

**TECHNICAL SUPPORT DOCUMENT**  
**For**  
**DRAFT/PROPOSED AIR EMISSION PERMIT NO. 13700061-006**

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**

<b>Applicant/Address</b>	<b>Stationary Source/Address (SIC Code: 1011)</b>
Hibbing Taconite Company P.O. Box 589 Hibbing, MN 55746	Hibbing Taconite Company 4950 County Highway 5 N Hibbing, MN 55746 St. Louis County
Contact: Julie C. Lucas Environmental Manager Phone: 218-262-6856	

**1.2 Facility Description**

Hibbing Taconite Company (HTC), an unincorporated joint venture, is the owner and operator of a taconite (magnetite) ore mining and beneficiation facility located in Hibbing, Minnesota. Cliffs Mining Company is the managing agent.

HTC's mine and beneficiation facility (all plant buildings) are located in St. Louis County, an area currently designated attainment for all criteria pollutants. The existing facility is classified as a major emission source with respect to the federal Prevention of Significant Deterioration (PSD) program. The facility is also a major source of hazardous air pollutants (HAPs) because potential emissions of HAPs exceed the major source thresholds of 10 tons per year (tpy) of any individual HAP and 25 tpy of total HAPs.

The beneficiation plant is situated in the approximate center of HTC's property, with the active mine extending from three miles to the southeast to six miles to the southwest, and the tailing basin located to the north. The beneficiation plant was constructed in two phases. Phase I construction began in 1974, with operations beginning in 1976. Phase I consists of one crusher, six autogenous mill lines, two stages of magnetic separation – rougher and finisher, two Dravo-Lurgi straight grate indurating furnaces, and associated processing and material handling equipment. Phase II construction began in 1976, with operations beginning in 1979. Phase II consists of one crusher, three autogenous grinding mill lines, two

stages of magnetic separation, one Dravo-Lurgi straight grate indurating furnace, and associated processing and material handling equipment.

The three pellet indurating furnaces are functionally equivalent, each one producing, on average, the same yield. HTC produced in excess of 8.6 million dry long tons (dlt) – in 1988, with capabilities of producing up to 9 million dlt annually. Steel demand drives the level of HTC's annual pellet production. By convention, HTC reports long tons (1 long ton = 2240 pounds) of production. Because the Minnesota Pollution Control Agency (MPCA) uses short tons, the long tons are multiplied by a factor of 1.12 and reported as short tons for air quality permitting purposes.

To produce 8.0 million dlt of pellets, approximately 32 million wet long tons (wlt) of taconite ore must be processed. The current weight recovery (percentage of concentrate recovered to taconite ore) is in the range of 25 percent. Stripping (including the overburden, the rock, and the low-grade taconite that cannot be economically processed) must be performed prior to hauling the taconite ore. "All-material" includes the total taconite ore removed and stripping tons. During the period (1994-1998), HTC averaged nearly 50 million long tons of all material per year.

HTC started operation in 1976 having the flexibility to use natural gas or fuel oil (all grades). All three furnaces started operation with No. 6 fuel oil (Bunker C) as the primary fuel and were then switched over to natural gas as the primary fuel during 1981. In the recent past, the facility evaluated other fuels including wood and oat hulls. To date, these alternative fuels have not proven to be viable options for the current indurating process.

The major steps in taconite pellet production include taconite ore mining, crushing, grinding, concentrating, agglomerating, and indurating. The larger sources of air emissions at HTC are from the mining activities and indurating furnace operations, with lesser amounts from other processing operations and fugitive dust sources, including haul roads and the tailings basin. The mining activities and materials handling operations generate particulate emissions. Wet scrubbers are the primary means of controlling these emissions, although baghouses are used on some smaller emission units.

The indurating furnaces emit particulate matter and combustion pollutants. Particulate emissions are controlled with wet scrubbers, which also reduce emissions of sulfur dioxide. Because the construction of the facility predates the PSD program, the furnaces have no add-on controls in place to limit emissions of nitrogen oxide or carbon monoxide. Replacement/modification of the lower burners on the three indurating furnaces as well as the installation of a large diesel generator and several portable heaters was authorized under the reissuance dated January 14, 2010.

In November of 2011, HTC obtained a permit amendment to authorize the construction and operation of an in-pit crushing and cobbing operation comprising of a total of 48 fugitive emission sources. The modification upgraded the low-grade pit material by increasing its overall weight recovery in the mine before delivery to the existing crusher. Requirements were put in the permit to limit the material throughput of the in-pit crushing and cobbing sources to keep the emissions increase due to the modification below NSR/PSD significant thresholds.

### **1.3 Description of the Activities Allowed by this Permit Action**

This permit action is required by a Stipulation Agreement (Agreement) between HTC and the MPCA effective June 30, 2011. The Agreement requested that HTC outline scrubber performance monitoring options within a Corrective Action Plan (Plan) and provide the Plan to the MPCA. HTC submitted a major

amendment permit application detailing the proposed changes to scrubber performance monitoring for the scrubbers that control emissions from the indurating furnaces (GP003) and the scrubbers that control taconite ore processing emissions (GP004).

As part of the major permit amendment, no emission units are being modified, replaced and/or debottlenecked. This amendment affects GP003 scrubber monitoring only. No changes to GP004 scrubber monitoring are being authorized by this permit amendment.

In addition to the major amendment, a number of permit reopenings and an administrative amendment are being rolled into this permit action. The reopenings are due to performance test results that reset control equipment operational limits. Attachment 1 details the changes made to the permit as a result of the permit reopenings.

On October 25, 2011, the MPCA received an administrative amendment application from HTC requesting an extension of the deadline to complete performance testing on FS047 and FS048 (now called FS091 and FS098). Initial testing of FS091 and FS098 occurred on October 7, 2010 with subsequent testing due before October 7, 2011. HTC performed the required testing on October 19, 2011.

Additionally, HTC has submitted test frequency plans for a number of units (FS076 – FS122). The test frequency plans have been reviewed by the MPCA and the permit has been updated to reflect the testing frequencies. See Attachment 2 for more information.

The performance test language for the GP003 scrubbers has been revised for clarity (language at the CE level). Performance testing for these units is required twice every five year by 40 CFR pt. 63, subp. RRRRR.

#### **1.4. Facility Emissions:**

No changes to Facility emissions are being made as part of this permit action. The following table outlines the total emissions from the Facility as previously reported.

**Table 2. Total Facility Potential to Emit Summary**

	<b>PM tpy</b>	<b>PM<sub>10</sub> tpy</b>	<b>PM<sub>2.5</sub> tpy</b>	<b>SO<sub>2</sub> tpy</b>	<b>NO<sub>x</sub> tpy</b>	<b>CO tpy</b>	<b>CO<sub>2</sub>e Tpy</b>	<b>VOC tpy</b>	<b>Single HAP tpy</b>	<b>All HAPs tpy</b>
Total Facility Limited Potential Emissions	6694	6683	3.4	3679	6541	180	300,000	50	ND	ND
Total Facility Actual Emissions (2010)	2409	1287	*	618	3628	99	*	22	*	

\* Not reported in MN emission inventory.

**Table 5. Facility Classification**

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

## **2. Regulatory and/or Statutory Basis**

### New Source Review

The facility is an existing major source under New Source Review (NSR) regulations.

No changes are authorized by this permit that affects the facility's status under NSR regulations.

### Part 70 Permit Program

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

### New Source Performance Standards (NSPS)

There are no new New Source Performance Standards applicable to the operations at this facility as part of this permit action. Portions of the facility are subject to the following NSPS:

- 40 CFR pt. 60, subp. LL – Standards of Performance for Metallic Mineral Processing Plants;

### National Emission Standards for Hazardous Air Pollutants (NESHAP)

The Facility is a major source under 40 CFR pt. 63. There are no new NESHAPs applicable to the operations at this facility as part of this permit action. Portions of the facility are subject to the following NESHAPs:

- 40 CFR pt. 63, subp. RRRRR – National Emission Standards for Hazardous Air Pollutants:  
Taconite Iron Ore Processing

### Compliance Assurance Monitoring (CAM)

CAM does not apply to the modification allowed in this permit amendment, since no new emission units are being added.

### Environmental Review & AERA

This modification does not increase emissions therefore this permit action is not subject to environmental review, and the facility is not required to perform an Air Emissions Risk Analysis (AERA) at this time.

### Minnesota State Rules

There are no new Minnesota Standards of Performance applicable to the operations at this facility as part of this permit action. Portions of the facility are subject to the following Minnesota Standards of Performance:

- Minn. R. 7011.0150 Preventing Particulate Matter from Becoming Airborne
- Minn. R. 7011.8030 Taconite Iron Ore Processing
- Minn. R. 7011.0610 Standards of Performance for Fossil-Fuel-Burning Direct Heating Equipment

- Minn. R. 7011.0715 Standards of Performance for Post-1969 Industrial Process Equipment
- Minn. R. 7011.2700 Standards of Performance for New Metallic Mineral Processing Plants

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

Level*	Applicable Regulations	Comments:
CE001 - CE013, CE018 - CE021, CE037 – CE041	40 CFR Pt. 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Reset operating limits based on performance test results.
	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Reset operating limits based on performance test results.
CE022 - CE025, CE027 - CE030, CE032 - CE035	40 CFR Pt. 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Reset operating limits based on performance test results.
	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0610; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Operating limit established through statistical analysis of historical performance test results. The limit is not re-set by a single performance test. The limit may be revised at any time at the MPCA's discretion.

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

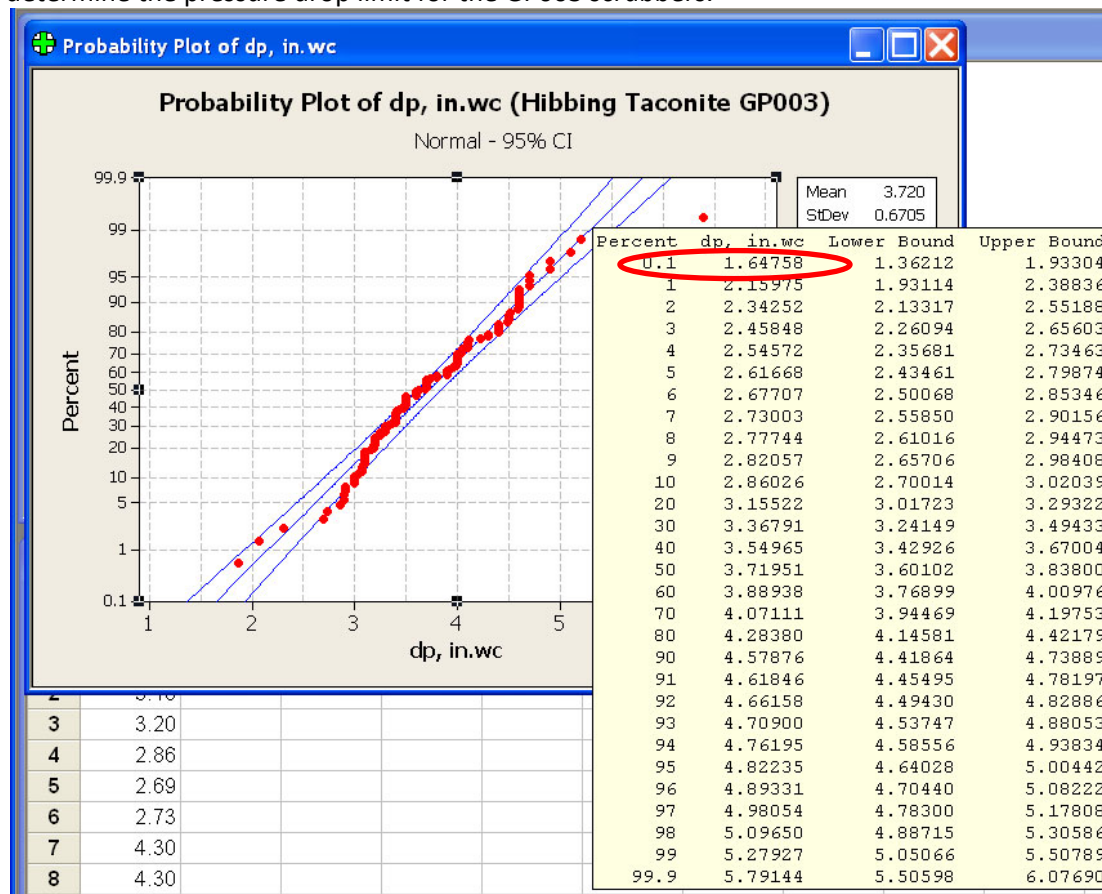
The language 'This is a state-only requirement and is not enforceable by the U.S. Environmental Protection Agency (EPA) Administrator and citizens under the Clean Air Act' refers to permit requirements that are established under state law rather than by the federal Clean Air Act. The language is to clarify the distinction between permit conditions that are required by federal law and those that are established under state law. State law requirements are not enforceable by the EPA or by citizens under the federal Clean Air Act, but are fully enforceable by the MPCA and citizens under provisions of state law.

### 3. Technical Information

#### 3.3 Establishing Operating Limits for GP003 Scrubbers

As part of fulfilling the requirements of the Stipulation Agreement between HTC and the MPCA, HTC submitted to the MPCA a request to establish a pressure drop limit for the GP003 scrubbers based on historical data. The MPCA analyzed the pressure drop from individual compliant test runs from performance test results from the last 5 years for scrubbers in GP003. The analysis included a determination that the data were normally distributed and performing a z-test. The z-test was used to determine the minimum pressure drop that the scrubbers could be operated at and still be in compliance with the emission limit. The 99.9 percentile value was used for setting the pressure drop limit. The 99.9 percentile value was used instead of the 99 percentile value because the resulting pressure drop value at 99 percent was higher than the minimum compliant pressure drop from a performance test run. A z-test was used instead of a t-test because the number of data points exceeded 30. The following graph shows the probability plot for pressure drop for compliant test runs for GP003

performance tests performed between April 2007 and February 2011. This analysis was used to determine the pressure drop limit for the GP003 scrubbers.



If necessary, the MPCA will revisit the statistical analysis that led to the pressure drop limit value of 1.7 inches water column; however, the MPCA will no longer require the Permittee to maintain the air differential pressure based on the resulting value from a particular test.

The MPCA will continue to require monitoring of the scrubbing liquid (water) flow rate as a surrogate parameter.

### 3.4 Corrective Action Plan

On August 26, 2011 HTC submitted a Corrective Action Plan as required by the June 30, 2011 Stipulation Agreement. The plan details steps the Facility has taken to minimize deviations from emission control equipment operating parameters, including deviations from the GP003 and GP004 scrubbers. On September 21, 2011, the MPCA approved the Corrective Action Plan.

Due to steps taken by HTC to minimize deviations for the GP004 scrubber operating parameter limits, changes to the monitoring requirements for these scrubbers were not made as part of this permit action as originally requested by the Facility.

### 3.5 Periodic Monitoring and CAM

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.

For CAM, the Permittee submitted a revised CAM plan as required by 40 CFR § 64.3. None of the proposed revisions to the CAM plan were incorporated. Therefore, the CAM plan submitted by the Facility on July 6, 2009 is still in effect. It can be found in Attachment 3 to this TSD. Further discussion of decisions about CAM can be found in Table 7.

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 periodic monitoring requirements for those emission units for which the monitoring required by the applicable requirement is nonexistent or inadequate or where CAM applies.

**Table 7. Periodic Monitoring**

Level*	Requirement (rule basis)	Additional Monitoring	Discussion
GP003 (Furnaces: EU020 – EU022; CE022 – CE036; SV021 – SV032)	PM: $\leq 0.30$ gr/dscf, each unit (Minn. R. 7011.0715)  Opacity: $\leq 20$ % with exemptions (Minn. R. 7011.0715)	One stack test on all stacks associated with one emission unit during the permit term on a rotating basis.	Ongoing compliance with the direct heating equipment rule limits will be demonstrated by compliance with the minimum pressure drop and water flow rates on a 24-hour block (daily) average.  The Taconite NESHAP requires two performance tests per emission unit every five years. Based on historical stack testing results, however, only one stack test every five years is needed for demonstrating compliance with the direct heating equipment rule.
GP004 (Pelletizing – Scrubbers: EU018 – EU019, EU023 – EU027; CE018 – CE021, CE037 – CE041;	PM: $\leq 0.30$ gr/dscf, each booth (Minn. R. 7011.0715)  Opacity: $\leq 20$ % (Minn. R.	One stack test during the permit term for one emission unit in the test groups as defined in GP004 on a rotating basis	Ongoing compliance with the IPER limits will be demonstrated by compliance with the minimum pressure drop and water flow rates on a 24-hour block (daily) average.

Level*	Requirement (rule basis)	Additional Monitoring	Discussion
SV017 – SV020, SV033 – SV037)	7011.0715)		

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

### **3.6 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.

### **3.6 Comments Received**

This section will be completed after the referenced review periods are concluded.

Public Notice Period: <start date> - <end date>

## **4. Permit Fee Assessment**

Attachment 4 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 <one permit application received after the effective date of the rule (July 1, 2009). The permit does not include the incorporation of any additional fee triggering actions. The action also includes 5 permit reopenings to update operating parameter limits. None of these reopenings trigger any additional fees.

## **5. Conclusion**

Based on the information provided by Hibbing Taconite Co, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 13700061-006 and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team:     Cindy Schafer (permit writer/engineer)  
    Steve Palzkill (enforcement)  
    Andy Place (stack testing)  
    Sarah Seelen (peer reviewer)

AQ File No. 541; DQ 3691, 3717, 3504, 3507, 3681, 3786, 3903

Attachments:            1. Reopenings Summary Table  
                                      2. Test Frequency Updates



3. CAM Plan
4. Points Calculator
5. Facility Description and CD-01 Forms

## **Attachment 1: Reopenings Summary Tables**

## Attachment 1: Reopenings Summary Tables

### MACT Operating Limits

Emission Unit	SV	CE	Limit	Permit Location	Comments
EU001 Phase I Apron Feeder (1 <sup>st</sup> level)	SV001	CE001	Pressure Drop: 7.1 in. w.c. Water Flow Rate: 32 gpm	CE001	Based off of 5/4/2010 test
EU002 Phase II Apron Feeder (1 <sup>st</sup> level)	SV002	CE002	Pressure Drop: 9.6 in. w.c. Water Flow Rate: 32 gpm	CE002	Based off of 5/3/2012 test
EU003 Phase I Primary Ore Conveyor – Tail	SV003	CE003	Pressure Drop: 6.3 in. w.c. Water Flow Rate: 36 gpm	CE003	Based off of 5/6/2010 test
EU004 Phase II Primary Ore Conveyor – Tail	SV003	CE004	Pressure Drop: 3.5 in. w.c. Water Flow Rate: 23 gpm	CE004	Based off of 5/7/2010 test
EU005 Line No 1 Mill Feed Conveyor	SV004	CE005	Pressure Drop: 10 in. w.c. Water Flow Rate: 30 gpm	CE005	Based off of 4/19 – 4/20 test
EU006 Line No 2 Mill Feed Conveyor	SV005	CE006	Pressure Drop: 8 in. w.c. Water Flow Rate: 32 gpm	CE006	Based off of 4/19/2010 – 4/20/2010 test
EU007 Line No 3 Mill Feed Conveyor	SV006	CE007	Pressure Drop: 9 in. w.c. Water Flow Rate: 30 gpm	CE007	Based off of 4/21/2010 test
EU008 Line No 4 Mill Feed Conveyor	SV007	CE008	Pressure Drop: 10in. w.c. Water Flow Rate: 28 gpm	CE008	Based off of 4/21/2010 test
EU009 Line No 5 Mill Feed Conveyor	SV008	CE009	Pressure Drop: 10 in. w.c. Water Flow Rate: 30 gpm	CE009	Based off of 4/23/2010 test
EU010 Line No 6 Mill Feed Conveyor	SV009	CE010	Pressure Drop: 10 in. w.c. Water Flow Rate: 29 gpm	CE010	Based off of 4/22/2010 test
EU011 Line No 7 Mill Feed Conveyor	SV010	CE011	Pressure Drop: 9 in. w.c. Water Flow Rate: 28 gpm	CE011	Based off of 4/27/2010 test
EU012 Line No 8 Mill Feed Conveyor	SV011	CE012	Pressure Drop: 8 in. w.c. Water Flow Rate: 31 gpm	CE012	Based off of 4/26/2010 – 4/27/2010 test
EU013 Line No 9 Mill Feed Conveyor	SV012	CE013	Pressure Drop: 7 in. w.c. Water Flow Rate: 32 gpm	CE013	Based off of 5/11/2010 – 5/12/2010 test
EU018 Phase I Hearth Layer Bin	SV017	CE018	Pressure Drop: 3.6 in. w.c. Water Flow Rate: 28 gpm	CE018	Based off of 6/24/2010 test
EU019 Phase II Hearth Layer Bin	SV018	CE019	Pressure Drop: 4.0 in. w.c. Water Flow Rate: 19 gpm	CE019	Based off of 6/46/2010 test
EU018 Phase I Hearth Layer Bin	SV019	CE020	Pressure Drop: 5.7 in. w.c. Water Flow Rate: 49 gpm	CE020	Based off of 2/25/2011 test
EU019 Phase II Hearth Layer Bin	SV020	CE021	Pressure Drop: 4.4 in. w.c. Water Flow Rate: 30 gpm	CE021	Based off of 3/14/2011 test
EU020 Pellet Indurating Furnace Line 1	SV021	CE022	Pressure Drop: 2.7 in. w.c. Water Flow Rate: 715 gpm	CE022	Based off of limit set with permit issuance

<b>Emission Unit</b>	<b>SV</b>	<b>CE</b>	<b>Limit</b>	<b>Permit Location</b>	<b>Comments</b>
EU020 Pellet Indurating Furnace Line 1	SV022	CE023	Pressure Drop: 2.6 in. w.c. Water Flow Rate: 629 gpm	CE023	Based off of limit set with permit issuance
EU020 Pellet Indurating Furnace Line 1	SV023	CE024	Pressure Drop: 3.1 in. w.c. Water Flow Rate: 723 gpm	CE024	Based off of limit set with permit issuance
EU020 Pellet Indurating Furnace Line 1	SV024	CE025	Pressure Drop: 3.4 in. w.c. Water Flow Rate: 445 gpm	CE025	Based off of limit set with permit issuance
EU021 Pellet Indurating Furnace Line 2	SV025	CE027	Pressure Drop: 3.3 in. w.c. Water Flow Rate: 412 gpm	CE027	Based off of limit set with permit issuance
EU021 Pellet Indurating Furnace Line 2	SV026	CE028	Pressure Drop: 2.9 in. w.c. Water Flow Rate: 327 gpm	CE028	Based off of limit set with permit issuance
EU021 Pellet Indurating Furnace Line 2	SV027	CE029	Pressure Drop: 3.9 in. w.c. Water Flow Rate: 305 gpm	CE029	Based off of limit set with permit issuance
EU021 Pellet Indurating Furnace Line 2	SV028	CE030	Pressure Drop: 3.1 in. w.c. Water Flow Rate: 351 gpm	CE030	Based off of limit set with permit issuance
EU021 Pellet Indurating Furnace Line 3	SV029	CE032	Pressure Drop: 2.9 in. w.c. Water Flow Rate: 270 gpm	CE031	Based off of 4/19/2011-4/20/2011 test
EU021 Pellet Indurating Furnace Line 3	SV030	CE033	Pressure Drop: 3.7 in. w.c. Water Flow Rate: 279 gpm	CE033	Based off of 4/19/2011-4/20/2011 test
EU021 Pellet Indurating Furnace Line 3	SV031	CE034	Pressure Drop: 3.0 in. w.c. Water Flow Rate: 246 gpm	CE034	Based off of 4/19/2011-4/20/2011 test
EU021 Pellet Indurating Furnace Line 3	SV032	CE035	Pressure Drop: 3.4 in. w.c. Water Flow Rate: 259 gpm	CE035	Based off of 4/19/2011-4/20/2011 test
EU023 Pellet Machine Discharge Line 1	SV033	CE037	Pressure Drop: 2.4 in. w.c. Water Flow Rate: 69 gpm	CE037	Based off of the 12/13/2011 test
EU024 Pellet Machine Discharge Line 2	SV034	CE038	Pressure Drop: 3 in. w.c. Water Flow Rate: 50 gpm	CE038	Based off of the 12/14/2010 test
EU025 Pellet Machine Discharge Line 3	SV035	CE039	Pressure Drop: 3.4 in. w.c. Water Flow Rate: 49 gpm	CE039	Based off of the 12/13/2010 test
EU026 Pellet Hearth Layer Screen	SV036	CE040	Pressure Drop: 3.4 in. w.c. Water Flow Rate: 29 gpm	CE040	Based off of the 12/21/2010 test
EU027 Pellet	SV037	CE041	Pressure Drop: 3.2 in. w.c.	CE041	Based off of the 12/27/2010

Emission Unit	SV	CE	Limit	Permit Location	Comments
Transfer House			Water Flow Rate: 37 gpm		test

### IPER Operating Limits

Emission Unit	SV	CE	Limit	Permit Location	Comments
EU001 Phase I Apron Feeder (1 <sup>st</sup> level)	SV001	CE001	Pressure Drop: 1.9 in. w.c. Water Flow Rate: 23 gpm	CE001	Based off of SV003 5/10/2010 test
EU002 Phase II Apron Feeder (1 <sup>st</sup> level)	SV002	CE002	Pressure Drop: 1.9 in. w.c. Water Flow Rate: 23 gpm	CE002	Based off of SV003 5/10/2010 test
EU003 Phase I Primary Ore Conveyor – Tail	SV003	CE003	Pressure Drop: 1.9 in. w.c. Water Flow Rate: 23 gpm	CE003	Based off of SV003 5/10/2010 test
EU004 Phase II Primary Ore Conveyor – Tail	SV003	CE004	Pressure Drop: 1.9 in. w.c. Water Flow Rate: 23 gpm	CE004	Based off of SV003 5/10/2010 test
EU005 Line No 1 Mill Feed Conveyor	SV004	CE005	Pressure Drop: 8 in. w.c. Water Flow Rate: 20 gpm	CE005	Based off of SV011 4/27/2010 test
EU006 Line No 2 Mill Feed Conveyor	SV005	CE006	Pressure Drop: 8 in. w.c. Water Flow Rate: 20 gpm	CE006	Based off of SV011 4/27/2010 test
EU007 Line No 3 Mill Feed Conveyor	SV006	CE007	Pressure Drop: 8 in. w.c. Water Flow Rate: 20 gpm	CE007	Based off of SV011 4/27/2010 test
EU008 Line No 4 Mill Feed Conveyor	SV007	CE008	Pressure Drop: 8 in. w.c. Water Flow Rate: 20 gpm	CE008	Based off of SV011 4/27/2010 test
EU009 Line No 5 Mill Feed Conveyor	SV008	CE009	Pressure Drop: 8 in. w.c. Water Flow Rate: 20 gpm	CE009	Based off of SV011 4/27/2010 test
EU010 Line No 6 Mill Feed Conveyor	SV009	CE010	Pressure Drop: 10 in. w.c. Water Flow Rate: 19 gpm	CE010	Based off of 4/23/2010 test
EU011 Line No 7 Mill Feed Conveyor	SV010	CE011	Pressure Drop: 8 in. w.c. Water Flow Rate: 20 gpm	CE011	Based off of SV011 4/27/2010 test
EU012 Line No 8 Mill Feed Conveyor	SV011	CE012	Pressure Drop: 8 in. w.c. Water Flow Rate: 20 gpm	CE012	Based off of SV011 4/27/2010 test
EU013 Line No 9 Mill Feed Conveyor	SV012	CE013	Pressure Drop: 8 in. w.c. Water Flow Rate: 20 gpm	CE013	Based off of SV011 4/27/2010 test
EU018 Phase I Hearth Layer Bin	SV017	CE018	Pressure Drop: 3.6 in. w.c. Water Flow Rate: 28 gpm	CE018	Based off of SV017 6/24/2010 test
EU019 Phase II Hearth Layer Bin	SV018	CE019	Pressure Drop: 3.6 in. w.c. Water Flow Rate: 28 gpm	CE019	Based off of SV017 6/24/2010 test
EU018 Phase I Hearth Layer Bin	SV019	CE020	Pressure Drop: 4.4 in. w.c. Water Flow Rate: 30 gpm	CE020	Based off of CE021 3/14/2011 test
EU019 Phase II Hearth Layer Bin	SV020	CE021	Pressure Drop: 4.4 in. w.c. Water Flow Rate: 30 gpm	CE021	Based off of 3/14/2011 test

<b>Emission Unit</b>	<b>SV</b>	<b>CE</b>	<b>Limit</b>	<b>Permit Location</b>	<b>Comments</b>
EU020 Pellet Indurating Furnace Line 1	SV021	CE022	Pressure Drop: 1.65 in. w.c.	CE022	Based on statistical analysis of performance test data
			Water Flow Rate: 270 gpm		Based off of CE032 4/19/2011-4/20/2011 test
EU020 Pellet Indurating Furnace Line 1	SV022	CE023	Pressure Drop: 1.65 in. w.c.	CE023	Based on statistical analysis of performance test data
			Water Flow Rate: 279 gpm		Based off of CE033 4/19/2011-4/20/2011 test
EU020 Pellet Indurating Furnace Line 1	SV023	CE024	Pressure Drop: 1.65 in. w.c.	CE024	Based on statistical analysis of performance test data
			Water Flow Rate: 246 gpm		Based off of CE034 4/19/2011-4/20/2011 test
EU020 Pellet Indurating Furnace Line 1	SV024	CE025	Pressure Drop: 1.65 in. w.c.	CE025	Based on statistical analysis of performance test data
			Water Flow Rate: 259 gpm		Based off of CE035 4/19/2011-4/20/2011 test
EU021 Pellet Indurating Furnace Line 2	SV025	CE027	Pressure Drop: 1.65 in. w.c.	CE027	Based on statistical analysis of performance test data
			Water Flow Rate: 259 gpm		Based off of CE035 4/19/2011-4/20/2011 test
EU021 Pellet Indurating Furnace Line 2	SV026	CE028	Pressure Drop: 1.65 in. w.c.	CE028	Based on statistical analysis of performance test data
			Water Flow Rate: 246 gpm		Based off of CE034 4/19/2011-4/20/2011 test
EU021 Pellet Indurating Furnace Line 2	SV027	CE029	Pressure Drop: 1.65 in. w.c.	CE029	Based on statistical analysis of performance test data
			Water Flow Rate: 279 gpm		Based off of CE033 4/19/2011-4/20/2011 test
EU021 Pellet Indurating Furnace Line 2	SV028	CE030	Pressure Drop: 1.65 in. w.c.	CE030	Based on statistical analysis of performance test data
			Water Flow Rate: 270 gpm		Based off of CE032 4/19/2011-4/20/2011 test
EU021 Pellet Indurating Furnace Line 3	SV029	CE032	Pressure Drop: 1.65 in. w.c.	CE032	Based on statistical analysis of performance test data
			Water Flow Rate: 270 gpm		Based off of 4/19/2011-4/20/2011 test
EU021 Pellet Indurating Furnace Line 3	SV030	CE033	Pressure Drop: 1.65 in. w.c.	CE033	Based on statistical analysis of performance test data
			Water Flow Rate: 279 gpm		Based off of 4/19/2011-4/20/2011 test
EU021 Pellet Indurating Furnace Line 3	SV031	CE034	Pressure Drop: 1.65 in. w.c.	CE034	Based on statistical analysis of performance test data
			Water Flow Rate: 246 gpm		Based off of 4/19/2011-4/20/2011 test
EU021 Pellet Indurating Furnace	SV032	CE035	Pressure Drop: 1.65 in. w.c.	CE035	Based on statistical analysis of performance test data

Emission Unit	SV	CE	Limit	Permit Location	Comments
Line 3			Water Flow Rate: 259 gpm		Based off of 4/19/2011-4/20/2011 test
EU023 Pellet Machine Discharge Line 1	SV033	CE037	Pressure Drop: 3.0 in. w.c. Water Flow Rate: 50 gpm	CE037	Based off of SV034 12/24/2010 test
EU024 Pellet Machine Discharge Line 2	SV034	CE038	Pressure Drop: 3 in. w.c. Water Flow Rate: 50 gpm	CE038	Based off of SV034 12/24/2010 test
EU025 Pellet Machine Discharge Line 3	SV035	CE039	Pressure Drop: 3 in. w.c. Water Flow Rate: 50 gpm	CE039	Based off of SV034 12/24/2010 test
EU026 Pellet Hearth Layer Screen	SV036	CE040	Pressure Drop: 3.4 in. w.c. Water Flow Rate: 29 gpm	CE040	Based off of 12/21/2010 test
EU027 Pellet Transfer House	SV037	CE041	Pressure Drop: 3.2 in. w.c. Water Flow Rate: 37 gpm	CE041	Based off of 12/27/2010 test
EU016 Phase I Bentonite Day Bins	SV015	CE016	Pressure Drop: 1.4 in. w.c.	CE016	Based off of 5/14/2010 test
EU017 Phase II Bentonite Day Bin	SV016	CE017	Pressure Drop: 1.4 in. w.c.	CE017	Based off of EU016 5/14/2010 test
EU028 Bentonite Storage Silo – East	SV038	CE042	Pressure Drop: 0.4 in. w.c.	CE042	Based off of EU033 9/7/2010 test
EU029 Bentonite Storage Silo – West	SV039	CE043	Pressure Drop: 0.4 in. w.c.	CE043	Based off of EU033 9/7/2010 test
EU033 Limestone Storage Silo	SV043	CE044	Pressure Drop: 0.4 in. w.c.	CE044	Based off of 9/7/2010 test

#### NSPS Operating Limits

Emission Unit	SV	CE	Limit	Permit Location	Comments
GP019/FS050, FS052, FS076-FS122	NA	CE047	Water Flow Rate: $\geq 23$ gpm	GP019	Based off of 10/19/2011 test

## **Attachment 2: Test Frequency Plan Updates**



## Attachment 2: Test Frequency Plan Updates

Initial performance testing of fugitive sources added by permit number 13700061-005 was completed by the Facility during the spring of 2012 as required. The following table summarizes the results of the testing and lists the new testing frequency established in this permit action.

