMIT	Minn. R. 7011.0510, subp. 1	Total Particulate Matter: less than or equal to 0.6 lbs/million Btu heat input . This limit applies individually to both EU 001 and EU 002.
3.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	PM < 10 micron: less than or equal to 0.036 grains/dry standard cubic foot for EU 001.
4.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	PM < 10 micron: less than or equal to 0.046 grains/dry standard cubic foot for EU 002.
5.0		LIMIT	Minn. R. 7011.0510, subp. 1	Sulfur Dioxide: less than or equal to 4.0 lbs/million Btu heat input when burning coal, and less than or equal to 2.0 lb/million Btu when burning oil. This limit applies individually to both EU 001 and EU 002.
6.0		CD	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	The Permittee shall restrict the sulfur content of coal so that SO2 emission from each power boiler does not exceed 2.5 lb SO2/million BTU on 1-hour average, 2.0 lb SO2/million BTU on 3-hour average, 1.8 lb SO2/million BTU on 24-hour average, and 1.5 lb SO2/million BTU based on annual average (these restrictions apply individually to both EU 001 and EU 002). The Permittee shall restrict the sulfur content of any grade of commercial fuel oil so that SO2 emission from EU 001 does not exceed 0.5 lb SO2/million BTU. This Title 1 condition is more stringent than the limit prescribed by Minn. R. 7011.0510, subp. 1 which also applies.
7.0		LIMIT	Minn. R. 7011.0510, subp. 2	Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. This limit applies individually to both EU 001 and EU 002.
8.0		CD	hdr	OPERATIONAL REQUIREMENTS
9.0		CD	Minn. R. 7007.0800, subp. 2	Fuel Limits: The Permittee shall combust only natural gas or coal in this group. Distillate fuel oil is also allowed for EU 001.
10.0		CD	Minn. R. 7007.0800, subp. 2	For each unit in GP 001 to not be an affected unit subject to the requirements of the federal Acid Rain Program, 40 CFR 72.6(b)(4)(i), each unit in GP 001 shall retain the cogeneration qualifying facility status, as per the Public Utility Regulatory Policies Act of 1978; and shall be restricted in supplying electricity to any utility power distribution system to, on a three-year rolling average basis: 1) less than or equal to one-third of its potential electrical output capacity, and 2) less than or equal to 219,000 MWe-hrs actual electric output (on a gross basis).
11.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS
12.0		S/A	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1	Performance Test: due 1,080 days after 07/22/2004 and every three years thereafter to measure PM/PM10 emissions from one stack on a rotating basis in GP 001.
13.0		S/A	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1	Performance Test: due before 06/26/2014 and every five years thereafter to measure SO2 emissions from one stack on a rotating basis in GP 001.
14.0		CD	hdr	CONTINUOUS OPACITY MONITORING (COM)
15.0		CD	Minn. R. 7017.1000, subp. 1; Minn. R. 7007.0800, subp. 2	Continuous Opacity Monitoring: The Permittee shall use CM 001 for SV 001 and CM 008 for SV 002 to measure opacity.

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Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

16.0		CD	Minn. R. 7007.0800, subp. 2	Continuous Operation: Except for system startups, shutdowns, breakdowns, repairs, calibration checks, and zero and span adjustments, the Permittee shall operate CM 001 continuously when venting exhaust gas from EU 001 through SV 001, and operate CM 008 continuously when venting exhaust gas from EU 002 through SV 002.
17.0		CD	Minn. R. 7017.1000	Daily Calibration Drift (CD) Check: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) opacity at least once daily. CM 001 and CM 008 must be adjusted whenever the calibration drift exceeds twice the specification of PS-1 of 40 CFR 60, Appendix B.
18.0		S/A	Minn. R. 7019.2000	Excess Emissions/Downtime Reports (EER's): due 30 days after end of each calendar quarter starting 07/14/2006. (Submit Deviations Reporting Form DRF-1 as amended). The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions.
19.0		S/A	Minn. R. 7007.0800, subp. 2	COMS Calibration Error Audit: due before half-year starting 07/14/2006 . Conduct three point calibration error audits at least 3 months apart but no greater than 8 months apart. Filter values used shall correspond to approximately 11%, 20%, and 37% opacity.
20.0		CD	Minn. R. 7007.0800, subp. 2	COMS Monitoring Data: The Permittee shall reduce all COMS data to 6-minute averages. Opacity averages shall be calculated from all equally spaced consecutive 10-second (or shorter) data points in the 6-minute averaging period.
21.0		CD	Minn. R. 7007.0800, subp. 5	Recordkeeping: The Permittee must retain records of all COMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement, or report. Records shall be kept at the source.
22.0		CD	hdr	SO2 EMISSION MONITORING REQUIREMENTS
23.0		CD	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2	Fuel Properties Monitoring: The Permittee shall obtain, from the supplier for each fuel shipment, a certificate that specifies sulfur content (in percent sulfur by weight) and heating value of the fuel (in BTU per lb). For any shipment received without the certificate, the Permittee shall sample the shipment for analysis of sulfur content and heating value.
24.0		CD	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2	Fuel Usage & Sulfur Dioxide Emission Rate Monitoring: By the fifteenth day of each calendar month, the Permittee shall collect recorded fuel usage rate (U, in tons) for the previous calendar month, calculate and record (at the time of calculation) the sulfur dioxide emission for the previous month as follows: E = U * S * 2 where: E = SO2 emissions in tons for the previous month, U = Tons of coal used for the previous month, S = percent by weight of sulfur in coal, based on most current supplier certification, 2 = molar ratio of sulfur dioxide to sulfur This method of Fuel Usage & sulfur Dioxide Emission Rate Monitoring may be changed by the MPCA, upon a written notification from the Permittee that the sulfur content in the coal exceeded 0.50%.
25.0		S/A	Minn. R. 7007.0800, subp. 4(B)	Notification: due 14 days after Fuel Supplier Certification or Fuel Sulfur Analysis indicated fuel sulfur in a shipment exceeded 0.50% by weight.
26.0		S/A	Minn. R. 7007.0800, subp. 6C	Notification of compliance status: due 30 days after Discovery of Deviation of Applicability status for any Emission Unit of GP 001. This one-time notification is required in the event that the unit has become an affected unit subject to the requirements of the federal Acid Rain Program.

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Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Subject Item: **GP 002 Process Boilers**

Associated Items: EU 003 Process Boiler 1

EU 004 Process Boiler 2

SV 003 Process Boiler #1 & #2

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	POLLUTANT LIMITS
2.0		LIMIT	Minn. R. 7011.0510, subp. 1	Total Particulate Matter: less than or equal to 0.6 lbs/million Btu heat input . This limit applies individually to both EU 003 and EU 004.
3.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	PM < 10 micron: less than or equal to 0.024 lbs/million Btu heat input . This limit applies individually to both EU 003 and EU 004.
4.0		LIMIT	Minn. R. 7011.0510, subp. 1	Sulfur Dioxide: less than or equal to 2.0 lbs/million Btu heat input when burning oil. This limit applies individually to both EU 003 and EU 004.
5.0		CD	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	The Permittee shall restrict the sulfur content of any grade of commercial fuel oil so that SO2 emission does not exceed 0.21 lb SO2/million BTU. This limit applies individually to both EU 003 and EU 004. This Title I Condition is more stringent than the limit prescribed by Minn. R. 7011.0510, subp. 1 which also applies.
6.0		LIMIT	Minn. R. 7011.0510, subp. 2	Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. This limit applies individually to both EU 003 and EU 004.
7.0		CD	hdr	OPERATIONAL REQUIREMENTS
8.0		CD	Minn. R. 7007.0800, subp. 2	Fuel Limits: The Permittee shall combust only natural gas or distillate fuel oil in this group.
9.0		S/A	Minn. R. 7007.0800, subp. 2	Notification: due 30 days after Resuming Operation of Process Boilers 1 and 2. The Permittee shall do an applicability determination before resuming operation. If a permit action is required, the Permittee shall apply for and receive the appropriate authorization before resuming operation.
10.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS
11.0		S/A	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1	Initial Performance Test: due 180 days after Resuming Operation to measure SO2 emission from one process boiler, when it is fired with distillate fuel oil. The Permittee shall also sample and analyze the fuel for sulfur content, heating value, and density.
12.0		S/A	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1	Initial Performance Test: due 180 days after Resuming Operation to measure PM and PM10 emission and Opacity from either EU 003 or EU 004.
13.0		S/A	Minn. R. 7017.2020, subp. 1	Testing Frequency Plan: due 60 days after Initial Performance Test. The plan shall specify a testing frequency for this group on a rotating basis, based on the test data and MPCA guidance. Future performance tests based on one-year (12 months), 36 months, and 60 months intervals, or as applicable, shall be required upon written approval of the MPCA.
14.0		CD	hdr	SO2 EMISSION MONITORING REQUIREMENTS
15.0		CD	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2	Fuel Properties Monitoring: The Permittee shall obtain, from the supplier for each fuel shipment, a certificate that specifies sulfur content (in percent sulfur by weight) and heating value of the fuel (in BTU per lb). For any shipment received without the certificate, the Permittee shall sample the shipment for analysis of sulfur content and heating value.

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Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Subject Item: **GP 003 Crude Ore Rail Car Unloading**

Associated Items: CE 007 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 008 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 007 West Car Dump

EU 008 East Car Dump

SV 007 East Car Dump

SV 008 East Car Dump

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	POLLUTANT LIMITS
2.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	PM < 10 micron: less than or equal to 0.0025 grains/dry standard cubic foot . This limit applies individually to both EU 007 and EU 008.
3.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	Total Particulate Matter: less than or equal to 0.0025 grains/dry standard cubic foot . This limit applies individually to both EU 007 and EU 008. This is more stringent than the limit prescribed by 40 CFR Section 60.382(a)(1) which also applies.
4.0		LIMIT	40 CFR Section 60.382(a)(1); Minn. R. 7011.2700	Total Particulate Matter: less than or equal to 0.022 grains/dry standard cubic foot (0.05 grams/dry standard cubic meter). This limit applies individually to both EU 007 and EU 008.
5.0		LIMIT	40 CFR Section 60.382(a)(2); Minn. R. 7011.2700	Opacity: less than or equal to 7 percent opacity . This limit applies individually to both EU 007 and EU 008.
6.0		LIMIT	40 CFR Section 60.382(b); Minn. R. 7011.2700	Opacity: less than or equal to 10 percent opacity for any process fugitive emissions. This limit applies individually to both EU 007 and EU 008.
7.0		CD	hdr	POLLUTION CONTROL EQUIPMENT REQUIREMENTS
8.0		CD	Minn. R. 7007.0800, subps. 2 & 14	The Permittee shall operate and maintain a bag leak detector for each fabric filter at all times that each fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan.
9.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS
10.0		S/A	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1	Performance Test: due 1,800 days after 07/22/2004 and every five years thereafter to measure PM/PM10 emissions from one stack on a rotating basis in GP 003.