Emission Unit	Description	Test Date	Highest 6-Minute Opacity	Limit	Test Frequency
FS076	Jaw Crusher A	5/9/2012	1%	≤ 10%	5 years
FS078	Conveyor A1 to Conveyor A2	5/9/2012	0%	≤ 10%	5 years
FS079 & FS080	Conveyor A2 to Screen A1	5/9/2012	1%	≤ 10%	5 years
FS081 & FS088	Screen A1 and B1 to Conveyor AB1	5/10/2012	2%	≤ 10%	5 years
FS083	Jaw Crusher B	5/9/2012	1%	≤ 10%	5 years
FS084	Jaw Crusher B to Conveyor B1	5/9/2012	4%	≤ 10%	5 years
FS085	Conveyor B1 to Conveyor B2	5/10/2012	0%	≤ 10%	5 years
FS086 & FS087	Conveyor B2 to Screen B2	5/10/2012	0%	≤ 10%	5 years
FS089 & FS090	Conveyor AB1 to Cone Crusher	5/10/2012	1%	≤ 10%	5 years
FS091	Cone Crusher to Conveyor AB2	5/11/2012	1%	≤ 10%	5 years
FS092	Conveyor A3 to Conveyor A4	5/9/2012	2%	≤ 10%	5 years
FS094	Conveyor B3 to Conveyor B4	5/10/2012	0%	≤ 10%	5 years
FS098 & FS099	Conveyor AB2 to Conveyor AB3 & Conveyor AB4	5/10/2012	1%	≤ 10%	5 years
FS100	Conveyor AB3 to Conveyor A4	5/9/2012	0%	≤ 10%	5 years
FS101	Conveyor AB4 to Conveyor B4	5/9/2012	1%	≤ 10%	5 years
FS102	Conveyor A4 to Cobber A	5/9/2012	0%	≤ 10%	5 years
FS103 & FS095	Conveyor B4 to Cobber B	5/9/2012	1%	≤ 10%	5 years
FS104	Cobber B to Conveyor A5	5/8/2012	0%	≤ 10%	5 years
FS106	Cobber A to Conveyor A6	5/8/2012	0%	≤ 10%	5 years
FS107	Cobber A6 to Conveyor A7	5/8/2012	0%	≤ 10%	5 years
FS108	Conveyor A7 to Conveyor A8	5/8/2012	0%	≤ 10%	5 years
FS109	Conveyor A8 to Conveyor A9	5/8/2012	1%	≤ 10%	5 years
FS110	Conveyor A9 to Conveyor A10	5/8/2012	0%	≤ 10%	5 years
FS111	Conveyor A10 to Conveyor A11	5/8/2012	0%	≤ 10%	5 years
FS112	Conveyor A11 to Magnetic Stockpile	5/8/2012	0%	≤ 10%	5 years
FS113	Cobber A to Conveyor B5	5/8/2012	0%	≤ 10%	5 years
FS115	Cobber B to Conveyor B6	5/8/2012	0%	≤ 10%	5 years
FS116	Conveyor B6 to Conveyor B7	5/8/2012	0%	≤ 10%	5 years
FS117	Conveyor B7 to Conveyor B8	5/11/2012	1%	≤ 10%	5 years
FS118	Conveyor B8 to Conveyor B9	5/8/2012	0%	≤ 10%	5 years
FS119	Conveyor B9 to Conveyor B10	5/8/2012	0%	≤ 10%	5 years
FS120	Conveyor B10 to Conveyor B11	5/8/2012	0%	≤ 10%	5 years
FS121	Conveyor B11 to Conveyor B12	5/8/2012	0%	≤ 10%	5 years
FS122	Conveyor B12 to Non-Magnetic Stockpile	5/8/2012	0%	≤ 10%	5 years

### **Attachment 3: Compliance Assurance Monitoring Plan**

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## 1.0 Introduction

Hibbing Taconite Company's (HTC's) Title V Part 70 air permit authorizes the operation of a taconite mining and processing facility located in Hibbing, MN. The air permit requires development and implementation of a Compliance Assurance Monitoring (CAM) Plan pertaining to control of particulate matter emissions.

## 2.0 Applicable Emission Units

EU	CE	SV	GP	Description
001	001	001	001	Phase I Apron Feeder
002	002	002	001	Phase II Apron Feeder
003	003	003	001	Phase I Primary Ore Conveyor - Tail
004	004	003	001	Phase II Primary Ore Conveyor - Tail
005	005	004	002	Line No 1 Mill Feed Conveyor
006	006	005	002	Line No 2 Mill Feed Conveyor
007	007	006	002	Line No 3 Mill Feed Conveyor
008	008	007	002	Line No 4 Mill Feed Conveyor
009	009	008	002	Line No 5 Mill Feed Conveyor
010	010	009	002	Line No 6 Mill Feed Conveyor
011	011	010	002	Line No 7 Mill Feed Conveyor
012	012	011	002	Line No 8 Mill Feed Conveyor
013	013	012	002	Line No 9 Mill Feed Conveyor
020	022	021	003	Pellet Indurating Furnace Line No 1
020	023	022	003	Pellet Indurating Furnace Line No 1
020	024	023	003	Pellet Indurating Furnace Line No 1
020	025	024	003	Pellet Indurating Furnace Line No 1
021	027	025	003	Pellet Indurating Furnace Line No 2
021	028	026	003	Pellet Indurating Furnace Line No 2
021	029	027	003	Pellet Indurating Furnace Line No 2
021	030	028	003	Pellet Indurating Furnace Line No 2
022	032	029	003	Pellet Indurating Furnace Line No 3
022	033	030	003	Pellet Indurating Furnace Line No 3
022	034	031	003	Pellet Indurating Furnace Line No 3



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EU	CE	SV	GP	Description
022	035	032	003	Pellet Indurating Furnace Line No 3
018	018	017	004	Phase I Hearth Layer Bin
019	019	018	004	Phase II Hearth Layer Bin
018	020	019	005	Phase I Hearth Layer Feed
019	021	020	005	Phase II Hearth Layer Feed
023	037	033	006	Pellet Machine Discharge Line No 1
024	038	034	006	Pellet Machine Discharge Line No 2
025	039	035	006	Pellet Machine Discharge Line No 3
026	040	036	007	Pellet Hearth Layer Screen
027	041	037	008	Pellet Transfer House

### 3.0 Applicable Regulation, Emission Limit, and Monitoring Requirement

GP	Regulation	Emission Limit	Monitoring Requirement
001	MN Rule 7011.0715	0.3 grains per dry standard cubic foot of total particulate matter	Scrubber Water Flow Rate; Air Differential Pressure
002	MN Rule 7011.0715	0.3 grains per dry standard cubic foot of total particulate matter	Scrubber Water Flow Rate; Air Differential Pressure
003	MN Rule 7011.0610	0.3 grains per dry standard cubic foot of total particulate matter	Scrubber Water Flow Rate; Air Differential Pressure
004	MN Rule 7011.0715	0.3 grains per dry standard cubic foot of total particulate matter	Scrubber Water Flow Rate; Air Differential Pressure
005	MN Rule 7011.0715	0.3 grains per dry standard cubic foot of total particulate matter	Scrubber Water Flow Rate; Air Differential Pressure
006	MN Rule 7011.0715	0.3 grains per dry standard cubic foot of total particulate matter	Scrubber Water Flow Rate; Air Differential Pressure
007	MN Rule 7011.0715	0.3 grains per dry standard cubic foot of total particulate matter	Scrubber Water Flow Rate; Air Differential Pressure
008	MN Rule 7011.0715	0.3 grains per dry standard cubic foot of total particulate matter	Scrubber Water Flow Rate; Air Differential Pressure



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#### **4.0 Control Technology**

<b>GP</b>	<b>Control Technology</b>
001	Venturi Rod Deck Wet Scrubber
002	Venturi High Efficiency Wet Scrubber
003	Venturi Rod Deck Wet Scrubber
004	Dynamic Wet Scrubber
005	Dynamic Wet Scrubber
006	Dynamic Wet Scrubber
007	Dynamic Wet Scrubber
008	Dynamic Wet Scrubber

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## 5.0 Monitoring Approach

GP 001		
Indicator	Scrubber Water Flow Rate	Air Differential Pressure
Measurement Approach	Water flow rate is monitored using water flow rate meters.	Air differential pressure is monitored using differential pressure transmitters.
Indicator Range	An excursion is defined as a 24-hour block average water flow rate less than the limit established via performance testing. Excursions trigger an inspection, corrective action, and reporting requirement.	An excursion is defined as a 24-hour block average air differential pressure less than the limit established via performance testing. Excursions trigger an inspection, corrective action, and reporting requirement.
Data Representativeness	Water flow rate meters (minimum accuracy of $\pm 10\%$ ) are located in scrubber water inlet lines. Minimum accuracy determinations were based upon manufacturers' specification sheets, and taking into account realistic plant operating conditions such as fluctuating water temperature, scale build-up in piping, and accumulation of process material in measurement equipment.	Air differential pressure transmitters (minimum accuracy of $\pm 10\%$ ) obtain air static pressure measurements from both the scrubber inlet and outlet to calculate resultant air differential pressure. Minimum accuracy determinations were based upon manufacturers' specification sheets, and taking into account realistic plant operating conditions such as fluctuating water temperature, scale build-up in piping, and accumulation of process material in measurement equipment.
Verification of Operational Status	N/A	N/A
QA / QC Practices	Water flow rate meters are calibrated annually.	Differential pressure transmitters are calibrated annually.
Monitoring Frequency	Water flow rate is measured continuously.	Air differential pressure is measured continuously.
Data Collection Procedure	Water flow rate is calculated and recorded every five seconds.	Air differential pressure is calculated and recorded every five seconds.
Averaging Period	24-hour block average	24-hour block average



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<b>GP 002</b>		
<b>Indicator</b>	Scrubber Water Flow Rate	Air Differential Pressure
<b>Measurement Approach</b>	Water flow rate is monitored using water flow rate meters.	Air differential pressure is monitored using differential pressure transmitters.
<b>Indicator Range</b>	An excursion is defined as a 24-hour block average water flow rate less than the limit established via performance testing. Excursions trigger an inspection, corrective action, and reporting requirement.	An excursion is defined as a 24-hour block average air differential pressure less than the limit established via performance testing. Excursions trigger an inspection, corrective action, and reporting requirement.
<b>Data Representativeness</b>	Water flow rate meters (minimum accuracy of $\pm 10\%$ ) are located in scrubber water inlet lines. Minimum accuracy determinations were based upon manufacturers' specification sheets, and taking into account realistic plant operating conditions such as fluctuating water temperature, scale build-up in piping, and accumulation of process material in measurement equipment.	Air differential pressure transmitters (minimum accuracy of $\pm 10\%$ ) obtain air static pressure measurements from both the scrubber inlet and outlet to calculate resultant air differential pressure. Minimum accuracy determinations were based upon manufacturers' specification sheets, and taking into account realistic plant operating conditions such as fluctuating water temperature, scale build-up in piping, and accumulation of process material in measurement equipment.
<b>Verification of Operational Status</b>	N/A	N/A
<b>QA / QC Practices</b>	Water flow rate meters are calibrated annually.	Differential pressure transmitters are calibrated annually.
<b>Monitoring Frequency</b>	Water flow rate is measured continuously.	Air differential pressure is measured continuously.
<b>Data Collection Procedure</b>	Water flow rate is calculated and recorded every five seconds.	Air differential pressure is calculated and recorded every five seconds.
<b>Averaging Period</b>	24-hour block average	24-hour block average



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<b>GP 003</b>		
<b>Indicator</b>	<b>Scrubber Water Flow Rate</b>	<b>Air Differential Pressure</b>
<b>Measurement Approach</b>	Water flow rate is monitored using water flow rate meters.	Air differential pressure is monitored using differential pressure transmitters.
<b>Indicator Range</b>	An excursion is defined as a 24-hour block average water flow rate less than the limit established via performance testing. Excursions trigger an inspection, corrective action, and reporting requirement.	An excursion is defined as a 24-hour block average air differential pressure less than the limit established via performance testing. Excursions trigger an inspection, corrective action, and reporting requirement.
<b>Data Representativeness</b>	Water flow rate meters (minimum accuracy of $\pm 10\%$ ) are located in scrubber water inlet lines. Minimum accuracy determinations were based upon manufacturers' specification sheets, and taking into account realistic plant operating conditions such as fluctuating water temperature, scale build-up in piping, and accumulation of process material in measurement equipment.	Air differential pressure transmitters (minimum accuracy of $\pm 10\%$ ) obtain air static pressure measurements across the Venturi rod deck to calculate resultant air differential pressure. Minimum accuracy determinations were based upon manufacturers' specification sheets, and taking into account realistic plant operating conditions such as fluctuating water temperature, scale build-up in piping, and accumulation of process material in measurement equipment.
<b>Verification of Operational Status</b>	N/A	N/A
<b>QA / QC Practices</b>	Water flow rate meters are calibrated semi-annually.	Differential pressure transmitters are calibrated semi-annually.
<b>Monitoring Frequency</b>	Water flow rate is measured continuously.	Air differential pressure is measured continuously.
<b>Data Collection Procedure</b>	Water flow rate is calculated and recorded every five seconds.	Air differential pressure is calculated and recorded every five seconds.
<b>Averaging Period</b>	24-hour block average	24-hour block average



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<b>GP 004</b>		
<b>Indicator</b>	Scrubber Water Flow Rate	Air Differential Pressure
<b>Measurement Approach</b>	Water flow rate is monitored using water flow rate meters.	Air differential pressure is monitored using differential pressure transmitters.
<b>Indicator Range</b>	An excursion is defined as a 24-hour block average water flow rate less than the limit established via performance testing. Excursions trigger an inspection, corrective action, and reporting requirement.	An excursion is defined as a 24-hour block average air differential pressure less than the limit established via performance testing. Excursions trigger an inspection, corrective action, and reporting requirement.
<b>Data Representativeness</b>	Water flow rate meters (minimum accuracy of $\pm 10\%$ ) are located in scrubber water inlet lines. Minimum accuracy determinations were based upon manufacturers' specification sheets, and taking into account realistic plant operating conditions such as fluctuating water temperature, scale build-up in piping, and accumulation of process material in measurement equipment.	Air differential pressure transmitters (minimum accuracy of $\pm 10\%$ ) obtain air static pressure measurements from both the scrubber inlet and outlet to calculate resultant air differential pressure. Minimum accuracy determinations were based upon manufacturers' specification sheets, and taking into account realistic plant operating conditions such as fluctuating water temperature, scale build-up in piping, and accumulation of process material in measurement equipment.
<b>Verification of Operational Status</b>	N/A	N/A
<b>QA / QC Practices</b>	Water flow rate meters are calibrated annually.	Differential pressure transmitters are calibrated annually.
<b>Monitoring Frequency</b>	Water flow rate is measured continuously.	Air differential pressure is measured continuously.
<b>Data Collection Procedure</b>	Water flow rate is calculated and recorded every five seconds.	Air differential pressure is calculated and recorded every five seconds.
<b>Averaging Period</b>	24-hour block average	24-hour block average



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<b>GP 005</b>		
<b>Indicator</b>	Scrubber Water Flow Rate	Air Differential Pressure
<b>Measurement Approach</b>	Water flow rate is monitored using water flow rate meters.	Air differential pressure is monitored using differential pressure transmitters.
<b>Indicator Range</b>	An excursion is defined as a 24-hour block average water flow rate less than the limit established via performance testing. Excursions trigger an inspection, corrective action, and reporting requirement.	An excursion is defined as a 24-hour block average air differential pressure less than the limit established via performance testing. Excursions trigger an inspection, corrective action, and reporting requirement.
<b>Data Representativeness</b>	Water flow rate meters (minimum accuracy of $\pm 10\%$ ) are located in scrubber water inlet lines. Minimum accuracy determinations were based upon manufacturers' specification sheets, and taking into account realistic plant operating conditions such as fluctuating water temperature, scale build-up in piping, and accumulation of process material in measurement equipment.	Air differential pressure transmitters (minimum accuracy of $\pm 10\%$ ) obtain air static pressure measurements from both the scrubber inlet and outlet to calculate resultant air differential pressure. Minimum accuracy determinations were based upon manufacturers' specification sheets, and taking into account realistic plant operating conditions such as fluctuating water temperature, scale build-up in piping, and accumulation of process material in measurement equipment.
<b>Verification of Operational Status</b>	N/A	N/A
<b>QA / QC Practices</b>	Water flow rate meters are calibrated annually.	Differential pressure transmitters are calibrated annually.
<b>Monitoring Frequency</b>	Water flow rate is measured continuously.	Air differential pressure is measured continuously.
<b>Data Collection Procedure</b>	Water flow rate is calculated and recorded every five seconds.	Air differential pressure is calculated and recorded every five seconds.
<b>Averaging Period</b>	24-hour block average	24-hour block average



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<b>GP 006</b>		
<b>Indicator</b>	Scrubber Water Flow Rate	Air Differential Pressure
<b>Measurement Approach</b>	Water flow rate is monitored using water flow rate meters.	Air differential pressure is monitored using differential pressure transmitters.
<b>Indicator Range</b>	An excursion is defined as a 24-hour block average water flow rate less than the limit established via performance testing. Excursions trigger an inspection, corrective action, and reporting requirement.	An excursion is defined as a 24-hour block average air differential pressure less than the limit established via performance testing. Excursions trigger an inspection, corrective action, and reporting requirement.
<b>Data Representativeness</b>	Water flow rate meters (minimum accuracy of $\pm 10\%$ ) are located in scrubber water inlet lines. Minimum accuracy determinations were based upon manufacturers' specification sheets, and taking into account realistic plant operating conditions such as fluctuating water temperature, scale build-up in piping, and accumulation of process material in measurement equipment.	Air differential pressure transmitters (minimum accuracy of $\pm 10\%$ ) obtain air static pressure measurements from both the scrubber inlet and outlet to calculate resultant air differential pressure. Minimum accuracy determinations were based upon manufacturers' specification sheets, and taking into account realistic plant operating conditions such as fluctuating water temperature, scale build-up in piping, and accumulation of process material in measurement equipment.
<b>Verification of Operational Status</b>	N/A	N/A
<b>QA / QC Practices</b>	Water flow rate meters are calibrated annually.	Differential pressure transmitters are calibrated annually.
<b>Monitoring Frequency</b>	Water flow rate is measured continuously.	Air differential pressure is measured continuously.
<b>Data Collection Procedure</b>	Water flow rate is calculated and recorded every five seconds.	Air differential pressure is calculated and recorded every five seconds.
<b>Averaging Period</b>	24-hour block average	24-hour block average



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<b>GP 007</b>		
<b>Indicator</b>	Scrubber Water Flow Rate	Air Differential Pressure
<b>Measurement Approach</b>	Water flow rate is monitored using a water flow rate meter.	Air differential pressure is monitored using a differential pressure transmitter.
<b>Indicator Range</b>	An excursion is defined as a 24-hour block average water flow rate less than the limit established via performance testing. Excursions trigger an inspection, corrective action, and reporting requirement.	An excursion is defined as a 24-hour block average air differential pressure less than the limit established via performance testing. Excursions trigger an inspection, corrective action, and reporting requirement.
<b>Data Representativeness</b>	The water flow rate meter (minimum accuracy of $\pm 10\%$ ) is located in the scrubber water inlet line. Minimum accuracy determinations were based upon manufacturers' specification sheets, and taking into account realistic plant operating conditions such as fluctuating water temperature, scale build-up in piping, and accumulation of process material in measurement equipment.	The air differential pressure transmitter (minimum accuracy of $\pm 10\%$ ) obtains air static pressure measurements from both the scrubber inlet and outlet to calculate resultant air differential pressure. Minimum accuracy determinations were based upon manufacturers' specification sheets, and taking into account realistic plant operating conditions such as fluctuating water temperature, scale build-up in piping, and accumulation of process material in measurement equipment.
<b>Verification of Operational Status</b>	N/A	N/A
<b>QA / QC Practices</b>	The water flow rate meter is calibrated annually.	The differential pressure transmitter is calibrated annually.
<b>Monitoring Frequency</b>	Water flow rate is measured continuously.	Air differential pressure is measured continuously.
<b>Data Collection Procedure</b>	Water flow rate is calculated and recorded every five seconds.	Air differential pressure is calculated and recorded every five seconds.
<b>Averaging Period</b>	24-hour block average	24-hour block average



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<b>GP 008</b>		
<b>Indicator</b>	Scrubber Water Flow Rate	Air Differential Pressure
<b>Measurement Approach</b>	Water flow rate is monitored using a water flow rate meter.	Air differential pressure is monitored using a differential pressure transmitter.
<b>Indicator Range</b>	An excursion is defined as a 24-hour block average water flow rate less than the limit established via performance testing. Excursions trigger an inspection, corrective action, and reporting requirement.	An excursion is defined as a 24-hour block average air differential pressure less than the limit established via performance testing. Excursions trigger an inspection, corrective action, and reporting requirement.
<b>Data Representativeness</b>	The water flow rate meter (minimum accuracy of $\pm 10\%$ ) is located in the scrubber water inlet line. Minimum accuracy determinations were based upon manufacturers' specification sheets, and taking into account realistic plant operating conditions such as fluctuating water temperature, scale build-up in piping, and accumulation of process material in measurement equipment.	The air differential pressure transmitter (minimum accuracy of $\pm 10\%$ ) obtains air static pressure measurements from both the scrubber inlet and outlet to calculate resultant air differential pressure. Minimum accuracy determinations were based upon manufacturers' specification sheets, and taking into account realistic plant operating conditions such as fluctuating water temperature, scale build-up in piping, and accumulation of process material in measurement equipment.
<b>Verification of Operational Status</b>	N/A	N/A
<b>QA / QC Practices</b>	The water flow rate meter is calibrated annually.	The differential pressure transmitter is calibrated annually.
<b>Monitoring Frequency</b>	Water flow rate is measured continuously.	Air differential pressure is measured continuously.
<b>Data Collection Procedure</b>	Water flow rate is calculated and recorded every five seconds.	Air differential pressure is calculated and recorded every five seconds.
<b>Averaging Period</b>	24-hour block average	24-hour block average



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## 6.0 Background Information

The pollutant-specific emissions units are associated with crude ore crushing, crude ore concentrating, pellet indurating, and pellet handling. Exhaust streams from each emission unit are ducted to wet scrubbers, which use water to remove particulate matter from the exhaust streams. Water flow rate and air differential pressure are monitored for each scrubber.

Venturi rod deck wet scrubbers (GP 001, 003) operate using a Venturi rod deck to rapidly accelerate a dust laden exhaust stream while scrubbing water is introduced evenly across a rod deck section. As the scrubbed gases exit the rod deck area, deceleration of the exhaust stream occurs, causing particulate laden water droplets to be released into the bottom of the scrubber. Some Venturi rod deck scrubbers also utilize a demist section, which is used to remove additional moisture from the exhaust stream prior to exit out the stack vent.

Venturi high efficiency wet scrubbers (GP 002) utilize a converging-diverging flow channel, with the narrowest area referred to as the throat. As the dust laden exhaust stream enters the converging throat area, the decrease in area causes the waste gas velocity and turbulence to increase. Water is injected into the scrubber directly into the throat section. The scrubbing liquid is atomized by the turbulence in the throat, improving gas-water contact. The gas-water mixture then decelerates as it moves through the diverging section, causing additional particle-droplet impacts and agglomeration of the droplets. The liquid droplets are then separated from the gas stream in an entrainment section consisting of a cyclonic separator. Slurry is discharged through the bottom of the scrubber and the dewatered, scrubbed gases are exhausted out the stack vent.

Dynamic wet scrubbers (GP 004 – 008) feature a wetted fan wheel that is located in ductwork external to the main scrubber body. The fan wheel is used to shear scrubbing water into finely dispersed droplets, which combine with the dust laden exhaust stream prior to entering the scrubber itself. Once the gas-water mixture has entered the scrubber, cyclonic separation occurs, removing particulate-laden water from the exhaust stream. Slurry is discharged through the bottom of the scrubber and the dewatered, scrubbed gases are exhausted out the stack vent.

## 7.0 Rationale for Selection of Performance Indicators

Water flow rate was selected as a performance indicator, as proper distribution and atomization of water is critical for control of particulate matter through impaction of large particles and diffusion of small particles. As a general rule, wet scrubber particulate matter collection efficiency increases with increasing water flow rate.

Air differential pressure was selected as a performance indicator, because it is an important parameter in evaluating wet scrubber collection efficiency. Pressure drop is a measurement of the resistance to flow as the exhaust stream passes through a wet scrubber. The





<b>Hibbing Taconite Company</b> <b>Environmental Management System (EMS) Procedure</b>	
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resistance to flow is caused by both frictional and turbulent forces that combine with sufficient scrubber water flow rate to collect particulate matter. Air differential pressure is a function of wet scrubber power input; particulate collection efficiency improves with increasing power input.

## 8.0 Rationale for Selection of Indicator Ranges

This plan establishes initial parametric operating ranges (indicator ranges) based upon manufacturer recommendations. After air permit issuance, performance tests will be conducted. The results of performance tests demonstrating compliance with the particulate limit, along with the associated indicator ranges, will be submitted to the MPCA for review and approval. Following MPCA approval, the new indicator ranges will become effective and will be incorporated into the air permit. Initial performance testing will be conducted according to the following schedule:

GP	Initial Performance Testing Schedule
001	Within 120 days after restart of temporarily idled emission units.
002	Within 120 days after restart of temporarily idled emission units.
003	Within 120 days after restart of temporarily idled emission units.
004	Within 120 days after restart of temporarily idled emission units.
005	Within 120 days after restart of temporarily idled emission units.
006	Within 120 days after restart of temporarily idled emission units.
007	Within 120 days after restart of temporarily idled emission units.
008	Within 120 days after restart of temporarily idled emission units.

Following completion of initial performance testing, recurring performance testing for each listed group will occur as follows:

GP	Recurring Performance Testing Schedule
001	Test one of three stacks once per five years.
002	Test two of nine stacks once per five years.
003	Test all four stacks on one furnace line once per five years.
004	Test one of two stacks once per five years.
005	Test one of two stacks once per five years.
006	Test one of three stacks once per five years.
007	Test one stack once per five years.
008	Test one stack once per five years.



**Hibbing Taconite Company  
Environmental Management System (EMS) Procedure**

**Document Title:** Compliance Assurance Monitoring Plan

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**9.0 Current Revision Record**

Revision Date	Environmental Manager Approval	Nature of Change
7/6/2009	<i>Andrew S. McDowell</i>	New Document
7/12/2012	<i>Justin C. Lucas</i>	Updated Language





#### **Attachment 4: Points Calculator**

1) AQ Facility ID No.:	1370061	<table border="1"> <tr> <td>Total Points</td> <td>26</td> </tr> </table>	Total Points	26
Total Points	26			
2) Facility Name:	Hibbing Taconite Company			
3) Small business? y/n?	N			
4) DQ Numbers (including all rolled) :	3691, 3717, 3504, 3507, 3681, 3786, 3903			
5) Date of each Application Received:	10/6/2011, 10/25/2011, 5/17/2011, 4/21/2011, 10/29/2011, 12/28/2011, 4/11/2012			
6) Final Permit No.	1370061-006			
7) Permit Staff	Cindy Schafer			
8) "Work completed" in which .xls file (i.e. unit 2b, unit 1a, biofuels)?				

<u>Application Type</u>	<u>DQ No.</u>	<u>Qty.</u>	<u>Points</u>	<u>Total Points</u>	<u>Details</u>
Administrative Amendment	3717	1	1	1	
Minor Amendment			4	0	
Applicability Request			10	0	
Moderate Amendment			15	0	
Major Amendment	3691	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
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#### NOTES:

DQ numbers 3504, 3507, 3681, 3786, and 3903 are permit reopenings. There are no associated fees for permit reopenings.

**Attachment 5: Facility Description and CD-01 Forms**



## FACILITY DESCRIPTION: EMISSION UNIT (EU)

Show: Active and Pending Records

Action: PER 006

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

	ID No.	Emission Unit Status	Added By (Action)	Retired By (Action)	Insignificant 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	EIS 001		<input type="checkbox"/>		SV 001 (M)	CE 001	Phase I Apron Feeder	Allis Chalmers		1011	4480		Ton	Hr	
2	EU 002	Active	EIS 001		<input type="checkbox"/>		SV 002 (M)	CE 002	Phase II Apron Feeder	Allis Chalmers		1011	4480		Ton	Hr	
3	EU 003	Active	EIS 001		<input type="checkbox"/>		SV 003 (M)	CE 003	Phase I Primary Ore Conveyor - Tail	Contractor		1011	4480		Ton	Hr	
4	EU 004	Active	EIS 001		<input type="checkbox"/>		SV 003 (M)	CE 004	Phase II Primary Ore Conveyor - Tail	Contractor		1011	4480		Ton	Hr	
5	EU 005	Active	EIS 001		<input type="checkbox"/>	EU101	SV 004 (M)	CE 005	Line No 1 Mill Feed Conveyor	Contractor		1011	616		Ton	Hr	
6	EU 006	Active	EIS 001		<input type="checkbox"/>	EU102	SV 005 (M)	CE 006	Line No 2 Mill Feed Conveyor	Contractor		1011	616		Ton	Hr	
7	EU 007	Active	EIS 001		<input type="checkbox"/>	EU103	SV 006 (M)	CE 007	Line No 3 Mill Feed Conveyor	Contractor		1011	616		Ton	Hr	
8	EU 008	Active	EIS 001		<input type="checkbox"/>	EU104	SV 007 (M)	CE 008	Line No 4 Mill Feed Conveyor	Contractor		1011	616		Ton	Hr	
9	EU 009	Active	EIS 001		<input type="checkbox"/>	EU105	SV 008 (M)	CE 009	Line No 5 Mill Feed Conveyor	Contractor		1011	616		Ton	Hr	
10	EU 010	Active	EIS 001		<input type="checkbox"/>	EU106	SV 009 (M)	CE 010	Line No 6 Mill Feed Conveyor	Contractor		1011	616		Ton	Hr	
11	EU 011	Active	EIS 001		<input type="checkbox"/>	EU107	SV 010 (M)	CE 011	Line No 7 Mill Feed Conveyor	Contractor		1011	616		Ton	Hr	
12	EU 012	Active	EIS 001		<input type="checkbox"/>	EU108	SV 011 (M)	CE 012	Line No 8 Mill Feed Conveyor	Contractor		1011	616		Ton	Hr	
13	EU 013	Active	EIS 001		<input type="checkbox"/>	EU109	SV 012 (M)	CE 013	Line No 9 Mill Feed Conveyor	Contractor		1011	616		Ton	Hr	
14	EU 014	Removed	EIS 005		<input type="checkbox"/>	EU110	SV 013 (M)		Crusher-Trommel Oversize - Line 8 & 9	Barmac		1011	380		Ton	Hr	
15	EU 015	Removed	EIS 005		<input type="checkbox"/>	EU111	SV 014 (M)		Crusher-Trommel Oversize - Line 6 & 7	Barmac		1011	380		Ton	Hr	
16	EU 016	Active	EIS 001		<input type="checkbox"/>	EU201	SV 015 (M)	CE 016	Phase I Bentonite Day Bins	Dravo		1011	45		Ton	Hr	
17	EU 017	Active	EIS 001		<input type="checkbox"/>	EU202	SV 016 (M)	CE 017	Phase II Bentonite Day Bins	Dravo		1011	45		Ton	Hr	
18	EU 018	Active	EIS 001		<input type="checkbox"/>	EU203	SV 017 (M) SV 019 (O)	CE 018 CE 020	Phase I Hearth Layer Bin/Layer Feed	Dravo		1011	428		Ton	Hr	
19	EU 019	Active	EIS 001		<input type="checkbox"/>	EU204	SV 018 (M) SV 020 (O)	CE 019 CE 021	Phase II Hearth Layer Bin/Layer Feed	Dravo		1011	143		Ton	Hr	
20	EU 020	Active	EIS 001		<input type="checkbox"/>	EU205	SV 021 (M) SV 022 (P) SV 023 (P) SV 024 (P)	CE 022 CE 023 CE 024 CE 025 CE 026	Pellet Indurating Furnace Line No 1	Dravo-Lurgi		1011	476		Ton	Hr	360

**FACILITY DESCRIPTION: EMISSION UNIT (EU)**

	ID No.	Emission Unit Status	Added By (Action)	Commence Const. Date	Initial Startup Date	Removal Date	Firing Method	Pct. Fuel/ Space Heat	Bottleneck	Elevator Type
1	EU 001	Active	EIS 001	01/01/1974	01/01/1976					
2	EU 002	Active	EIS 001	01/01/1976	01/01/1979					
3	EU 003	Active	EIS 001	01/01/1974	01/01/1976					
4	EU 004	Active	EIS 001	01/01/1976	01/01/1979					
5	EU 005	Active	EIS 001	01/01/1974	01/01/1976					
6	EU 006	Active	EIS 001	01/01/1974	01/01/1976					
7	EU 007	Active	EIS 001	01/01/1974	01/01/1976					
8	EU 008	Active	EIS 001	01/01/1974	01/01/1976					
9	EU 009	Active	EIS 001	01/01/1974	01/01/1976					
10	EU 010	Active	EIS 001	01/01/1974	01/01/1976					
11	EU 011	Active	EIS 001	01/01/1976	01/01/1979					
12	EU 012	Active	EIS 001	01/01/1976	01/01/1979					
13	EU 013	Active	EIS 001	01/01/1976	01/01/1979					
14	EU 014	Removed	EIS 005	01/01/1995	01/01/1995	12/31/2001				
15	EU 015	Removed	EIS 005	01/01/1996	01/01/1996	12/31/2001				
16	EU 016	Active	EIS 001	01/01/1974	01/01/1976					
17	EU 017	Active	EIS 001	01/01/1976	01/01/1979					
18	EU 018	Active	EIS 001	01/01/1974	01/01/1976					
19	EU 019	Active	EIS 001	01/01/1976	01/01/1979					
20	EU 020	Active	EIS 001	01/01/1974	01/01/1976					