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Subject Item: **GP 004 Crushed Ore Storage**

Associated Items: CE 009 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 010 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 009 Fine Crusher Bin Storage - West

EU 010 Fine Crusher Bin Storage - East

SV 009 Fine Crusher Bin Storage - W

SV 010 Fine Crusher Bin Storage - E

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	POLLUTANT LIMITS
2.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	PM < 10 micron: less than or equal to 0.0025 grains/dry standard cubic foot . This limit applies individually to both EU 009 and EU 010.
3.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	Total Particulate Matter: less than or equal to 0.0025 grains/dry standard cubic foot . This limit applies individually to both EU 009 and EU 010. This is more stringent than the limit prescribed by Minn. R. 7011.0710, subp. 1(A) which also applies.
4.0		LIMIT	Minn. R. 7011.0710, subp. 1(A)	Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to both EU 009 and EU 010.
5.0		LIMIT	Minn. R. 7011.0710, subp. 1(B)	Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. An exceedance of this opacity standard occurs whenever any one-hour period contains two or more six-minute periods during which the average opacity exceeds 20%, or whenever any one-hour period contains one or more six-minute periods during which the average opacity exceeds 60%. This limit applies individually to both EU 009 and EU 010.
6.0		CD	hdr	POLLUTION CONTROL EQUIPMENT REQUIREMENTS
7.0		CD	Minn. R. 7007.0800, subps. 2 & 14	The Permittee shall operate and maintain a bag leak detector for each fabric filter at all times that each fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan.
8.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS
9.0		S/A	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1	Initial Performance Test: due before 04/15/2006 to measure PM and PM10 emissions from one stack in GP 004.
10.0		S/A	Minn. R. 7017.2020, subp. 1	Testing Frequency Plan: due 60 days after 04/13/2006. The plan shall specify a testing frequency for this group on a rotating basis, based on the test data and MPCA guidance. Future performance tests based on one-year (12 months), 36 months, and 60 months intervals, or as applicable, shall be required upon written approval of the MPCA.

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Subject Item: **GP 005 Tertiary Crushing**

Associated Items: CE 011 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 012 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 013 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 014 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 017 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 018 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 019 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 020 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 011 Crusher Line 4

EU 012 Crusher Line 3

EU 013 Crusher Line 2

EU 014 Crusher Line 1

EU 017 Crusher Line 101

EU 018 Crusher Line 102

EU 019 Crusher Line 103

EU 020 Crusher Line 104

SV 011 Fine Crushing Line 4

SV 012 Fine Crushing Line 3

SV 013 Fine Crushing Line 2

SV 014 Fine Crushing Line 1

SV 017 Fine Crushing Line 101

SV 018 Fine Crushing Line 102

SV 019 Fine Crushing Line 103

SV 020 Fine Crushing Line 104

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	POLLUTANT LIMITS
2.0		LIMIT	Title I Condition: 40 CFR Sections 52.21(k)&(j) for EU 011 and EU 020 BACT Limits; Minn. R. 7007.3000	PM < 10 micron: less than or equal to 0.0025 grains/dry standard cubic foot . This limit applies individually to each unit in this group.
3.0		LIMIT	Title I Condition: 40 CFR Sections 52.21(k)&(j) for EU 011 and EU 020 BACT Limits; Minn. R. 7007.3000	Total Particulate Matter: less than or equal to 0.0025 grains/dry standard cubic foot . This limit applies individually to each unit in this group. This is more stringent than the limit prescribed by Minn. R. 7011.0710, subp. 1(A) which also applies.
4.0		LIMIT	Minn. R. 7011.0710, subp. 1(A)	Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to each unit in this group.
5.0		LIMIT	Minn. R. 7011.0710, subp. 1(B)	Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. An exceedance of this opacity standard occurs whenever any one-hour period contains two or more six-minute periods during which the average opacity exceeds 20%, or whenever any one-hour period contains one or more six-minute periods during which the average opacity exceeds 60%. This limit applies individually to each unit in this group.
6.0		CD	hdr	POLLUTION CONTROL EQUIPMENT REQUIREMENTS

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

7.0		CD	Minn. R. 7007.0800, subps. 2 & 14	The Permittee shall operate and maintain a bag leak detector for each fabric filter at all times that each fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan.
8.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS
9.0		S/A	Title I Condition: 40 CFR Section 52.21(k), and (j) for EU 011 and EU 020 BACT Limits; Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each calendar year starting 07/14/2006 to measure PM and PM10 emissions from two stacks on a rotating basis in this group. The performance testing frequency may be relaxed from two per year to two per three years according to the following conditions: a. The Permittee has demonstrated three (3) consecutive years that the PM or PM10 emission limit has not been exceeded; and b. The performance test result shall not be greater than 90% of the limit. If a subsequent performance test result is greater than 90% of the PM or PM10 emission limit, then the testing frequency shall revert back to the original yearly basis until subsequent yearly testing produces three consecutive annual performance test results which satisfy the criteria listed above; at that time, the testing may again be two per three years.

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Subject Item: **GP 006 Crushed Ore Conveying**

Associated Items: CE 015 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 016 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 015 Crushed Ore Conveyors - West

EU 016 Crushed Ore Conveyors - East

SV 015 Crushed Ore Conveyors - W

SV 016 Crushed Ore Conveyors - E

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	POLLUTANT LIMITS
2.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	PM < 10 micron: less than or equal to 0.0025 grains/dry standard cubic foot . This limit applies individually to both EU 015 and EU 016.
3.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	Total Particulate Matter: less than or equal to 0.0025 grains/dry standard cubic foot . This limit applies individually to both EU 015 and EU 016. This is more stringent than the limit prescribed by Minn. R. 7011.0710, subp. 1(A) which also applies.
4.0		LIMIT	Minn. R. 7011.0710, subp. 1(A)	Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to both EU 015 and EU 016.
5.0		LIMIT	Minn. R. 7011.0710, subp. 1(B)	Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. An exceedance of this opacity standard occurs whenever any one-hour period contains two or more six-minute periods during which the average opacity exceeds 20%, or whenever any one-hour period contains one or more six-minute periods during which the average opacity exceeds 60%. This limit applies individually to both EU 015 and EU 016.
6.0		CD	hdr	POLLUTION CONTROL EQUIPMENT REQUIREMENTS
7.0		CD	Minn. R. 7007.0800, subps. 2 & 14	The Permittee shall operate and maintain a bag leak detector for each fabric filter at all times that each fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan.
8.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS
9.0		S/A	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1	Initial Performance Test: due before 12/15/2005 to measure PM and PM10 emissions from one stack in this group.
10.0		S/A	Minn. R. 7017.2020, subp. 1	Initial Performance Test: due before 12/15/2005 to measure opacity from one stack in this group.
11.0		S/A	Minn. R. 7017.2020, subp. 1	Testing Frequency Plan: due 60 days after 10/11/2005. The plan shall specify a testing frequency for this group on a rotating basis, based on the test data and MPCA guidance. Future performance tests based on one-year (12 months), 36 months, and 60 months intervals, or as applicable, shall be required upon written approval of the MPCA.

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Subject Item: **GP 007 Dry Cobbing & Conveying**

Associated Items: CE 021 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 022 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 023 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 024 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 025 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 021 Dry Cobbing

EU 022 Dry Cobbing

EU 023 Dry Cobbing

EU 024 Dry Cobbing

EU 025 Dry Cobbing

SV 021 Dry Cobber - West

SV 022 Dry Cobber - East

SV 023 Dry Cobber - West Center

SV 024 Dry Cobber - Center

SV 025 Dry Cobber - East Center

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	POLLUTANT LIMITS
2.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	PM < 10 micron: less than or equal to 0.0052 grains/dry standard cubic foot . This limit applies individually to each unit in this group.
3.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	Total Particulate Matter: less than or equal to 0.0052 grains/dry standard cubic foot . This limit applies individually to each unit in this group. This is more stringent than the limit prescribed by Minn. R. 7011.0710, subp. 1(A) which also applies.
4.0		LIMIT	Minn. R. 7011.0710, subp. 1(A)	Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to each unit in this group.
5.0		LIMIT	Minn. R. 7011.0710, subp. 1(B)	Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. An exceedance of this opacity standard occurs whenever any one-hour period contains two or more six-minute periods during which the average opacity exceeds 20%, or whenever any one-hour period contains one or more six-minute periods during which the average opacity exceeds 60%. This limit applies individually to each unit in this group.
6.0		CD	hdr	POLLUTION CONTROL EQUIPMENT REQUIREMENTS
7.0		CD	Minn. R. 7007.0800, subps. 2 & 14	The Permittee shall operate and maintain a bag leak detector for each fabric filter at all times that each fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan.
8.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS
9.0		S/A	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1	Initial Performance Test: due before 12/15/2005 to measure PM and PM10 emissions from one stack in this group.
10.0		S/A	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1	Initial Performance Test: due before 02/15/2008 to measure PM and PM10 emissions from another stack in this group.
11.0		S/A	Minn. R. 7017.2020, subp. 1	Initial Performance Test: due before 12/15/2005 to measure opacity from one stack in this group.
12.0		S/A	Minn. R. 7017.2020, subp. 1	Testing Frequency Plan: due 60 days after 10/14/2005. The plan shall specify a testing frequency for this group on a rotating basis, based on the test data and MPCA guidance. Future performance tests based on one-year (12 months), 36 months, and 60 months intervals, or as applicable, shall be required upon written approval of the MPCA.