## FACILITY DESCRIPTION: EMISSION UNIT (EU)

Show: Active and Pending Records

Action: PER 006

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

	ID No.	Emission Unit Status	Added By (Action)	Retired By (Action)	Insignificant 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	
21	EU 021	Active	EIS 001		<input type="checkbox"/>	EU206	SV 025 (M) SV 026 (P) SV 027 (P) SV 028 (P)	CE 027 CE 028 CE 029 CE 030 CE 031	Pellet Indurating Furnace Line No 2	Dravo-Lurgi		1011	476		Ton	Hr	360
22	EU 022	Active	EIS 001		<input type="checkbox"/>	EU207	SV 029 (M) SV 030 (P) SV 031 (P) SV 032 (P)	CE 032 CE 033 CE 034 CE 035 CE 036	Pellet Indurating Furnace Line No 3	Dravo-Lurgi		1011	476		Ton	Hr	360
23	EU 023	Active	EIS 001		<input type="checkbox"/>	EU208	SV 033 (M)	CE 037	Pellet Machine Discharge Line No 1	Dravo		1011	476		Ton	Hr	
24	EU 024	Active	EIS 001		<input type="checkbox"/>	EU209	SV 034 (M)	CE 038	Pellet Machine Discharge Line No 2	Dravo		1011	476		Ton	Hr	
25	EU 025	Active	EIS 001		<input type="checkbox"/>	EU210	SV 035 (M)	CE 039	Pellet Machine Discharge Line No 3	Dravo		1011	476		Ton	Hr	
26	EU 026	Active	EIS 001		<input type="checkbox"/>	EU211	SV 036 (M)	CE 040	Pellet Hearth Layer Screening	Dravo		1011	428		Ton	Hr	
27	EU 027	Active	EIS 001		<input type="checkbox"/>	EU212	SV 037 (M)	CE 041	Pellet Transfer House	Contractor		1011	1428		Ton	Hr	
28	EU 028	Active	EIS 001		<input type="checkbox"/>	EU213	SV 038 (M)	CE 042	Bentonite Storage Silo - East			1011	45		Ton	Hr	
29	EU 029	Active	EIS 001		<input type="checkbox"/>	EU214	SV 039 (M)	CE 043	Bentonite Storage Silo - West			1011	45		Ton	Hr	
30	EU 030	Removed	EIS 005		<input type="checkbox"/>	EU215			Boiler - Railcar Bunker C			1011	6.3	Heat	Mmbtu	Hr	6.3
31	EU 031	Active	EIS 001		<input type="checkbox"/>	EU216	SV 041 (M)		Phase I Emergency Generator	Cummins		1011	5.8	Heat	Mmbtu	Hr	5.8
32	EU 032	Active	EIS 001		<input type="checkbox"/>	EU217	SV 042 (M)		Phase II Emergency Generator	Cummins		1011	6.7	Heat	Mmbtu	Hr	6.7
33	EU 033	Active	EIS 001		<input type="checkbox"/>	EU218	SV 043 (M)	CE 044	Limestone Storage Silo			1011	175		Ton	Hr	
34	EU 034	Retired	PER 002		<input type="checkbox"/>	EU219	SV 043 (M)		Phase I Limestone Slurry Tank: Wet & Enclosed			1011	20		Ton	Hr	
35	EU 035	Retired	PER 002		<input type="checkbox"/>	EU220			Phase II Limestone Slurry Tank: Wet and Enclosed			1011	10		Ton	Hr	
36	EU 036	Active	EIS 001		<input type="checkbox"/>	EU301	SV 045 (M)		Paint Booth	JB		1011	8000		Ft3(s)	Min	
37	EU 037	Removed	PER 002		<input type="checkbox"/>				Place Holder (Dummy EU)			1011					
38	EU 038	Active	PER 003		<input type="checkbox"/>				1600 kW Diesel Generator (retired-mobile source)			1011	2800		Hp		
39	EU 039	Active	PER 003		<input checked="" type="checkbox"/>				Portable Welding Unit #524 (retired-mobile source)			1011	64.3		Hp		

**FACILITY DESCRIPTION: EMISSION UNIT (EU)**

	ID No.	Emission Unit Status	Added By (Action)	Commence Const. Date	Initial Startup Date	Removal Date	Firing Method	Pct. Fuel/ Space Heat	Bottleneck	Elevator Type
21	EU 021	Active	EIS 001	01/01/1974	01/01/1976					
22	EU 022	Active	EIS 001	01/01/1976	01/01/1979					
23	EU 023	Active	EIS 001	01/01/1974	01/01/1976					
24	EU 024	Active	EIS 001	01/01/1974	01/01/1976					
25	EU 025	Active	EIS 001	01/01/1976	01/01/1979					
26	EU 026	Active	EIS 001	01/01/1974	01/01/1976					
27	EU 027	Active	EIS 001	01/01/1974	01/01/1976					
28	EU 028	Active	EIS 001	01/01/1974	01/01/1976					
29	EU 029	Active	EIS 001	01/01/1976	01/01/1979					
30	EU 030	Removed	EIS 005	01/01/1974	01/01/1976	12/31/2001				
31	EU 031	Active	EIS 001	01/01/1975	01/01/1975					
32	EU 032	Active	EIS 001	01/01/1977	01/01/1977					
33	EU 033	Active	EIS 001	01/01/1986	01/01/1987					
34	EU 034	Retired	PER 002	01/01/1997	01/01/1997	12/31/2002				
35	EU 035	Retired	PER 002	01/01/1996	01/01/1996	12/31/2002				
36	EU 036	Active	EIS 001	01/01/1994	01/01/1994					
37	EU 037	Removed	PER 002			12/31/2001				
38	EU 038	Active	PER 003	08/01/2008	08/01/2008					
39	EU 039	Active	PER 003	01/01/1996	01/01/1996					



## FACILITY DESCRIPTION: EMISSION UNIT (EU)

Show: Active and Pending Records

Action: PER 006

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

	ID No.	Emission Unit Status	Added By (Action)	Retired By (Action)	Insignificant 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	
40	EU 040	Active	PER 003		☒				Portable Welding Unit #528 (retired-mobile source)			1011	64.3		Hp		
41	EU 041	Active	PER 003		☒				Portable Welding Unit #535 (retired-mobile source)			1011	64.3		Hp		
42	EU 042	Active	PER 003		☒				Portable Welding Unit #536 (retired-mobile source)			1011	64.3		Hp		
43	EU 043	Active	PER 003		☒				Portable Welding Unit #539 (retired-mobile source)			1011	64.3		Hp		



## FACILITY DESCRIPTION: EMISSION UNIT (EU)

	ID No.	Emission Unit Status	Added By (Action)	Commence Const. Date	Initial Startup Date	Removal Date	Firing Method	Pct. Fuel/ Space Heat	Bottleneck	Elevator Type
40	EU 040	Active	PER 003	01/01/1997	01/01/1997					
41	EU 041	Active	PER 003	01/01/2001	01/01/2001					
42	EU 042	Active	PER 003	01/01/2004	01/01/2004					
43	EU 043	Active	PER 003	01/01/2005	01/01/2005					



## FACILITY DESCRIPTION: CONTROL EQUIPMENT (CE)

Show: Active and Pending Records

Action: PER 006

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

	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 005			053	Venturi Scrubber	CGS	Multiscrub-C, Size 26	PM10 PM	100 100	90 90	
2	CE 002	Active	PER 005			053	Venturi Scrubber	CGS	Multiscrub-C, Size 26	PM10 PM	100 100	90 90	
3	CE 003	Active	PER 005			053	Venturi Scrubber	CGS	Multiscrub-H, Size 22	PM10 PM	100 100	90 90	
4	CE 004	Active	PER 005			053	Venturi Scrubber	CGS	Multiscrub-H, Size 22	PM10 PM	100 100	90 90	
5	CE 005	Active	PER 005		CE101	912	Wet Scrubber-High Efficiency	CGS	Ventriscurb-HV, Size 66	PM10 PM	100 100	90 90	
6	CE 006	Active	PER 005		CE102	912	Wet Scrubber-High Efficiency	CGS	Ventriscurb-HV, Size 66	PM10 PM	100 100	90 90	
7	CE 007	Active	PER 005		CE103	912	Wet Scrubber-High Efficiency	CGS	Ventriscurb-HV, Size 66	PM10 PM	100 100	90 90	
8	CE 008	Active	PER 005		CE104	912	Wet Scrubber-High Efficiency	CGS	Ventriscurb-HV, Size 66	PM10 PM	100 100	90 90	
9	CE 009	Active	PER 005		CE105	912	Wet Scrubber-High Efficiency	CGS	Ventriscurb-HV, Size 66	PM10 PM	100 100	90 90	
10	CE 010	Active	PER 005		CE106	912	Wet Scrubber-High Efficiency	CGS	Ventriscurb-HV, Size 66	PM10 PM	100 100	90 90	
11	CE 011	Active	PER 005		CE107	912	Wet Scrubber-High Efficiency	CGS	Ventriscurb-HV, Size 66	PM10 PM	100 100	90 90	
12	CE 012	Active	PER 005		CE108	912	Wet Scrubber-High Efficiency	CGS	Ventriscurb-HV, Size 66	PM10 PM	100 100	90 90	
13	CE 013	Active	PER 005		CE109	912	Wet Scrubber-High Efficiency	CGS	Ventriscurb-HV, Size 66	PM10 PM	100 100	90 90	
14	CE 014	Removed	PER 003		CE110	053	Venturi Scrubber	CGS	Multiscrub C Size 6/42	PM	100	90	
15	CE 015	Removed	PER 003		CE111	053	Venturi Scrubber	CGS	Multiscrub C Size 6/42	PM	100	90	
16	CE 016	Active	EIS 001		CE201	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Donaldson Torit & Day	376RFW-10	PM10 PM	100 100	99 99	
17	CE 017	Active	EIS 001		CE202	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Carter-Day	116DF-10	PM10 PM	100 100	99 99	
18	CE 018	Active	EIS 001		CE203	912	Wet Scrubber-High Efficiency	Ducon	III UW-4 Size 108	PM10 PM	100 100	90 90	
19	CE 019	Active	PER 003		CE204	912	Wet Scrubber-High Efficiency	Ducon	III UW-4 Size 108	PM10 PM	100 100	90 90	
20	CE 020	Active	PER 003		CE205	912	Wet Scrubber-High Efficiency	Ducon	III UW-4 Size 96	PM10 PM	100 100	90 90	



## FACILITY DESCRIPTION: CONTROL EQUIPMENT (CE)

Show: Active and Pending Records

Action: PER 006

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

	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 021	Active	EIS 001		CE206	912	Wet Scrubber-High Efficiency	Ducon	III UW-4 Size 90	PM10 PM	100 100	90 90	
22	CE 022	Active	EIS 001		CE207	053	Venturi Scrubber	Envroneering	A33-200000	PM10 PM	100 100	90 90	
23	CE 023	Active	EIS 001		CE208	053	Venturi Scrubber	Envroneering	A33-200000	PM10 PM	100 100	90 90	
24	CE 024	Active	EIS 001		CE209	053	Venturi Scrubber	Envroneering	A33-200000	PM10 PM	100 100	90 90	
25	CE 025	Active	EIS 001		CE210	053	Venturi Scrubber	Envroneering	A33-200000	PM10 PM	100 100	90 90	
26	CE 026	Active	EIS 001		CE211	076	Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones	Zurn	MTSA-336-11.5 CYT	PM10 PM	100 100	80 80	
27	CE 027	Active	EIS 001		CE212	053	Venturi Scrubber	Envroneering	A33-200000	PM10 PM	100 100	90 90	
28	CE 028	Active	EIS 001		CE213	053	Venturi Scrubber	Envroneering	A33-200000	PM10 PM	100 100	90 90	
29	CE 029	Active	EIS 001		CE214	053	Venturi Scrubber	Envroneering	A33-200000	PM10 PM	100 100	90 90	
30	CE 030	Active	EIS 001		CE215	053	Venturi Scrubber	Envroneering	A33-200000	PM10 PM	100 100	90 90	
31	CE 031	Active	EIS 001		CE216	076	Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones	Zurn	MTSA-336-11.5 CYT	PM10 PM	100 100	80 80	
32	CE 032	Active	EIS 001		CE217	053	Venturi Scrubber	Envroneering	A33-200L	PM10 PM	100 100	90 90	
33	CE 033	Active	EIS 001		CE218	053	Venturi Scrubber	Envroneering	A33-200L	PM10 PM	100 100	90 90	
34	CE 034	Active	EIS 001		CE219	053	Venturi Scrubber	Envroneering	A33-200L	PM10 PM	100 100	90 90	
35	CE 035	Active	PER 003		CE220	053	Venturi Scrubber	Envroneering	A33-200L	PM10 PM	100 100	90 90	
36	CE 036	Active	PER 003		CE221	076	Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones	Zurn	MTSA-336-11.5 CYT	PM10 PM	100 100	80 80	
37	CE 037	Active	EIS 001		CE222	912	Wet Scrubber-High Efficiency	Ducon	III UW-4 Size 144	PM10 PM	100 100	90 90	
38	CE 038	Active	EIS 001		CE223	912	Wet Scrubber-High Efficiency	Ducon	III UW-4 Size 144	PM10 PM	100 100	90 90	
39	CE 039	Active	EIS 001		CE224	912	Wet Scrubber-High Efficiency	Ducon	III UW-4 Size 144	PM10 PM	100 100	90 90	
40	CE 040	Active	EIS 001		CE225	912	Wet Scrubber-High Efficiency	Ducon	III UW-4 Size 108	PM10 PM	100 100	90 90	



## FACILITY DESCRIPTION: CONTROL EQUIPMENT (CE)

Show: Active and Pending Records

Action: PER 006

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

	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 041	Active	EIS 001		CE226	912	Wet Scrubber-High Efficiency	Ducon	III UW-4 Size 96	PM10 PM	100 100	90 90	
42	CE 042	Active	EIS 001		CE227	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Fuller	Size 5 Model A 24-2-500-8	PM10 PM	100 100	99 99	
43	CE 043	Active	EIS 001		CE228	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Fuller-Kovako	Unifilter Size 7	PM10 PM	100 100	99 99	
44	CE 044	Active	PER 001		CE229	018	Fabric Filter - Low Temperature, i.e., T<180 Degrees F	Fuller	Unifilter Size 3	PM10 PM	100 100	99 99	
45	CE 045	Removed	PER 002		CE230	099	Other			PM	100	92	
46	CE 046	Active	EIS 001		CE301	058	Mat or Panel Filter			PM10 PM	80 80	92 92	
47	CE 047	Active	PER 004			099	Manually Operated Water Spray			PM2.5 PM10 PM	100 100 100	90 90 90	
48	CE 050	Active	PER 004			099	Manually Operated Water Spray			PM2.5 PM10 PM	100 100 100	75 75 75	



## FACILITY DESCRIPTION: STACK/VENTS (SV)

Show: Active and Pending Records

Action: PER 006

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

	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 (°F)	Flow Rate/ Temperature Information Source	Discharge Direction
								Diameter or Length (feet)	Width (feet)				
1	SV 001	Active	EIS 001				40	2.0		16000	85	Test	Up, No Cap
2	SV 002	Active	EIS 001				40	2.0		16000	85	Test	Up, No Cap
3	SV 003	Active	EIS 001				61	3.0		34000	85	Test	Up, No Cap
4	SV 004	Active	EIS 001		SV101		61	1.8		14000	90	Test	Up, No Cap
5	SV 005	Active	EIS 001		SV102		61	1.8		14000	90	Test	Up, No Cap
6	SV 006	Active	EIS 001		SV103		61	1.8		14000	90	Test	Up, No Cap
7	SV 007	Active	EIS 001		SV104		61	1.8		14000	90	Test	Up, No Cap
8	SV 008	Active	EIS 001		SV105		61	1.8		14000	90	Test	Up, No Cap
9	SV 009	Active	EIS 001		SV106		61	1.8		14000	90	Test	Up, No Cap
10	SV 010	Active	EIS 001		SV107		61	1.8		14000	90	Test	Up, No Cap
11	SV 011	Active	EIS 001		SV108		61	1.8		14000	90	Test	Up, No Cap
12	SV 012	Active	EIS 001		SV109		61	1.8		14000	90	Test	Up, No Cap
13	SV 013	Removec	PER 003		SV110		64	1.3		4500	75	Test	Up, No Cap
14	SV 014	Removec	PER 003		SV111		64	1.3		5500	75	Test	Up, No Cap
15	SV 015	Active	PER 003		SV201		109	3.2		20000	90	Estimate	Up, No Cap
16	SV 016	Active	PER 003		SV202		109	3.2		14200	90	Test	Up, No Cap
17	SV 017	Active	EIS 001		SV203		109	3.5		39000	90	Test	Up, No Cap
18	SV 018	Active	EIS 001		SV204		109	3.5		19000	90	Estimate	Up, No Cap
19	SV 019	Active	EIS 001		SV205		109	3.5		38000	90	Test	Up, No Cap
20	SV 020	Active	EIS 001		SV206		109	3.5		23000	90	Estimate	Up, No Cap
21	SV 021	Active	EIS 001		SV207		119	8.8		225000	100	Test	Up, No Cap
22	SV 022	Active	EIS 001		SV208		119	8.8		225000	105	Test	Up, No Cap
23	SV 023	Active	EIS 001		SV209		119	8.8		225000	115	Test	Up, No Cap
24	SV 024	Active	EIS 001		SV210		119	8.8		225000	120	Test	Up, No Cap
25	SV 025	Active	EIS 001		SV211		119	8.8		225000	120	Test	Up, No Cap
26	SV 026	Active	EIS 001		SV212		119	8.8		225000	115	Test	Up, No Cap
27	SV 027	Active	EIS 001		SV213		119	8.8		225000	105	Test	Up, No Cap



## FACILITY DESCRIPTION: STACK/VENTS (SV)

Show: Active and Pending Records

Action: PER 006

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

	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 (°F)	Flow Rate/ Temperature Information Source	Discharge Direction
								Diameter or Length (feet)	Width (feet)				
28	SV 028	Active	EIS 001		SV214		119	8.8		225000	100	Test	Up, No Cap
29	SV 029	Active	EIS 001		SV215		119	8.8		225000	100	Test	Up, No Cap
30	SV 030	Active	EIS 001		SV216		119	8.8		225000	105	Test	Up, No Cap
31	SV 031	Active	EIS 001		SV217		119	8.8		225000	115	Test	Up, No Cap
32	SV 032	Active	EIS 001		SV218		119	8.8		225000	120	Test	Up, No Cap
33	SV 033	Active	EIS 001		SV219		116	5.0		105000	85	Test	Up, No Cap
34	SV 034	Active	EIS 001		SV220		116	5.0		105000	85	Test	Up, No Cap
35	SV 035	Active	EIS 001		SV221		116	5.0		105000	85	Test	Up, No Cap
36	SV 036	Active	EIS 001		SV222		117	3.5		35000	75	Test	Up, No Cap
37	SV 037	Active	EIS 001		SV223		65	3.3		25000	80	Test	Up, No Cap
38	SV 038	Active	PER 003		SV224		75	1	1	2800	70	Estimate	Horizontal
39	SV 039	Active	PER 003		SV225		83	1.24	1.24	4200	70	Estimate	Horizontal
40	SV 040	Removec	PER 003		SV226		31	1.33		1700	400	Estimate	Up, No Cap
41	SV 041	Active	PER 003		SV227		17.5	.58		3250	900	Estimate	Up, No Cap
42	SV 042	Active	PER 003		SV228		30	.83		3700	900	Estimate	Up, No Cap
43	SV 043	Active	PER 003		SV229		75	.92	.92	1500	75	Estimate	Horizontal
44	SV 044	Retired	PER 002		SV230	Permit app 9/23/02: Delete this	7	.5			75	Estimate	Horizontal
45	SV 045	Active	PER 003		SV301		30	2		8000	80	Estimate	Up, No Cap
46	SV 046	Active	PER 003			SV used for EU038-mobile source, removed							



## FACILITY DESCRIPTION: GROUPS (GP)

Show: Active and Pending Records

Action: PER 006

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

	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		<input checked="" type="checkbox"/>		Crushing	CE 001, CE 002, CE 003, CE 004, EU 001, EU 002, EU 003, EU 004, SV 001, SV 002, SV 003
2	GP 002	Active	PER 001		<input checked="" type="checkbox"/>		Concentrating	CE 005, CE 006, CE 007, CE 008, CE 009, CE 010, CE 011, CE 012, CE 013, EU 005, EU 006, EU 007, EU 008, EU 009, EU 010, EU 011, EU 012, EU 013, SV 004, SV 005, SV 006, SV 007, SV 008, SV 009, SV 010, SV 011, SV 012
3	GP 003	Active	PER 001		<input checked="" type="checkbox"/>		Furnaces Nos. 1-3	CE 022, CE 023, CE 024, CE 025, CE 026, CE 027, CE 028, CE 029, CE 030, CE 031, CE 032, CE 033, CE 034, CE 035, CE 036, EU 020, EU 021, EU 022, SV 021, SV 022, SV 023, SV 024, SV 025, SV 026, SV 027, SV 028, SV 029, SV 030, SV 031, SV 032
4	GP 004	Active	PER 001		<input checked="" type="checkbox"/>		Pelletizing - Scrubbers	CE 018, CE 019, CE 020, CE 021, CE 037, CE 038, CE 039, CE 040, CE 041, EU 018, EU 019, EU 023, EU 024, EU 025, EU 026, EU 027, SV 017, SV 018, SV 019, SV 020, SV 033, SV 034, SV 035, SV 036, SV 037
5	GP 005	Active	PER 002		<input checked="" type="checkbox"/>		Pelletizing - Baghouses	CE 016, CE 017, CE 042, CE 043, CE 044, EU 016, EU 017, EU 028, EU 029, EU 033, SV 015, SV 016, SV 038, SV 039, SV 043
6	GP 006	Active	PER 003		<input type="checkbox"/>		Emergency Generators	EU 031, EU 032, SV 041
7	GP 007	Removed	PER 002		<input type="checkbox"/>			
8	GP 008	Active	PER 005		<input type="checkbox"/>		Point Sources and Fugitive Sources Subject to MACT	CE 001, CE 002, CE 003, CE 004, CE 005, CE 006, CE 007, CE 008, CE 009, CE 010, CE 011, CE 012, CE 013, CE 018, CE 019, CE 020, CE 021, CE 022, CE 023, CE 024, CE 025, CE 026, CE 027, CE 028, CE 029, CE 030, CE 031, CE 032, CE 033, CE 034, CE 035, CE 036, CE 037, CE 038, CE 039, CE 040, CE 041, EU 001, EU 002, EU 003, EU 004, EU 005, EU 006, EU 007, EU 008, EU 009, EU 010, EU 011, EU 012, EU 013, EU 018, EU 019, EU 020, EU 021, EU 022, EU 023, EU 024, EU 025, EU 026, EU 027, FS 001, FS 002, FS 003, FS 004, FS 005, FS 006, FS 007, FS 008, FS 009, FS 010, FS 011, FS 012, FS 013, FS 014, FS 016, FS 017, FS 018, FS 019, FS 020, FS 021, FS 022, FS 023, FS 024, FS 025, FS 026, FS 027, FS 028, FS 029, FS 030, FS 057, FS 061, FS 062, FS 075, FS 076, FS 077, FS 078, FS 079, FS 080, FS 081, FS 082, FS 083, FS 084, FS 085, FS 086, FS 087, FS 088, FS 089, FS 090, FS 091, FS 092, FS 093, FS 094, FS 095, FS 096, FS 097, FS 098, FS 099, FS 100, FS 101, FS 102, FS 103, FS 104, FS 105, FS 106, FS 107, FS 108, FS 109, FS 110, FS 111, FS 112, FS 113, FS 114, FS 115, FS 116, FS 117, FS 118, FS 119, FS 120, FS 121, FS 122
9	GP 009	Active	PER 003		<input type="checkbox"/>		Point Sources Subject to Taconite MACT	CE 001, CE 002, CE 003, CE 004, CE 005, CE 006, CE 007, CE 008, CE 009, CE 010, CE 011, CE 012, CE 013, CE 018, CE 019, CE 020, CE 021, CE 022, CE 023, CE 024, CE 025, CE 026, CE 027, CE 028, CE 029, CE 030, CE 031, CE 032, CE 033, CE 034, CE 035, CE 036, CE 037, CE 038, CE 039, CE 040, CE 041, EU 001, EU 002, EU 003, EU 004, EU 005, EU 006, EU 007, EU 008, EU 009, EU 010, EU 011, EU 012, EU 013, EU 018, EU 019, EU 020, EU 021, EU 022, EU 023, EU 024, EU 025, EU 026, EU 027
10	GP 010	Active	PER 003		<input type="checkbox"/>		Ore Crushing and Handling Sources Subject to Taconite MACT	CE 001, CE 002, CE 003, CE 004, CE 005, CE 006, CE 007, CE 008, CE 009, CE 010, CE 011, CE 012, CE 013, EU 001, EU 002, EU 003, EU 004, EU 005, EU 006, EU 007, EU 008, EU 009, EU 010, EU 011, EU 012, EU 013, SV 001, SV 002, SV 003, SV 004, SV 005, SV 006, SV 007, SV 008, SV 009, SV 010, SV 011, SV 012



## FACILITY DESCRIPTION: GROUPS (GP)

Show: Active and Pending Records

Action: PER 006

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

	ID No.	Group Status	Added By (Action)	Retired By (Action)	Include in EI	Operator ID for Item	Group Description	Group Items
11	GP 011	Active	PER 003		<input type="checkbox"/>		Finished Pellet Handling Sources Subject to Taconite MACT	CE 018, CE 019, CE 020, CE 021, CE 037, CE 038, CE 039, CE 040, CE 041, EU 018, EU 019, EU 023, EU 024, EU 025, EU 026, EU 027, SV 017, SV 018, SV 019, SV 020, SV 033, SV 034, SV 035, SV 036, SV 037
12	GP 012	Active	PER 003		<input type="checkbox"/>		Indurating Sources Subject to Taconite MACT	CE 022, CE 023, CE 024, CE 025, CE 026, CE 027, CE 028, CE 029, CE 030, CE 031, CE 032, CE 033, CE 034, CE 035, CE 036, EU 020, EU 021, EU 022, SV 021, SV 022, SV 023, SV 024, SV 025, SV 026, SV 027, SV 028, SV 029, SV 030, SV 031, SV 032
13	GP 013	Active	PER 005		<input type="checkbox"/>		Fugitive Sources Subject to Taconite MACT	FS 001, FS 002, FS 003, FS 004, FS 005, FS 006, FS 007, FS 008, FS 009, FS 010, FS 011, FS 012, FS 013, FS 014, FS 016, FS 017, FS 018, FS 019, FS 020, FS 021, FS 022, FS 023, FS 024, FS 025, FS 026, FS 027, FS 028, FS 029, FS 030, FS 058, FS 059, FS 069, FS 070, FS 071, FS 072, FS 073, FS 074, FS 075, FS 076, FS 077, FS 078, FS 079, FS 080, FS 081, FS 082, FS 083, FS 084, FS 085, FS 086, FS 087, FS 088, FS 089, FS 090, FS 091, FS 092, FS 093, FS 094, FS 095, FS 096, FS 097, FS 098, FS 099, FS 100, FS 101, FS 102, FS 103, FS 104, FS 105, FS 106, FS 107, FS 108, FS 109, FS 110, FS 111, FS 112, FS 113, FS 114, FS 115, FS 116, FS 117, FS 118, FS 119, FS 120, FS 121, FS 122
14	GP 014	Active	PER 003		<input type="checkbox"/>		Wet Scrubbers Subject to Taconite MACT	CE 001, CE 002, CE 003, CE 004, CE 005, CE 006, CE 007, CE 008, CE 009, CE 010, CE 011, CE 012, CE 013, CE 018, CE 019, CE 020, CE 021, CE 022, CE 023, CE 024, CE 025, CE 027, CE 028, CE 029, CE 030, CE 032, CE 033, CE 034, CE 035, CE 037, CE 038, CE 039, CE 040, CE 041, EU 001, EU 002, EU 003, EU 004, EU 005, EU 006, EU 007, EU 008, EU 009, EU 010, EU 011, EU 012, EU 013, EU 018, EU 019, EU 020, EU 021, EU 022, EU 023, EU 024, EU 025, EU 026, EU 027
15	GP 015	Active	PER 003		<input type="checkbox"/>		Ore Crushing and Handling Stack Vents	SV 001, SV 002, SV 003, SV 004, SV 005, SV 006, SV 007, SV 008, SV 009, SV 010, SV 011, SV 012
16	GP 016	Active	PER 003		<input type="checkbox"/>		Place holder	
17	GP 017	Active	PER 003		<input type="checkbox"/>		Place holder	
18	GP 018	Active	PER 003		<input type="checkbox"/>		Multiclones Subject to Taconite MACT	CE 026, CE 031, CE 036
19	GP 019	Active	PER 005		<input type="checkbox"/>		Sources Subject to NSPS Subpart LL, Standards of Performance for Metallic Mineral Processing	CE 047, CE 050, FS 076, FS 078, FS 079, FS 080, FS 081, FS 083, FS 084, FS 085, FS 086, FS 087, FS 088, FS 089, FS 090, FS 091, FS 092, FS 094, FS 098, FS 099, FS 100, FS 101, FS 102, FS 103, FS 104, FS 105, FS 106, FS 107, FS 108, FS 109, FS 110, FS 111, FS 112, FS 113, FS 114, FS 115, FS 116, FS 117, FS 118, FS 119, FS 120, FS 121, FS 122





## FACILITY DESCRIPTION: FUGITIVE SOURCES (FS)

Show: Active and Pending Records

Action: PER 006

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

	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	EIS 001		<input type="checkbox"/>	FS011	PM		Truck Dump/Crusher Building		
2	FS 002	Active	EIS 001		<input type="checkbox"/>	FS012	PM		Primary Ore Conveyor to Shuttle Belt		
3	FS 003	Active	EIS 001		<input type="checkbox"/>	FS013	PM		Shuttle Belt to Crude Ore Stockpile		
4	FS 004	Active	EIS 001		<input type="checkbox"/>	FS014	PM		Wind Erosion - Crude Ore Stockpile		
5	FS 005	Active	EIS 005		<input type="checkbox"/>	FS101	PM		Non-Metallic Rock Transfer (Cobbed Rock)		
6	FS 006	Active	EIS 005		<input type="checkbox"/>	FS102	PM		Wind Erosion - Non-Metallic Rock Stockpile (Cobbed Rock)		
7	FS 007	Active	EIS 001		<input type="checkbox"/>	FS201	PM		Filter Cake Stockpiles Load		
8	FS 008	Active	EIS 001		<input type="checkbox"/>	FS202	PM		Filter Cake Reclaim Load		
9	FS 009	Active	EIS 001		<input type="checkbox"/>	FS203	PM		Filter Cake Wind Erosion		
10	FS 010	Active	EIS 001		<input type="checkbox"/>	FS204	PM		Pellet Bin Loading		
11	FS 011	Active	EIS 001		<input type="checkbox"/>	FS205	PM		Pellet Stockpiles Load		
12	FS 012	Active	EIS 001		<input type="checkbox"/>	FS206	PM		Pellet Reclaim Load		
13	FS 013	Active	EIS 001		<input type="checkbox"/>	FS207	PM		Pellet Wind Erosion		
14	FS 014	Active	EIS 001		<input type="checkbox"/>	FS315	VOC		Cleaning - Steam Cleaning Vehicles/Parts/Buildings		
15	FS 015	Active	EIS 005		<input checked="" type="checkbox"/>	FS316	PM		Road Sweeper		
16	FS 016	Active	EIS 008		<input type="checkbox"/>	FS401	PM		Loading Overburden		
17	FS 017	Active	EIS 008		<input type="checkbox"/>	FS402	PM		Unloading Overburden		
18	FS 018	Active	EIS 008		<input type="checkbox"/>	FS403	PM		Wind Erosion Overburden		
19	FS 019	Active	EIS 008		<input type="checkbox"/>	FS404	PM		Drilling Rock		
20	FS 020	Active	EIS 008		<input type="checkbox"/>	FS405	PM		Loading Rock		
21	FS 021	Active	EIS 008		<input type="checkbox"/>	FS406	PM		Unloading Rock		
22	FS 022	Active	EIS 008		<input type="checkbox"/>	FS407	PM		Wind Erosion Rock		
23	FS 023	Active	EIS 008		<input type="checkbox"/>	FS408	PM		Drilling Taconite Ore		
24	FS 024	Active	EIS 008		<input type="checkbox"/>	FS409	PM		Loading Taconite Ore		
25	FS 025	Active	EIS 001		<input type="checkbox"/>	FS410	PM		Hauling on Unpaved Haul Road, Overburden, Rock, Taconite, Misc.		
26	FS 026	Active	EIS 001		<input type="checkbox"/>	FS411	PM		Non-Productive Material Transfers - Tailing, Rock, Crude Ore Emergency, Filter Cake, Pellets		
27	FS 027	Active	EIS 001		<input type="checkbox"/>	FS412	PM		Blasting - Rock & Taconite		



## FACILITY DESCRIPTION: FUGITIVE SOURCES (FS)

Show: Active and Pending Records

Action: PER 006

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

	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
28	FS 028	Active	EIS 001		<input type="checkbox"/>	FS413	PM		Small Fleet Vehicle Travel on Unpaved Road		
29	FS 029	Active	PER 003		<input type="checkbox"/>	FS414	PM		Tailing Basin Wind Erosion - Dry		
30	FS 030	Active	PER 003		<input type="checkbox"/>	FS415	PM		Tailing Basin Wind Erosion - Damp		
31	FS 031	Removed	PER 005		<input type="checkbox"/>		PM PM2.5		Material Handling: Loader A into Jaw Crusher A		
32	FS 032	Removed	PER 005		<input type="checkbox"/>		PM PM10		Jaw Crusher A		
33	FS 033	Removed	PER 005		<input type="checkbox"/>		PM PM2.5		Material Handling: Jaw Crusher A to Conveyor A1		
34	FS 034	Removed	PER 005		<input type="checkbox"/>		PM PM10		Material Handling: Conveyor A1 to Conveyor A2		
35	FS 035	Removed	PER 005		<input type="checkbox"/>		PM PM2.5		Material Handling: Conveyor A2 to Screen A1		
36	FS 036	Removed	PER 005		<input type="checkbox"/>		PM PM10		Screen A1		
37	FS 037	Removed	PER 005		<input type="checkbox"/>		PM PM2.5		Material Handling: Screen A1 to Conveyor AB1		
38	FS 038	Removed	PER 005		<input type="checkbox"/>		PM PM10		Material Handling: Loader B into Jaw Crusher B		
39	FS 039	Removed	PER 005		<input type="checkbox"/>		PM PM2.5		Jaw Crusher B		
40	FS 040	Removed	PER 005		<input type="checkbox"/>		PM PM10		Material Handling: Jaw Crusher B to Conveyor B1		
41	FS 041	Removed	PER 005		<input type="checkbox"/>		PM PM2.5		Material Handling: Conveyor B1 to Conveyor B2		
42	FS 042	Removed	PER 005		<input type="checkbox"/>		PM PM10		Material Handling: Conveyor B2 to Screen B1		
43	FS 043	Removed	PER 005		<input type="checkbox"/>		PM PM2.5		Screen B1		
44	FS 044	Removed	PER 005		<input type="checkbox"/>		PM PM10		Material Handling: Screen B1 to Conveyor AB1		
45	FS 045	Removed	PER 005		<input type="checkbox"/>		PM PM2.5		Material Handling: Conveyor AB1 to Cone Crusher		
46	FS 046	Removed	PER 005		<input type="checkbox"/>		PM PM10		Cone Crusher		
47	FS 047	Removed	PER 005		<input type="checkbox"/>		PM PM2.5		Material Handling: Cone Crusher to Conveyor AB2		



## FACILITY DESCRIPTION: FUGITIVE SOURCES (FS)

Show: Active and Pending Records

Action: PER 006

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

	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
48	FS 048	Removed	PER 005		<input type="checkbox"/>		PM PM10		Material Handling: Conveyor AB2 to Conveyor AB3		
49	FS 049	Removed	PER 005		<input type="checkbox"/>		PM PM2.5		Material Handling: Conveyor AB3 to Conveyor A3		
50	FS 050	Active	PER 004		<input type="checkbox"/>		PM PM2.5 PM10	CE 047	Material Handling: Conveyor A3 to Conveyor A4		
51	FS 051	Removed	PER 005		<input type="checkbox"/>		PM PM2.5		Material Handling: Conveyor A4 to Cobber A		
52	FS 052	Active	PER 004		<input type="checkbox"/>		PM PM2.5 PM10	CE 047	Cobber A		
53	FS 053	Removed	PER 005		<input type="checkbox"/>		PM PM2.5		Material Handling: Conveyor AB3 to Conveyor B3		
54	FS 054	Removed	PER 005		<input type="checkbox"/>		PM PM10		Material Handling: Conveyor B3 to Conveyor B4		
55	FS 055	Removed	PER 005		<input type="checkbox"/>		PM PM2.5		Material Handling: Conveyor B4 to Cobber B		
56	FS 056	Removed	PER 005		<input type="checkbox"/>		PM PM10		Cobber B		
57	FS 057	Removed	PER 005		<input type="checkbox"/>		PM PM2.5		Material Handling: Cobber A to Conveyor A5		
58	FS 058	Removed	PER 005		<input type="checkbox"/>		PM PM10		Material Handling: Conveyor A5 to Conveyor B7		
59	FS 059	Removed	PER 005		<input type="checkbox"/>		PM PM2.5		Material Handling: Cobber A to Conveyor A6		
60	FS 060	Removed	PER 005		<input type="checkbox"/>		PM PM10		Material Handling: Conveyor A6 to Conveyor A7		
61	FS 061	Removed	PER 005		<input type="checkbox"/>		PM PM2.5		Material Handling: Conveyor A7 to Conveyor A8		
62	FS 062	Removed	PER 005		<input type="checkbox"/>		PM PM10		Material Handling: Conveyor A8 to Conveyor A9		
63	FS 063	Removed	PER 005		<input type="checkbox"/>		PM PM2.5		Material Handling: Conveyor A9 to Magnetic Stockpile		
64	FS 064	Active	PER 005		<input type="checkbox"/>		PM PM10		Wind Erosion: Magnetic Stockpile		
65	FS 065	Removed	PER 005		<input type="checkbox"/>		PM PM2.5		Material Handling: Cobber B to Conveyor B5		
66	FS 066	Removed	PER 005		<input type="checkbox"/>		PM PM10		Material Handling: Conveyor B5 to Conveyor A7		



## FACILITY DESCRIPTION: FUGITIVE SOURCES (FS)

Show: Active and Pending Records

Action: PER 006

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

	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
67	FS 067	Removed	PER 005		<input type="checkbox"/>		PM PM2.5		Material Handling: Cobber B to Conveyor B6		
68	FS 068	Removed	PER 005		<input type="checkbox"/>		PM PM10		Material Handling: Conveyor B6 to Conveyor B7		
69	FS 069	Removed	PER 005		<input type="checkbox"/>		PM PM2.5		Material Handling: Conveyor B7 to Screen B2		
70	FS 070	Removed	PER 005		<input type="checkbox"/>		PM PM10		Screen B2		
71	FS 071	Removed	PER 005		<input type="checkbox"/>		PM PM2.5		Material Handling: Screen B2 to Conveyor B8		
72	FS 072	Removed	PER 005		<input type="checkbox"/>		PM PM2.5		Material Handling: Conveyor B8 to Conveyor B9		
73	FS 073	Removed	PER 005		<input type="checkbox"/>		PM PM10		Material Handling: Conveyor B9 to Non-Magnetic Stockpile		
74	FS 074	Removed	PER 005		<input type="checkbox"/>		PM PM10		Wind Erosion: Non-Magnetic Stockpile		
75	FS 075	Active	PER 005		<input type="checkbox"/>		PM PM2.5 PM10	CE 050	Material Handling: Loader A into Jaw Crusher A		
76	FS 076	Active	PER 005		<input type="checkbox"/>		PM PM10 PM2.5	CE 047	Jaw Crusher A		
77	FS 077	Active	PER 005		<input type="checkbox"/>		PM10 PM2.5 PM	CE 047	Material Handling: Jaw Crusher A to Conveyor A1		
78	FS 078	Active	PER 005		<input type="checkbox"/>		PM2.5 PM10 PM	CE 047	Material Handling: Conveyor A1 to Conveyor A2		
79	FS 079	Active	PER 005		<input type="checkbox"/>		PM10 PM2.5 PM	CE 047	Material Handling: Conveyor A2 to Screen A1		
80	FS 080	Active	PER 005		<input type="checkbox"/>		PM2.5 PM10 PM	CE 047	Screen A1		
81	FS 081	Active	PER 005		<input type="checkbox"/>		PM10 PM2.5 PM	CE 047	Material Handling: Screen A1 to Conveyor AB1		
82	FS 082	Active	PER 005		<input type="checkbox"/>		PM2.5 PM10 PM	CE 047	Material Handling: Loader B into Jaw Crusher B		



## FACILITY DESCRIPTION: FUGITIVE SOURCES (FS)

Show: Active and Pending Records

Action: PER 006

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

	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
83	FS 083	Active	PER 005		<input type="checkbox"/>		PM10 PM2.5 PM	CE 050	Jaw Crusher B		
84	FS 084	Active	PER 005		<input type="checkbox"/>		PM2.5 PM10 PM	CE 047	Material Handling: Jaw Crusher B to Conveyor B1		
85	FS 085	Active	PER 005		<input type="checkbox"/>		PM10 PM2.5 PM	CE 047	Material Handling: Conveyor B1 to Conveyor B2		
86	FS 086	Active	PER 005		<input type="checkbox"/>		PM2.5 PM10 PM	CE 047	Material Handling: Conveyor B2 to Screen B1		
87	FS 087	Active	PER 005		<input type="checkbox"/>		PM10 PM2.5 PM	CE 047	Screen B1		
88	FS 088	Active	PER 005		<input type="checkbox"/>		PM2.5 PM10 PM	CE 047	Material Handling: Screen B1 to Conveyor AB1		
89	FS 089	Active	PER 005		<input type="checkbox"/>		PM10 PM2.5 PM	CE 047	Material Handling: Conveyor AB1 to Cone Crusher		
90	FS 090	Active	PER 005		<input type="checkbox"/>		PM2.5 PM10 PM	CE 047	Cone Crusher		
91	FS 091	Active	PER 005		<input type="checkbox"/>		PM10 PM2.5 PM	CE 047	Material Handling: Cone Crusher to Conveyor AB2		
92	FS 092	Active	PER 005		<input type="checkbox"/>		PM2.5 PM10 PM	CE 047	Material Handling: Conveyor A3 to Conveyor A4		
93	FS 093	Active	PER 005		<input type="checkbox"/>		PM10 PM2.5 PM	CE 047	Cobber A		
94	FS 094	Active	PER 005		<input type="checkbox"/>		PM2.5 PM10 PM	CE 047	Material Handling: Conveyor B3 to Conveyor B4		
95	FS 095	Active	PER 005		<input type="checkbox"/>		PM10 PM2.5 PM	CE 047	Cobber B		
96	FS 096	Active	PER 005		<input type="checkbox"/>		PM2.5 PM10 PM	CE 047	Wind Erosion: Magnetic Stockpile		



## FACILITY DESCRIPTION: FUGITIVE SOURCES (FS)

Show: Active and Pending Records

Action: PER 006

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

	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
97	FS 097	Active	PER 005		<input type="checkbox"/>		PM2.5 PM10 PM	CE 047	Wind Erosion: Non-Magnetic Stockpile		
98	FS 098	Active	PER 005		<input type="checkbox"/>		PM10 PM2.5 PM	CE 047	Material Handling: Conveyor AB2 to Conveyor AB3		
99	FS 099	Active	PER 005		<input type="checkbox"/>		PM2.5 PM10 PM	CE 047	Material Handling: Conveyor AB2 to Conveyor AB4		
100	FS 100	Active	PER 005		<input type="checkbox"/>		PM2.5 PM10 PM	CE 047	Material Handling: Conveyor AB3 to Conveyor A4		
101	FS 101	Active	PER 005		<input type="checkbox"/>		PM PM10 PM2.5	CE 047	Material Handling: Conveyor AB4 to Conveyor B4		
102	FS 102	Active	PER 005		<input type="checkbox"/>		PM2.5 PM10 PM	CE 047	Material Handling: Conveyor A4 to Cobber A		
103	FS 103	Active	PER 005		<input type="checkbox"/>		PM PM10 PM2.5	CE 047	Material Handling: Conveyor B4 to Cobber B		
104	FS 104	Active	PER 005		<input type="checkbox"/>		PM2.5 PM10 PM	CE 047	Material Handling: Cobber B to Conveyor A5		
105	FS 105	Active	PER 005		<input type="checkbox"/>		PM PM10 PM2.5	CE 047	Material Handling: Conveyor A5 to Conveyor A6		
106	FS 106	Active	PER 005		<input type="checkbox"/>		PM2.5 PM10 PM	CE 047	Material Handling: Cobber A to Conveyor A6		
107	FS 107	Active	PER 005		<input type="checkbox"/>		PM PM10 PM2.5	CE 047	Material Handling: Conveyor A6 to Conveyor A7		
108	FS 108	Active	PER 005		<input type="checkbox"/>		PM2.5 PM10 PM	CE 047	Material Handling: Conveyor A7 to Conveyor A8		
109	FS 109	Active	PER 005		<input type="checkbox"/>		PM PM10 PM2.5	CE 047	Material Handling: Conveyor A8 to Conveyor A9		
110	FS 110	Active	PER 005		<input type="checkbox"/>		PM2.5 PM10 PM	CE 047	Material Handling: Conveyor A9 to Conveyor A10		



## FACILITY DESCRIPTION: FUGITIVE SOURCES (FS)

Show: Active and Pending Records

Action: PER 006

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

	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
111	FS 111	Active	PER 005		<input type="checkbox"/>		PM PM10 PM2.5	CE 047	Material Handling: Conveyor A10 to Conveyor A11		
112	FS 112	Active	PER 005		<input type="checkbox"/>		PM2.5 PM10 PM	CE 047	Material Handling: Conveyor A11 to Magnetic Stockpile		
113	FS 113	Active	PER 005		<input type="checkbox"/>		PM PM10 PM2.5	CE 047	Material Handling: Cobber A to Conveyor B5		
114	FS 114	Active	PER 005		<input type="checkbox"/>		PM2.5 PM10 PM	CE 047	Material Handling: Conveyor B5 to Conveyor B6		
115	FS 115	Active	PER 005		<input type="checkbox"/>		PM2.5 PM10 PM	CE 047	Material Handling: Cobber B to Conveyor B6		
116	FS 116	Active	PER 005		<input type="checkbox"/>		PM PM10 PM2.5	CE 047	Material Handling: Conveyor B6 to Conveyor B7		
117	FS 117	Active	PER 005		<input type="checkbox"/>		PM2.5 PM10 PM	CE 047	Material Handling: Conveyor B7 to Conveyor B8		
118	FS 118	Active	PER 005		<input type="checkbox"/>		PM PM10 PM2.5	CE 047	Material Handling: Conveyor B8 to Conveyor B9		
119	FS 119	Active	PER 005		<input type="checkbox"/>		PM2.5 PM10 PM	CE 047	Material Handling: Conveyor B9 to Conveyor B10		
120	FS 120	Active	PER 005		<input type="checkbox"/>		PM PM10 PM2.5	CE 047	Material Handling: Conveyor B10 to Conveyor B11		
121	FS 121	Active	PER 005		<input type="checkbox"/>		PM2.5 PM10 PM	CE 047	Material Handling: Conveyor B11 to Conveyor B12		
122	FS 122	Active	PER 005		<input type="checkbox"/>		PM PM10 PM2.5	CE 047	Material Handling: Conveyor B12 to Non-Magnetic Stockpile		



## FACILITY DESCRIPTION: CONTINUOUS MONITORS (MR)

Show: Active and Pending Records

Action: PER 006

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

	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		CE 001	001	Phase I Apron Feeder: Venturi Scrubber	Bailey/Fisher Porter	PTSDDC1221B2100	98W037467	PressDrop
2	MR 002	Active	PER 003		CE 001	001	Phase I Apron Feeder: Venturi Scrubber	ABB	MFE500362111004ER	01W011673	H2O flow
3	MR 003	Active	PER 003		CE 002	002	Phase II Apron Feeder: Venturi Scrubber	Bailey/Fisher Porter	PTSDDC1221B2100	98W037464	PressDrop
4	MR 004	Active	PER 003		CE 002	002	Phase II Apron Feeder: Venturi Scrubber	ABB	MFE500362111004ER	01W011672	H2O flow
5	MR 005	Active	PER 003		CE 003	003	Phase I POC: Venturi Scrubber	ABB	600TENSERIES	02W001703	PressDrop
6	MR 006	Active	PER 003		CE 003	003	Phase I POC: Venturi Scrubber	ABB	MFE101362111004ER	01W011677	H2O flow
7	MR 007	Active	PER 003		CE 004	004	Phase II POC: Venturi Scrubber	ABB	600TENSERIES	02W001702	PressDrop
8	MR 008	Active	PER 003		CE 004	004	Phase II POC: Venturi Scrubber	ABB	MFE101362111004ER	01W011676	H2O flow
9	MR 009	Active	PER 003		CE 005	005	Mill Line 1: HE Wet Scrubber	Bailey/Fisher Porter	PTSDDC1221B2100	98W043349	PressDrop
10	MR 010	Active	PER 003		CE 005	005	Mill Line 1: HE Wet Scrubber	Bailey/Fisher Porter	PTSDDC1221B2100	98W043350	H2O flow
11	MR 011	Active	PER 003		CE 006	006	Mill Line 2: HE Wet Scrubber	Bailey/Fisher Porter	PTSDDC1221B2100	98W32846	PressDrop
12	MR 012	Active	PER 003		CE 006	006	Mill Line 2: HE Wet Scrubber	Bailey/Fisher Porter	PTSDDC1221B2100	98W032841	H2O flow
13	MR 013	Active	PER 003		CE 007	007	Mill Line 3: HE Wet Scrubber	Bailey/Fisher Porter	PTSDDC1221B2100	98W037466	PressDrop
14	MR 014	Active	PER 003		CE 007	007	Mill Line 3: HE Wet Scrubber	Bailey/Fisher Porter	PTSDDC1221B2100	98W037463	H2O flow
15	MR 015	Active	PER 003		CE 008	008	Mill Line 4: HE Wet Scrubber	Bailey/Fisher Porter	PTSDDC1221B2100	98W023675	PressDrop
16	MR 016	Active	PER 003		CE 008	008	Mill Line 4: HE Wet Scrubber	Bailey/Fisher Porter	PTSDDC1221B2100	98W032844	H2O flow
17	MR 017	Active	PER 003		CE 009	009	Mill Line 5: HE Wet Scrubber	Bailey/Fisher Porter	PTSDDC1221B2100	98W043083	PressDrop
18	MR 018	Active	PER 003		CE 009	009	Mill Line 5: HE Wet Scrubber	Bailey/Fisher Porter	PTSDDC1221B2100	98W043085	H2O flow
19	MR 019	Active	PER 003		CE 010	010	Mill Line 6: HE Wet Scrubber	Bailey/Fisher Porter	PTSDDC1221B2100	98W043079	PressDrop
20	MR 020	Active	PER 003		CE 010	010	Mill Line 6: HE Wet Scrubber	Bailey/Fisher Porter	PTSDDC1221B2100	98W037468	H2O flow
21	MR 021	Active	PER 003		CE 011	011	Mill Line 7: HE Wet Scrubber	Bailey/Fisher Porter	PTSDDC1221B2100	98W032842	PressDrop
22	MR 022	Active	PER 003		CE 011	011	Mill Line 7: HE Wet Scrubber	Bailey/Fisher Porter	PTSDDC1221B2100	98W032850	H2O flow
23	MR 023	Active	PER 003		CE 012	012	Mill Line 8: HE Wet Scrubber	Bailey/Fisher Porter	PTSDDC1221B2100	98W043351	PressDrop
24	MR 024	Active	PER 003		CE 012	012	Mill Line 8: HE Wet Scrubber	Bailey/Fisher Porter	PTSDDC1221B2100	98W043081	H2O flow
25	MR 025	Active	PER 003		CE 013	013	Mill Line 9: HE Wet Scrubber	Bailey/Fisher Porter	PTSDDC1221B2100	98W043076	PressDrop



**FACILITY DESCRIPTION: CONTINUOUS MONITORS (MR)**

	ID No.	Monitor Status	Added By (Action)	Span Value	System Full-Scale Value	Bypass Capability?	Optical Path Length Ratio	Installation Date	Removal Date
1	MR 001	Active	PER 003					01/01/1999	
2	MR 002	Active	PER 003					01/01/1999	
3	MR 003	Active	PER 003					01/01/1999	
4	MR 004	Active	PER 003					01/01/1999	
5	MR 005	Active	PER 003					01/01/1999	
6	MR 006	Active	PER 003					01/01/1999	
7	MR 007	Active	PER 003					01/01/1999	
8	MR 008	Active	PER 003					01/01/1999	
9	MR 009	Active	PER 003					01/01/1999	
10	MR 010	Active	PER 003					01/01/1999	
11	MR 011	Active	PER 003					01/01/1999	
12	MR 012	Active	PER 003					01/01/1999	
13	MR 013	Active	PER 003					01/01/1999	
14	MR 014	Active	PER 003					01/01/1999	
15	MR 015	Active	PER 003					01/01/1999	
16	MR 016	Active	PER 003					01/01/1999	
17	MR 017	Active	PER 003					01/01/1999	
18	MR 018	Active	PER 003					01/01/1999	
19	MR 019	Active	PER 003					01/01/1999	
20	MR 020	Active	PER 003					01/01/1999	
21	MR 021	Active	PER 003					01/01/1999	
22	MR 022	Active	PER 003					01/01/1999	
23	MR 023	Active	PER 003					01/01/1999	
24	MR 024	Active	PER 003					01/01/1999	
25	MR 025	Active	PER 003					01/01/1999	



## FACILITY DESCRIPTION: CONTINUOUS MONITORS (MR)

Show: Active and Pending Records

Action: PER 006

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

	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
26	MR 026	Active	PER 003		CE 013	013	Mill Line 9: HE Wet Scrubber	Bailey/Fisher Porter	PTSDDC1221B2100	98W073071	H2O flow
27	MR 027	Active	PER 003		CE 016	016	Phase I Bentonite Day Bin: Fabric Filter	ABB	621EDB2H480G1111	02W017558	PressDrop
28	MR 028	Active	PER 003		CE 017	017	Phase II Bentonite Day Bin: Fabric Filter	ABB	621EDB2H480G1111	02W017552	PressDrop
29	MR 029	Active	PER 003		CE 018	018	Phase I Hearth Layer Bin: HE Wet Scrubber	ABB	621EDB2H480G1111	02W017557	PressDrop
30	MR 030	Active	PER 003		CE 018	018	Phase I Hearth Layer Bin: HE Wet Scrubber	ABB	621EDD2H480G1111	02W017590	H2O flow
31	MR 031	Active	PER 003		CE 019	019	Phase II Hearth Layer Bin: HE Wet Scrubber	ABB	621EDB2H480G1111	02W017557	PressDrop
32	MR 032	Active	PER 003		CE 019	019	Phase II Hearth Layer Bin: HE Wet Scrubber	ABB	621DD2H48811141	02W063887	H2O flow
33	MR 033	Active	PER 003		CE 020	020	Phase I Hearth Layer Feed: HE Wet Scrubber	ABB	621EDB2H480G1111	02W063892	PressDrop
34	MR 034	Active	PER 003		CE 020	020	Phase I Hearth Layer Feed: HE Wet Scrubber	ABB	621EDD2H480G1111	02W017589	H2O flow
35	MR 035	Active	PER 003		CE 021	021	Phase II Hearth Layer Feed: HE Wet Scrubber	ABB	621EDB2H480G1111	02W017551	PressDrop
36	MR 036	Active	PER 003		CE 021	021	Phase II Hearth Layer Feed: HE Wet Scrubber	ABB	621DD2H48811141	02W017591	H2O flow
37	MR 037	Active	PER 003		CE 022	022	Furnace Line 1 Venturi Scrubber	ABB			PressDrop
38	MR 038	Active	PER 003		CE 022	022	Furnace Line 1 Venturi Scrubber	ABB			H2O flow
39	MR 039	Active	PER 003		CE 023	023	Furnace Line 1 Venturi Scrubber	ABB			PressDrop
40	MR 040	Active	PER 003		CE 023	023	Furnace Line 1 Venturi Scrubber	ABB			H2O flow
41	MR 041	Active	PER 003		CE 024	024	Furnace Line 1 Venturi Scrubber	ABB			PressDrop
42	MR 042	Active	PER 003		CE 024	024	Furnace Line 1 Venturi Scrubber	ABB			H2O flow
43	MR 043	Active	PER 003		CE 025	025	Furnace Line 1 Venturi ScrubberFurnace Line 1 Venturi Scrubber	ABB			PressDrop
44	MR 044	Active	PER 003		CE 025	025	Furnace Line 1 Venturi Scrubber	ABB			H2O flow
45	MR 045	Active	PER 003		CE 026	026	Line 1 Multiclone	ABB	621EDB2H300G8111	02W43233	PressDrop
46	MR 046	Active	PER 003		CE 027	027	Furnace Line 2 Venturi Scrubber	ABB			PressDrop
47	MR 047	Active	PER 003		CE 027	027	Furnace Line 2 Venturi Scrubber	ABB			H2O flow

**FACILITY DESCRIPTION: CONTINUOUS MONITORS (MR)**

	ID No.	Monitor Status	Added By (Action)	Span Value	System Full-Scale Value	Bypass Capability?	Optical Path Length Ratio	Installation Date	Removal Date
26	MR 026	Active	PER 003					01/01/1999	
27	MR 027	Active	PER 003					01/01/1999	
28	MR 028	Active	PER 003					01/01/1999	
29	MR 029	Active	PER 003					01/01/1999	
30	MR 030	Active	PER 003					01/01/1999	
31	MR 031	Active	PER 003					01/01/1999	
32	MR 032	Active	PER 003					01/01/1999	
33	MR 033	Active	PER 003					01/01/1999	
34	MR 034	Active	PER 003					01/01/1999	
35	MR 035	Active	PER 003					01/01/1999	
36	MR 036	Active	PER 003					01/01/1999	
37	MR 037	Active	PER 003					01/01/1999	
38	MR 038	Active	PER 003					01/01/1999	
39	MR 039	Active	PER 003					01/01/1999	
40	MR 040	Active	PER 003					01/01/1999	
41	MR 041	Active	PER 003					01/01/1999	
42	MR 042	Active	PER 003					01/01/1999	
43	MR 043	Active	PER 003					01/01/1999	
44	MR 044	Active	PER 003					01/01/1999	
45	MR 045	Active	PER 003					01/01/1999	
46	MR 046	Active	PER 003					01/01/1999	
47	MR 047	Active	PER 003					01/01/1999	



## FACILITY DESCRIPTION: CONTINUOUS MONITORS (MR)

Show: Active and Pending Records

Action: PER 006

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

	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
48	MR 048	Active	PER 003		CE 028	028	Furnace Line 2 Venturi Scrubber	ABB			PressDrop
49	MR 049	Active	PER 003		CE 028	028	Furnace Line 2 Venturi Scrubber	ABB			H2O flow
50	MR 050	Active	PER 003		CE 029	029	Furnace Line 2 Venturi Scrubber	ABB			PressDrop
51	MR 051	Active	PER 003		CE 029	029	Furnace Line 2 Venturi Scrubber	ABB			H2O flow
52	MR 052	Active	PER 003		CE 030	030	Furnace Line 2 Venturi Scrubber	ABB			PressDrop
53	MR 053	Active	PER 003		CE 030	030	Furnace Line 2 Venturi Scrubber	ABB			H2O flow
54	MR 054	Active	PER 003		CE 031	031	Line 2 Multiclone	ABB	621DB2H48811141	00W063894	PressDrop
55	MR 055	Active	PER 003		CE 032	032	Furnace Line 3 Venturi Scrubber	ABB			PressDrop
56	MR 056	Active	PER 003		CE 032	032	Furnace Line 3 Venturi Scrubber	ABB			H2O flow
57	MR 057	Active	PER 003		CE 033	033	Furnace Line 3 Venturi Scrubber	ABB			PressDrop
58	MR 058	Active	PER 003		CE 033	033	Furnace Line 3 Venturi Scrubber	ABB			H2O flow
59	MR 059	Active	PER 003		CE 034	034	Furnace Line 3 Venturi Scrubber	ABB			PressDrop
60	MR 060	Active	PER 003		CE 034	034	Furnace Line 3 Venturi Scrubber	ABB			H2O flow
61	MR 061	Active	PER 003		CE 035	035	Furnace Line 3 Venturi Scrubber	ABB			PressDrop
62	MR 062	Active	PER 003		CE 035	035	Furnace Line 3 Venturi Scrubber	ABB			H2O flow
63	MR 063	Active	PER 003		CE 036	036	Line 3 Multiclone	ABB	621DB2H48811121	00W063899	PressDrop
64	MR 064	Active	PER 003		CE 037	037	Machine Discharge Line 1: HE Wet Scrubber	ABB	621DB2H48811141	00W063891	PressDrop
65	MR 065	Active	PER 003		CE 037	037	Machine Discharge Line 1: HE Wet Scrubber	ABB	264DSHSSB1A1V2BINA	6205001556	H2O flow
66	MR 066	Active	PER 003		CE 038	038	Machine Discharge Line 2: HE Wet Scrubber	ABB	621DD2H48811141	00W063896	PressDrop
67	MR 067	Active	PER 003		CE 038	038	Machine Discharge Line 2: HE Wet Scrubber	ABB	621DD2H48811141	00W063888	H2O flow
68	MR 068	Active	PER 003		CE 039	039	Machine Discharge Line 3: HE Wet Scrubber	ABB	621DB2H48811141	00W063895	PressDrop
69	MR 069	Active	PER 003		CE 039	039	Machine Discharge Line 3: HE Wet Scrubber	ABB	621DD2H48811141	00W063889	H2O flow
70	MR 070	Active	PER 003		CE 040	040	Hearth Layer Screen: HE Wet Scrubber	ABB	621DB2H48811141	00W063893	PressDrop

**FACILITY DESCRIPTION: CONTINUOUS MONITORS (MR)**

	ID No.	Monitor Status	Added By (Action)	Span Value	System Full-Scale Value	Bypass Capability?	Optical Path Length Ratio	Installation Date	Removal Date
48	MR 048	Active	PER 003					01/01/1999	
49	MR 049	Active	PER 003					01/01/1999	
50	MR 050	Active	PER 003					01/01/1999	
51	MR 051	Active	PER 003					01/01/1999	
52	MR 052	Active	PER 003					01/01/1999	
53	MR 053	Active	PER 003					01/01/1999	
54	MR 054	Active	PER 003					01/01/1999	
55	MR 055	Active	PER 003					01/01/1999	
56	MR 056	Active	PER 003					01/01/1999	
57	MR 057	Active	PER 003					01/01/1999	
58	MR 058	Active	PER 003					01/01/1999	
59	MR 059	Active	PER 003					01/01/1999	
60	MR 060	Active	PER 003					01/01/1999	
61	MR 061	Active	PER 003					01/01/1999	
62	MR 062	Active	PER 003					01/01/1999	
63	MR 063	Active	PER 003					01/01/1999	
64	MR 064	Active	PER 003					01/01/1999	
65	MR 065	Active	PER 003					01/01/1999	
66	MR 066	Active	PER 003					01/01/1999	
67	MR 067	Active	PER 003					01/01/1999	
68	MR 068	Active	PER 003					01/01/1999	
69	MR 069	Active	PER 003					01/01/1999	
70	MR 070	Active	PER 003					01/01/1999	



## FACILITY DESCRIPTION: CONTINUOUS MONITORS (MR)

Show: Active and Pending Records

Action: PER 006

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

	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
71	MR 071	Active	PER 003		CE 040	040	Hearth Layer Screen: HE Wet Scrubber	ABB	621EDD2H310G111	01W007194	H2O flow
72	MR 072	Active	PER 003		CE 041	041	Pellet Transfer House: HE Wet Scrubber	ABB	621DB2H478011141	00W003900	PressDrop
73	MR 073	Active	PER 003		CE 041	041	Pellet Transfer House: HE Wet Scrubber	ABB	621EDD2H310G111	02W017587	H2O flow
74	MR 074	Active	PER 003		CE 042	042	Bentonite Silo - East: Fabric Filter	ABB	621EDB2H480G1111	02W017555	PressDrop
75	MR 075	Active	PER 003		CE 043	043	Bentonite Silo - West: Fabric Filter	ABB	264DSESSA2AIVIE6B1	6204001301	PressDrop
76	MR 076	Active	PER 003		CE 044	044	Limestone Silo: Fabric Filter	ABB	621EDB2H480G1111	02W017553	PressDrop
77	MR 077	Active	PER 003		CE 046	046	Paint Booth: Mat or Panel Filter	ABB			PressDrop

## FACILITY DESCRIPTION: CONTINUOUS MONITORS (MR)

	ID No.	Monitor Status	Added By (Action)	Span Value	System Full-Scale Value	Bypass Capability?	Optical Path Length Ratio	Installation Date	Removal Date
71	MR 071	Active	PER 003					01/01/1999	
72	MR 072	Active	PER 003					01/01/1999	
73	MR 073	Active	PER 003					01/01/1999	
74	MR 074	Active	PER 003					01/01/1999	
75	MR 075	Active	PER 003					01/01/1999	
76	MR 076	Active	PER 003					01/01/1999	
77	MR 077	Active	PER 003					01/01/1999	



## FACILITY DESCRIPTION: DATA ACQUISITION SYSTEMS (DA)

Show: Active and Pending Records

Action: PER 006

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

	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 003			Pi	OSI Soft	n/a	n/a	Electronic	01/01/1999	





## FACILITY DESCRIPTION: STORAGE TANKS (TK)

Show: Active and Pending Records

Action: PER 006

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

	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
1	TK 001	Active	PER 003		<input checked="" type="checkbox"/>			Fuel oil - aboveground			45	
2	TK 002	Active	PER 003		<input checked="" type="checkbox"/>			Fuel oil - aboveground			45	
3	TK 003	Active	PER 003		<input checked="" type="checkbox"/>			- below ground			10	
4	TK 004	Active	PER 003		<input checked="" type="checkbox"/>			- below ground			8	
5	TK 005	Active	PER 003		<input checked="" type="checkbox"/>			Solvent			.275	
6	TK 006	Active	PER 004		<input checked="" type="checkbox"/>			Fuel - above ground			2000	

**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
1	TK 001	Active	PER 003						2000	
2	TK 002	Active	PER 003						2000	
3	TK 003	Active	PER 003							
4	TK 004	Active	PER 003							
5	TK 005	Active	PER 003						2000	
6	TK 006	Active	PER 004							



## FACILITY DESCRIPTION: CONTINUOUS MONITORING SYSTEMS (CM)

Show: Active and Pending Records

Action: PER 006

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

	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					DCS (existing)		01/1999			
2	CM 002	Active	PER 003					Honeywell (MACT) System		10/2006			



## FACILITY DESCRIPTION: BUILDINGS (BG)

Show: Active and Pending Records

Action: PER 006

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

	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
1	BG 001	PER 003			610	570	36	Pellet Plant	Active
2	BG 002	PER 003			580	200	42	Pelletizing Phase I	Active
3	BG 003	PER 003			570	140	42	Pelletizing Phase II	Active
4	BG 004	PER 003			380	130	40	Central Shops and Warehouse	Active
5	BG 005	PER 003			700	180	54	Concentrator	Active
6	BG 006	PER 003			810	30	111	Shuttle Conveyor	Active
7	BG 007	PER 003			170	60	21	Dravo Building	Active
8	BG 008	PER 003			480	130	29	Mine Service Building	Active
9	BG 009	PER 003			190	60	68	Crusher Building	Active
10	BG 010	PER 003			30	20	68	Limestone Storage Silo	Active