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Subject Item: **GP 008 Coarse Tails Handling**

Associated Items: CE 026 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 027 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 028 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 029 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 026 Coarse Tails Conveying

EU 027 Coarse Tails Conveying

EU 028 Coarse Tails Transfer

EU 029 Coarse Tails Loadout

SV 026 Tails Belts

SV 027 Tails Belts

SV 028 Tails Belts

SV 029 Tails Belts

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	POLLUTANT LIMITS
2.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	PM < 10 micron: less than or equal to 0.0025 grains/dry standard cubic foot . This limit applies individually to each unit in this group.
3.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	Total Particulate Matter: less than or equal to 0.0025 grains/dry standard cubic foot . This limit applies indidivually to each unit in this group. This is more stringent than the limit prescribed by Minn. R. 7011.0710, subp. 1(A) which also applies.
4.0		LIMIT	Minn. R. 7011.0710, subp. 1(A)	Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to each unit in this group.
5.0		LIMIT	Minn. R. 7011.0710, subp. 1(B)	Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. An exceedance of this opacity standard occurs whenever any one-hour period contains two or more six-minute periods during which the average opacity exceeds 20%, or whenever any one-hour period contains one or more six-minute periods during which the average opacity exceeds 60%. This limit applies individually to each unit in this group.
6.0		CD	hdr	POLLUTION CONTROL EQUIPMENT REQUIREMENTS
7.0		CD	Minn. R. 7007.0800, subps. 2 & 14	The Permittee shall operate and maintain a bag leak detector for each fabric filter at all times that each fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan.
8.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS
9.0		S/A	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1	Initial Performance Test: due before 12/15/2005 to measure PM and PM10 emissions from one stack in this group.
10.0		S/A	Minn. R. 7017.2020, subp. 1	Initial Performance Test: due before 12/15/2005 to measure opacity from one stack in this group.
11.0		S/A	Minn. R. 7017.2020, subp. 1	Testing Frequency Plan: due 60 days after 11/15/2005. The plan shall specify a testing frequency for this group on a rotating basis, based on the test data and MPCA guidance. Future performance tests based on one-year (12 months), 36 months, and 60 months intervals, or as applicable, shall be required upon written approval of the MPCA.

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Subject Item: **GP 009 Concentrator Bins - W or E; with Cartridge Collectors**

Associated Items: CE 269 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 270 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 030 West Transfer Bin

EU 031 East Transfer Bin

SV 030 Concentrator Transfer Bin - W

SV 031 Concentrator Transfer Bin - E

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	POLLUTANT LIMITS
2.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	PM < 10 micron: less than or equal to 0.0020 grains/dry standard cubic foot . This limit applies individually to each unit in this group.
3.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	Total Particulate Matter: less than or equal to 0.0020 grains/dry standard cubic foot . This limit applies individually to each unit in this group. This is more stringent than the limit prescribed by Minn. R. 7011.0710, subp. 1(A) which also applies.
4.0		LIMIT	Minn. R. 7011.0710, subp. 1(A)	Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to both EU 030 and EU 031.
5.0		LIMIT	Minn. R. 7011.0710, subp. 1(B)	Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. An exceedance of this opacity standard occurs whenever any one-hour period contains two or more six-minute periods during which the average opacity exceeds 20%, or whenever any one-hour period contains one or more six-minute periods during which the average opacity exceeds 60%. This limit applies individually to both EU 030 and EU 031.
6.0		CD	hdr	POLLUTION CONTROL EQUIPMENT REQUIREMENTS
7.0		CD	Minn. R. 7007.0800, subps. 2 & 14	The Permittee shall operate and maintain a bag leak detector for each fabric filter at all times that each fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan.
8.0		CD	Minn. R. 7007.0800, subps. 4, 5 & 14	Gas Stream Pressure Drop: Monitor and record individually for each CE at least once every day when in operation. The pressure drop shall be greater than or equal to 1.0 inches of water. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
9.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS
10.0		S/A	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1	Initial Performance Test: due before 12/15/2005 to measure PM and PM10 emissions from one stack in this group.
11.0		S/A	Minn. R. 7017.2020, subp. 1	Initial Performance Test: due before 12/15/2005 to measure opacity from one stack in this group.
12.0		S/A	Minn. R. 7017.2020, subp. 1	Testing Frequency Plan: due 60 days after 10/14/2005. The plan shall specify a testing frequency for this group on a rotating basis, based on the test data and MPCA guidance. Future performance tests based on one-year (12 months), 36 months, and 60 months intervals, or as applicable, shall be required upon written approval of the MPCA.

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Subject Item: **GP 010 Concentrator Bins**

Associated Items:

CE 033 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 034 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 035 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 036 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 037 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 038 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 039 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 040 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 041 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 042 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 044 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 045 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 046 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 047 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 048 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 049 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 050 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 051 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 052 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 053 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EU 033 West Storage Bin #2
EU 034 West Storage Bins #3
EU 035 West Storage Bins #4
EU 036 West Storage Bins #5
EU 037 West Storage Bin #6
EU 038 West Storage Bin #7
EU 039 West Storage Bin #8
EU 040 West Storage Bin #9
EU 041 West Storage Bin #10
EU 042 West Storage Bin #11
EU 044 East Storage Bin #101
EU 045 East Storage Bin #102
EU 046 East Storage Bin #103
EU 047 East Storage Bin #104
EU 048 East Storage Bin #105
EU 049 East Storage Bin #106
EU 050 East Storage Bin #107
EU 051 East Storage Bin #108
EU 052 East Storage Bin #109
EU 053 East Storage Bin #110
SV 033 Conc Bin - Section 2
SV 034 Conc Bin - Section 3
SV 035 Conc Bin - Section 4

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Associated Items: SV 036 Conc Bin - Section 5
SV 037 Conc Bin - Section 6
SV 038 Conc Bin - Section 7
SV 039 Conc Bin - Section 8
SV 040 Conc Bin - Section 9
SV 041 Conc Bin - Section 10
SV 042 Conc Bin - Section 11
SV 044 Conc Bin - Section 101
SV 045 Conc Bin - Section 102
SV 046 Conc Bin - Section 103
SV 047 Conc Bin - Section 104
SV 048 Conc Bin - Section 105
SV 049 Conc Bin - Section 106
SV 050 Conc Bin - Section 107
SV 051 Conc Bin - Section 108
SV 053 Conc Bin - Section 110
SV 276 Conc Bin - Section 109

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	POLLUTANT LIMITS
2.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k), and (j) for EU 033-041 BACT Limits; Minn. R. 7007.3000	PM < 10 micron: less than or equal to 0.0030 grains/dry standard cubic foot . This limit applies individually to each unit in this group. This limit shall apply individually to all operating concentrator lines after 12/31/2006. Prior to that time, up to four concentrators from the Group of EU 042 and EU 044-052, may be subject to a different limit of less than or equal to 0.063 grains/dry standard cubic foot, unless more than two concentrators from the group of EU 033-041 are operating.
3.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k), and (j) for EU 033-041 BACT Limits; Minn. R. 7007.3000	Total Particulate Matter: less than or equal to 0.0030 grains/dry standard cubic foot . This limit applies individually to each unit in this group and is more stringent than the limit prescribed by Minn. R. 7011.0710, subp. 1(A) which also applies. This limit shall apply individually to all operating concentrator lines after 12/31/2006. Prior to that time, up to four concentrators from the Group of EU 042 and EU 044-052, may be subject to a different limit of less than or equal to 0.063 grains/dry standard cubic foot, unless more than two concentrators from the group of EU 033-041 are operating.
4.0		LIMIT	Minn. R. 7011.0710, subp. 1(A)	Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to each unit in this group.
5.0		LIMIT	Minn. R. 7011.0710, subp. 1(B)	Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. An exceedance of this opacity standard occurs whenever any one-hour period contains two or more six-minute periods during which the average opacity exceeds 20%, or whenever any one-hour period contains one or more six-minute periods during which the average opacity exceeds 60%. This limit applies individually to each unit in this group.
6.0		CD	hdr	POLLUTION CONTROL EQUIPMENT REQUIREMENTS
7.0		CD	Minn. R. 7007.0800, subps. 2 & 14	The Permittee shall operate and maintain a bag leak detector for each fabric filter at all times that each fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan.
8.0		CD	Minn. R. 7007.0800, subps. 4, 5 & 14	Gas Stream Pressure Drop: Upon installation of monitoring equipment, monitor and record individually for each fabric filter at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

9.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS
10.0		S/A	Title I Condition: 40 CFR Section 52.21(k), and (j) for EU 033-041 BACT Limits; Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1	Initial Performance Test: due before 04/15/2006 to measure PM and PM10 emissions from one stack in this group equipped with a fabric filter.
11.0		S/A	Minn. R. 7017.2020, subp. 1	Initial Performance Test: due before 04/15/2006 to measure opacity from one stack in this group.
12.0		S/A	Minn. R. 7017.2020, subp. 1	Testing Frequency Plan: due 60 days after 04/12/2006. The plan shall specify a testing frequency for this group on a rotating basis, based on the test data and MPCA guidance. Future performance tests based on one-year (12 months), 36 months, and 60 months intervals, or as applicable, shall be required upon written approval of the MPCA.

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Subject Item: **GP 012 Additive Handling & Storage - West (by SV locations)**

Associated Items: CE 072 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 073 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 074 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 075 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 076 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 072 West Additive Bin 2

EU 073 West Additive Bin 1

EU 074 West Additive Blending 1 & 2

EU 075 West Additive Blending 3 & 4

EU 076 West Additive Blending 5 & 6

SV 072 West Pel Bentonite Storage 2

SV 073 West Pel Bentonite Storage 1

SV 074 Fce 1,2 Bentonite Day Bin & Air Slide

SV 075 Fce 3,4 Bentonite Day Bin & Air Slide

SV 076 Fce 5,6 Bentonite Day Bin & Air Slide

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	POLLUTANT LIMITS
2.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	PM < 10 micron: less than or equal to 0.010 grains/dry standard cubic foot . This limit applies individually to each unit in this group.
3.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	Total Particulate Matter: less than or equal to 0.010 grains/dry standard cubic foot . This limit applies individually to each unit in this group. This is more stringent than the limit prescribed by Minn. R. 7011.0710, subp. 1(A) which also applies.
4.0		LIMIT	Minn. R. 7011.0710, subp. 1(A)	Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to each unit in this group.
5.0		LIMIT	Minn. R. 7011.0710, subp. 1(B)	Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. An exceedance of this opacity standard occurs whenever any one-hour period contains two or more six-minute periods during which the average opacity exceeds 20%, or whenever any one-hour period contains one or more six-minute periods during which the average opacity exceeds 60%. This limit applies individually to each unit in this group.
6.0		CD	hdr	POLLUTION CONTROL EQUIPMENT REQUIREMENTS
7.0		CD	Minn. R. 7007.0800, subps. 4, 5 & 14	Process monitoring: the visual emissions observer in the facility staff shall check stack visible emissions (opacity) for each unit in this group once daily using one or more Daily Visible Emission Checklists.
8.0		CD	Minn. R. 7007.0800, subps. 4, 5 & 14	Gas Stream Pressure Drop: Upon installation of monitoring equipment, monitor and record individually for each CE at least once every day when in operation. The differential pressure shall be greater than or equal to 1 inches water column. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan. (Note these baghouses are shaker style units that do not employ a cleaning cycle pulse for bag cleaning.)
9.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS
10.0		S/A	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1	Performance Test: due 1,800 days after 01/31/2005 and every five years thereafter to measure PM and PM10 emissions from two stacks on a rotating basis in the pool of GP 012 and GP 013.
11.0		S/A	Minn. R. 7017.2020, subp. 1	Performance Test: due 1,800 days after 01/31/2005 and every five years thereafter to measure opacity from two stacks on a rotating basis in the pool of GP 012 and GP 013.

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Subject Item: **GP 013 Additive Handling & Storage - East (by SV locations)**

Associated Items:
CE 077 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 078 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 079 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 080 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 081 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 082 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 083 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
CE 084 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
EU 077 East Additive Blending - Fce 11 Day Bin
EU 078 East Additive Blending - Fce 11 Air Slide
EU 079 East Additive Blending - Fce 12 Day Bin
EU 080 East Additive Blending - Fce 12 Air Slide
EU 081 East Additive Bins 3-4
EU 082 East Additive Bins 5-6
EU 083 East Additive Unload
EU 084 East Additive Unload, Supplemental
SV 077 Furnace 11 Day Bin Collector
SV 078 Furnace 11 Air Slide Collector
SV 079 Furnace 12 Day Bin Collector
SV 080 Furnace 12 Air Slide Collector
SV 081 East Pel Ben Storage Bin 3,4
SV 082 East Pel Ben Storage Bin 5,6
SV 083 Bentonite Unloading Collector
SV 084 Supplemental Ben Unload Col

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	POLLUTANT LIMITS
2.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	PM < 10 micron: less than or equal to 0.010 grains/dry standard cubic foot . This limit applies individually to each unit in this group.
3.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	Total Particulate Matter: less than or equal to 0.010 grains/dry standard cubic foot . This limit applies individually to each unit in this group. This is more stringent than the limit prescribed by Minn. R. 7011.0710, subp. 1(A) which also applies.
4.0		LIMIT	Minn. R. 7011.0710, subp. 1(A)	Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to each unit in this group.
5.0		LIMIT	Minn. R. 7011.0710, subp. 1(B)	Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. An exceedance of this opacity standard occurs whenever any one-hour period contains two or more six-minute periods during which the average opacity exceeds 20%, or whenever any one-hour period contains one or more six-minute periods during which the average opacity exceeds 60%. This limit applies individually to each unit in this group.
6.0		CD	hdr	POLLUTION CONTROL EQUIPMENT REQUIREMENTS
7.0		CD	Minn. R. 7007.0800, subps. 4, 5 & 14	Process monitoring: the visual emissions observer in the facility staff shall check stack visible emissions (opacity) for each unit in this group once daily using one or more Daily Visible Emission Checklists.

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Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

8.0		CD	Minn. R. 7007.0800, subps. 4, 5 & 14	Gas Stream Pressure Drop: Upon installation of monitoring equipment, monitor and record individually for each CE at least once every day when in operation. The differential pressure shall be greater than or equal to 0.1 inches water column. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan. (Note these baghouses are shaker style units that do not employ a cleaning cycle pulse for bag cleaning.)
9.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS
10.0		S/A	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1	Performance Test: due 1,800 days after 01/31/2005 and every five years thereafter to measure PM and PM10 emissions from two stacks on a rotating basis in the pool of GP 012 and GP 013.
11.0		S/A	Minn. R. 7017.2020, subp. 1	Performance Test: due 1,800 days after 01/31/2005 and every five years thereafter to measure opacity from two stacks on a rotating basis in the pool of GP 012 and GP 013.

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Subject Item: **GP 014 Pellet Indurating Furnaces**

Associated Items:

CE 101 Electrostatic Precipitator - High Efficiency
CE 102 Electrostatic Precipitator - High Efficiency
CE 103 Electrostatic Precipitator - High Efficiency
CE 104 Electrostatic Precipitator - High Efficiency
CE 105 Electrostatic Precipitator - High Efficiency
CE 111 Electrostatic Precipitator - High Efficiency
CE 112 Electrostatic Precipitator - High Efficiency
CE 113 Electrostatic Precipitator - High Efficiency
CE 114 Electrostatic Precipitator - High Efficiency
CE 115 Electrostatic Precipitator - High Efficiency
CE 261 Electrostatic Precipitator - High Efficiency
CE 262 Electrostatic Precipitator - High Efficiency
CE 263 Electrostatic Precipitator - High Efficiency
CE 271 Electrostatic Precipitator - High Efficiency
CE 272 Electrostatic Precipitator - High Efficiency
CE 273 Electrostatic Precipitator - High Efficiency
EU 100 Furnace 11 Hood Exhaust #1101, #1102, & #1103
EU 104 Furnace 11 Waste Gas #1105 & #1104
EU 110 Furnace 12 Hood Exhaust #1201, #1202, & #1203
EU 114 Furnace 12 Waste Gas #1205 & #1204
EU 262 Furnace 6 H.E./W.G. #601, #602, & #603
EU 634 Fce 5 HE-WG #501; #502; #503
SV 101 Furnace 11 Hood Exhaust
SV 102 Furnace 11 Hood Exhaust
SV 103 Furnace 11 Hood Exhaust
SV 104 Furnace 11 Waste Gas
SV 105 Furnace 11 Waste Gas
SV 111 Furnace 12 Hood Exhaust
SV 112 Furnace 12 Hood Exhaust
SV 113 Furnace 12 Hood Exhaust
SV 114 Furnace 12 Waste Gas
SV 115 Furnace 12 Waste Gas
SV 261 Furnace 6 Hood Exhaust-Waste Gas
SV 262 Furnace 6 Hood Exhaust-Waste Gas
SV 263 Furnace 6 Hood Exhaust-Waste Gas
SV 266 Fce 5 HE-WG #501;#502;#503
SV 267 Fce 5 HE-WG #501;#502;#503
SV 268 Fce 5 HE-WG #501;#502;#503
SV 270 Fce 11 Hood Exhaust Bypass
SV 271 Fce 11 Waste Gas Bypass
SV 272 Fce 12 Hood Exhaust Bypass
SV 273 Fce 12 Waste Gas Bypass
SV 274 Fce 5 HE-WG Bypass

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Associated Items: SV 275 Fce 6 HE-WG Bypass

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	POLLUTANT LIMITS
2.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	PM < 10 micron: less than or equal to 0.020 grains/dry standard cubic foot for EU 100 and EU 110 individually.
3.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	PM < 10 micron: less than or equal to 0.01 grains/dry standard cubic foot for EU 104, EU 114, EU 262 and EU 634 individually.
4.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k), and (j) for EU 634 BACT Limits; Minn. R. 7007.3000	PM < 10 micron: less than or equal to 0.18 lbs/million Btu heat input for EU 634 individually.
5.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	Total Particulate Matter: less than or equal to 0.020 grains/dry standard cubic foot for EU 100 and EU 110 individually. This is more stringent than the limit prescribed by Minn. R. 7011.0610, subp. 1(A) which also applies.
6.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	Total Particulate Matter: less than or equal to 0.01 grains/dry standard cubic foot for EU 104, EU 114, EU 262, and EU 634 individually. This is more stringent than the limit prescribed by Minn. R. 7011.0610, subp. 1(A) which also applies.
7.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k), and (j) for EU 634 BACT Limits; Minn. R. 7007.3000	Total Particulate Matter: less than or equal to 0.18 lbs/million Btu heat input for EU 634 individually. This is more stringent than the limit prescribed by Minn. R. 7011.0610, subp. 1(A) which also applies.
8.0		LIMIT	Minn. R. 7011.0610, subp. 1(A)	Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to each SV in this group except the bypass stacks.
9.0		LIMIT	Minn. R. 7011.0610, subp. 1(B)	Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60% opacity. An exceedance of this opacity standard occurs whenever any one-hour period contains two or more 6-minute periods during which the average opacity exceeds 20%, or whenever any one-hour period contains one or more 6-minute periods during which the average opacity exceeds 60%. This limit applies individually to each SV in this group except the bypass stacks.
10.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	Sulfur Dioxide: less than or equal to 0.22 lbs/million Btu heat input for EU 100 and EU 110 individually. This is more stringent than the limit prescribed by Minn. R. 7011.0610, subp. 2(B)(1) which also applies.
11.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	Sulfur Dioxide: less than or equal to 0.074 lbs/million Btu heat input for EU 104 and EU 114 individually. This is more stringent than the limit prescribed by Minn. R. 7011.0610, subp. 2(B)(1) which also applies.
12.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k) and (j) for EU 634 BACT Limits; Minn. R. 7007.3000	Sulfur Dioxide: less than or equal to 0.13 lbs/million Btu heat input for EU 262 and EU 634 individually. This is more stringent than the limit prescribed by Minn. R. 7011.0610, subp. 2(B)(1) which also applies.
13.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k) and (j) for EU 634 BACT Limits; Minn. R. 7007.3000	Sulfur Dioxide: less than or equal to 0.072 lbs/million Btu heat input for EU 634 individually when burning natural gas. This is more stringent than the limit prescribed by Minn. R. 7011.0610, subp. 2(B)(1) which also applies.
14.0		LIMIT	Minn. R. 7011.0610, subp. 2(B)(1)	Sulfur Dioxide: less than or equal to 2.0 lbs/million Btu heat input when the indurating furnace is fired with a liquid fossil fuel. This limit applies individually to each furnace in this group.
15.0		LIMIT	Title I Condition: 40 CFR Section 52.21(j) for EU 634 BACT limits; Minn. R. 7007.3000	Nitrogen Oxides: less than or equal to 40 parts per million for EU 634 individually.
16.0		LIMIT	Title I Condition: 40 CFR Section 52.21(j) for EU 634 BACT limits; Minn. R. 7007.3000	Nitrogen Oxides: less than or equal to 46 lbs/hour for EU 634 individually.
17.0		CD	hdr	POLLUTION CONTROL EQUIPMENT REQUIREMENTS
18.0		CD	Minn. R. 7007.0800, subp. 14	Wet ESP Requirement: The Permittee shall operate all wet electrostatic precipitators associated with each furnace and, for each Wet ESP, with at least one and no fewer than the same number of electric fields on as during the most recent performance test that has shown compliance with the PM and PM10 emission limits for this group.