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

Show: Active and Pending Records

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

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)
<b>EU 036</b>							
	PM < 10 micron	PER 003				6.00E-01	
	Total Particulate Matter	PER 003				6.00E-01	
<b>FC 000</b>							
	Carbon Dioxide Equivalent	PER 006			3.00E+05		
	Methane	PER 006			1.20E+01		
	Carbon Dioxide	PER 006			2.99E+05		
	Nitrous Oxide	PER 006			2.40E+00		
<b>GP 001</b>							
	PM < 10 micron	PER 001		1.39E+02	6.11E+02	6.11E+02	
	Total Particulate Matter	PER 001		1.39E+02	6.11E+02	6.11E+02	
<b>GP 002</b>							
	PM < 10 micron	PER 001		2.78E+02	1.22E+03	1.22E+03	
	Total Particulate Matter	PER 001		2.78E+02	1.22E+03	1.22E+03	
<b>GP 003</b>							
	Carbon Monoxide	PER 003		6.43E+01	2.81E+02	1.80E+02	
	Nitrogen Oxides	PER 003		2.77E+03	1.21E+04	6.54E+03	
	PM < 10 micron	PER 001		6.09E+02	2.67E+03	2.67E+03	
	Total Particulate Matter	PER 001		6.09E+02	2.67E+03	2.67E+03	
	Sulfur Dioxide	PER 001		8.40E+02	3.68E+03	3.68E+03	
	Volatile Organic Compounds	PER 003		1.30E+01	5.70E+01	4.95E+01	
<b>GP 004</b>							
	PM < 10 micron	PER 001		4.13E+02	1.81E+03	1.81E+03	
	Total Particulate Matter	PER 001		4.13E+02	1.81E+03	1.81E+03	
<b>GP 005</b>							
	PM < 10 micron	PER 003		8.39E+01	3.67E+02	3.67E+02	
	Total Particulate Matter	PER 003		8.39E+01	3.67E+02	3.67E+02	
<b>GP 006</b>							
	Carbon Monoxide	PER 003					
	Nitrogen Oxides	PER 003					
	PM < 10 micron	PER 003					
	Total Particulate Matter	PER 003					
	Sulfur Dioxide	PER 003					
	Volatile Organic Compounds	PER 003					
<b>GP 019</b>							
	PM < 2.5 micron	PER 005		1.60E+00	1.81E+01	3.40E+00	
	PM < 10 micron	PER 005		5.60E+00	5.77E+01	1.15E+01	
	Total Particulate Matter	PER 005		1.08E+01	1.13E+02	2.23E+01	

## FACILITY DESCRIPTION: Potential-to-emit (by pollutant)

Show: Active and Pending Records

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

Pollutant	Item	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)
<b>Carbon Dioxide Equivalent</b>							
	FC 000	PER 006			3.002E+05		
Totals					0.000E+00	0.000E+00	0.000E+00
<b>Methane</b>							
	FC 000	PER 006			1.200E+01		
Totals					1.200E+01	0.000E+00	0.000E+00
<b>Carbon Monoxide</b>							
	GP 003	PER 003		6.430E+01	2.810E+02	1.797E+02	
	GP 006	PER 003		0.000E+00	0.000E+00	0.000E+00	
Totals					2.810E+02	1.797E+02	0.000E+00
<b>Carbon Dioxide</b>							
	FC 000	PER 006			2.993E+05		
Totals					0.000E+00	0.000E+00	0.000E+00
<b>Nitrous Oxide</b>							
	FC 000	PER 006			2.400E+00		
Totals					2.400E+00	0.000E+00	0.000E+00
<b>Nitrogen Oxides</b>							
	GP 003	PER 003		2.770E+03	1.213E+04	6.541E+03	
	GP 006	PER 003		0.000E+00	0.000E+00	0.000E+00	0.000E+00
Totals					1.213E+04	6.541E+03	0.000E+00
<b>PM &lt; 2.5 micron</b>							
	GP 019	PER 005		1.600E+00	1.810E+01	3.400E+00	
Totals					1.810E+01	3.400E+00	0.000E+00
<b>PM &lt; 10 micron</b>							
	EU 036	PER 003		0.000E+00		6.000E-01	
	GP 001	PER 001		1.390E+02	6.110E+02	6.110E+02	
	GP 002	PER 001		2.780E+02	1.216E+03	1.216E+03	
	GP 003	PER 001		6.090E+02	2.669E+03	2.669E+03	
	GP 004	PER 001		4.130E+02	1.808E+03	1.808E+03	
	GP 005	PER 003		8.390E+01	3.670E+02	3.670E+02	
	GP 006	PER 003		0.000E+00	0.000E+00	0.000E+00	
	GP 019	PER 005		5.600E+00	5.770E+01	1.150E+01	
Totals					6.729E+03	6.683E+03	0.000E+00
<b>Total Particulate Matter</b>							
	EU 036	PER 003		0.000E+00		6.000E-01	
	GP 001	PER 001		1.390E+02	6.110E+02	6.110E+02	
	GP 002	PER 001		2.780E+02	1.216E+03	1.216E+03	

## FACILITY DESCRIPTION: Potential-to-emit (by pollutant)

Show: Active and Pending Records

AQD Facility ID: 13700061

Facility Name: Hibbing Taconite Co

Pollutant	Item	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)
<b>Total Particulate Matter</b>							
	GP 003	PER 001		6.090E+02	2.669E+03	2.669E+03	
	GP 004	PER 001		4.130E+02	1.808E+03	1.808E+03	
	GP 005	PER 003		8.390E+01	3.670E+02	3.670E+02	
	GP 006	PER 003		0.000E+00	0.000E+00	0.000E+00	
	GP 019	PER 005		1.080E+01	1.130E+02	2.230E+01	
Totals					6.784E+03	6.694E+03	0.000E+00
<b>Sulfur Dioxide</b>							
	GP 003	PER 001		8.400E+02	3.679E+03	3.679E+03	
	GP 006	PER 003		0.000E+00	0.000E+00	0.000E+00	0.000E+00
Totals					3.679E+03	3.679E+03	0.000E+00
<b>Volatile Organic Compounds</b>							
	GP 003	PER 003		1.300E+01	5.700E+01	4.950E+01	
	GP 006	PER 003		0.000E+00	0.000E+00	0.000E+00	
Totals					5.700E+01	4.950E+01	0.000E+00



# COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item: Total Facility**

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. OPERATIONAL REQUIREMENTS
2.0		CD	40 CFR pt. 50; 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.
3.0		CD	40 CFR 63.9591; 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.
4.0		CD	Minn. Stat. Section 116.07, subp. 4a; Minn. R. 7007.0100; Minn. R. 7007.0800, subp. 2; Minn. R. 7011.0150; Minn. R. 7009.0020; 40 CFR 63.9591	Comply with Fugitive Emissions Control Plan: The Permittee shall follow the actions and record keeping specified in the Fugitive Emissions control plan. The plan may be amended by the Permittee 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 control plan and/or to install and operate particulate matter ambient monitors as requested by the Commissioner.
5.0		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.
6.0		CD	Minn. R. 7007.0800, subps. 14 and 16(J)  (continued)	Operation and Maintenance Plan (continued):  Update the O & M Plan as necessary to include: 1) a description of the monitoring device; 2) test results which demonstrate compliance; 3) appropriate operating parameters demonstrating compliance (these are specified under "Pollution Control Equipment Limits" in this permit at Group Level); 4) procedures for demonstrating initial and continuous compliance with the corresponding limits.
7.0		CD	40 CFR 63.9600; Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; and Minn. R. 7007.0800, subp. 16(J)	Comply with the Operation and Maintenance Plan: Follow the actions and recordkeeping specified in the O & M Plan.
8.0		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.
9.0		CD	Minn. R. 7007.0800, subps. 2 and 16(J)	Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated, unless otherwise noted in Table A. (This requirement is also repeated in this permit for GP 001 through GP 005 and GP 019)
10.0		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.
11.0		CD	hdr	B. PERFORMANCE TESTING REQUIREMENTS
12.0		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.





## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

13.0		CD	40 CFR Section 63.9622(f); Minn. R. 7011.8030; Minn. R. 7017.2025, subp. 3	<p>Changing operating parameters:</p> <p>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, or a representative unit within the same test group as specified by the applicable requirement. The limit is final upon issuance of a permit amendment incorporating the change.</p>
14.0		CD	Minn. R. 7017.2025	<p>Operating Conditions for Performance Testing:</p> <p>A) Performance Testing for the Primary Crusher and Concentrator Units (EU001 - EU013 and the associated control equipment and stacks) shall be conducted at a production rate to be determined from the projected Annual Production Rate for the year that the test is performed. Performance tests shall be conducted at a minimum of 90% of the estimated capacity of each unit based on the variables used in the Annual Production Rate projection. The test plan shall quantify the variables and show the calculation method used to determine the proposed operating rate for each test.</p>
15.0		CD	Minn. R. 7017.2025	<p>Operating Conditions for Performance Testing (continued):</p> <p>B) Performance Testing for the Straight Grate Furnaces and associated emission units (EU018 - EU025 and the associated control equipment and stacks) shall be conducted at a minimum of 90% of 430 short tons per hour for each furnace.</p> <p>C) all other required performance tests shall be conducted at a minimum of 90% of the rated capacity of the emission unit, unless otherwise specified in table A or B of the permit.</p> <p>D) If a performance test is conducted at less than the applicable minimum as defined in (A) - (C) the Permittee shall be given the opportunity to retest within 90 days of the subject test before process limits can be applied as specified in Minn. R. 7017.2025, subp. 3.</p>
16.0		CD	Minn. R. 7017.2020, subp. 1	Performance Test Notification (written): due 30 days before Performance Test.
17.0		CD	Minn. R. 7017.2020, subps. 2 and 3	Performance Test Plan: due 30 days before Performance Test.
18.0		CD	Minn. R. 7017.2020, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test.
19.0		CD	Minn. R. 7017.2020, subps. 1 and 2	Performance Test Report: due 45 days after Performance Test.
20.0		CD	Minn. R. 7017.2020, subp. 2	Performance Test Report - Microfiche Copy: due 105 days after Performance Test. A CD-ROM copy of the test report shall be accepted as an alternative to the microfiche copy, provided that the test report in the CD-ROM is in PDF or TIF format to address compatibility issues.
21.0		CD	hdr	C. MONITORING REQUIREMENTS
22.0		CD	Minn. R. 7007.0800, subp. 4(D)	Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment (any requirements applying to continuous emission monitors are listed separately in this permit).
23.0		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.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

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24.0		CD	Minn. R. 7007.0800, subps. 4(D), 14, and 16(J)	<p>Visible Emissions Training: The Permittee shall</p> <p>1) maintain a plant employee on site that has been certified in EPA Method 9 within the past three years.</p> <p>or</p> <p>2) employ a similarly certified contractor.</p> <p>This person will train other plant employees to perform daily visible emissions observations as detailed in the O&amp;M Plan and Fugitive Control Plan. If the Permittee installs Agency approved broken bag detectors on the control equipment required to have visible emissions observations done, the Permittee may use the broken bag detectors in place of the visible emissions observations and the Permittee is not required to implement 1) and 2) above.</p>
25.0		CD	hdr	D. RECORDKEEPING REQUIREMENTS
26.0		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.
27.0		CD	Minn. R. 7007.0800, subp. 5(C)	Recordkeeping: Retain all records at the stationary source 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).
28.0		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.
29.0		CD	Minn. R. 7007.0800, subp. 2	Contractors: The Permittee shall retain records on site of all contractors that are allowed on site and have equipment that include crushers, screens, and/or conveyors. The Permittee shall also retain records on site of all contractors whose operations require an Air Emissions Permit from the MPCA. The records shall include the contractor's company name, the MPCA Air Emissions Permit number, a short description of activities undertaken by the contractor, an estimate of the air emissions from the activity or the amount of material handled, and the dates the contractor was on site. These records shall be updated at least monthly.
30.0		CD	Minn. R. 7007.0800, subp. 2	Contractors: The Permittee shall evaluate if the activities of any contractor require NSR permitting prior to the contractor performing such activities. If a contractor has their own permit, but it is determined that the contractor is under the common control of the Permittee then the contractor's permit does not shield the Permittee or the contractor from the permit regulations or enforcement of NSR and/or Part 70.
31.0		CD	hdr	E. REPORTING REQUIREMENTS
32.0		S/A	40 CFR Section 64.3: CAM and Minn. R. 7017.0200; Minn. R. 7007.0800, subp. 2	Notification: due 15 days after Resuming Operation. The Permittee shall submit a notification of the actual date of Resuming Operation.
33.0		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.
34.0		CD	Minn. R. 7019.1000, subp. 1	<p>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:</p> <ol style="list-style-type: none"> <li>1. the cause of the deviation;</li> <li>2. the exact dates of the period of the deviation, if the deviation has been corrected;</li> <li>3. whether or not the deviation has been corrected;</li> <li>4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and</li> <li>5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.</li> </ol>



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35.0		CD	Minn. R. 7019.1000, subp. 3	<p>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.</p> <p>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.</p>
36.0		CD	Minn. R. 7019.1000, subp. 2	<p>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.</p> <p>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.</p>
37.0		S/A	Minn. R. 7007.0800, subp. 6(A)(2)	Semiannual Deviations Report: due 30 days after end of each calendar half-year starting 01/14/2010. 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.
38.0		S/A	Minn. R. 7007.0800, subp. 6(C)	<p>Compliance Certification: due 31 days after end of each calendar year starting 01/14/2010 (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.</p> <p>The EPA copy shall be sent to Mr. George Czerniak, Chief, Air Enforcement and Compliance Assurance Branch, Air and Radiation Division, EPA Region V, 77 West Jackson Boulevard, Chicago, Illinois 60604.</p>
39.0		CD	Minn. R. 7019.3000 through Minn. R. 7019.3010	Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance. The Permittee shall submit this on a form approved by the Commissioner.
40.0		CD	Minn. R. 7002.0005 through Minn. R. 7002.0095	Emission Fees: due 60 days after receipt of an MPCA bill.
41.0		CD	40 CFR Section 64.9: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7011.0610; Minn. R. 7007.0800, subp. 6	Deviations. An excursion from an established daily average operating parameter will be reported as a daily deviation. If the daily average operating parameter value for an emission unit or group of similar emission units does not meet the corresponding established operating limit, the Permittee shall report this as a deviation and follow corrective actions to restore the equipment and practices to proper operation to meet applicable permit conditions. This does not apply to compliance with the Taconite MACT. Taconite MACT compliance shall be determined according to the applicable requirements and regulations in this permit and in 40 CFR Pt. 63, Subp. RRRRR.
42.0		CD	hdr	F. DETERMINING IF A PROJECT/MODIFICATION IS SUBJECT TO NEW SOURCE REVIEW



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43.0		CD	Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2	<p>These requirements apply where there is a reasonable possibility (as defined in 40 CFR Section 52.21(r)(6)(vi)) that a proposed project, analyzed using the actual-to-projected-actual (ATPA) test (either by itself or as part of the hybrid test described in Section 52.21(a)(2)(iv)(f)) and found to not be part of a major modification, may result in a significant emissions increase. If the ATPA test is not used for a particular project, or if there is not a reasonable possibility that the proposed project could result in a significant emissions increase, then these requirements do not apply to that project.</p> <p>Even though a particular modification is not subject to New Source Review, or where there isn't a reasonable possibility that a proposed project could result in a significant emissions increase, a permit amendment, recordkeeping, or notification may still be required under Minn. R. 7007.1150 - 7007.1500.</p>
44.0		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	<p>Preconstruction Documentation -- Before beginning actual construction on a project, the Permittee shall document the following:</p> <ol style="list-style-type: none"> <li>1. Project description</li> <li>2. Identification of any emission unit (EU) whose emissions of an NSR pollutant could be affected</li> <li>3. Pre-change potential emissions of any affected existing EU, and the projected post-change potential emissions of any affected existing or new EU.</li> <li>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.</li> </ol> <p>The Permittee shall maintain records of this documentation.</p>
45.0		CD	Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 & 5	<p>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.</p>
46.0		CD	Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 & 5	<p>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:</p> <ol style="list-style-type: none"> <li>a. The name and ID number of the facility, and the name and telephone number of the facility contact person</li> <li>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.</li> <li>c. Any other information, such as an explanation as to why the summed emissions differ from the preconstruction projection.</li> </ol>
47.0		CD	hdr	G. PERMIT APPENDICES
48.0		CD	Minn. R. 7007.0800, subp. 2	Permit Appendices: This permit contains Appendix B (Visible Emissions Checklist) as listed in the permit Table of Contents. The Permittee shall comply with all requirements contained in the appendices.
49.0		CD	hdr	H. MISCELLANEOUS
50.0		S/A	Minn. R. 7007.0400, subp. 2	Application for Permit Reissuance: due 180 days before expiration of Existing Permit
51.0		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 - 7007.1500. Submittal dates vary, depending on the type of amendment needed.



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52.0		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).
53.0		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).
54.0		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.
55.0		CD	Minn. R. 7007.0800, subp. 16	The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.



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Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** GP 001 Crushing

**Associated Items:** CE 001 Venturi Scrubber  
CE 002 Venturi Scrubber  
CE 003 Venturi Scrubber  
CE 004 Venturi Scrubber  
EU 001 Phase I Apron Feeder  
EU 002 Phase II Apron Feeder  
EU 003 Phase I Primary Ore Conveyor - Tail  
EU 004 Phase II Primary Ore Conveyor - Tail  
SV 001  
SV 002  
SV 003

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	POLLUTANT LIMITS
2.0		LIMIT	40 CFR Section 63.9590(a); 40 CFR Section 63.9621(b); 40 CFR Section 63.9623(a)(1); Minn. R. 7011.8030	Front-half Particulate Matter: less than or equal to 0.008 grains/dry standard cubic foot using 6-hour Average and on the basis of a flow-weighted mean concentration. For each ore crushing and handling source, the Permittee shall determine the flow-weighted mean concentration of particulate matter emissions from all emission units in each affected source following the procedures in 40 CFR Section 63.9621(b).
3.0		CD	Minn. R. 7007.0800, subp. 2	The pollutant limits apply to each individual emission unit, stack/vent, and piece of control equipment listed under the Associated Items.
4.0		LIMIT	Minn. R. 7011.0715, subp. 1(A)	Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 3	Total Particulate Matter: greater than or equal to 85 percent control efficiency for equipment which is located not less than one-fourth mile from any residence or public roadway, and the operation of the entire emission facility does not cause a violation of the ambient air quality standards, shall be considered in compliance with the requirements of Minn. R. 7011.0715, subp. 1(A). This is an alternative demonstration of compliance to the Total Particulate Limit above.
6.0		LIMIT	Minn. R. 7011.0715, subp. 1(B)	Opacity: less than or equal to 20 percent opacity
7.0		CD	hdr	POLLUTION CONTROL EQUIPMENT REQUIREMENTS
8.0		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.
9.0		CD	40 CFR 63.9580 to 63.9652; 40 CFR Section 64.7(e) and 40 CFR Section 64.9(a); CAM and Minn. R. 7017.0200; Minn. R. 7007.0800, subp. 4(D), subp. 14, and subp. 16(J)	Wet Scrubber Monitoring: 1) maintain the daily average pressure drop and daily average scrubber water flow rate at or above the minimum levels established during the initial or subsequent performance tests; 2) operate and maintain each Continuous Parameter Monitoring System (CPMS) according to the O & M plan and record all information needed to document conformance with these requirements; 3) collect and reduce monitoring data for pressure drop and scrubber water flow rate according to the O & M plan and record all information needed to document conformance with these requirements.
10.0		CD	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; and Minn. R. 7007.0800, subp. 16(J)	Inspect quarterly, or as required by the O&M plan and manufacturer specifications, all components that are not subject to wear or plugging, including structural components, housings, ducts, and hoods. Maintain a written record of each inspection and any action resulting from the inspection.
11.0		CD	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; and Minn. R. 7007.0800, subp. 16(J)	Inspect monthly, or as required by the O&M plan and manufacturer specifications, all components that are subject to wear or plugging. Maintain a written record of each inspection and any action resulting from the inspection.



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12.0		CD	Minn. R. 7007.0800, subp. 11	<p>Alternate Operating Scenario: The Permittee is allowed to change the location of the pickup points of CE003 and CE004 in an effort to improve the collection of particulate from EU003 and EU004.</p> <p>If an effective location for the pickup points can not be found, CE003 and CE004 may be removed from service without a permit as long as the unrestricted net emission change due to this action is not over the significant emission rates for PSD. Otherwise the removal of CE003 and CE004 from operation would require a major amendment.</p>
13.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS
14.0		CD	Minn. R. 7017.2020, subp. 1	<p>Performance testing frequency requirements for each emission unit are listed below and at the control equipment (CE) level for the associated scrubber.</p> <p>Additional performance testing requirements are found in GP008 and GP009.</p>
15.0		S/A	40 CFR Section 64.3: CAM and Minn. R. 7017.0200; Minn. R. 7017.2020, subp. 1; Minn. R. 7017.2025, subp. 3	<p>Performance Test: due before end of each 60 months starting 06/22/2004 on one stack in this group in rotation to measure Total Particulate Matter and Opacity emissions to demonstrate compliance with the IPER emission limitations and to revise the parametric operating limits associated with IPER compliance. The performance test due 6/22/09 was granted a 365 day extension or shall be conducted within 120 days after Resuming Operation, whichever occurs first. Future performance tests are due based on the initial performance test date.</p> <p>Parametric operating limits are found at the CE level.</p>



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Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** GP 002 Concentrating

**Associated Items:**

- CE 005 Wet Scrubber-High Efficiency
- CE 006 Wet Scrubber-High Efficiency
- CE 007 Wet Scrubber-High Efficiency
- CE 008 Wet Scrubber-High Efficiency
- CE 009 Wet Scrubber-High Efficiency
- CE 010 Wet Scrubber-High Efficiency
- CE 011 Wet Scrubber-High Efficiency
- CE 012 Wet Scrubber-High Efficiency
- CE 013 Wet Scrubber-High Efficiency
- EU 005 Line No 1 Mill Feed Conveyor
- EU 006 Line No 2 Mill Feed Conveyor
- EU 007 Line No 3 Mill Feed Conveyor
- EU 008 Line No 4 Mill Feed Conveyor
- EU 009 Line No 5 Mill Feed Conveyor
- EU 010 Line No 6 Mill Feed Conveyor
- EU 011 Line No 7 Mill Feed Conveyor
- EU 012 Line No 8 Mill Feed Conveyor
- EU 013 Line No 9 Mill Feed Conveyor
- SV 004
- SV 005
- SV 006
- SV 007
- SV 008
- SV 009
- SV 010
- SV 011
- SV 012

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	POLLUTANT LIMITS
2.0		LIMIT	40 CFR Section 63.9590(a);40 CFR Section 63.9621(b);40 CFR Section 63.9623(a)(1); Minn. R. 7011.8030	Front-half Particulate Matter: less than or equal to 0.008 grains/dry standard cubic foot using 6-hour Average and on the basis of a flow-weighted mean concentration. For each ore crushing and handling source, the Permittee shall determine the flow-weighted mean concentration of particulate matter emissions from all emission units in each affected source following the procedures in 40 CFR Section 63.9621(b).
3.0		CD	Minn. R. 7007.0800, subp. 2	The pollutant limits apply to each individual emission unit, stack/vent, and piece of control equipment listed under the Associated Items.
4.0		LIMIT	Minn. R. 7011.0715, subp. 1(A)	Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 3	Total Particulate Matter: greater than or equal to 85 percent control efficiency for equipment which is located not less than one-fourth mile from any residence or public roadway, and the operation of the entire emission facility does not cause a violation of the ambient air quality standards, shall be considered in compliance with the requirements of Minn. R. 7011.0715, subp. 1(A). This is an alternative demonstration of compliance to the Total Particulate Limit above.
6.0		LIMIT	Minn. R. 7011.0715, subp. 1(B)	Opacity: less than or equal to 20 percent opacity





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7.0		CD	hdr	POLLUTION CONTROL EQUIPMENT REQUIREMENTS
8.0		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.
9.0		CD	40 CFR 63.9580 to 63.9652; 40 CFR Section 64.7(e) and 40 CFR Section 64.9(a): CAM and Minn. R. 7017.0200; Minn. R. 7007.0800, subp. 4(D), subp. 14, and subp. 16(J)	Wet Scrubber Monitoring: 1) maintain the daily average pressure drop and daily average scrubber water flow rate at or above the minimum levels established during the initial or subsequent performance tests; 2) operate and maintain each CPMS according to the O & M plan and record all information needed to document conformance with these requirements; 3) collect and reduce monitoring data for pressure drop and scrubber water flow rate according to the O & M plan and record all information needed to document conformance with these requirements.
10.0		CD	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; and Minn. R. 7007.0800, subp. 16(J)	Inspect quarterly, or as required by the O&M plan and manufacturer specifications, all components that are not subject to wear or plugging, including structural components, housings, ducts, and hoods. Maintain a written record of each inspection and any action resulting from the inspection.
11.0		CD	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; and Minn. R. 7007.0800, subp. 16(J)	Inspect monthly, or as required by the O&M plan and manufacturer specifications, all components that are subject to wear or plugging. Maintain a written record of each inspection and any action resulting from the inspection.
12.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS
13.0		CD	Minn. R. 7017.2020, subp. 1	Performance testing frequency requirements for each emission unit are listed below and at the control equipment (CE) level for the associated scrubber.  Additional performance testing requirements are found in GP008 and GP009.
14.0		S/A	40 CFR Section 64.3: CAM and Minn. R. 7017.0200; Minn. R. 7017.2020, subp. 1; Minn. R. 7017.2025, subp. 3	Performance Test: due before end of each 60 months starting 06/23/2004 on two stacks from this group in rotation to measure Total Particulate Matter and Opacity emissions to demonstrate compliance with the IPER emission limitations and to revise the parametric operating limits associated with IPER compliance. The performance test due 6/23/09 was granted a 365 day extension or shall be conducted within 120 days after Resuming Operation, whichever occurs first. Future performance tests are due based on the initial performance test date.  Parametric operating limits are found at the CE level.



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Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** GP 003 Furnaces Nos. 1-3

**Associated Items:**

- CE 022 Venturi Scrubber
- CE 023 Venturi Scrubber
- CE 024 Venturi Scrubber
- CE 025 Venturi Scrubber
- CE 026 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones
- CE 027 Venturi Scrubber
- CE 028 Venturi Scrubber
- CE 029 Venturi Scrubber
- CE 030 Venturi Scrubber
- CE 031 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones
- CE 032 Venturi Scrubber
- CE 033 Venturi Scrubber
- CE 034 Venturi Scrubber
- CE 035 Venturi Scrubber
- CE 036 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones
- EU 020 Pellet Indurating Furnace Line No 1
- EU 021 Pellet Indurating Furnace Line No 2
- EU 022 Pellet Indurating Furnace Line No 3
- SV 021
- SV 022
- SV 023
- SV 024
- SV 025
- SV 026
- SV 027
- SV 028
- SV 029
- SV 030
- SV 031
- SV 032

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	FUEL CONSUMPTION
2.0		LIMIT	Title I Condition: To avoid a major modification under 40 CFR 52.21 & Minn. R. 7007.3000	Fuel Usage: less than or equal to 3810000 million Btu/year using 12-month Rolling Sum to be calculated by the 15th day of each month for the previous 12-month period for the three indurating furnaces together unless the 12-month rolling sum for fuel consumption exceeds 3,600,000 million Btu.  In that case, the 365-day rolling sum fuel usage will be determined daily until the 365-day rolling sum falls below 3,400,000 million Btu.
3.0		CD	hdr	POLLUTANT LIMITS
4.0		LIMIT	40 CFR Section 63.9590(a); 40 CFR Section 63.9621(c); 40 CFR Section 63.9623(a)(2); Minn. R. 7011.8030	Front-half Particulate Matter: less than or equal to 0.01 grains/dry standard cubic foot using 6-hour Average and on the basis of a flow-weighted mean concentration. For each indurating furnace source, the Permittee shall determine the flow-weighted mean concentration of particulate matter emissions from all emission units in each affected source following the procedures in 40 CFR Section 63.9621(c).



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5.0		CD	Minn. R. 7007.0800, subp. 2	The following requirements apply to each individual emission unit, stack/vent, and piece of control equipment listed under the Associated Items.
6.0		LIMIT	Minn. R. 7011.0610, subp. 1(A)(1)	Total Particulate Matter: less than or equal to 0.3 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.
7.0		LIMIT	Minn. R. 7011.0610, subp. 1(A)(1)	Total Particulate Matter: greater than or equal to 85 percent control efficiency for equipment which is located not less than one-fourth mile from any residence or public roadway, and the operation of the entire emission facility does not cause a violation of the ambient air quality standards, shall be considered in compliance with the requirements of Minn. R. 7011.0715, subp. 1(A). This is an alternative demonstration of compliance to the Total Particulate Limit above.
8.0		LIMIT	Minn. R. 7011.0610, subp. 1(A)(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
9.0		LIMIT	Minn. R. 7011.0610, subp. 2	Sulfur Dioxide: less than or equal to 4 lbs/million Btu heat input heat input if a solid fossil fuel is burned or 2 pounds per million Btu heat input if a liquid fossil fuel is burned
10.0		LIMIT	Title I Condition: To avoid a major modification under 40 CFR 52.21 & Minn. R. 7007.3000	Sulfur Content of Fuel: less than or equal to 0.10 percent by weight when burning any grade of fuel oil
11.0		CD	Minn. R. 7007.0800, subp. 4 & 5	Sulfur Content of Fuel: less than or equal to the applicable limit above, based on fuel type, minus 0.75 lb SO <sub>2</sub> /MMBtu which accounts for the contribution of SO <sub>2</sub> from the pellets.
12.0		CD	Minn. R. 7007.0800, subp. 2	Fuel Limits: The Permittee shall combust only natural gas, all grades of fuel oil, and used oil in these emission units. Other materials may be combusted in these emission units for a short period of time during a trial burn as approved by an amendment to this permit.
13.0		CD	Minn. R. 7007.0800, subp. 4(B)	Fuel Recordkeeping: the Permittee shall record the amount of liquid fuels burned each day in each furnace. The amount of natural gas consumed in each furnace shall be recorded by the 15th day of the month for the previous month. The Permittee shall obtain a fuel supplier certification of the sulfur content and heat value of the liquid fuels. Alternatively the Permittee may sample the liquid fuels from the tanks with each new shipment, but not more than once per calendar week if multiple deliveries are made. The Permittee shall analyze the sample according to the current ASTM methods. While burning used oil the Permittee shall follow all hazardous waste rules including, but not limited to, Minn. R. 7045.0885.
14.0		CD	hdr	RECORDKEEPING
15.0		CD	Minn. R. 7007.0800, subp. 4 & 5	Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of fuel oil, certifying that the sulfur content does not exceed 0.10% by weight.  The Permittee shall retain these certifications for five years.
16.0		CD	Minn. R. 7007.0800, subp. 4 & 5	Fuel Oil Consumption: On a daily basis, the Permittee shall record the gallons of fuel oil consumed by the indurating furnaces in GP003 (EU020, EU021, and EU022). (This also applies on days when no fuel oil is consumed.)  The Permittee shall retain these records for five years.
17.0		CD	Minn. R. 7007.0800, subp. 4 & 5	Natural Gas Consumption: On a daily basis, the Permittee shall record the cubic feet of natural gas consumed by the indurating furnaces in GP003 (EU020, EU021, and EU022). (This also applies on days when no natural gas is consumed.)  The Permittee shall retain these records for five years.
18.0		CD	Minn. R. 7007.0800, subp. 4 & 5	Energy (Btu) Consumption: On a daily basis, the Permittee shall record the energy content of the fuels consumed in the indurating furnaces in GP003 (EU020, EU021, EU022). (This also applies on days when no fuel is consumed.)  The Permittee shall assume the energy content of Natural Gas is 1020 Btu/standard cubic foot. The Permittee shall assume the energy content of Fuel Oil is 150000 Btu/gallon.  The Permittee shall retain these records for five years.
19.0		CD	hdr	POLLUTION CONTROL EQUIPMENT REQUIREMENTS
20.0		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.