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19.0		CD	Minn. R. 7007.0800, subps. 4, 5 & 14	Wet ESP Requirement: Monitor and record whether the electric field is on for each CE once every 24 hours when in operation. Monitor and record primary amperage, primary voltage, and inlet gas temperature for each CE once every 24 hours when in operation. The minimum secondary voltage for the following CE is as described below: CE 271: greater than or equal to 1 kilovolts using 24-hour block average CE 272: greater than or equal to 0 kilovolts using 24-hour block average CE 273: greater than or equal to 1 kilovolts using 24-hour block average
20.0		CD	Minn. R. 7007.0800, subps. 4, 5 & 14	Water Flow Rate: Monitor and record the water flow rate to each CE once every 24 hours when in operation. The water flow rate shall be greater than or equal to 145 gallons/minute with exceptions listed below. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
21.0		CD	Minn. R. 7007.0800, subp. 5	Bypass Event Record Keeping: the Permittee shall record and maintain records of the time, date, duration, cause, and corrective action of wet ESP bypass events.
22.0		CD	hdr	MONITORING REQUIREMENTS
23.0		CD	Title I Condition: 40 CFR Section 52.21(j): BACT; Minn. R. 7007.3000; Minn. R. 7017.1006	Emissions Monitoring: The owner or operator shall install and operate a NOx Continuous Emission Monitoring System (CEMS) to measure NOx emissions from EU 634. One NOx monitor shall be installed on each stack (SV 266, SV 267, and SV 268).
24.0		CD	Title I Condition: 40 CFR Section 52.21(j): BACT; Minn. R. 7007.3000; Minn. R. 7017.1006	Emissions Monitoring: The owner or operator shall install and operate an offgas flow monitoring system to measure offgas flow from EU 634. One flow meter shall be installed on each stack (SV 266, SV 267, and SV 268). (This is needed to determine the mass of emissions from the concentration measurements.)
25.0		S/A	Title I Condition: 40 CFR Section 52.21(j): BACT; Minn. R. 7007.3000; Minn. R. 7017.1006	Initial Startup of the Monitor: due 180 days after Initial Startup of Furnace 5. As of this date, each of the NOx monitors and flow meters shall be installed and operational.
26.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS
27.0		S/A	Title I Condition: 40 CFR Section 52.21(k), and (j) for EU 634 BACT Limits; Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1	Initial Performance Test: due 180 days after Initial Startup to measure PM, PM10, and SO2 emissions from Furnace 5. Sampling shall be performed for at least one stack and the gas flow rate shall be determined for all stacks except the bypass stacks.
28.0		S/A	Title I Condition: 40 CFR Section 52.21(k), and (j) for EU 634 BACT Limits; Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1	Performance Test: due before 08/28/2014 and every three years thereafter to measure PM and PM10 emissions from two furnaces (on a rotating basis, one from Furnaces 11 and 12 and the other from Furnaces 5 and 6) in this group. PM and PM10 sampling shall be performed for at least two stacks for Furnace 11 or Furnace 12, and for at least one stack for Furnace 5 or Furnace 6. Gas flow rate shall be determined for all stacks of each furnace except the bypass stacks.
29.0		S/A	Title I Condition: 40 CFR Section 52.21(k), and (j) for EU 634 BACT Limits; Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1	Performance Test: due 60 days after Startup with fuel oil followed by 500 hours of use of fuel oil at any furnace, to measure SO2 emissions. Sampling shall be performed for at least two stack for Furnace 11 or Furnace 12, and for at least one stack for Furnace 5 or Furnace 6. Gas flow rate shall be determined for all stacks of each furnace except the bypass stacks.
30.0		S/A	Title I Condition: 40 CFR Section 52.21(k), and (j) for EU 634 BACT Limits; Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1	Notification: due 15 days after Startup with fuel oil followed by 500 hours of use of fuel oil at any furnace.
31.0		S/A	Minn. R. 7017.2020, subp. 1	Testing Frequency Plan: due 60 days after Initial Performance Test for SO2 emissions from Furnace 5. The plan shall specify a testing frequency for this group on a rotating basis, based on the test data and MPCA guidance. Future performance tests based on one-year (12 months), 36 months, and 60 months intervals, or as applicable, shall be required upon written approval of the MPCA.
32.0		S/A	Minn. R. 7017.2020, subp. 1	Testing Frequency Plan: due 60 days after Initial Performance Test for SO2 emissions while burning fuel oil for any furnace (EU100, EU110, EU262, or EU634). The plan shall specify a testing frequency for this group on a rotating basis, based on the test data and MPCA guidance. Future performance tests based on one-year (12 months), 36 months, and 60 months intervals, or as applicable, shall be required upon written approval of the MPCA.

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Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Subject Item: **GP 015 Furnace Discharge of Finished Pellets**

Associated Items: CE 120 Rotoclone

CE 121 Rotoclone

CE 265 Rotoclone

CE 274 Wet Scrubber-High Efficiency

EU 120 Furnace 11 Discharge

EU 121 Furnace 12 Discharge

EU 265 Furnace 6 Discharge

EU 635 Furnace 5 Discharge

SV 120 Furnace 11 Discharge

SV 121 Furnace 12 Discharge

SV 265 Furnace 6 Discharge

SV 269 Furnace 5 Discharge

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	POLLUTANT LIMITS
2.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	PM < 10 micron: less than or equal to 0.011 grains/dry standard cubic foot for SV 120 and SV 121 individually.
3.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	PM < 10 micron: less than or equal to 0.012 grains/dry standard cubic foot for SV 265 individually.
4.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k) & (j) for SV 269 BACT Limits; Minn. R. 7007.3000	PM < 10 micron: less than or equal to 0.0050 grains/dry standard cubic foot for SV 269 individually.
5.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	Total Particulate Matter: less than or equal to 0.011 grains/dry standard cubic foot for SV 120 and SV 121 individually. This is more stringent than the limit prescribed by Minn. R. 7011.0710, subp. 1(A) which also applies.
6.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k)&(j) for SV 269 BACT Limits; Minn. R. 7007.3000	Total Particulate Matter: less than or equal to 0.012 grains/dry standard cubic foot for SV 265 individually. This is more stringent than the limit prescribed by Minn. R. 7011.0710, subp. 1(A) which also applies.
7.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k) & (j) for SV 269 BACT Limits; Minn. R. 7007.3000	Total Particulate Matter: less than or equal to 0.0050 grains/dry standard cubic foot for SV 269 individually. This is more stringent than the limit prescribed by Minn. R. 7011.0710, subp. 1(A) which also applies.
8.0		LIMIT	Minn. R. 7011.0710, subp. 1(A)	Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to each unit in this group.
9.0		LIMIT	Minn. R. 7011.0710, subp. 1(B)	Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. An exceedance of this opacity standard occurs whenever any one-hour period contains two or more six-minute periods during which the average opacity exceeds 20%, or whenever any one-hour period contains one or more six-minute periods during which the average opacity exceeds 60%. This limit applies individually to each unit in this group.
10.0		CD	hdr	POLLUTION CONTROL EQUIPMENT REQUIREMENTS

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Facility Name: Northshore Mining - Silver Bay

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11.0		CD	Minn. R. 7007.0800, subps. 4, 5 & 14	Gas Stream Pressure drop: Upon installation of monitoring equipment, monitor and record individually for each CE at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan. This requirement of gas stream pressure drop may be replaced with a requirement of monitoring the associated fan motor amperage, if MPCA approves supporting field data submitted by the Permittee for such replacement. Such field data shall be developed during Initial Performance Testing for at least one rotoclone controlled stack each of GP 015 and GP 016. In the interim before the MPCA approval, the Permittee shall perform both gas stream pressure drop monitoring and fan motor amperage monitoring to initiate the supporting field data development.
12.0		CD	Minn. R. 7007.0800, subps. 4, 5 & 14	Liquid Flow Rate: Upon installation of monitoring equipment, monitor and record individually the scrubbing liquid flow rate to CE 274 at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
13.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS
14.0		S/A	Title I Condition: 40 CFR Section 52.21(k)&(j) for SV 269 BACT Limits; Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1	Initial Performance Test: due 180 days after Resuming Operation to measure PM and PM10 from SV 269.
15.0		S/A	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1	Performance Test: due 180 days after Resuming Operation of any emission unit in GP 015, to measure PM and PM10 emissions from one stack in this group other than SV 269. The presently required 3-year testing frequency for this group would require testing again by 6/15/2012 unless a new testing frequency is established.
16.0		S/A	Minn. R. 7017.2020, subp. 1	Testing Frequency Plan: due 60 days after 11/17/2005. The plan shall specify a testing frequency for this group on a rotating basis, based on the test data and MPCA guidance. Future performance tests based on one-year (12 months), 36 months, and 60 months intervals, or as applicable, shall be required upon written approval of the MPCA.

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Subject Item: **GP 016 Pellet Screening (indoor - product & hearth layer)**

Associated Items: CE 097 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 122 Rotoclone

CE 123 Rotoclone

CE 124 Rotoclone

CE 125 Rotoclone

EU 097 Hearth Layer

EU 122 Furnace 11 Pellet Screen

EU 123 Screen House North

EU 124 Furnace 12 Pellet Screen

EU 125 Screen House South

SV 097 Hearth Layer

SV 122 Furnace 11 Screening

SV 123 East Furnace Screen House

SV 124 Furnace 12 Screening

SV 125 East Furnace Screen House

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	POLLUTANT LIMITS
2.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	PM < 10 micron: less than or equal to 0.0063 grains/dry standard cubic foot for EU 097 individually.
3.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	PM < 10 micron: less than or equal to 0.011 grains/dry standard cubic foot for EU 122 - 124 individually.
4.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	PM < 10 micron: less than or equal to 0.015 grains/dry standard cubic foot for EU 125 individually.
5.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	Total Particulate Matter: less than or equal to 0.0063 grains/dry standard cubic foot for EU 097 individually. This is more stringent than the limit as prescribed by 40 CFR Section 60.382(a)(1) which also applies.
6.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	Total Particulate Matter: less than or equal to 0.011 grains/dry standard cubic foot for EU 122 - 124 individually. This is more stringent than the limit as prescribed by 40 CFR Section 60.382(a)(1) which also applies.
7.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	Total Particulate Matter: less than or equal to 0.015 grains/dry standard cubic foot for EU 125 individually. This is more stringent than the limit as prescribed by 40 CFR Section 60.382(a)(1) which also applies.
8.0		LIMIT	40 CFR Section 60.382(a)(1); Minn. R. 7011.2700	Total Particulate Matter: less than or equal to 0.05 grams/dry standard cubic meter (0.022 grains/dry standard cubic foot) of exhaust gas on and after the date on which the performance test required is completed. This limit applies individually to each unit in this group.
9.0		LIMIT	40 CFR Section 60.382(a)(2); Minn. R. 7011.2700	Opacity: less than or equal to 7 percent opacity for SV 097.
10.0		CD	hdr	POLLUTION CONTROL EQUIPMENT REQUIREMENTS
11.0		CD	40 CFR Section 60.384(a); 40 CFR Section 60.385(b); Minn. R. 7011.2700	Gas Stream Pressure Drop: Install, calibrate, maintain, and operate a monitoring device for each CE in this group for the continuous measurement and recording of the change in pressure of the gas stream through the CE. The monitoring device must be certified by the manufacturer to be accurate within 250 Pascals (1 inch water) gauge pressure, plus or minus; and must be calibrated on an annual basis in accordance with manufacturer's instructions.
12.0		LIMIT	40 CFR Section 60.384(a); 40 CFR Section 60.385(b); Minn. R. 7011.2700	On SV 097, Hearth Layer, maintain differential pressure across filter as follows: Pressure Drop: greater than or equal to 3.0 inches of water column and less than or equal to 10.0 inches of water column

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

13.0		CD	40 CFR Section 60.384(a); 40 CFR Section 60.385(b); Minn. R. 7011.2700	Fan Motor Amperage: Install, calibrate, maintain, and operate a monitoring device for each CE in this group, except CE 097, for the continuous measurement and recording of the fan motor amperage draw on the CE. This alternative monitoring parameter is approved for this group as per a November 30, 2004, letter from U.S. EPA to Northshore Mining. By no later than September 18, 2006, establish the operating range and submit it in an updated O&M plan. Once submitted, it shall become an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
14.0		CD	Minn. R. 7007.0800, subps. 2 & 14	The Permittee shall operate and maintain a bag leak detector for each fabric filter at all times that each fabric filter and emission unit controlled by the fabric filter is in operation. Operation and maintenance of the bag leak detector shall be included in the O & M Plan.
15.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS
16.0		S/A	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1	Performance Test: due 120 days after Resuming Operation of EU 097 and every five years thereafter to measure PM and PM10 emissions from SV 097.
17.0		S/A	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1	Performance Test: due 120 days after Resuming Operation of any emission unit in GP 016, to measure PM and PM10 emissions from one stack in this group other than SV 097.

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Subject Item: **GP 019 Concentrate Loadout Operations**

Associated Items: CE 205 6% or Greater Moisture Content

CE 275 6% or Greater Moisture Content

CE 276 6% or Greater Moisture Content

CE 277 6% or Greater Moisture Content

CE 278 6% or Greater Moisture Content

CE 279 6% or Greater Moisture Content

EU 637 Concentrate Loadout Conveyor

EU 638 Concentrate Elevating Conveyor

EU 639 Concentrate Transfer Conveyor

EU 640 Concentrate Shuttle Conveyor

EU 641 Concentrate Silo 1 Loadout to Railcar

EU 642 Concentrate Silo 2 Loadout to Railcar

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	POLLUTANT LIMITS
2.0		LIMIT	40 CFR Section 60.382(b); Minn. R. 7011.2700	Opacity: less than or equal to 10 percent opacity for any Process Fugitive Emissions.
3.0		CD	hdr	OPERATIONAL REQUIREMENTS
4.0		S/A	40 CFR Section 60.7(a)(3); Minn. R. 7019.0100, subp. 1	Notification of the Actual Date of Initial Startup: due 15 days after Initial Startup for emission units (beyond EU 637) in GP 019 (Concentrate Loadout Operations).
5.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS
6.0		S/A	40 CFR Section 60.385(a) & (b); Minn. R. 7011.2700	Initial Performance Test: due 60 days after achieving maximum capacity, but no later than 180 days after Initial Startup, to measure Process Fugitive Emissions from emission units (beyond EU 637) in GP 019.
7.0		S/A	Minn. R. 7017.2020, subp. 1	Testing Frequency Plan: due 60 days after Initial Performance Test. The plan shall specify a testing frequency for this group on a rotating basis, based on the test data and MPCA guidance. Future performance tests based on one-year (12 months), 36 months, and 60 months intervals, or as applicable, shall be required upon written approval of the MPCA.

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Subject Item: **EU 005 Coal Transfer & Coal Bunkers**

Associated Items: SV 005 Coal Transfer & Bunkers

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	POLLUTANT LIMITS
2.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	PM < 10 micron: less than or equal to 0.0062 grains/dry standard cubic foot .
3.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	Total Particulate Matter: less than or equal to 0.0062 grains/dry standard cubic foot . This is more stringent than the limit prescribed by Minn. R. 7011.0710, subp. 1(A) which also applies.
4.0		LIMIT	Minn. R. 7011.0710, subp. 1(A)	Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.
5.0		LIMIT	Minn. R. 7011.0710, subp. 1(B)	Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60% opacity. An exceedance of this opacity standard occurs whenever any one-hour period contains two or more 6-minute periods during which the average opacity exceeds 20%, or whenever any one-hour period contains one or more 6-minute periods during which the average opacity exceeds 60%.
6.0		CD	hdr	OPERATIONAL REQUIREMENTS
7.0		CD	Minn. R. 7007.0800, subps. 4, 5 & 14	Process monitoring: the visual emissions observer in the facility staff shall check stack visible emissions (opacity) once daily using a Daily Visible Emission Checklist.
8.0		CD	hdr	POLLUTION CONTROL EQUIPMENT REQUIREMENTS
9.0		CD	Minn. R. 7011.0075, subp. 2	The Permittee shall maintain each piece of control equipment according to the manufacturer's specification, shall conduct inspections, and maintain documentation of those actions as required by Minn. R. 7011.0075, subp. 2(A) to 2(I).
10.0		LIMIT	Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 1.0 inches of water column and less than or equal to 6.0 inches of water column as determined during the June 7, 2011 performance test, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change. The Permittee shall record the pressure drop at least once every 24 hours when in operation.
11.0		CD	Minn. R. 7007.0800, subps. 4 and 5	Recordkeeping of Pressure Drop. The Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit.
12.0		CD	Minn. R. 7007.0800, subps. 4, 5, and 14	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - visible emissions are observed; - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.
13.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS
14.0		S/A	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000; Minn. R. 7017.2020, subp. 1	Initial Performance Test: due before 12/15/2005 to measure PM and PM10 emissions.
15.0		S/A	Minn. R. 7017.2020, subp. 1	Initial Performance Test: due before 12/15/2005 to measure opacity.

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

16.0		S/A	Minn. R. 7017.2020, subp. 1	Testing Frequency Plan: due 60 days after 10/12/2005. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 months), 36 months, and 60 months intervals, or as applicable, shall be required upon written approval of the MPCA.

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Subject Item: **EU 043 West Storage Bin #12**

Associated Items: CE 043 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones

SV 043 Conc Bin - Section 12 - Fluxstone

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	POLLUTANT LIMITS
2.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	PM < 10 micron: less than or equal to 0.0063 grains/dry standard cubic foot .
3.0		LIMIT	Title I Condition: 40 CFR Section 52.21(k); Minn. R. 7007.3000	Total Particulate Matter: less than or equal to 0.0063 grains/dry standard cubic foot . This is more stringent than the limit prescribed by Minn. R. 7011.0710, subp. 1(A) which also applies.
4.0		LIMIT	Minn. R. 7011.0710, subp. 1(A)	Total Particulate Matter: less than or equal to 0.30 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.
5.0		LIMIT	Minn. R. 7011.0710, subp. 1(B)	Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. An exceedance of this opacity standard occurs whenever any one-hour period contains two or more six-minute periods during which the average opacity exceeds 20%, or whenever any one-hour period contains one or more six-minute periods during which the average opacity exceeds 60%.
6.0		CD	hdr	OPERATIONAL REQUIREMENTS
7.0		CD	Minn. R. 7007.0800, subps. 4, 5 & 14	Process monitoring: the visual emissions observer in the facility staff shall check stack visible emissions (opacity) once daily using one or more Daily Visible Emission Checklists.

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Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Subject Item: EU 636 60A to 60B transfer and 5x12 screen

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	POLLUTANT LIMITS
2.0		LIMIT	40 CFR Section 60.382(b); Minn. R. 7011.2700	Opacity: less than or equal to 10 percent opacity for any Process Fugitive Emission. Note that, due to lack of a stack/vent associated with any indoor conveyor transfer point in EU 636, PM and Opacity limits specified in 40 CFR 60.382(a) are not given for EU 636.

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Subject Item: **MR 005 NOx monitor for SV266**

Associated Items: CM 009 Furnace 5, EU634, NOx, ppm and lb/hr

EU 634 Fce 5 HE-WG #501; #502; #503

SV 266 Fce 5 HE-WG #501;#502;#503

	NC/ CA	Type	Citation	Requirement
1.0		CD	Minn. R. 7017.1040, subp. 1	Installation Notification: due 60 days before installing the continuous emissions monitoring system. The notification shall include plans and drawings of the system.
2.0		S/A	Minn. R. 7017.1050, subp. 1	CEM Certification Test: due 120 days after Resuming Operation of Furnace 5. Follow the Performance Specifications listed in 40 CFR pt. 60, Appendix B. Furnace 5 was reactivated September 1, 2010 and the CEM Certification Test was due by December 30, 2010. A test extension was submitted to extend the due date to April 29, 2011. The certification test was completed on December 29, 2010.
3.0		CD	Minn. R. 7017.1060, subps. 1-3; Minn. R. 7017.1080, subps. 1-4	CEMS Certification Test Plan: due 30 days before CEMS Certification Test CEMS Certification Test Pretest Meeting: due 7 days before CEMS Certification Test CEMS Certification Test Report: due 45 days after CEMS Certification Test CEMS Certification Test Report - Microfiche Copy: due 105 days after CEMS Certification Test The Notification, Test Plan, and Test Report may be submitted in alternate format as allowed by Minn. R. 7017.1120, subp. 2
4.0		CD	Minn. R. 7017.1170, subp. 3	CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) gas concentrations at least once daily. The CEMS shall be adjusted whenever the CD exceeds twice the specification of 40 CFR pt. 60, Appendix B. 40 CFR pt. 60, Appendix F, shall be used to determine out-of-control periods for CEMS. Follow the procedures in 40 CFR pt. 60, Appendix F.
5.0		S/A	Minn. R. 7017.1170, subp. 4	Cylinder Gas Audit: due before end of each calendar half-year starting 12/29/2010, except that a CGA is not required during any calendar half year in which a RATA was performed. The CGAs shall be conducted at least three months apart but no more than eight months apart. A CGA shall be conducted according to the procedures in 40 CFR pt. 60, Appendix F, Section 5.1.2. If the monitored emission unit was operated for less than 24 hours during the calendar half year, a CGA is not required for that calendar half year.
6.0		S/A	Minn. R. 7017.1180, subp. 1	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter starting 07/14/2006 in which a CGA was conducted.
7.0		S/A	Minn. R. 7017.1170, subp. 5	CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year starting 12/29/2010. A RATA is not required in any calendar year if a RATA conducted in the previous year demonstrated a relative accuracy value of less than 15 percent or if the associated emissions unit operated less than 48 hours during the calendar year. If the exception is used, the next RATA shall be conducted during the first half of the following calendar year. RATAs shall be conducted at least 3 months apart and according to 40 CFR pt. 60, Appendix F, Section 5.1.1.
8.0		CD	Minn. R. 7017.1180, subp. 2	Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS Relative Accuracy Test Audit (RATA).
9.0		S/A	Minn. R. 7017.1180, subp. 3	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter starting 07/14/2006 in which a RATA was conducted.
10.0		S/A	Minn. R. 7017.1110, subps. 1 & 2	Excess Emissions/Downtime Reports (EER's): due 30 days after end of each calendar quarter starting 12/29/2010. Submit Deviations Reporting Form DRF-1 as amended. The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions. The EER must be submitted even if there were no excess emissions, downtime or bypasses during the quarter.