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21.0		CD	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; and Minn. R. 7007.0800, subp. 16(J)	Inspect quarterly, or as required by the O&M plan and manufacturer specifications, all components that are not subject to wear or plugging, including structural components, housings, ducts, and hoods. Maintain a written record of each inspection and any action resulting from the inspection.
22.0		CD	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; and Minn. R. 7007.0800, subp. 16(J)	Inspect monthly, or as required by the O&M plan and manufacturer specifications, all components that are subject to wear or plugging. Maintain a written record of each inspection and any action resulting from the inspection.
23.0		CD	hdr	Scrubbers
24.0		CD	40 CFR 63.9580 to 63.9652; 40 CFR Section 64.7(e) and 40 CFR Section 64.9(a): CAM and Minn. R. 7017.0200; Minn. R. 7007.0800, subp. 4(D), subp. 14, and subp. 16(J)	Wet Scrubber Monitoring: 1) maintain the daily average pressure drop and daily average scrubber water flow rate at or above the minimum levels established during the initial or subsequent performance tests; 2) operate and maintain each CPMS according to the O & M plan and record all information needed to document conformance with these requirements; 3) collect and reduce monitoring data for pressure drop and scrubber water flow rate according to the O & M plan and record all information needed to document conformance with these requirements.
25.0		CD	hdr	Multiclones
26.0		CD	40 CFR 63.9580 to 63.9652; 40 CFR 64; Minn. R. 7007.0800, subp. 4(D), subp. 14, and subp. 16(J)	Multiclone Pressure Drop Monitoring: 1) maintain the daily average pressure drop at or above the minimum levels established during the initial or subsequent performance tests; 2) operate and maintain each CPMS according to the O & M plan and record all information needed to document conformance with these requirements; 3) collect and reduce monitoring data for pressure drop according to the O & M plan and record all information needed to document conformance with these requirements.
27.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS
28.0		CD	Minn. R. 7017.2020, subp. 1	Performance testing frequency requirements for each emission unit are listed below and at the control equipment (CE) level for the associated scrubber.  Additional performance testing requirements are found in GP008 and GP009.
29.0		S/A	40 CFR Section 64.3: CAM and Minn. R. 7017.0200; Minn. R. 7017.2020, subp. 1; Minn. R. 7017.2025, subp. 3	Performance Test: due before end of each 60 months starting 06/23/2004 on all stacks associated with one EU in this group in rotation to measure Total Particulate Matter and Opacity emissions to demonstrate compliance with the Direct Heating Fossil-Fuel-Burning Equipment emission limitations and to revise the parametric operating limits associated with Direct Heating Rule compliance. The performance test due 6/23/09 on EU021 was granted a 365 day extension or shall be conducted within 120 days after Resuming Operation, whichever occurs first. Future performance tests are due based on the initial performance test date.  Parametric operating limits are found at the CE level.
30.0		S/A	Title I Condition: To avoid a major modification under 40 CFR 52.21 & Minn. R. 7007.3000	Performance Test: due 120 days after Startup of EU020 (Pellet Indurating Furnace Line No. 1) following replacement or modification of the lower burners. The Permittee shall conduct a performance test for NOx simultaneously on all four stacks associated with EU020. During the NOx performance test, the Permittee shall monitor and record the input parameters associated with the Predictive Emission Monitoring System for Nitrogen Oxides and include the data in the performance test report. This testing requirement is to confirm the NOx emission factor used in the netting analysis.
31.0		S/A	Title I Condition: To avoid a major modification under 40 CFR 52.21 & Minn. R. 7007.3000	Performance Test: due 120 days after Startup of EU021 (Pellet Indurating Furnace Line No. 2) following replacement or modification of the lower burners. The Permittee shall conduct a performance test for NOx simultaneously on all four stacks associated with EU021. During the NOx performance test, the Permittee shall monitor and record the input parameters associated with the Predictive Emission Monitoring System for Nitrogen Oxides and include the data in the performance test report. This testing requirement is to confirm the NOx emission factor used in the netting analysis.
32.0		S/A	Title I Condition: To avoid a major modification under 40 CFR 52.21 & Minn. R. 7007.3000	Performance Test: due 120 days after Startup of EU022 (Pellet Indurating Furnace Line No. 3) following replacement or modification of the lower burners. The Permittee shall conduct a performance test for NOx simultaneously on all four stacks associated with EU022. During the NOx performance test, the Permittee shall monitor and record the input parameters associated with the Predictive Emission Monitoring System for Nitrogen Oxides and include the data in the performance test report. This testing requirement is to confirm the NOx emission factor used in the netting analysis.



# COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** GP 004 Pelletizing - Scrubbers

**Associated Items:**

- CE 018 Wet Scrubber-High Efficiency
- CE 019 Wet Scrubber-High Efficiency
- CE 020 Wet Scrubber-High Efficiency
- CE 021 Wet Scrubber-High Efficiency
- CE 037 Wet Scrubber-High Efficiency
- CE 038 Wet Scrubber-High Efficiency
- CE 039 Wet Scrubber-High Efficiency
- CE 040 Wet Scrubber-High Efficiency
- CE 041 Wet Scrubber-High Efficiency
- EU 018 Phase I Hearth Layer Bin/Layer Feed
- EU 019 Phase II Hearth Layer Bin/Layer Feed
- EU 023 Pellet Machine Discharge Line No 1
- EU 024 Pellet Machine Discharge Line No 2
- EU 025 Pellet Machine Discharge Line No 3
- EU 026 Pellet Hearth Layer Screening
- EU 027 Pellet Transfer House
- SV 017
- SV 018
- SV 019
- SV 020
- SV 033
- SV 034
- SV 035
- SV 036
- SV 037

	NC/ CA	Type	Citation	Requirement
1.0		CD	Minn. R. 7007.0800, subp. 2	The following requirements apply to each individual emission unit, stack/vent, and piece of control equipment listed under the Associated Items.
2.0		CD	hdr	POLLUTANT LIMITS
3.0		LIMIT	40 CFR Section 63.9590(a); 40 CFR Section 63.9621(b); 40 CFR Section 63.9623(a)(3); Minn. R. 7011.8030	Front-half Particulate Matter: less than or equal to 0.008 grains/dry standard cubic foot using 6-hour Average and on the basis of a flow-weighted mean concentration. For each finished pellet handling source, the Permittee shall determine the flow-weighted mean concentration of particulate matter emissions from all emission units in each affected source following the procedures in 40 CFR Section 63.9621(b).
4.0		LIMIT	Minn. R. 7011.0715, subp. 1(A)	Total Particulate Matter: less than or equal to 0.3 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. 7011.0715, subp. 3	Total Particulate Matter: greater than or equal to 85 percent control efficiency for equipment which is located not less than one-fourth mile from any residence or public roadway, and the operation of the entire emission facility does not cause a violation of the ambient air quality standards, shall be considered in compliance with the requirements of Minn. R. 7011.0715, subp. 1(A). This is an alternative demonstration of compliance to the Total Particulate Limit above.
6.0		LIMIT	Minn. R. 7011.0715, subp. 1(B)	Opacity: less than or equal to 20 percent opacity
7.0		CD	hdr	POLLUTION CONTROL EQUIPMENT REQUIREMENTS



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8.0		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.
9.0		CD	40 CFR 63.9580 to 63.9652; 40 CFR Section 64.7(e) and 40 CFR Section 64.9(a): CAM and Minn. R. 7017.0200; Minn. R. 7007.0800, subp. 4(D), subp. 14, and subp. 16(J)	Wet Scrubber Monitoring: 1) maintain the daily average pressure drop and daily average scrubber water flow rate at or above the minimum levels established during the initial and subsequent performance tests; 2) operate and maintain each CPMS according to the O & M plan and record all information needed to document conformance with these requirements; 3) collect and reduce monitoring data for pressure drop and scrubber water flow rate according to the O & M plan and record all information needed to document conformance with these requirements.
10.0		CD	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; and Minn. R. 7007.0800, subp. 16(J)	Inspect quarterly, or as required by the O&M plan and manufacturer specifications, all components that are not subject to wear or plugging, including structural components, housings, ducts, and hoods. Maintain a written record of each inspection and any action resulting from the inspection.
11.0		CD	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; and Minn. R. 7007.0800, subp. 16(J)	Inspect monthly, or as required by the O&M plan and manufacturer specifications, all components that are subject to wear or plugging. Maintain a written record of each inspection and any action resulting from the inspection.
12.0		CD	Minn. R. 7007.0800, subp. 11	Alternate Operating Scenario: The Permittee is allowed to change the location of the pickup points of CE 020 in an effort to improve the collection of particulate from EU 018.  If an effective location for the pickup points can not be found, CE020 may be removed from service without a permit as long as the unrestricted net emission change due to this action is not over the significant emission rates for PSD. Otherwise the removal of CE020 from operation would require a major amendment.
13.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS
14.0		CD	Minn. R. 7017.2020, subp. 1	Performance testing frequency requirements for each emission unit are listed below and at the control equipment (CE) level for the associated scrubber.  Additional performance testing requirements are found in GP008 and GP009.
15.0		S/A	40 CFR Section 64.3: CAM and Minn. R. 7017.0200; Minn. R. 7017.2020, subp. 1; Minn. R. 7017.2025, subp. 3	Performance Test: due before end of each 60 months starting 06/24/2004 in rotation (SV017, SV019) to measure Total Particulate Matter and Opacity emissions to demonstrate compliance with the IPER emission limitations and to revise the parametric operating limits associated with IPER compliance. The performance test due 6/24/09 was granted a 365 day extension or shall be conducted within 120 days after Resuming Operation, whichever occurs first. Future performance tests are due based on the initial performance test date.  Parametric operating limits are found at the CE level.
16.0		S/A	40 CFR Section 64.3: CAM and Minn. R. 7017.0200; Minn. R. 7017.2020, subp. 1; Minn. R. 7017.2025, subp. 3	Performance Test: due before end of each 60 months starting 06/24/2004 in rotation (SV018, SV020) to measure Total Particulate Matter and Opacity emissions to demonstrate compliance with the IPER emission limitations and to revise the parametric operating limits associated with IPER compliance. The performance test due 6/24/09 was granted a 365 day extension or shall be conducted within 120 days after Resuming Operation, whichever occurs first. Future performance tests are due based on the initial performance test date.  Parametric operating limits are found at the CE level.
17.0		S/A	40 CFR Section 64.3: CAM and Minn. R. 7017.0200; Minn. R. 7017.2020, subp. 1; Minn. R. 7017.2025, subp. 3	Performance Test: due before end of each 60 months starting 06/24/2004 in rotation (SV033, SV034, SV035) to measure Total Particulate Matter and Opacity emissions to demonstrate compliance with the IPER emission limitations and to revise the parametric operating limits associated with IPER compliance. The performance test due 6/24/09 was granted a 365 day extension or shall be conducted within 120 days after Resuming Operation, whichever occurs first. Future performance tests are due based on the initial performance test date.  Parametric operating limits are found at the CE level.
18.0		S/A	40 CFR Section 64.3: CAM and Minn. R. 7017.0200; Minn. R. 7017.2020, subp. 1; Minn. R. 7017.2025, subp. 3	Performance Test: due before end of each 60 months starting 06/24/2004 on SV036 to measure Total Particulate Matter and Opacity emissions to demonstrate compliance with the IPER emission limitations and to revise the parametric operating limits associated with IPER compliance. The performance test due 6/24/09 was granted a 365 day extension or shall be conducted within 120 days after Resuming Operation, whichever occurs first. Future performance tests are due based on the initial performance test date.  Parametric operating limits are found at the CE level.



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19.0		S/A	40 CFR Section 64.3: CAM and Minn. R. 7017.0200; Minn. R. 7017.2020, subp. 1; Minn. R. 7017.2025, subp. 3	<p>Performance Test: due before end of each 60 months starting 06/24/2004 on SV037 to measure Total Particulate Matter and Opacity emissions to demonstrate compliance with the IPER emission limitations and to revise the parametric operating limits associated with IPER compliance. The performance test due 6/24/09 was granted a 365 day extension or shall be conducted within 120 days after Resuming Operation, whichever occurs first. Future performance tests are due based on the initial performance test date.</p> <p>Parametric operating limits are found at the CE level.</p>
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# COMPLIANCE PLAN CD-01

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** GP 005 Pelletizing - Baghouses

**Associated Items:** CE 016 Fabric Filter - Low Temperature, i.e., T<180 Degrees F  
CE 017 Fabric Filter - Low Temperature, i.e., T<180 Degrees F  
CE 042 Fabric Filter - Low Temperature, i.e., T<180 Degrees F  
CE 043 Fabric Filter - Low Temperature, i.e., T<180 Degrees F  
CE 044 Fabric Filter - Low Temperature, i.e., T<180 Degrees F  
EU 016 Phase I Bentonite Day Bins  
EU 017 Phase II Bentonite Day Bins  
EU 028 Bentonite Storage Silo - East  
EU 029 Bentonite Storage Silo - West  
EU 033 Limestone Storage Silo  
SV 015  
SV 016  
SV 038  
SV 039  
SV 043

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	POLLUTANT LIMITS
2.0		CD	Minn. R. 7007.0800, subp. 2	The following requirements apply to each individual emission unit, stack/vent, and piece of control equipment listed under the Associated Items.
3.0		LIMIT	Minn. R. 7011.0715, subp. 1(A)	Total Particulate Matter: less than or equal to 0.3 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.
4.0		LIMIT	Minn. R. 7011.0715, subp. 3	Total Particulate Matter: greater than or equal to 85 percent control efficiency for equipment which is located not less than one-fourth mile from any residence or public roadway, and the operation of the entire emission facility does not cause a violation of the ambient air quality standards, shall be considered in compliance with the requirements of Minn. R. 7011.0715, subp. 1(A). This is an alternative demonstration of compliance to the Total Particulate Limit above.
5.0		LIMIT	Minn. R. 7011.0715, subp. 1(B)	Opacity: less than or equal to 20 percent opacity
6.0		CD	hdr	POLLUTION CONTROL EQUIPMENT REQUIREMENTS
7.0		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.
8.0		CD	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; and Minn. R. 7007.0800, subp. 16(J)	Parametric Monitoring: For each baghouse the Permittee shall either, 1) make daily visible emission checks or pressure drop readings when visible emission checks can not be performed, or 2) operate a broken bag detector.
9.0		CD	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; and Minn. R. 7007.0800, subp. 16(J)	Option 1 - Process Monitoring: a person who has been trained according to the requirement "Visible Emission Training" in the Total Facility section of this permit shall check the visible emissions from the stack once each operating day using a checklist that contains at a minimum the information in Appendix B. Evidence of visible emissions shall trigger a corrective action as detailed in the O&M plan.
10.0		CD	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; and Minn. R. 7007.0800, subp. 16(J)	Option 1 - Gas Stream Pressure Drop: Upon installation of the pressure drop gauge, monitor and record the gas stream pressure drop at least once each operating day. Once the the pressure drop range has been established it becomes an enforceable part of this permit. A deviation from this range shall trigger a corrective action as detailed in the O&M plan.
11.0		CD	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; and Minn. R. 7007.0800, subp. 16(J)	Option 2 - Broken Bag Detectors: If the Permittee uses a broken bag detector, an alarm of the detector shall trigger a corrective action as detailed in the O&M plan.





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12.0		CD	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; and Minn. R. 7007.0800, subp. 16(J)	Inspect quarterly, or as required by the O&M plan and manufacturer specifications, all components that are not subject to wear or plugging, including structural components, housings, ducts, and hoods. Maintain a written record of each inspection and any action resulting from the inspection.
13.0		CD	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; and Minn. R. 7007.0800, subp. 16(J)	Inspect monthly, or as required by the O&M plan and manufacturer specifications, all components that are subject to wear or plugging. Maintain a written record of each inspection and any action resulting from the inspection.
14.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS
15.0		S/A	Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each 60 months starting 06/22/2004 on one stack -- alternated between SV015 and SV016 -- to measure Total Particulate and opacity emissions. The performance test due 6/22/09 was granted a 365 day extension or shall be conducted within 120 days after Resuming Operation, whichever occurs first. Future performance tests are due based on the initial performance test date.
16.0		S/A	Minn. R. 7017.2020, subp. 1	Performance Test: due before 60 months following permit issuance on one stack -- rotating among SV038, SV039, and SV043 -- to measure Total Particulate and opacity emissions.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** GP 006 Emergency Generators

**Associated Items:** EU 031 Phase I Emergency Generator

EU 032 Phase II Emergency Generator

SV 041

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	OPERATING LIMITS
2.0		CD	Title I Condition: To avoid a major modification under 40 CFR 52.21 & Minn. R. 7007.3000	The Permittee may not operate EU031 (Phase I Emergency Generator) or EU032 (Phase II Emergency Generator).



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** GP 008 Point Sources and Fugitive Sources Subject to MACT

**Associated Items:**

- CE 001 Venturi Scrubber
- CE 002 Venturi Scrubber
- CE 003 Venturi Scrubber
- CE 004 Venturi Scrubber
- CE 005 Wet Scrubber-High Efficiency
- CE 006 Wet Scrubber-High Efficiency
- CE 007 Wet Scrubber-High Efficiency
- CE 008 Wet Scrubber-High Efficiency
- CE 009 Wet Scrubber-High Efficiency
- CE 010 Wet Scrubber-High Efficiency
- CE 011 Wet Scrubber-High Efficiency
- CE 012 Wet Scrubber-High Efficiency
- CE 013 Wet Scrubber-High Efficiency
- CE 018 Wet Scrubber-High Efficiency
- CE 019 Wet Scrubber-High Efficiency
- CE 020 Wet Scrubber-High Efficiency
- CE 021 Wet Scrubber-High Efficiency
- CE 022 Venturi Scrubber
- CE 023 Venturi Scrubber
- CE 024 Venturi Scrubber
- CE 025 Venturi Scrubber
- CE 026 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones
- CE 027 Venturi Scrubber
- CE 028 Venturi Scrubber
- CE 029 Venturi Scrubber
- CE 030 Venturi Scrubber
- CE 031 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones
- CE 032 Venturi Scrubber
- CE 033 Venturi Scrubber
- CE 034 Venturi Scrubber
- CE 035 Venturi Scrubber
- CE 036 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones
- CE 037 Wet Scrubber-High Efficiency
- CE 038 Wet Scrubber-High Efficiency
- CE 039 Wet Scrubber-High Efficiency
- CE 040 Wet Scrubber-High Efficiency
- CE 041 Wet Scrubber-High Efficiency
- EU 001 Phase I Apron Feeder
- EU 002 Phase II Apron Feeder
- EU 003 Phase I Primary Ore Conveyor - Tail
- EU 004 Phase II Primary Ore Conveyor - Tail
- EU 005 Line No 1 Mill Feed Conveyor
- EU 006 Line No 2 Mill Feed Conveyor



## COMPLIANCE PLAN **CD-01**

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**Associated Items:**

- EU 007 Line No 3 Mill Feed Conveyor
- EU 008 Line No 4 Mill Feed Conveyor
- EU 009 Line No 5 Mill Feed Conveyor
- EU 010 Line No 6 Mill Feed Conveyor
- EU 011 Line No 7 Mill Feed Conveyor
- EU 012 Line No 8 Mill Feed Conveyor
- EU 013 Line No 9 Mill Feed Conveyor
- EU 018 Phase I Hearth Layer Bin/Layer Feed
- EU 019 Phase II Hearth Layer Bin/Layer Feed
- EU 020 Pellet Indurating Furnace Line No 1
- EU 021 Pellet Indurating Furnace Line No 2
- EU 022 Pellet Indurating Furnace Line No 3
- EU 023 Pellet Machine Discharge Line No 1
- EU 024 Pellet Machine Discharge Line No 2
- EU 025 Pellet Machine Discharge Line No 3
- EU 026 Pellet Hearth Layer Screening
- EU 027 Pellet Transfer House
- FS 001 Truck Dump/Crusher Building
- FS 002 Primary Ore Conveyor to Shuttle Belt
- FS 003 Shuttle Belt to Crude Ore Stockpile
- FS 004 Wind Erosion - Crude Ore Stockpile
- FS 005 Non-Metallic Rock Transfer (Cobbed Rock)
- FS 006 Wind Erosion - Non-Metallic Rock Stockpile (Cobbed Rock)
- FS 007 Filter Cake Stockpiles Load
- FS 008 Filter Cake Reclaim Load
- FS 009 Filter Cake Wind Erosion
- FS 010 Pellet Bin Loading
- FS 011 Pellet Stockpiles Load
- FS 012 Pellet Reclaim Load
- FS 013 Pellet Wind Erosion
- FS 014 Cleaning - Steam Cleaning Vehicles/Parts/Buildings
- FS 016 Loading Overburden
- FS 017 Unloading Overburden
- FS 018 Wind Erosion Overburden
- FS 019 Drilling Rock
- FS 020 Loading Rock
- FS 021 Unloading Rock
- FS 022 Wind Erosion Rock
- FS 023 Drilling Taconite Ore
- FS 024 Loading Taconite Ore
- FS 025 Hauling on Unpaved Haul Road, Overburden, Rock, Taconite, Misc.
- FS 026 Non-Productive Material Transfers - Tailing, Rock, Crude Ore Emergency, Filter Cake, Pellets
- FS 027 Blasting - Rock & Taconite
- FS 028 Small Fleet Vehicle Travel on Unpaved Road



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Associated Items:**

- FS 029 Tailing Basin Wind Erosion - Dry
- FS 030 Tailing Basin Wind Erosion - Damp
- FS 075 Material Handling: Loader A into Jaw Crusher A
- FS 076 Jaw Crusher A
- FS 077 Material Handling: Jaw Crusher A to Conveyor A1
- FS 078 Material Handling: Conveyor A1 to Conveyor A2
- FS 079 Material Handling: Conveyor A2 to Screen A1
- FS 080 Screen A1
- FS 081 Material Handling: Screen A1 to Conveyor AB1
- FS 082 Material Handling: Loader B into Jaw Crusher B
- FS 083 Jaw Crusher B
- FS 084 Material Handling: Jaw Crusher B to Conveyor B1
- FS 085 Material Handling: Conveyor B1 to Conveyor B2
- FS 086 Material Handling: Conveyor B2 to Screen B1
- FS 087 Screen B1
- FS 088 Material Handling: Screen B1 to Conveyor AB1
- FS 089 Material Handling: Conveyor AB1 to Cone Crusher
- FS 090 Cone Crusher
- FS 091 Material Handling: Cone Crusher to Conveyor AB2
- FS 092 Material Handling: Conveyor A3 to Conveyor A4
- FS 093 Cobber A
- FS 094 Material Handling: Conveyor B3 to Conveyor B4
- FS 095 Cobber B
- FS 096 Wind Erosion: Magnetic Stockpile
- FS 097 Wind Erosion: Non-Magnetic Stockpile
- FS 098 Material Handling: Conveyor AB2 to Conveyor AB3
- FS 099 Material Handling: Conveyor AB2 to Conveyor AB4
- FS 100 Material Handling: Conveyor AB3 to Conveyor A4
- FS 101 Material Handling: Conveyor AB4 to Conveyor B4
- FS 102 Material Handling: Conveyor A4 to Cobber A
- FS 103 Material Handling: Conveyor B4 to Cobber B
- FS 104 Material Handling: Cobber B to Conveyor A5
- FS 105 Material Handling: Conveyor A5 to Conveyor A6
- FS 106 Material Handling: Cobber A to Conveyor A6
- FS 107 Material Handling: Conveyor A6 to Conveyor A7
- FS 108 Material Handling: Conveyor A7 to Conveyor A8
- FS 109 Material Handling: Conveyor A8 to Conveyor A9
- FS 110 Material Handling: Conveyor A9 to Conveyor A10
- FS 111 Material Handling: Conveyor A10 to Conveyor A11
- FS 112 Material Handling: Conveyor A11 to Magnetic Stockpile
- FS 113 Material Handling: Cobber A to Conveyor B5
- FS 114 Material Handling: Conveyor B5 to Conveyor B6
- FS 115 Material Handling: Cobber B to Conveyor B6
- FS 116 Material Handling: Conveyor B6 to Conveyor B7



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**Associated Items:**

- FS 117 Material Handling: Conveyor B7 to Conveyor B8
- FS 118 Material Handling: Conveyor B8 to Conveyor B9
- FS 119 Material Handling: Conveyor B9 to Conveyor B10
- FS 120 Material Handling: Conveyor B10 to Conveyor B11
- FS 121 Material Handling: Conveyor B11 to Conveyor B12
- FS 122 Material Handling: Conveyor B12 to Non-Magnetic Stockpile

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	NESHAP GENERAL PROVISIONS - 40 CFR pt. 63, subp. A
2.0		CD	40 CFR Section 63.6(e)(1)(i); Minn. R. 7011.7000	Proper Operation and Maintenance: At all times, including periods of startup, shutdown and malfunction, the Permittee shall operate and maintain the emission unit(s) subject to the MACT standard and its associated air pollution control and monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards.
3.0		CD	40 CFR Section 63.6(f); Minn. R. 7011.7000	The non-opacity emission standards apply at all times except during periods of startup, shutdown or malfunction.
4.0		CD	hdr	STARTUP, SHUTDOWNS AND MALFUNCTIONS
5.0		CD	40 CFR Section 63.6(e)(1)(ii); Minn. R. 7011.7000	Malfunctions: Malfunctions shall be corrected as soon as practicable after their occurrence.
6.0		CD	40 CFR Section 63.6(e)(3)(i); 40 CFR Section 63.6(e)(3)(v); Minn. R. 7011.7000	The Permittee shall prepare a written Startup, Shutdown, and Malfunction Plan (SSMP) for each of the emission units, including associated control and monitoring equipment, subject to Maximum Control Technology Standards by the applicable MACT standard compliance date. The SSMP shall be prepared in accordance with 40 CFR Section 63.6(e)(3) and include requirements specified therein. The SSMP must be located at the plant site and must be kept updated. When the SSMP is updated, the Permittee must keep all previous versions of the SSMP for a period of 5 years. The Permittee must submit the SSMP when required.
7.0		CD	40 CFR Section 63.6(e)(3)(iii); Minn. R. 7011.7000	When actions taken by the Permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the SSMP, the Permittee must keep records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a checklist, or other effective form of record keeping that confirms conformance with the SSMP for that event. In addition, the Permittee must keep records of these events as specified in 40 CFR Section 63.10(b). Furthermore, the Permittee shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the SSMP in the Semi-Annual startup, shutdown, and malfunction report required in 40 CFR Section 63.10(d)(5).
8.0		CD	40 CFR Section 63.10(b)(1); Minn. R. 7019.0100, subp. 2	Recordkeeping: The Permittee shall maintain files of all information required by 40 CFR part 63 in a form suitable and readily available for expeditious inspection and review. The files should be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Only the most recent two years of information must be kept on site.
9.0		CD	40 CFR Section 63.5(b)(3); Minn. R. 7011.7000	Prior to construction or reconstruction of an "affected source" under the promulgated MACT standards, the Permittee must apply for and obtain an air emission permit.
10.0		CD	hdr	PERFORMANCE TESTING
11.0		CD	40 CFR Section 63.7(e); Minn. R. 7017.2015, subp. 3	Conduct of performance tests. Performance tests shall be conducted under such conditions as the Commissioner specifies based on representative performance of the affected source.
12.0		CD	40 CFR Section 63.9621(a); Minn. R. 7011. 8030	Performance test methods and other procedures: The Permittee shall conduct each performance test according to the requirements in 40 CFR Section 63.7(e)(1) and the applicable requirements in 40 CFR Section 63.9621(b) and (c) for purposes of Taconite NESHAP.
13.0		CD	hdr	MONITORING



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Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

14.0		CD	40 CFR Section 63.8(c)(1); Minn. R. 7017.1010, subp. 2	Operation and maintenance of continuous monitoring systems. The Permittee shall maintain and operate each CMS in a manner consistent with good air pollution control practices. The owner or operator must: - Maintain and operate each CMS as specified in section 63.6(e)(1). - Keep the necessary parts for routine repairs readily available. - Develop a written SSMP for each CMS as specified in section 63.6(e)(3).
15.0		CD	40 CFR Section 63.8(c)(2); Minn.R. 7017.1010, subp. 2	All CMS must be installed such that representative measures of emissions or process parameters from the affected source are obtained. In addition, CEMS must be located according to procedures contained in the applicable performance specification(s). The read out, or other indication of operation, from any CMS required for compliance with the emission standard must be readily accessible on site for operational control or inspection by the operator of the equipment.
16.0		CD	40 CFR Section 63.8(c)(3) and (4); 7017.1010, subp. 2	All CMS shall be installed, operational, and the data verified prior to or in conjunction with conducting performance tests under section 63.7.  Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level calibration drift adjustments, all CMS, including COMS and CEMS, shall be in continuous operation and shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.
17.0		CD	40 CFR Section 63.8(d)(2) and (3); 7017.1010, subp. 2	The Permittee shall develop and submit to the Commissioner for approval upon request a site-specific performance evaluation test plan for the CMS performance evaluation required in paragraph 40 CFR 63.8(e)(3)(i). The quality control program shall include, at a minimum, a written protocol that describes procedures for each of the following operations: (i) Initial and any subsequent calibration of the CMS; (ii) Determination and adjustment of the calibration drift of the CMS; (iii) Preventive maintenance of the CMS, including spare parts inventory; (iv) Data recording, calculations, and reporting; (v) Accuracy audit procedures, including sampling and analysis methods; and (vi) Program of corrective action for a malfunctioning CMS.  The Permittee shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part.
18.0		CD	40 CFR Section 63.8(e)(2); Minn.R. 7017.1010, subp. 2	Notification of performance evaluation. The Permittee shall notify the Commissioner in writing of the date of the performance evaluation simultaneously with the notification of the performance test date required under 40 CFR Section 63.7(b) or at least 60 days prior to the date the performance evaluation is scheduled to begin if no performance test is required.
19.0		CD	40 CFR Section 63.8(e)(3)(i); Minn.R. 7017.1010, subp. 2	The Permittee shall develop and submit a site-specific performance evaluation test plan to the Commissioner for approval upon request in accordance with 40 CFR Section 63.8(e)(3)(i).
20.0		CD	40 CFR Section 63.8(e)(4); Minn.R. 7017.1010, subp. 2	The Permittee shall conduct a performance evaluation of a required CMS during any performance test required under 40 CFR Section 63.7 in accordance with the applicable performance specification as specified in the relevant standard. If a performance test is not required, or the requirement for a performance test has been waived under section 40 CFR Section 63.7(h), the Permittee shall conduct the performance evaluation not later than 180 days after the appropriate compliance date.
21.0		CD	40 CFR Section 63.8(e)(5); 40 CFR 63.10(e)(2); Minn.R. 7017.1010, subp. 2; Minn. R. 7019.0100, subp. 2	The Permittee shall submit to the Commissioner a copy of a written report of the results of the performance evaluation simultaneously with the results of the performance test required under 40 CFR Section 63.7 or within 60 days of completion of the performance evaluation if no test is required.
22.0		CD	40 CFR Section 63.8(g); Minn.R. 7017.1010, subp. 2	Reduction of monitoring data. The Permittee must reduce the monitoring data as specified in 40 CFR Section 63.8(g).
23.0		CD	hdr	NOTIFICATIONS
24.0		CD	40 CFR Section 63.9(a); Minn.R. 7019.0100, subp. 2	The Permittee shall submit notifications required under 40 CFR part 63 to the the Commissioner. In addition, the Permittee shall send a copy of each notification to the appropriate Region V contact.
25.0		CD	40 CFR Section 63.9(b)(4)(v); Minn. R. 7019.0100, subp. 2	Notification of the Actual Date of Initial Startup: due 15 days after initial startup. Submit the name and number of each unit and the actual date of initial startup each unit.