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Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

11.0		CD	Minn. R. 7017.1090, subp. 1	Continuous Operation: CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A CEMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment. Acceptable monitor downtime includes reasonable periods as listed in Items A, B, C and D of Minn. R. 7017.1090, subp. 2.
12.0		CD	Minn. R. 7007.1130	Recordkeeping: The owner or operator must retain records of all CEMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source.
13.0		CD	Minn. R. 7017.1170, subp. 2	QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan shall be on site and available for inspection within 30 days after monitor certification. The plan shall contain all of the information required by 40 CFR 60, App. F, section 3.

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Subject Item: **MR 006 NOx monitor for SV267**

Associated Items: CM 009 Furnace 5, EU634, NOx, ppm and lb/hr

EU 634 Fce 5 HE-WG #501; #502; #503

SV 267 Fce 5 HE-WG #501;#502;#503

	NC/ CA	Type	Citation	Requirement
1.0		CD	Minn. R. 7017.1040, subp. 1	Installation Notification: due 60 days before installing the continuous emissions monitoring system. The notification shall include plans and drawings of the system.
2.0		S/A	Minn. R. 7017.1050, subp. 1	CEM Certification Test: due 120 days after Resuming Operation of Furnace 5. Follow the Performance Specifications listed in 40 CFR pt. 60, Appendix B. Furnace 5 was reactivated September 1, 2010 and the CEM Certification Test was due by December 30, 2010. A test extension was submitted to extend the due date to April 29, 2011. The certification test was completed on December 29, 2010.
3.0		CD	Minn. R. 7017.1060, subps. 1-3; Minn. R. 7017.1080, subps. 1-4	CEMS Certification Test Plan: due 30 days before CEMS Certification Test CEMS Certification Test Pretest Meeting: due 7 days before CEMS Certification Test CEMS Certification Test Report: due 45 days after CEMS Certification Test CEMS Certification Test Report - Microfiche Copy: due 105 days after CEMS Certification Test The Notification, Test Plan, and Test Report may be submitted in alternate format as allowed by Minn. R. 7017.1120, subp. 2
4.0		CD	Minn. R. 7017.1170, subp. 3	CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) gas concentrations at least once daily. The CEMS shall be adjusted whenever the CD exceeds twice the specification of 40 CFR pt. 60, Appendix B. 40 CFR pt. 60, Appendix F, shall be used to determine out-of-control periods for CEMS. Follow the procedures in 40 CFR pt. 60, Appendix F.
5.0		S/A	Minn. R. 7017.1170, subp. 4	Cylinder Gas Audit: due before end of each calendar half-year starting 12/29/2010, except that a CGA is not required during any calendar half year in which a RATA was performed. The CGAs shall be conducted at least three months apart but no more than eight months apart. A CGA shall be conducted according to the procedures in 40 CFR pt. 60, Appendix F, Section 5.1.2. If the monitored emission unit was operated for less than 24 hours during the calendar half year, a CGA is not required for that calendar half year.
6.0		S/A	Minn. R. 7017.1180, subp. 1	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter starting 07/14/2006 in which a CGA was conducted.
7.0		S/A	Minn. R. 7017.1170, subp. 5	CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year starting 12/29/2010. A RATA is not required in any calendar year if a RATA conducted in the previous year demonstrated a relative accuracy value of less than 15 percent or if the associated emissions unit operated less than 48 hours during the calendar year. If the exception is used, the next RATA shall be conducted during the first half of the following calendar year. RATAs shall be conducted at least 3 months apart and according to 40 CFR pt. 60, Appendix F, Section 5.1.1.
8.0		CD	Minn. R. 7017.1180, subp. 2	Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS Relative Accuracy Test Audit (RATA).
9.0		S/A	Minn. R. 7017.1180, subp. 3	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter starting 07/14/2006 in which a RATA was conducted.
10.0		S/A	Minn. R. 7017.1110, subps. 1 & 2	Excess Emissions/Downtime Reports (EER's): due 30 days after end of each calendar quarter starting 12/29/2010. Submit Deviations Reporting Form DRF-1 as amended. The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions. The EER must be submitted even if there were no excess emissions, downtime or bypasses during the quarter.

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Facility Name: Northshore Mining - Silver Bay

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11.0		CD	Minn. R. 7017.1090, subp. 1	Continuous Operation: CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A CEMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment. Acceptable monitor downtime includes reasonable periods as listed in Items A, B, C and D of Minn. R. 7017.1090, subp. 2.
12.0		CD	Minn. R. 7007.1130	Recordkeeping: The owner or operator must retain records of all CEMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source.
13.0		CD	Minn. R. 7017.1170, subp. 2	QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan shall be on site and available for inspection within 30 days after monitor certification. The plan shall contain all of the information required by 40 CFR 60, App. F, section 3.

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Subject Item: **MR 007 NOx monitor for SV268**

Associated Items: CM 009 Furnace 5, EU634, NOx, ppm and lb/hr

EU 634 Fce 5 HE-WG #501; #502; #503

SV 268 Fce 5 HE-WG #501;#502;#503

	NC/ CA	Type	Citation	Requirement
1.0		CD	Minn. R. 7017.1040, subp. 1	Installation Notification: due 60 days before installing the continuous emissions monitoring system. The notification shall include plans and drawings of the system.
2.0		S/A	Minn. R. 7017.1050, subp. 1	CEM Certification Test: due 120 days after Resuming Operation of Furnace 5. Follow the Performance Specifications listed in 40 CFR pt. 60, Appendix B. Furnace 5 was reactivated September 1, 2010 and the CEM Certification Test was due by December 30, 2010. A test extension was submitted to extend the due date to April 29, 2011. The certification test was completed on December 29, 2010.
3.0		CD	Minn. R. 7017.1060, subps. 1-3; Minn. R. 7017.1080, subps. 1-4	CEMS Certification Test Plan: due 30 days before CEMS Certification Test CEMS Certification Test Pretest Meeting: due 7 days before CEMS Certification Test CEMS Certification Test Report: due 45 days after CEMS Certification Test CEMS Certification Test Report - Microfiche Copy: due 105 days after CEMS Certification Test The Notification, Test Plan, and Test Report may be submitted in alternate format as allowed by Minn. R. 7017.1120, subp. 2
4.0		CD	Minn. R. 7017.1170, subp. 3	CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) gas concentrations at least once daily. The CEMS shall be adjusted whenever the CD exceeds twice the specification of 40 CFR pt. 60, Appendix B. 40 CFR pt. 60, Appendix F, shall be used to determine out-of-control periods for CEMS. Follow the procedures in 40 CFR pt. 60, Appendix F.
5.0		S/A	Minn. R. 7017.1170, subp. 4	Cylinder Gas Audit: due before end of each calendar half-year starting 12/29/2010, except that a CGA is not required during any calendar half year in which a RATA was performed. The CGAs shall be conducted at least three months apart but no more than eight months apart. A CGA shall be conducted according to the procedures in 40 CFR pt. 60, Appendix F, Section 5.1.2. If the monitored emission unit was operated for less than 24 hours during the calendar half year, a CGA is not required for that calendar half year.
6.0		S/A	Minn. R. 7017.1180, subp. 1	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter starting 07/14/2006 in which a CGA was conducted.
7.0		S/A	Minn. R. 7017.1170, subp. 5	CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year starting 12/29/2010. A RATA is not required in any calendar year if a RATA conducted in the previous year demonstrated a relative accuracy value of less than 15 percent or if the associated emissions unit operated less than 48 hours during the calendar year. If the exception is used, the next RATA shall be conducted during the first half of the following calendar year. RATAs shall be conducted at least 3 months apart and according to 40 CFR pt. 60, Appendix F, Section 5.1.1.
8.0		CD	Minn. R. 7017.1180, subp. 2	Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS Relative Accuracy Test Audit (RATA).
9.0		S/A	Minn. R. 7017.1180, subp. 3	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter starting 07/14/2006 in which a RATA was conducted.
10.0		S/A	Minn. R. 7017.1110, subps. 1 & 2	Excess Emissions/Downtime Reports (EER's): due 30 days after end of each calendar quarter starting 12/29/2010. Submit Deviations Reporting Form DRF-1 as amended. The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions. The EER must be submitted even if there were no excess emissions, downtime or bypasses during the quarter.

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

11.0		CD	Minn. R. 7017.1090, subp. 1	Continuous Operation: CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A CEMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment. Acceptable monitor downtime includes reasonable periods as listed in Items A, B, C and D of Minn. R. 7017.1090, subp. 2.
12.0		CD	Minn. R. 7007.1130	Recordkeeping: The owner or operator must retain records of all CEMS monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source.
13.0		CD	Minn. R. 7017.1170, subp. 2	QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan shall be on site and available for inspection within 30 days after monitor certification. The plan shall contain all of the information required by 40 CFR 60, App. F, section 3.