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26.0		CD	40 CFR Section 63.7(b)(1); 40 CFR Section 63.7(c)(2)(iv); 40 CFR Section 63.7(g)(1); 40 CFR Section 63.9(e); Minn. R. 7019.0100, subp. 2; Minn. R. 7017.2015, subp. 3; Minn. R. 7017.2030, subp. 1-4; Minn. R. 7017.2018 and Minn. R. 7017.2035, subp. 1-2	<p>Performance Test Notifications and Submittals</p> <p>Performance Test Notification (written): due 60 days before each Performance Test Performance Test Plan: due 60 days before each Performance Test Performance Test Pre-Test Meeting: due 7 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy or CD: due 105 days after each Performance Test.</p> <p>The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.</p>
27.0		CD	40 CFR Section 63.9(g)(1); Minn.R. 7019.0100, subp. 2	The Permittee shall submit a written notification of the date the CMS performance evaluation under 40 CFR Section 63.8(e) is scheduled to begin, submitted simultaneously with the notification of the performance test date required under 40 CFR Section 63.7(b). If no performance test is required, the Permittee shall submit a written notification of the date of the performance evaluation at least 60 calendar days before the evaluation is scheduled to begin.
28.0		CD	40 CFR Section 63.9(h)(3); Minn.R. 7019.0100, subp. 2	The Permittee shall submit a notification of compliance status to the Commissioner following completion of the relevant compliance demonstration activity specified in the relevant standard.
29.0		CD	40 CFR Section 63.9(h)(5); Minn.R. 7019.0100, subp. 2	The Permittee shall submit actual HAP emissions data and other information to verify that information submitted as part of the permit application is correct as soon as available but no later than with the initial notification of compliance.
30.0		CD	40 CFR Section 63.9(j); Minn.R. 7019.0100, subp. 2	Change in information already provided. Any change in the information already provided under this 40 CFR section 63.9 shall be provided to the Commissioner in writing within 15 calendar days after the change.
31.0		CD	40 CFR Section 63.10(e)(3)(i) and (v); Minn. R. 7019.0100, subp. 2	Excess Emissions and Continuous Monitoring System Report; The Permittee shall submit an excess emissions and CMS performance report and/or a summary report to the Commissioner by the 30th day following the end of each calendar half . The report(s) shall include all the information required and in accordance with 40 CFR Section 63.10(e)(3).
32.0		CD	40 CFR Section 63.10(d)(5)(ii); 40 CFR Section 63.6(e)(3)(iv); Minn. R. 7019.0100, subp. 2	Immediate startup, shutdown, and malfunction reports; Any time an action taken by the Permittee during a startup or shutdown or malfunction (that caused the source to exceed any applicable emission limitation in the relevant emission standards), that is not consistent with the procedures specified in the affected source's SSMP, the Permittee shall report the actions taken for that event within 2 working days after commencing the actions followed by a letter within 7 working days after the end of the event. The reports must be in accordance with 40 CFR Section 63.10(d)(5)(ii).
33.0		CD	hdr	RECORDKEEPING
34.0		CD	40 CFR Section 63.10(b)(2); Minn. R. 7019.0100, subp. 2	<p>The Permittee shall maintain, at a minimum, the following information in the files:</p> <ol style="list-style-type: none"> <li>1) the occurrence and duration of each startup, shutdown, or malfunction of operation;</li> <li>2) the occurrence and duration of each malfunction of the air pollution control equipment;</li> <li>3) all maintenance performed on the pollution control equipment;</li> <li>4) actions taken during periods of startup, shutdown, and malfunction when such actions are different from the procedures specified in the affected source's (SSMP). In this case, the Permittee shall report this action within 2 days of occurrence and follow by a written notification within 7 days of occurrence.</li> <li>5) all information necessary to demonstrate conformance with the affected source's SSMP and actions taken in accordance with SSMP;</li> </ol>
35.0		CD	40 CFR Section 63.10(b)(2); Minn. R. 7019.0100, subp. 2 (continued)	<p>(continued)</p> <ol style="list-style-type: none"> <li>6) each period during which a CMS is malfunctioning or inoperative;</li> <li>7) all required measurements needed to demonstrate compliance with a relevant standard;</li> <li>8) all results of performance test, CMS performance evaluations, and opacity and visible emission observations;</li> <li>9) all measurements as may be necessary to determine the conditions of performance tests and performance evaluations;</li> <li>10) all CMS calibration checks;</li> <li>11) all adjustments and maintenance performed on CMS;</li> <li>12) any information demonstrating whether a source is meeting the requirements for a waiver of record keeping or reporting requirements under this part;</li> <li>13) all documents supporting initial notifications and notifications of compliance status.</li> </ol>





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36.0		CD	40 CFR Section 63.10(c); Minn. R. 7019.0100, subp. 2	<p>The Permittee shall maintain records for each CMS:</p> <ol style="list-style-type: none"><li>1) All required CMS measurements;</li><li>2) The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks;</li><li>3) The date and time identifying each period during which the CMS was out of control;</li><li>4) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, that occurs during startups, shutdowns, and malfunctions of the affected source;</li><li>5) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;</li></ol>
37.0		CD	40 CFR Section 63.10(c); Minn. R. 7019.0100, subp. 2 (continued)	<p>(continued)</p> <ol style="list-style-type: none"><li>6) The nature and cause of any malfunction;</li><li>7) The corrective action taken or preventive measures adopted;</li><li>8) The nature of the repairs or adjustments to the CMS that was inoperative or out of control;</li><li>9) The total process operating time during the reporting period; and</li><li>10) All procedures that are part of a quality control program developed and implemented for CMS under 40 CFR section 63.8(d).</li></ol>



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**Subject Item:** GP 009 Point Sources Subject to Taconite MACT

**Associated Items:**

- CE 001 Venturi Scrubber
- CE 002 Venturi Scrubber
- CE 003 Venturi Scrubber
- CE 004 Venturi Scrubber
- CE 005 Wet Scrubber-High Efficiency
- CE 006 Wet Scrubber-High Efficiency
- CE 007 Wet Scrubber-High Efficiency
- CE 008 Wet Scrubber-High Efficiency
- CE 009 Wet Scrubber-High Efficiency
- CE 010 Wet Scrubber-High Efficiency
- CE 011 Wet Scrubber-High Efficiency
- CE 012 Wet Scrubber-High Efficiency
- CE 013 Wet Scrubber-High Efficiency
- CE 018 Wet Scrubber-High Efficiency
- CE 019 Wet Scrubber-High Efficiency
- CE 020 Wet Scrubber-High Efficiency
- CE 021 Wet Scrubber-High Efficiency
- CE 022 Venturi Scrubber
- CE 023 Venturi Scrubber
- CE 024 Venturi Scrubber
- CE 025 Venturi Scrubber
- CE 026 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones
- CE 027 Venturi Scrubber
- CE 028 Venturi Scrubber
- CE 029 Venturi Scrubber
- CE 030 Venturi Scrubber
- CE 031 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones
- CE 032 Venturi Scrubber
- CE 033 Venturi Scrubber
- CE 034 Venturi Scrubber
- CE 035 Venturi Scrubber
- CE 036 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones
- CE 037 Wet Scrubber-High Efficiency
- CE 038 Wet Scrubber-High Efficiency
- CE 039 Wet Scrubber-High Efficiency
- CE 040 Wet Scrubber-High Efficiency
- CE 041 Wet Scrubber-High Efficiency
- EU 001 Phase I Apron Feeder
- EU 002 Phase II Apron Feeder
- EU 003 Phase I Primary Ore Conveyor - Tail
- EU 004 Phase II Primary Ore Conveyor - Tail
- EU 005 Line No 1 Mill Feed Conveyor
- EU 006 Line No 2 Mill Feed Conveyor



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**Associated Items:**

- EU 007 Line No 3 Mill Feed Conveyor
- EU 008 Line No 4 Mill Feed Conveyor
- EU 009 Line No 5 Mill Feed Conveyor
- EU 010 Line No 6 Mill Feed Conveyor
- EU 011 Line No 7 Mill Feed Conveyor
- EU 012 Line No 8 Mill Feed Conveyor
- EU 013 Line No 9 Mill Feed Conveyor
- EU 018 Phase I Hearth Layer Bin/Layer Feed
- EU 019 Phase II Hearth Layer Bin/Layer Feed
- EU 020 Pellet Indurating Furnace Line No 1
- EU 021 Pellet Indurating Furnace Line No 2
- EU 022 Pellet Indurating Furnace Line No 3
- EU 023 Pellet Machine Discharge Line No 1
- EU 024 Pellet Machine Discharge Line No 2
- EU 025 Pellet Machine Discharge Line No 3
- EU 026 Pellet Hearth Layer Screening
- EU 027 Pellet Transfer House

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	OPERATING REQUIREMENTS
2.0		CD	40 CFR Section 63.9583; Minn. R. 7011.8030	The Permittee shall meet the notification and schedule requirements in 40 CFR Section 63.9640.
3.0		CD	40 CFR Section 63.9640(a); 40 CFR Section 63.7(b)(1); Minn. R. 7011.8030	The Permittee shall submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin.
4.0		CD	40 CFR Section 63.9640(e); 40 CFR 63.9623(c); 40 CFR Section 63.9(h)(2)(ii); Minn. R. 7011.8030	The Permittee shall submit the initial notification of compliance status (including the performance test results) for each emission limitation and operating limit by the dates specified below: (1) For each initial compliance demonstration that does not include a performance test, before the close of business on the 30th calendar day following completion of the initial compliance demonstration. (2) For each initial compliance demonstration that does include a performance test, before the close of business on the 60th calendar day following the completion of the performance test.
5.0		CD	40 CFR Section 63.9622(f); Minn. R. 7011.8030	The Permittee may change the operating limits for any air pollution control device if the Permittee:  1) submits a written notification to the Commissioner requesting to conduct a new performance test to revise the operating limit.  2) conduct a performance test to demonstrate compliance with the applicable emission limitation.  3) establishes revised operating limits according to the applicable procedures in 40 CFR Section 63.9622(a).
6.0		CD	40 CFR Section 63.9622(f); Minn. R. 7011.8030; 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, or a representative unit within the same test group as specified by the applicable requirement. The limit is final upon issuance of a permit amendment incorporating the change.
7.0		CD	hdr	MONITORING



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8.0		CD	40 CFR Section 63.9633 ; Minn. R. 7011.8030	<p>Monitoring Data. The Permittee shall monitor continuously (or collect data at all required intervals) at all times an affected source is operating except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments).</p> <p>The Permittee shall not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels, or to fulfill a minimum data availability requirement. The Permittee shall use all the data collected during all other periods in assessing compliance.</p>
9.0		CD	hdr	CORRECTIVE ACTIONS
10.0		CD	40 CFR Section 63.9600(b)(3); Minn. R. 7011.8030	In the event that an exceedance of an established operating limit for an air pollution control device except for a baghouse occurs, The Permittee shall initiate corrective action to determine the cause of the operating limit exceedance and complete the corrective action within 10 calendar days.
11.0		CD	40 CFR Section 63.9634(j); Minn. R. 7011.8030	<p>If the daily average operating parameter value for an emission unit or group of similar emission units does not meet the corresponding established operating limit, the Permittee must then follow the following procedures:</p> <p>(1) The Permittee must initiate and complete initial corrective action within 10 calendar days and demonstrate that the initial corrective action was successful. During any period of corrective action, the Permittee must continue to monitor and record all required operating parameters for equipment that remains in operation. After 10 calendar days, measure and record the daily average operating parameter value for the emission unit or group of similar emission units on which corrective action was taken.</p>
12.0		CD	40 CFR Section 63.9634(j); Minn. R. 7011.8030 (continued)	<p>(continued)</p> <p>(2) If the initial corrective action required in (1) was not successful, then the Permittee must complete additional corrective action within 10 calendar days and demonstrate that the subsequent corrective action was successful. After the second set of 10 calendar days allowed to implement corrective action, the Permittee must again measure and record the daily average operating parameter value for the emission unit or group of similar emission units.</p> <p>(3) If the second attempt at corrective action required in paragraph (2) was not successful, then the Permittee must repeat the procedures until the corrective action is successful. If the third attempt at corrective action is unsuccessful, the Permittee must conduct another performance test in accordance with the procedures in 40 CFR section 63.9622(f) and report to the Commissioner as a deviation the third unsuccessful attempt at corrective action.</p>
13.0		CD	40 CFR Section 63.9634(j); Minn. R. 7011.8030 (continued)	<p>(continued)</p> <p>(4) After the third unsuccessful attempt at corrective action, the Permittee must submit the written report required in (3) within 5 calendar days after the third unsuccessful attempt at corrective action. This report must notify the Commissioner that a deviation has occurred and document the types of corrective measures taken to address the problem that resulted in the deviation of established operating parameters and the resulting operating limits.</p>
14.0		CD	hdr	REPORTING
15.0		CD	40 CFR Section 63.9637(a) ; Minn. R. 7011.8030	Deviations. The Permittee must report each instance in which an emission limitation was not met. This includes periods of startup, shutdown, and malfunction. The Permittee must report each instance in which a work practice standards in 40 CFR section 63.9591 was not met. The Permittee must report each instance in which an applicable operation and maintenance requirement in 40 CFR section 63.9600 was not met. These deviations must be reported in accordance with the requirements in 40 CFR section 63.9641.
16.0		CD	40 CFR Section 63.9(h)(3); Minn. R. 7011.8030; Minn.R. 7019.0100, subp. 2	The Permittee shall submit a notification of compliance status to the Commissioner following completion of the relevant compliance demonstration activity specified in the relevant standard.



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17.0		CD	40 CFR Section 63.10(d)(5)(ii); 40 CFR Section 63.9641(c); Minn. R. 7011.8030; Minn. R. 7019.0100, subp. 2	Immediate startup, shutdown, and malfunction reports: Any time an action taken by the Permittee during a startup or shutdown or malfunction (that caused the source to exceed any applicable emission limitation in the relevant emission standards), that is not consistent with the procedures specified in the affected source's SSMP, the Permittee shall report the actions taken for that event within 2 working days after commencing the actions followed by a letter within 7 working days after the end of the event. The reports must be in accordance with 40 CFR Section 63.10(d)(5)(ii).
18.0		CD	40 CFR Section 63.9641(e); Minn. R. 7011.8030	Immediate corrective action report. The Permittee shall submit an immediate corrective action report if three unsuccessful attempts of applying corrective action as described in 40 CFR section 63.9634(j) were made on an emission unit or group of emission units. Also, within 5 calendar days after the third unsuccessful attempt at corrective action, the Permittee shall submit to the Commissioner a written report in accordance with 40 CFR section 63.9634(j)(3) and (4).
19.0		CD	40 CFR Section 63.9637(b); Minn. R. 7011.8030	During periods of startup, shutdown, and malfunction, the Permittee must operate in accordance with your SSMP and the requirements in paragraphs 40 CFR Section 63.9637(b)(1) and (2).
20.0		CD	40 CFR Section 63.9641(b); Minn. R. 7011.8030	Compliance Report Content: Each compliance report must include the information in paragraphs (1) through (3) and, as applicable, in paragraphs (4) through (8). (1) Company name and address. (2) Statement by a responsible official, with the official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. (3) Date of report and beginning and ending dates of the reporting period. (4) If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in Section 63.10(d)(5)(i). (5) If there were no deviations from the continuous compliance requirements in Sections 63.9634 through 63.9636 that apply to you, then provide a statement that there were no deviations from the emission limitations, work practice standards, or O & M requirements during the reporting period.
21.0		CD	40 CFR Section 63.9637(b); Minn. R. 7011.8030 (continued)	Compliance Report Content (continued): (6) If there were no periods during which a CMS (including a CPMS) was out-of-control as specified in Section 63.8(c)(7), then provide a statement that there were no periods during which a CMS was out-of-control during the reporting period. (7) For each deviation from an emission limitation in Table 1 to this subpart that occurs at an affected source where you are not using a CMS (including a CPMS) to comply with an emission limitation, the compliance report must contain the information in paragraphs (1) through (4) of this section and the information in paragraphs (7)(i) and (ii). This includes periods of startup, shutdown, and malfunction. (i) The total operating time of each affected source during the reporting period. (ii) Information on the number, duration, and cause of deviations (including unknown cause) as applicable, and the corrective action taken.
22.0		CD	40 CFR Section 63.9637(b); Minn. R. 7011.8030 (continued)	Compliance Report Content (continued): (8) For each deviation from an emission limitation occurring at an affected source a CMS (including a CPMS) is used to comply with the emission limitation, the Permittee must include the information in paragraphs (1) through (4) and the information in paragraphs (8)(i) through (xi). This includes periods of startup, shutdown, and malfunction. (i) The date and time that each malfunction started and stopped. (ii) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks. (iii) The date, time, and duration that each CMS was out-of-control, including the information in Section 63.8(c)(8). (iv) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.



## COMPLIANCE PLAN **CD-01**

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23.0		CD	40 CFR Section 63.9637(b); Minn. R. 7011.8030 (continued)	<p>Compliance Report Content (continued):</p> <p>(v) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.</p> <p>(vi) A breakdown of the total duration of the deviations during the reporting period including those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.</p> <p>(vii) A summary of the total duration of CMS downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during the reporting period.</p> <p>(viii) A brief description of the process units.</p> <p>(ix) A brief description of the CMS.</p> <p>(x) The date of the latest CMS certification or audit.</p>
24.0		CD	40 CFR Section 63.9637(b); Minn. R. 7011.8030 (continued)	<p>Compliance Report Content (continued):</p> <p>(xi) A description of any changes in CMS, processes, or controls since the last reporting period.</p>
25.0		CD	hdr	RECORDKEEPING
26.0		CD	40 CFR Section 63.9642(a) and (c); 40 CFR Section 63.9643(b) and (c); Minn. R. 7011.8030	<p>The Permittee shall keep:</p> <ul style="list-style-type: none"><li>- A copy of each notification and report that you submitted to comply with this 40 CFR part 63, subpart RRRRR.</li><li>- The records in 40 CFR section 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.</li><li>- Records of performance tests and performance evaluations as required in section 63.10(b)(2)(viii).</li></ul> <p>The Permittee shall also keep the records required in 40 CFR sections 63.9634 through 63.9636 to show continuous compliance with each emission limitation, work practice standard, and operation and maintenance requirement that apply. Each record shall be kept for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Each record shall be kept on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.</p>



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** GP 010 Ore Crushing and Handling Sources Subject to Taconite MACT

**Associated Items:**

- CE 001 Venturi Scrubber
- CE 002 Venturi Scrubber
- CE 003 Venturi Scrubber
- CE 004 Venturi Scrubber
- CE 005 Wet Scrubber-High Efficiency
- CE 006 Wet Scrubber-High Efficiency
- CE 007 Wet Scrubber-High Efficiency
- CE 008 Wet Scrubber-High Efficiency
- CE 009 Wet Scrubber-High Efficiency
- CE 010 Wet Scrubber-High Efficiency
- CE 011 Wet Scrubber-High Efficiency
- CE 012 Wet Scrubber-High Efficiency
- CE 013 Wet Scrubber-High Efficiency
- EU 001 Phase I Apron Feeder
- EU 002 Phase II Apron Feeder
- EU 003 Phase I Primary Ore Conveyor - Tail
- EU 004 Phase II Primary Ore Conveyor - Tail
- EU 005 Line No 1 Mill Feed Conveyor
- EU 006 Line No 2 Mill Feed Conveyor
- EU 007 Line No 3 Mill Feed Conveyor
- EU 008 Line No 4 Mill Feed Conveyor
- EU 009 Line No 5 Mill Feed Conveyor
- EU 010 Line No 6 Mill Feed Conveyor
- EU 011 Line No 7 Mill Feed Conveyor
- EU 012 Line No 8 Mill Feed Conveyor
- EU 013 Line No 9 Mill Feed Conveyor
- SV 001
- SV 002
- SV 003
- SV 004
- SV 005
- SV 006
- SV 007
- SV 008
- SV 009
- SV 010
- SV 011
- SV 012

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	EMISSIONS AVERAGING



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

2.0		CD	40 CFR Section 63.9634(b); Minn. R. 7011.8030	<p>For emission units not selected for initial performance testing and defined within a group of similar emission units in accordance with 40 CFR section 63.9620(e), the Permittee shall calculate the daily average value of each operating parameter for the similar air pollution control device applied to each similar emission unit within a defined group using the following equation.</p> $P_k = (\text{sum of all } P_i) / n$ <p><math>P_k</math> = Daily average operating parameter value for all emission units within group <math>k</math>; <math>P_i</math> = Daily average parametric monitoring parameter value corresponding to emission unit <math>i</math> within the group; and <math>n</math> = Total number of emission units within the group, including emission units that have been selected for performance tests and those that have not been selected for performance tests.</p>
3.0		CD	hdr	<p>MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS</p> <p>See GP008 and GP009.</p>





# COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** GP 011 Finished Pellet Handling Sources Subject to Taconite MACT

**Associated Items:**

- CE 018 Wet Scrubber-High Efficiency
- CE 019 Wet Scrubber-High Efficiency
- CE 020 Wet Scrubber-High Efficiency
- CE 021 Wet Scrubber-High Efficiency
- CE 037 Wet Scrubber-High Efficiency
- CE 038 Wet Scrubber-High Efficiency
- CE 039 Wet Scrubber-High Efficiency
- CE 040 Wet Scrubber-High Efficiency
- CE 041 Wet Scrubber-High Efficiency
- EU 018 Phase I Hearth Layer Bin/Layer Feed
- EU 019 Phase II Hearth Layer Bin/Layer Feed
- EU 023 Pellet Machine Discharge Line No 1
- EU 024 Pellet Machine Discharge Line No 2
- EU 025 Pellet Machine Discharge Line No 3
- EU 026 Pellet Hearth Layer Screening
- EU 027 Pellet Transfer House
- SV 017
- SV 018
- SV 019
- SV 020
- SV 033
- SV 034
- SV 035
- SV 036
- SV 037

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	EMISSIONS AVERAGING
2.0		CD	40 CFR Section 63.9634(b); Minn. R. 7011.8030	For emission units not selected for initial performance testing and defined within a group of similar emission units in accordance with 40 CFR section 63.9620(e), the Permittee shall calculate the daily average value of each operating parameter for the similar air pollution control device applied to each similar emission unit within a defined group using the following equation. $P_k = (\text{sum of all } P_i) / n$ $P_k = \text{Daily average operating parameter value for all emission units within group } k;$ $P_i = \text{Daily average parametric monitoring parameter value corresponding to emission unit } i \text{ within the group; and}$ $n = \text{Total number of emission units within the group, including emission units that have been selected for performance tests and those that have not been selected for performance tests.}$
3.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** GP 012 Indurating Sources Subject to Taconite MACT

**Associated Items:**

- CE 022 Venturi Scrubber
- CE 023 Venturi Scrubber
- CE 024 Venturi Scrubber
- CE 025 Venturi Scrubber
- CE 026 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones
- CE 027 Venturi Scrubber
- CE 028 Venturi Scrubber
- CE 029 Venturi Scrubber
- CE 030 Venturi Scrubber
- CE 031 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones
- CE 032 Venturi Scrubber
- CE 033 Venturi Scrubber
- CE 034 Venturi Scrubber
- CE 035 Venturi Scrubber
- CE 036 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones
- EU 020 Pellet Indurating Furnace Line No 1
- EU 021 Pellet Indurating Furnace Line No 2
- EU 022 Pellet Indurating Furnace Line No 3
- SV 021
- SV 022
- SV 023
- SV 024
- SV 025
- SV 026
- SV 027
- SV 028
- SV 029
- SV 030
- SV 031
- SV 032

	NC/ CA	Type	Citation	Requirement
1.0		CD	40 CFR Section 63.9600(b)(4); 40 CFR Section 63.9636(a)(4); Minn. R. 7011.8030	Good combustion practices (GCP) for indurating furnaces; The Permittee shall identify and implement a set of site-specific GCP for the indurating furnace. These GCP shall correspond to standard operating procedures for maintaining the proper and efficient combustion within each indurating furnace. GPC include, but are not limited to the following elements: 1) Proper operating conditions for each indurating furnace (e.g., minimum combustion temperature, maximum carbon monoxide concentration in the furnace exhaust gases, burner alignment, or proper fuel-air distribution/mixing). 2) Routine inspection and preventative maintenance and corresponding schedules. 3) Performance analyses. 4) Keeping applicable operator logs. 5) Keeping applicable records to document compliance with each element.



## COMPLIANCE PLAN **CD-01**

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2.0		CD	40 CFR Sections 63.9636(a)(1) and (4); Minn. R. 7011.8030	<p>The Permittee shall:</p> <ul style="list-style-type: none"><li>- Perform preventative maintenance for each control device in accordance with 40 CFR Section 63.9600(b)(1) and record all information needed to document conformance with these requirements.</li><li>- Implement and maintain site-specific GPC for each indurating furnace in accordance with 40 CFR Section 63.9600(b)(4) and record all information needed to document conformance with these requirements.</li></ul>
3.0		CD	hdr	<p>PERFORMANCE TESTING REQUIRMENTS</p> <p>See GP003, GP008 and the CE level.</p>



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** GP 013 Fugitive Sources Subject to Taconite MACT

**Associated Items:**

FS 001 Truck Dump/Crusher Building  
FS 002 Primary Ore Conveyor to Shuttle Belt  
FS 003 Shuttle Belt to Crude Ore Stockpile  
FS 004 Wind Erosion - Crude Ore Stockpile  
FS 005 Non-Metallic Rock Transfer (Cobbed Rock)  
FS 006 Wind Erosion - Non-Metallic Rock Stockpile (Cobbed Rock)  
FS 007 Filter Cake Stockpiles Load  
FS 008 Filter Cake Reclaim Load  
FS 009 Filter Cake Wind Erosion  
FS 010 Pellet Bin Loading  
FS 011 Pellet Stockpiles Load  
FS 012 Pellet Reclaim Load  
FS 013 Pellet Wind Erosion  
FS 014 Cleaning - Steam Cleaning Vehicles/Parts/Buildings  
FS 016 Loading Overburden  
FS 017 Unloading Overburden  
FS 018 Wind Erosion Overburden  
FS 019 Drilling Rock  
FS 020 Loading Rock  
FS 021 Unloading Rock  
FS 022 Wind Erosion Rock  
FS 023 Drilling Taconite Ore  
FS 024 Loading Taconite Ore  
FS 025 Hauling on Unpaved Haul Road, Overburden, Rock, Taconite, Misc.  
FS 026 Non-Productive Material Transfers - Tailing, Rock, Crude Ore Emergency, Filter Cake, Pellets  
FS 027 Blasting - Rock & Taconite  
FS 028 Small Fleet Vehicle Travel on Unpaved Road  
FS 029 Tailing Basin Wind Erosion - Dry  
FS 030 Tailing Basin Wind Erosion - Damp  
FS 075 Material Handling: Loader A into Jaw Crusher A  
FS 076 Jaw Crusher A  
FS 077 Material Handling: Jaw Crusher A to Conveyor A1  
FS 078 Material Handling: Conveyor A1 to Conveyor A2  
FS 079 Material Handling: Conveyor A2 to Screen A1  
FS 080 Screen A1  
FS 081 Material Handling: Screen A1 to Conveyor AB1  
FS 082 Material Handling: Loader B into Jaw Crusher B  
FS 083 Jaw Crusher B  
FS 084 Material Handling: Jaw Crusher B to Conveyor B1  
FS 085 Material Handling: Conveyor B1 to Conveyor B2  
FS 086 Material Handling: Conveyor B2 to Screen B1  
FS 087 Screen B1  
FS 088 Material Handling: Screen B1 to Conveyor AB1



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

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**Associated Items:**

- FS 089 Material Handling: Conveyor AB1 to Cone Crusher
- FS 090 Cone Crusher
- FS 091 Material Handling: Cone Crusher to Conveyor AB2
- FS 092 Material Handling: Conveyor A3 to Conveyor A4
- FS 093 Cobber A
- FS 094 Material Handling: Conveyor B3 to Conveyor B4
- FS 095 Cobber B
- FS 096 Wind Erosion: Magnetic Stockpile
- FS 097 Wind Erosion: Non-Magnetic Stockpile
- FS 098 Material Handling: Conveyor AB2 to Conveyor AB3
- FS 099 Material Handling: Conveyor AB2 to Conveyor AB4
- FS 100 Material Handling: Conveyor AB3 to Conveyor A4
- FS 101 Material Handling: Conveyor AB4 to Conveyor B4
- FS 102 Material Handling: Conveyor A4 to Cobber A
- FS 103 Material Handling: Conveyor B4 to Cobber B
- FS 104 Material Handling: Cobber B to Conveyor A5
- FS 105 Material Handling: Conveyor A5 to Conveyor A6
- FS 106 Material Handling: Cobber A to Conveyor A6
- FS 107 Material Handling: Conveyor A6 to Conveyor A7
- FS 108 Material Handling: Conveyor A7 to Conveyor A8
- FS 109 Material Handling: Conveyor A8 to Conveyor A9
- FS 110 Material Handling: Conveyor A9 to Conveyor A10
- FS 111 Material Handling: Conveyor A10 to Conveyor A11
- FS 112 Material Handling: Conveyor A11 to Magnetic Stockpile
- FS 113 Material Handling: Cobber A to Conveyor B5
- FS 114 Material Handling: Conveyor B5 to Conveyor B6
- FS 115 Material Handling: Cobber B to Conveyor B6
- FS 116 Material Handling: Conveyor B6 to Conveyor B7
- FS 117 Material Handling: Conveyor B7 to Conveyor B8
- FS 118 Material Handling: Conveyor B8 to Conveyor B9
- FS 119 Material Handling: Conveyor B9 to Conveyor B10
- FS 120 Material Handling: Conveyor B10 to Conveyor B11
- FS 121 Material Handling: Conveyor B11 to Conveyor B12
- FS 122 Material Handling: Conveyor B12 to Non-Magnetic Stockpile

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	FUGITIVE EMISSION CONTROL PLAN



## COMPLIANCE PLAN **CD-01**

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2.0		CD	40 CFR Section 63.9591(a); 40 CFR Section 63.9591(d); 40 CFR Section 63.9635; Minn. R. 7011.0830	<p>The Permittee shall prepare and at all times operate according to, a fugitive emission control plan that describes in detail the measures that will be put in place to control fugitive dust emissions from:</p> <ol style="list-style-type: none"><li>1) Stockpiles (includes, but is not limited to, stockpiles of uncrushed ore, crushed ore, or finished pellets);</li><li>2) Material transfer points;</li><li>3) Plant roadways;</li><li>4) Tailings basin;</li><li>5) Pellet loading areas; and</li><li>6) Yard areas.</li></ol> <p>The Permittee shall maintain a current copy of the fugitive dust emissions control plan onsite, and it must be available for inspection upon request. The plan must be kept for the life of the affected source or until the affected source is no longer subject to the requirements of 40 CFR Part 63, subp RRRRR.</p>
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## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** GP 014 Wet Scrubbers Subject to Taconite MACT

**Associated Items:**

- CE 001 Venturi Scrubber
- CE 002 Venturi Scrubber
- CE 003 Venturi Scrubber
- CE 004 Venturi Scrubber
- CE 005 Wet Scrubber-High Efficiency
- CE 006 Wet Scrubber-High Efficiency
- CE 007 Wet Scrubber-High Efficiency
- CE 008 Wet Scrubber-High Efficiency
- CE 009 Wet Scrubber-High Efficiency
- CE 010 Wet Scrubber-High Efficiency
- CE 011 Wet Scrubber-High Efficiency
- CE 012 Wet Scrubber-High Efficiency
- CE 013 Wet Scrubber-High Efficiency
- CE 018 Wet Scrubber-High Efficiency
- CE 019 Wet Scrubber-High Efficiency
- CE 020 Wet Scrubber-High Efficiency
- CE 021 Wet Scrubber-High Efficiency
- CE 022 Venturi Scrubber
- CE 023 Venturi Scrubber
- CE 024 Venturi Scrubber
- CE 025 Venturi Scrubber
- CE 027 Venturi Scrubber
- CE 028 Venturi Scrubber
- CE 029 Venturi Scrubber
- CE 030 Venturi Scrubber
- CE 032 Venturi Scrubber
- CE 033 Venturi Scrubber
- CE 034 Venturi Scrubber
- CE 035 Venturi Scrubber
- CE 037 Wet Scrubber-High Efficiency
- CE 038 Wet Scrubber-High Efficiency
- CE 039 Wet Scrubber-High Efficiency
- CE 040 Wet Scrubber-High Efficiency
- CE 041 Wet Scrubber-High Efficiency
- EU 001 Phase I Apron Feeder
- EU 002 Phase II Apron Feeder
- EU 003 Phase I Primary Ore Conveyor - Tail
- EU 004 Phase II Primary Ore Conveyor - Tail
- EU 005 Line No 1 Mill Feed Conveyor
- EU 006 Line No 2 Mill Feed Conveyor
- EU 007 Line No 3 Mill Feed Conveyor
- EU 008 Line No 4 Mill Feed Conveyor
- EU 009 Line No 5 Mill Feed Conveyor



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

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**Associated Items:**

- EU 010 Line No 6 Mill Feed Conveyor
- EU 011 Line No 7 Mill Feed Conveyor
- EU 012 Line No 8 Mill Feed Conveyor
- EU 013 Line No 9 Mill Feed Conveyor
- EU 018 Phase I Hearth Layer Bin/Layer Feed
- EU 019 Phase II Hearth Layer Bin/Layer Feed
- EU 020 Pellet Indurating Furnace Line No 1
- EU 021 Pellet Indurating Furnace Line No 2
- EU 022 Pellet Indurating Furnace Line No 3
- EU 023 Pellet Machine Discharge Line No 1
- EU 024 Pellet Machine Discharge Line No 2
- EU 025 Pellet Machine Discharge Line No 3
- EU 026 Pellet Hearth Layer Screening
- EU 027 Pellet Transfer House

	NC/ CA	Type	Citation	Requirement
1.0		CD	40 CFR Section 63, subp. RRRRR; Minn. R. 7011.8030	Each individual emission unit and piece of control equipment listed under the Associated Items is subject to the requirements of this group (GP014). Members of GP014 are also subject to the provisions of GP004, GP008 and GP009. Individual emission units may be members of GP001, GP002, GP003, GP010, GP011, or GP012. Individual scrubbers may be subject to requirements at the CE level.
2.0		CD	hdr	OPERATION AND MAINTENANCE PLAN
3.0		CD	40 CFR Section 63.9600(b); Minn. R. 7011.8030; 40 CFR Section 64.7(b):CAM and Minn. R. 7017.0200	<p>Operation and Maintenance Plan:</p> <p>The Permittee shall prepare, and at all times operate according to a written O &amp; M plan. The Permittee shall maintain a current copy of the O &amp; M plan onsite, and it must be available for inspection upon request. The plan must be kept for the life of the affected source or until the affected source is no longer subject to 40 CFR part 63, subpart RRRRR.</p> <p>The plan shall address preventative maintenance for each control device, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.</p>
4.0		CD	40 CFR Section 63.9600(b); Minn. R. 7011.8030 (continued)	<p>Operation and Maintenance Plan (continued):</p> <p>In the event that an exceedance of an established operating limit for an air pollution control device occurs, the Permittee shall initiate corrective action to determine the cause of the operating limit exceedance and complete the corrective action within 10 calendar days. The corrective action procedures taken must be consistent with the installation, operation, and maintenance procedures listed in the site-specific CPMS monitoring plan in accordance with 40 CFR Section 63.9632(b).</p>
5.0		CD	hdr	CORRECTIVE ACTIONS
6.0		CD	40 CFR 63.9634(j); Minn. R. 7011.8030	If the daily average operating parameter value for an emission unit or group of similar emission units does not meet the corresponding established operating limit, you must then follow the procedures in paragraphs (1) through (4), below.
7.0		CD	40 CFR 63.9634(j); Minn. R. 7011.8030 (continued)	<p>(continued)</p> <p>(1) You must initiate and complete initial corrective action within 10 calendar days and demonstrate that the initial corrective action was successful. During any period of corrective action, you must continue to monitor and record all required operating parameters for equipment that remains in operation. After 10 calendar days, measure and record the daily average operating parameter value for the emission unit or group of similar emission units on which corrective action was taken. After the initial corrective action, if the daily average operating parameter value for the emission unit or group of similar emission units meets the operating limit established for the corresponding unit or group, then the corrective action was successful and the emission unit or group of similar emission units is in compliance with the established operating limits.</p>





## COMPLIANCE PLAN **CD-01**

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8.0		CD	40 CFR 63.9634(j); Minn. R. 7011.8030 (continued)	(continued) (2) If the initial corrective action required in paragraph (1) was not successful, then you must complete additional corrective action within 10 calendar days and demonstrate that the subsequent corrective action was successful. During any period of corrective action, you must continue to monitor and record all required operating parameters for equipment that remains in operation. After the second set of 10 calendar days allowed to implement corrective action, you must again measure and record the daily average operating parameter value for the emission unit or group of similar emission units. If the daily average operating parameter value for the emission unit or group of similar emission units meets the operating limit established for the corresponding unit or group, then the corrective action was successful and the emission unit or group of similar emission units is in compliance with the established operating limits.
9.0		CD	40 CFR 63.9634(j); Minn. R. 7011.8030 (continued)	(continued) (3) If the second attempt at corrective action required in paragraph (2) was not successful, then you must repeat the procedures of paragraph (2) until the corrective action is successful. If the third attempt at corrective action is unsuccessful, you must conduct another performance test in accordance with the procedures in 40 CFR 63.9622(f) and report to the Administrator as a deviation the third unsuccessful attempt at corrective action. (4) After the third unsuccessful attempt at corrective action, you must submit to the Administrator the written report required in paragraph (3) within 5 calendar days after the third unsuccessful attempt at corrective action. This report must notify the Administrator that a deviation has occurred and document the types of corrective measures taken to address the problem that resulted in the deviation of established operating parameters and the resulting operating limits.
10.0		CD	hdr	PARAMETRIC LIMITS
11.0		CD	40 CFR Section 63.9622(a); Minn. R. 7011.8030; 40 CFR Section 64.9(b) and Minn. R. 7017.0200	The Permittee shall establish site-specific operating limits. The Permittee shall: 1) measure and record the pressure drop and scrubber water flow rate every 15 minutes during each run of the particulate matter performance test. 2) Calculate and record the average pressure drop and scrubber water flow rate for each individual test run.
12.0		CD	40 CFR Section 63.9590(b)(1); 40 CFR Section 63.9622(f); Minn. R. 7011.8030; 40 CFR Sections 64.7(e) and 64.9(a); CAM and Minn. R. 7017.0200	The Permittee shall maintain the daily average pressure drop and daily average scrubber water flow rate at or above the minimum levels established during the initial performance test.  The Permittee may change the daily average pressure drop and daily average scrubber water flow rate if the permittee: 1) submits a written notification to the Commissioner requesting to conduct a new performance test to revise the operating limit. 2) conduct a performance test to demonstrate compliance with the applicable emission limitation. 3) establishes revised operating limits according to the applicable procedures in 40 CFR Section 63.9622(a).
13.0		CD	40 CFR Section 63.9631(b); Minn. R. 7011.8030; 40 CFR Section 64.7(b); CAM and Minn. R. 7017.0200	The Permittee shall install, operate, and maintain a CPMS according to the requirements in 40 CFR 63.9632(b) through (e) and monitor the daily average pressure drop and daily average scrubber water flow rate according to the requirements in 40 CFR 63.9633.
14.0		CD	40 CFR Section 63.9623(b); Minn. R. 7011.8030; 40 CFR 64.9(b); CAM and Minn. R. 7017.0200	The Permittee shall maintain a record of the pressure drop and scrubber water flow rate measured during the performance test in accordance with 40 CFR section 63.9622(a).



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

15.0		CD	40 CFR Section 63.9632(b); Minn. R. 7011.8030; 40 CFR Section 64.6: CAM and Minn. R. 7017.0200	<p>The Permittee shall develop and make available for inspection, a site-specific monitoring plan that addresses the following:</p> <ol style="list-style-type: none"><li>1) Installation of the CPMS sampling probe or other interface at a measurement location relative to each affected emission unit such that the measurement is representative of control of the exhaust emissions.</li><li>2) Performance and equipment specifications for the sample interface, the parametric signal analyzer, and the data collection and reduction system.</li><li>3) Performance evaluation procedures and acceptance criteria.</li><li>4) Ongoing operation and maintenance procedures in accordance with 40 CFR section 63.8(c)(1), (3), (4)(ii), (7), and (8).</li><li>5) Ongoing data quality assurance procedures in accordance with 40 CFR section 63.8(d).</li><li>6) Ongoing recordkeeping and reporting procedures in accordance with 40 CFR section 63.10(c), (e)(1), and (e)(2)(i).</li><li>7) Corrective action procedures to be followed in the event an air pollution control device exceeds an operating limit.</li></ol>
16.0		CD	40 CFR Section 63.9632(c), (d) and (e); Minn. R. 7011.8030; 40 CFR 64.6: CAM and Minn. R. 7017.0200	<p>The Permittee shall install and operate each CPMS such that the CPMS completes a minimum of one cycle of operation for each successive 15-minute period and determines and records valid data for at least 95 percent of every daily averaging period. Each CPMS must also determine and record the daily average of all recorded readings.</p> <p>The Permittee shall operate and maintain each CPMS and conduct a performance evaluation of each CPMS in accordance with the site-specific monitoring plan.</p>
17.0		CD	40 CFR Section 63.9634(e); Minn. R. 7011.8030; 40 CFR Section 64.7(c): CAM and Minn. R. 7017.0200	<p>The Permittee shall maintain the daily average pressure drop and daily average scrubber water flow rate at or above the minimum levels established during the initial or subsequent performance test.</p> <p>The Permittee shall operate and maintain each wet scrubber CPMS according to 40 CFR section 63.9632(b) and record all the information needed to document conformance with these requirements.</p> <p>The Permittee shall collect and reduce monitoring data for pressure drop and scrubber water flow rate according to 40 CFR section 63.9632(c) and record all the information needed to document conformance with these requirements.</p> <p>If the daily average pressure drop or daily average scrubber water flow rate is below the operating limits established for a corresponding emission unit or group of similar emission units, the Permittee shall then follow the corrective action procedures in 40 CFR section 63.9634(j) of this section.</p>
18.0		CD	40 CFR Section 63.9636(a)(1) and (3); Minn. R. 7011.8030; 40 CFR Section 64.7(b) and (d): CAM and Minn. R. 7017.0200	<p>The Permittee shall perform preventative maintenance for each control device in accordance with 40 CFR section 63.9600(b)(1) and recording all information needed to document conformance with these requirements.</p> <p>The Permittee shall also initiate and complete corrective action (in accordance with 40 CFR section 63.9600(b)(3)) for a CPMS when an established operating limit for an air pollution control device is exceeded and record all the information needed to document conformance with these requirements.</p>



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** GP 018 Multiclones Subject to Taconite MACT

**Associated Items:** CE 026 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones

CE 031 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones

CE 036 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	OPERATION AND MAINTENANCE PLAN
2.0		CD	40 CFR Section 63.9600(b); Minn. R. 7011.8030; 40 CFR Section 64.7(b); CAM and Minn. R. 7017.0200	<p>Operation and Maintenance Plan:</p> <p>The Permittee shall prepare, and at all times operate according to a written O &amp; M plan. The Permittee shall maintain a current copy of the O &amp; M plan onsite, and it must be available for inspection upon request. The plan must be kept for the life of the affected source or until the affected source is no longer subject to 40 CFR part 63, subpart RRRRR.</p> <p>The plan shall address preventative maintenance for each control device, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.</p>
3.0		CD	40 CFR Section 63.9600(b); Minn. R. 7011.8030 (continued)	<p>Operation and Maintenance Plan (continued):</p> <p>In the event that an exceedance of an established operating limit for an air pollution control device occurs, the Permittee shall initiate corrective action to determine the cause of the operating limit exceedance and complete the corrective action within 10 calendar days. The corrective action procedures taken must be consistent with the installation, operation, and maintenance procedures listed in the site-specific CPMS monitoring plan in accordance with 40 CFR Section 63.9632(b).</p>
4.0		CD	hdr	SITE-SPECIFIC MONITORING PLAN
5.0		S/A	40 CFR 63.9631(f); 40 CFR 63.9590(b)(5); Minn. R. 7011.8030	<p>Monitoring Plan: due 180 days after Resuming Operation. The Permittee shall develop and submit to the Commissioner for approval a site-specific monitoring plan for each multiclone that addresses the following:</p> <p>(1) A description of the device.</p> <p>(2) Test results collected in accordance with 40 CFR section 63.9621 verifying the performance of the device for reducing emissions of particulate matter to the atmosphere to the levels required by 40 CFR pt. 63, subp. RRRRR.</p> <p>(3) A copy of the operation and maintenance plan required in 40 CFR section 63.9600(b).</p> <p>(4) Appropriate operating parameters that will be monitored to maintain continuous compliance with the applicable emission limitation(s).</p> <p>The Permittee shall maintain a current copy of the monitoring plan onsite, and it must be available for inspection upon request. The plan must be kept for the life of the affected source or until the affected source is no longer subject to the requirements of 40 CFR pt.63, subp. RRRRR.</p>
6.0		CD	40 CFR 63.9622(e); 40 CFR 63.9634(i); Minn. R. 7011.8030	The site-specific monitoring plan must include the site-specific procedures for demonstrating initial and continuous compliance with the corresponding operating limit.
7.0		CD	hdr	CORRECTIVE ACTIONS
8.0		CD	40 CFR 63.9634(j); Minn. R. 7011.8030	If the daily average operating parameter value for an emission unit or group of similar emission units does not meet the corresponding established operating limit, you must then follow the procedures in paragraphs (1) through (4), below.
9.0		CD	40 CFR 63.9634(j); Minn. R. 7011.8030 (continued)	<p>(continued)</p> <p>(1) You must initiate and complete initial corrective action within 10 calendar days and demonstrate that the initial corrective action was successful. During any period of corrective action, you must continue to monitor and record all required operating parameters for equipment that remains in operation. After 10 calendar days, measure and record the daily average operating parameter value for the emission unit or group of similar emission units on which corrective action was taken. After the initial corrective action, if the daily average operating parameter value for the emission unit or group of similar emission units meets the operating limit established for the corresponding unit or group, then the corrective action was successful and the emission unit or group of similar emission units is in compliance with the established operating limits.</p>



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10.0		CD	40 CFR 63.9634(j); Minn. R. 7011.8030 (continued)	<p>(continued)</p> <p>(2) If the initial corrective action required in paragraph (1) was not successful, then you must complete additional corrective action within 10 calendar days and demonstrate that the subsequent corrective action was successful. During any period of corrective action, you must continue to monitor and record all required operating parameters for equipment that remains in operation. After the second set of 10 calendar days allowed to implement corrective action, you must again measure and record the daily average operating parameter value for the emission unit or group of similar emission units. If the daily average operating parameter value for the emission unit or group of similar emission units meets the operating limit established for the corresponding unit or group, then the corrective action was successful and the emission unit or group of similar emission units is in compliance with the established operating limits.</p>
11.0		CD	40 CFR 63.9634(j); Minn. R. 7011.8030 (continued)	<p>(continued)</p> <p>(3) If the second attempt at corrective action required in paragraph (2) was not successful, then you must repeat the procedures of paragraph (2) until the corrective action is successful. If the third attempt at corrective action is unsuccessful, you must conduct another performance test in accordance with the procedures in 40 CFR 63.9622(f) and report to the Administrator as a deviation the third unsuccessful attempt at corrective action.</p> <p>(4) After the third unsuccessful attempt at corrective action, you must submit to the Administrator the written report required in paragraph (3) within 5 calendar days after the third unsuccessful attempt at corrective action. This report must notify the Administrator that a deviation has occurred and document the types of corrective measures taken to address the problem that resulted in the deviation of established operating parameters and the resulting operating limits.</p>
12.0		CD	hdr	PARAMETRIC LIMITS
13.0		CD	40 CFR 63.9590(b)(5); 40 CFR 63.9622(f); Minn. R. 7011.8030	<p>The Permittee shall maintain the daily average operating parameter specified in the site-specific monitoring plan in accordance with 63.9631(f) at or above the minimum levels established during the initial performance test.</p> <p>The Permittee may change the daily average operating parameter value if the permittee:</p> <ol style="list-style-type: none"> <li>1) submits a written notification to the Commissioner requesting to conduct a new performance test to revise the operating limit.</li> <li>2) conduct a performance test to demonstrate compliance with the applicable emission limitation.</li> <li>3) establishes revised operating limits according to the procedures in the site-specific monitoring plan in accordance with 40 CFR Section 63.9622(e).</li> </ol>
14.0		CD	40 CFR 63.9623(b)(5); Minn. R. 7011.8030	The Permittee shall maintain a record of the site-specific operating limits as measured during the performance test in accordance with 40 CFR 63.9622(e)
15.0		CD	40 CFR Section 63.9632(c), (d) and (e); Minn. R. 7011.8030	<p>The Permittee shall install and operate each CPMS such that the CPMS completes a minimum of one cycle of operation for each successive 15-minute period and determines and records valid data for at least 95 percent of every daily averaging period. Each CPMS must also determine and record the daily average of all recorded readings.</p> <p>The Permittee shall operate and maintain each CPMS and conduct a performance evaluation of each CPMS in accordance with the site-specific monitoring plan.</p>
16.0		CD	40 CFR Section 63.9636(a)(1) and (3); Minn. R. 7011.8030	<p>The Permittee shall perform preventative maintenance for each control device in accordance with 40 CFR section 63.9600(b)(1) and recording all information needed to document conformance with these requirements.</p> <p>The Permittee shall also initiate and complete corrective action (in accordance with 40 CFR section 63.9600(b)(3)) for a CPMS when an established operating limit for an air pollution control device is exceeded and record all the information needed to document conformance with these requirements.</p>



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** GP 019 Sources Subject to NSPS Subpart LL, Standards of Performance for Metallic Mineral Processing

**Associated Items:**

- CE 047 Manually Operated Water Spray
- CE 050 Manually Operated Water Spray
- FS 076 Jaw Crusher A
- FS 078 Material Handling: Conveyor A1 to Conveyor A2
- FS 079 Material Handling: Conveyor A2 to Screen A1
- FS 080 Screen A1
- FS 081 Material Handling: Screen A1 to Conveyor AB1
- FS 083 Jaw Crusher B
- FS 084 Material Handling: Jaw Crusher B to Conveyor B1
- FS 085 Material Handling: Conveyor B1 to Conveyor B2
- FS 086 Material Handling: Conveyor B2 to Screen B1
- FS 087 Screen B1
- FS 088 Material Handling: Screen B1 to Conveyor AB1
- FS 089 Material Handling: Conveyor AB1 to Cone Crusher
- FS 090 Cone Crusher
- FS 091 Material Handling: Cone Crusher to Conveyor AB2
- FS 092 Material Handling: Conveyor A3 to Conveyor A4
- FS 094 Material Handling: Conveyor B3 to Conveyor B4
- FS 098 Material Handling: Conveyor AB2 to Conveyor AB3
- FS 099 Material Handling: Conveyor AB2 to Conveyor AB4
- FS 100 Material Handling: Conveyor AB3 to Conveyor A4
- FS 101 Material Handling: Conveyor AB4 to Conveyor B4
- FS 102 Material Handling: Conveyor A4 to Cobber A
- FS 103 Material Handling: Conveyor B4 to Cobber B
- FS 104 Material Handling: Cobber B to Conveyor A5
- FS 105 Material Handling: Conveyor A5 to Conveyor A6
- FS 106 Material Handling: Cobber A to Conveyor A6
- FS 107 Material Handling: Conveyor A6 to Conveyor A7
- FS 108 Material Handling: Conveyor A7 to Conveyor A8
- FS 109 Material Handling: Conveyor A8 to Conveyor A9
- FS 110 Material Handling: Conveyor A9 to Conveyor A10
- FS 111 Material Handling: Conveyor A10 to Conveyor A11
- FS 112 Material Handling: Conveyor A11 to Magnetic Stockpile
- FS 113 Material Handling: Cobber A to Conveyor B5
- FS 114 Material Handling: Conveyor B5 to Conveyor B6
- FS 115 Material Handling: Cobber B to Conveyor B6
- FS 116 Material Handling: Conveyor B6 to Conveyor B7
- FS 117 Material Handling: Conveyor B7 to Conveyor B8
- FS 118 Material Handling: Conveyor B8 to Conveyor B9
- FS 119 Material Handling: Conveyor B9 to Conveyor B10
- FS 120 Material Handling: Conveyor B10 to Conveyor B11
- FS 121 Material Handling: Conveyor B11 to Conveyor B12
- FS 122 Material Handling: Conveyor B12 to Non-Magnetic Stockpile



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co  
Permit Number: 13700061 - 006

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	In GP 019, FS 076, 078-081, 083-092, 094, 098-122 are affected units under 40 CFR part 60 subpart LL
2.0		CD	hdr	CONTROL EQUIPMENT
3.0		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.
4.0		CD	hdr	NSPS GENERAL PROVISIONS 40 CFR pt. 60, subp. A
5.0		S/A	40 CFR Section 60.7(a)(4); Minn. R. 7019.0100, subp. 1	Notification: due 60 days before Start Of Construction (or as soon as practical) of any physical or operational change which increases emission rate.
6.0		CD	40 CFR Section 60.12; Minn. R. 7011.0050	No owner or operator shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard.
7.0		CD	hdr	LIMITS
8.0		LIMIT	Title I Condition: To avoid classification as a major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000	Material Usage: less than or equal to 4032000 tons/year using 12-month Rolling Average of combined material throughput through FS 076 and FS 083.
9.0		LIMIT	Title I Condition: To avoid classification as major modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; Minn. R. 7017.2025	Water flow rate: greater than or equal to 15 gallons/minute using 4-hour Block Average unless a new minimum is set pursuant to Minn. R. 7017.2025, subp. 3, based on the average water flow rate recorded during the most recent MPCA approved performance test where compliance was demonstrated when FS075-FS122 are in operation.  Divide total volume by total operating time in each four-hour block. Downtime of 15 or more minutes is not to be included as operating time.
10.0		LIMIT	40 CFR Section 60.382(b); Minn. R. 7011.2700	Opacity: less than or equal to 10 percent using 6-minute Average on or after the 60th day after achieving the maximum production rate, but not later than 180 operating days after initial startup.
11.0		CD	Minn. R. 7007.0800, subps 2 & 14	The Permittee shall operate and maintain the water spraying system (CE 047 and CE 050) at all times that FS 076 and/or FS 083 is in operation. The Permittee shall document periods of non-operation of the control equipment.
12.0		CD	40 CFR Section 60.11; Minn. R. 7017.2015	Opacity Compliance: Demonstrate compliance with opacity standards using Reference Method 9.  This limit applies only to the NSPS subp LL affected facilities located in GP 019.
13.0		CD	40 CFR Section 60.11(c)	The opacity standards apply at all times except during periods of startup, shutdown, malfunction.
14.0		CD	hdr	PERFORMANCE TESTING
15.0		S/A	40 CFR Section 60.8; Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each calendar 60 months starting 05/08/2012 to measure opacity when all affected units in the In-Pit Crushing and Cobbing Operation are operating (FS075 - FS122) at maximum capacity.
16.0		CD	Minn. R. 7017.2030, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test.
17.0		CD	40 CFR Section 60.11(e)(1); 40 CFR Section 60.11(e)(2); 40 CFR Section 60.11(e)(3)	For the purpose of demonstrating initial compliance, conduct opacity observations concurrently with the initial performance test required in 40 CFR 60.8 and include the results in the test report, pursuant to the conditions described in 40 CFR 60.11(e)(1)-(3).
18.0		CD	hdr	RECORDKEEPING
19.0		CD	Minn. R. 7997.0800, subp. 5(C); meets requirements of 40 CFR Section 60.7(f); Minn. R. 7019.0100, subp. 1	Recordkeeping: Maintain a file of all measurements, maintenance, reports and records for at least five years. This meets the requirements of 40 CFR Section 60.7(f).
20.0		CD	Title I Condition: Recordkeeping associated with a limit taken to avoid classification as a major modification under 40 CFR Section 52.21; Minn. R. 7007.3000	Recordkeeping: The Permittee shall retain records on site to document the combined throughput of FS076 and FS083. These records shall be updated the 30th day of each month of operation of FS076 and FS083.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

21.0		CD	Title I Condition: Recordkeeping associated with a limit taken to avoid classification as a major modification under 40 CFR Section 52.21, Minn. R. 7007.3000	Recordkeeping: The Permittee shall retain records on site to document water flow rates of CE 047 and CE 050 using a 4-hour block averaging time.
22.0		CD	40 CFR Section 60.7(b), Minn. R. 7019.0100, subp. 1	Recordkeeping: Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the facility including; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
23.0		CD	Minn. R. 7007.0800, subps. 4(D), 14, and 16(J)	Fugitive Dust Observations: The Permittee shall observe the fugitive dust sources identified in the Fugitive Control Plan once daily during daylight hours. The Permittee shall use the fugitive sources visible emissions checklist(s) in the Appendix B as a means to indicate when appropriate corrective actions in the Fugitive Control Plan are taken.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** EU 036 Paint Booth

**Associated Items:** SV 045

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	POLLUTANT LIMITS
2.0		LIMIT	Minn. R. 7011.0715, subp. 1(A)	Total Particulate Matter: less than or equal to 0.3 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.
3.0		LIMIT	Minn. R. 7011.0715, subp. 3	Total Particulate Matter: greater than or equal to 85 percent control efficiency for equipment which is located not less than one-fourth mile from any residence or public roadway, and the operation of the entire emission facility does not cause a violation of the ambient air quality standards, shall be considered in compliance with the requirements of Minn. R. 7011.0715, subp. 1(A). This is an alternative demonstration of compliance to the Total Particulate Limit above.
4.0		LIMIT	Minn. R. 7011.0715, subp. 1(B)	Opacity: less than or equal to 20 percent opacity
5.0		CD	hdr	POLLUTION CONTROL EQUIPMENT LIMITS
6.0		LIMIT	Minn. R. 7007.0800, subp. 4(D); 14; 16(J)	Pressure Drop: less than or equal to 0.5 inches of water column across the mat or panel filter for CE 046, per operation parameters submitted on 12/21/2005 via e-mail.
7.0		CD	hdr	MONITORING, TESTING AND REPORTING
8.0		CD	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; and Minn. R. 7007.0800, subp. 16(J)	Gas Stream Pressure Drop: Monitor and record the gas stream pressure drop at least once each operating day. Once the the pressure drop range has been established it becomes an enforceable part of this permit. A deviation from this range shall trigger a corrective action as detailed in the O&M plan.
9.0		CD	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; and Minn. R. 7007.0800, subp. 16(J)	Inspect monthly, or as required by the O&M plan and manufacturer specifications, the capture/containment and panel filter control system. Maintain a written record of each inspection and any action resulting from the inspection.





## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 001 Venturi Scrubber

**Associated Items:** EU 001 Phase I Apron Feeder

GP 001 Crushing

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 010 Ore Crushing and Handling Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 001 Phase I Apron Feeder: Venturi Scrubber

MR 002 Phase I Apron Feeder: Venturi Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 7.1 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 32 gallons/minute using 24-hour Block Average
4.0		CD	hdr	IPER PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 1.9 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 23 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Part 63.9630(a); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before 60 months starting 06/25/2010 to measure front-catch particulate matter to demonstrate compliance with Taconite NESHAP ore crushing limitations. The limit is found in GP001.
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 002 Venturi Scrubber

**Associated Items:** EU 002 Phase II Apron Feeder

GP 001 Crushing

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 010 Ore Crushing and Handling Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 003 Phase II Apron Feeder: Venturi Scrubber

MR 004 Phase II Apron Feeder: Venturi Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 9.6 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 32 gallons/minute using 24-hour Block Average
4.0		CD	hdr	IPER PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 1.9 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 23 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Part 63.9630(a); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before 36 months following permit issuance to measure front-catch particulate matter for compliance with Taconite NESHAP ore crushing limitations. The limit is found in GP001.
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 003 Venturi Scrubber

**Associated Items:** EU 003 Phase I Primary Ore Conveyor - Tail

GP 001 Crushing

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 010 Ore Crushing and Handling Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 005 Phase I POC: Venturi Scrubber

MR 006 Phase I POC: Venturi Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 6.3 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 36 gallons/minute using 24-hour Block Average
4.0		CD	hdr	IPER PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 1.9 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 23 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Part 63.9630(a); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before 60 months following permit issuance to measure front-catch particulate matter to demonstrate compliance with Taconite NESHAP ore crushing limitations. The limit is found in GP001.
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 004 Venturi Scrubber

**Associated Items:** EU 004 Phase II Primary Ore Conveyor - Tail

GP 001 Crushing

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 010 Ore Crushing and Handling Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 007 Phase II POC: Venturi Scrubber

MR 008 Phase II POC: Venturi Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 3.5 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 23 gallons/minute using 24-hour Block Average
4.0		CD	hdr	IPER PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 1.9 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 23 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Part 63.9630(a); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before 60 months starting 06/25/2010 to measure front-catch particulate matter to demonstrate compliance with Taconite NESHAP ore crushing limitations. The limit is found in GP001.
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



# COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 005 Wet Scrubber-High Efficiency

**Associated Items:** EU 005 Line No 1 Mill Feed Conveyor

GP 002 Concentrating

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 010 Ore Crushing and Handling Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 009 Mill Line 1: HE Wet Scrubber

MR 010 Mill Line 1: HE Wet Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 10 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 30 gallons/minute using 24-hour Block Average
4.0		CD	hdr	IPER PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 8 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 20 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Part 63.9630(a); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before 36 months following permit issuance to measure front-catch particulate matter to demonstrate compliance with Taconite NESHAP ore crushing limitations. The limit is found in GP002.
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 006 Wet Scrubber-High Efficiency

**Associated Items:** EU 006 Line No 2 Mill Feed Conveyor

GP 002 Concentrating

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 010 Ore Crushing and Handling Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 011 Mill Line 2: HE Wet Scrubber

MR 012 Mill Line 2: HE Wet Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 8 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 32 gallons/minute using 24-hour Block Average
4.0		CD	hdr	IPER PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 8 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 20 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Part 63.9630(a); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before 60 months following permit issuance to measure front-catch particulate matter to demonstrate compliance with Taconite NESHAP ore crushing limitations. The limit is found in GP002.
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 007 Wet Scrubber-High Efficiency

**Associated Items:** EU 007 Line No 3 Mill Feed Conveyor

GP 002 Concentrating

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 010 Ore Crushing and Handling Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 013 Mill Line 3: HE Wet Scrubber

MR 014 Mill Line 3: HE Wet Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 9 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 30 gallons/minute using 24-hour Block Average
4.0		CD	hdr	IPER PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 8 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 20 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Part 63.9630(a); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before 60 months following permit issuance to measure front-catch particulate matter to demonstrate compliance with Taconite NESHAP ore crushing limitations. The limit is found in GP002.
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 008 Wet Scrubber-High Efficiency

**Associated Items:** EU 008 Line No 4 Mill Feed Conveyor

GP 002 Concentrating

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 010 Ore Crushing and Handling Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 015 Mill Line 4: HE Wet Scrubber

MR 016 Mill Line 4: HE Wet Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 10 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 28 gallons/minute using 24-hour Block Average
4.0		CD	hdr	IPER PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 8 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 20 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Part 63.9630(a); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before 60 months following permit issuance to measure front-catch particulate matter to demonstrate compliance with Taconite NESHAP ore crushing limitations. The limit is found in GP002.
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.





## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 009 Wet Scrubber-High Efficiency

**Associated Items:** EU 009 Line No 5 Mill Feed Conveyor

GP 002 Concentrating

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 010 Ore Crushing and Handling Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 017 Mill Line 5: HE Wet Scrubber

MR 018 Mill Line 5: HE Wet Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 10 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 30 gallons/minute using 24-hour Block Average
4.0		CD	hdr	IPER PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 8 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 20 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Part 63.9630(a); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before 60 months following permit issuance to measure front-catch particulate matter to demonstrate compliance with Taconite NESHAP ore crushing limitations. The limit is found in GP002.
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 010 Wet Scrubber-High Efficiency

**Associated Items:** EU 010 Line No 6 Mill Feed Conveyor

GP 002 Concentrating

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 010 Ore Crushing and Handling Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 019 Mill Line 6: HE Wet Scrubber

MR 020 Mill Line 6: HE Wet Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 10 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 29 gallons/minute using 24-hour Block Average
4.0		CD	hdr	IPER PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 10 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 19 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Part 63.9630(a); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before 36 months following permit issuance to measure front-catch particulate matter to demonstrate compliance with Taconite NESHAP ore crushing limitations
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 011 Wet Scrubber-High Efficiency

**Associated Items:** EU 011 Line No 7 Mill Feed Conveyor

GP 002 Concentrating

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 010 Ore Crushing and Handling Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 021 Mill Line 7: HE Wet Scrubber

MR 022 Mill Line 7: HE Wet Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 9 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 28 gallons/minute using 24-hour Block Average
4.0		CD	hdr	IPER PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 8 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 20 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Part 63.9630(a); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before 60 months following permit issuance to measure front-catch particulate matter to demonstrate compliance with Taconite NESHAP ore crushing limitations. The limit is found in GP002.
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



# COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 012 Wet Scrubber-High Efficiency

**Associated Items:** EU 012 Line No 8 Mill Feed Conveyor

GP 002 Concentrating

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 010 Ore Crushing and Handling Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 023 Mill Line 8: HE Wet Scrubber

MR 024 Mill Line 8: HE Wet Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 8 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 31 gallons/minute using 24-hour Block Average
4.0		CD	hdr	IPER PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 8 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 20 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Part 63.9630(a); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before 60 months following permit issuance to measure front-catch particulate matter to demonstrate compliance with Taconite NESHAP ore crushing limitations. The limit is found in GP002.
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 013 Wet Scrubber-High Efficiency

**Associated Items:** EU 013 Line No 9 Mill Feed Conveyor

GP 002 Concentrating

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 010 Ore Crushing and Handling Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 025 Mill Line 9: HE Wet Scrubber

MR 026 Mill Line 9: HE Wet Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 7 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 32 gallons/minute using 24-hour Block Average
4.0		CD	hdr	IPER PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 8 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 20 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Part 63.9630(a); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before 60 months following permit issuance to measure front-catch particulate matter to demonstrate compliance with Taconite NESHAP ore crushing limitations. The limit is found in GP002.
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

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

**Associated Items:** EU 016 Phase I Bentonite Day Bins

GP 005 Pelletizing - Baghouses

MR 027 Phase I Bentonite Day Bin: Fabric Filter

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	IPER PARAMETRIC LIMITS
2.0		LIMIT	Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 1.4 inches of water column using 24-hour Block Average measured across the fabric filter. This limit applies during all operating periods.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

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

**Associated Items:** EU 017 Phase II Bentonite Day Bins

GP 005 Pelletizing - Baghouses

MR 028 Phase II Bentonite Day Bin: Fabric Filter

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	IPER PARAMETRIC LIMITS
2.0		LIMIT	Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 1.4 inches of water column using 24-hour Block Average measured across the fabric filter. This limit applies during all operating periods.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 018 Wet Scrubber-High Efficiency

**Associated Items:** EU 018 Phase I Hearth Layer Bin/Layer Feed

GP 004 Pelletizing - Scrubbers

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 011 Finished Pellet Handling Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 029 Phase I Hearth Layer Bin: HE Wet Scrubber

MR 030 Phase I Hearth Layer Bin: HE Wet Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 3.6 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 28 gallons/minute using 24-hour Block Average
4.0		CD	hdr	IPER PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 3.6 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 28 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Part 63.9630(c); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before 60 months following permit issuance to measure front-catch particulate matter to demonstrate compliance with Taconite NESHAP finished pellet handling limitations. The limit is found in GP004.
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.





## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 019 Wet Scrubber-High Efficiency

**Associated Items:** EU 019 Phase II Hearth Layer Bin/Layer Feed

GP 004 Pelletizing - Scrubbers

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 011 Finished Pellet Handling Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 031 Phase II Hearth Layer Bin: HE Wet Scrubber

MR 032 Phase II Hearth Layer Bin: HE Wet Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 4.0 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 19 gallons/minute using 24-hour Block Average
4.0		CD	hdr	IPER PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 3.6 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 28 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Part 63.9630(c); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before 60 months following permit issuance to measure front-catch particulate matter to demonstrate compliance with Taconite NESHAP finished pellet handling limitations. The limit is found in GP004.
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



# COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 020 Wet Scrubber-High Efficiency

**Associated Items:** EU 018 Phase I Hearth Layer Bin/Layer Feed

GP 004 Pelletizing - Scrubbers

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 011 Finished Pellet Handling Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 033 Phase I Hearth Layer Feed: HE Wet Scrubber

MR 034 Phase I Hearth Layer Feed: HE Wet Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 5.7 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 30 gallons/minute using 24-hour Block Average
4.0		CD	hdr	IPER PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 4.4 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 36 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Part 63.9630(c); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before 60 months following permit issuance to measure front-catch particulate matter to demonstrate compliance with Taconite NESHAP finished pellet handling limitations. The limit is found in GP004.
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 021 Wet Scrubber-High Efficiency

**Associated Items:** EU 019 Phase II Hearth Layer Bin/Layer Feed

GP 004 Pelletizing - Scrubbers

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 011 Finished Pellet Handling Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 035 Phase II Hearth Layer Feed: HE Wet Scrubber

MR 036 Phase II Hearth Layer Feed: HE Wet Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 4.4 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 30 gallons/minute using 24-hour Block Average
4.0		CD	hdr	IPER PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 4.4 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 36 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Part 63.9630(c); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before 60 months following permit issuance to measure front-catch particulate matter to demonstrate compliance with Taconite NESHAP finished pellet handling limitations. The limit is found in GP004.
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 022 Venturi Scrubber

**Associated Items:** EU 020 Pellet Indurating Furnace Line No 1

GP 003 Furnaces Nos. 1-3

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 012 Indurating Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 037 Furnace Line 1 Venturi Scrubber

MR 038 Furnace Line 1 Venturi Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 2.7 inches of water column using 24-hour Block Average measured across the Venturi of the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 270 gallons/minute using 24-hour Block Average .
4.0		CD	hdr	DIRECT HEATING EQUIPMENT PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0610; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 1.65 inches of water column using 24-hour Block Average measured across the Venturi of the Wet Scrubber. Limit established through statistical analysis of historical performance test results. Limit is not re-set by a single performance test. The MPCA may revise the limit at any time at the MPCA's discretion.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0610; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 270 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Section 63.9630(b); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each calendar 30 months starting 06/23/2010 to measure front-catch particulate matter to demonstrate compliance with the Taconite NESHAP indurating furnace limitations.  Performance tests shall be conducted at least two times every 5 calendar years (the test must be conducted at least 1 yr apart but no more than 4 yrs apart to determine particulate matter emissions for compliance with the Taconite MACT Standard)
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



# COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 023 Venturi Scrubber

**Associated Items:** EU 020 Pellet Indurating Furnace Line No 1

GP 003 Furnaces Nos. 1-3

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 012 Indurating Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 039 Furnace Line 1 Venturi Scrubber

MR 040 Furnace Line 1 Venturi Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 2.6 inches of water column using 24-hour Block Average measured across the Venturi of the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 629 gallons/minute using 24-hour Block Average .
4.0		CD	hdr	DIRECT HEATING EQUIPMENT PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0610; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 1.65 inches of water column using 24-hour Block Average measured across the Venturi of the Wet Scrubber. Limit established through statistical analysis of historical performance test results. Limit is not re-set by a single performance test. The MPCA may revise the limit at any time at the MPCA's discretion.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0610; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 279 gallons/minute using 24-hour Block Average .
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Section 63.9630(b); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each calendar 30 months starting 06/23/2010 to measure front-catch particulate matter to demonstrate compliance with the Taconite NESHAP indurating furnace