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Subject Item: **MR 008 Flow monitor for SV266**

Associated Items: CM 009 Furnace 5, EU634, NOx, ppm and lb/hr

EU 634 Fce 5 HE-WG #501; #502; #503

SV 266 Fce 5 HE-WG #501;#502;#503

	NC/ CA	Type	Citation	Requirement
1.0		CD	Minn. R. 7017.1040, subp. 1	Installation Notification: due 60 days before installing the flow monitoring system. The notification shall include plans and drawings of the system.
2.0		CD	Minn. R. 7017.1050, subp. 1	Flow Meter Certification Test: due 120 days after Resuming Operation of Furnace 5. Follow the Performance Specifications listed in 40 CFR pt. 60, Appendix B. Furnace 5 was reactivated September 1, 2010 and the Flow Meter Certification Test was due by December 30, 2010. A test extension was submitted to extend the due date to April 29, 2011. The certification test was completed on December 29, 2010.
3.0		CD	Minn. R. 7017.1170, subp. 3	Flow Meter Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at low and high flow rate at least once daily. The flow meter shall be adjusted whenever the CD exceeds twice the specification of 40 CFR pt. 60, Appendix B. 40 CFR pt. 60, Appendix F, shall be used to determine out-of-control periods for CEMS. Follow the procedures in 40 CFR pt. 60, Appendix F.
4.0		CD	Minn. R. 7017.1170, subp. 5	Flow Meter Relative Accuracy Test Audit (RATA): due before end of each calendar year starting 12/29/2010. A RATA is not required in any calendar year if a RATA conducted in the previous year demonstrated a relative accuracy value of less than 15 percent or if the associated emissions unit operated less than 48 hours during the calendar year. If the exception is used, the next RATA shall be conducted during the first half of the following calendar year. RATAs shall be conducted at least 3 months apart and according to 40 CFR pt. 60, Appendix F, Section 5.1.1.
5.0		CD	Minn. R. 7017.1180, subp. 2	Flow Meter Relative Accuracy Test Audit (RATA) Notification: due 30 days before Flow Meter Relative Accuracy Test Audit (RATA).
6.0		S/A	Minn. R. 7017.1180, subp. 3	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter starting 07/14/2006 in which a RATA was conducted.
7.0		S/A	Minn. R. 7017.1110, subps. 1 & 2	Excess Emissions/Downtime Reports (EER's): due 30 days after end of each calendar quarter starting 12/29/2010. Submit Deviations Reporting Form DRF-1 as amended. The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions. The EER must be submitted even if there were no excess emissions, downtime or bypasses during the quarter.
8.0		CD	Minn. R. 7017.1090, subp. 1	Continuous Operation: The flow meter must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A flow meter must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment. Acceptable monitor downtime includes reasonable periods as listed in Items A, B, C and D of Minn. R. 7017.1090, subp. 2.
9.0		CD	Minn. R. 7007.1130	Recordkeeping: The owner or operator must retain records of all flow monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source.
10.0		CD	Minn. R. 7017.1170, subp. 2	QA Plan: Develop and implement a written quality assurance plan that covers each flow meter. The plan shall be on site and available for inspection within 30 days after initial flow meter RATA. The plan shall contain all of the information required by 40 CFR 60, App. F, section 3.

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Subject Item: **MR 009 Flow monitor for SV267**

Associated Items: CM 009 Furnace 5, EU634, NOx, ppm and lb/hr

EU 634 Fce 5 HE-WG #501; #502; #503

SV 267 Fce 5 HE-WG #501;#502;#503

	NC/ CA	Type	Citation	Requirement
1.0		CD	Minn. R. 7017.1040, subp. 1	Installation Notification: due 60 days before installing the flow monitoring system. The notification shall include plans and drawings of the system.
2.0		CD	Minn. R. 7017.1050, subp. 1	Flow Meter Certification Test: due 120 days after Resuming Operation of Furnace 5. Follow the Performance Specifications listed in 40 CFR pt. 60, Appendix B. Furnace 5 was reactivated September 1, 2010 and the Flow Meter Certification Test was due by December 30, 2010. A test extension was submitted to extend the due date to April 29, 2011. The certification test was completed on December 29, 2010.
3.0		CD	Minn. R. 7017.1170, subp. 3	Flow Meter Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at low and high flow rate at least once daily. The flow meter shall be adjusted whenever the CD exceeds twice the specification of 40 CFR pt. 60, Appendix B. 40 CFR pt. 60, Appendix F, shall be used to determine out-of-control periods for CEMS. Follow the procedures in 40 CFR pt. 60, Appendix F.
4.0		CD	Minn. R. 7017.1170, subp. 5	Flow Meter Relative Accuracy Test Audit (RATA): due before end of each calendar year starting 12/29/2010. A RATA is not required in any calendar year if a RATA conducted in the previous year demonstrated a relative accuracy value of less than 15 percent or if the associated emissions unit operated less than 48 hours during the calendar year. If the exception is used, the next RATA shall be conducted during the first half of the following calendar year. RATAs shall be conducted at least 3 months apart and according to 40 CFR pt. 60, Appendix F, Section 5.1.1.
5.0		CD	Minn. R. 7017.1180, subp. 2	Flow Meter Relative Accuracy Test Audit (RATA) Notification: due 30 days before Flow Meter Relative Accuracy Test Audit (RATA).
6.0		S/A	Minn. R. 7017.1180, subp. 3	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter starting 07/14/2006 in which a RATA was conducted.
7.0		S/A	Minn. R. 7017.1110, subps. 1 & 2	Excess Emissions/Downtime Reports (EER's): due 30 days after end of each calendar quarter starting 12/29/2010. Submit Deviations Reporting Form DRF-1 as amended. The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions. The EER must be submitted even if there were no excess emissions, downtime or bypasses during the quarter.
8.0		CD	Minn. R. 7017.1090, subp. 1	Continuous Operation: The flow meter must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A flow meter must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment. Acceptable monitor downtime includes reasonable periods as listed in Items A, B, C and D of Minn. R. 7017.1090, subp. 2.
9.0		CD	Minn. R. 7007.1130	Recordkeeping: The owner or operator must retain records of all flow monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source.
10.0		CD	Minn. R. 7017.1170, subp. 2	QA Plan: Develop and implement a written quality assurance plan that covers each flow meter. The plan shall be on site and available for inspection within 30 days after initial flow meter RATA. The plan shall contain all of the information required by 40 CFR 60, App. F, section 3.

COMPLIANCE PLAN CD-01

Facility Name: Northshore Mining - Silver Bay

Permit Number: 07500003 - 008

Subject Item: **MR 010 Flow monitor for SV268**

Associated Items: CM 009 Furnace 5, EU634, NOx, ppm and lb/hr

EU 634 Fce 5 HE-WG #501; #502; #503

SV 268 Fce 5 HE-WG #501;#502;#503

	NC/ CA	Type	Citation	Requirement
1.0		CD	Minn. R. 7017.1040, subp. 1	Installation Notification: due 60 days before installing the flow monitoring system. The notification shall include plans and drawings of the system.
2.0		CD	Minn. R. 7017.1050, subp. 1	Flow Meter Certification Test: due 120 days after Resuming Operation of Furnace 5. Follow the Performance Specifications listed in 40 CFR pt. 60, Appendix B. Furnace 5 was reactivated September 1, 2010 and the Flow Meter Certification Test was due by December 30, 2010. A test extension was submitted to extend the due date to April 29, 2011. The certification test was completed on December 29, 2010.
3.0		CD	Minn. R. 7017.1170, subp. 3	Flow Meter Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at low and high flow rate at least once daily. The flow meter shall be adjusted whenever the CD exceeds twice the specification of 40 CFR pt. 60, Appendix B. 40 CFR pt. 60, Appendix F, shall be used to determine out-of-control periods for CEMS. Follow the procedures in 40 CFR pt. 60, Appendix F.
4.0		CD	Minn. R. 7017.1170, subp. 5	Flow Meter Relative Accuracy Test Audit (RATA): due before end of each calendar year starting 12/29/2010. A RATA is not required in any calendar year if a RATA conducted in the previous year demonstrated a relative accuracy value of less than 15 percent or if the associated emissions unit operated less than 48 hours during the calendar year. If the exception is used, the next RATA shall be conducted during the first half of the following calendar year. RATAs shall be conducted at least 3 months apart and according to 40 CFR pt. 60, Appendix F, Section 5.1.1.
5.0		CD	Minn. R. 7017.1180, subp. 2	Flow Meter Relative Accuracy Test Audit (RATA) Notification: due 30 days before Flow Meter Relative Accuracy Test Audit (RATA).
6.0		S/A	Minn. R. 7017.1180, subp. 3	Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar quarter starting 07/14/2006 in which a RATA was conducted.
7.0		S/A	Minn. R. 7017.1110, subps. 1 & 2	Excess Emissions/Downtime Reports (EER's): due 30 days after end of each calendar quarter starting 12/29/2010. Submit Deviations Reporting Form DRF-1 as amended. The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e. during startup, shutdown, and malfunctions. The EER must be submitted even if there were no excess emissions, downtime or bypasses during the quarter.
8.0		CD	Minn. R. 7017.1090, subp. 1	Continuous Operation: The flow meter must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A flow meter must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment. Acceptable monitor downtime includes reasonable periods as listed in Items A, B, C and D of Minn. R. 7017.1090, subp. 2.
9.0		CD	Minn. R. 7007.1130	Recordkeeping: The owner or operator must retain records of all flow monitoring data and support information for a period of five years from the date of the monitoring sample, measurement or report. Records shall be kept at the source.
10.0		CD	Minn. R. 7017.1170, subp. 2	QA Plan: Develop and implement a written quality assurance plan that covers each flow meter. The plan shall be on site and available for inspection within 30 days after initial flow meter RATA. The plan shall contain all of the information required by 40 CFR 60, App. F, section 3.

ATTACHMENT 3
POINTS CALCULATOR
(Available Electronically in Delta Central File)

Points Calculator

1) AQ Facility ID No.:	07500003
2) Facility Name:	Northshore Mining - Silver Bay
3) Small business? y/n?	n
4) DQ Numbers (including all rolled) :	major: 4379 admin: 2688, 3245, 3629
5) Date of each Application Received:	major: 5/1/13 admin: 6/12/09, 9/2/10, 8/22/11
6) Final Permit No.	07500003-008
7) Permit Staff	Hassan Bouchareb
8) "Work completed" in which .xls file (i.e. unit 2b, unit 1a, biofuels)?	

Total Points 27

Application Type	DQ No.	Qty.	*Points*	Total Points	Details
Administrative Amendment	2688, 3245, 3629	2	*1*	2	DQ # 2688 was received prior to 7/1/09.
Minor Amendment			*4*	0	
Applicability Request			*10*	0	
Moderate Amendment			*15*	0	
Major Amendment	4379	1	*25*	25	
Individual State Permit (not reissuance)			*50*	0	
Individual Part 70 Permit (not reissuance)			*75*	0	
Additional Points					
Modeling Review			*15*	0	
BACT Review			*15*	0	
LAER Review			*15*	0	
CAIR/Part 75 CEM analysis			*10*	0	
NSPS Review			*10*	0	
NESHAP Review			*10*	0	
Case-by-case MACT Review			*20*	0	
Netting			*10*	0	
Limits to remain below threshold			*10*	0	
Plantwide Applicability Limit (PAL)			*20*	0	
AERA review			*15*	0	
Variance request under 7000.7000			*35*	0	
Confidentiality request under 7000.1300			*2*	0	
EAW review					
Part 4410.4300, subparts 18, item A; and 29			*15*	0	
Part 4410.4300, subparts 8, items A & B; 10, items A to C; 16, items A & D; 17, items A to C & E to G; and 18, items B & C			*35*	0	
Part 4410.4300, subparts 4; 5 items A & B; 13; 15; 16, items B & C; and 17 item D			*70*	0	
		Add'l Points		**0**	

NOTES: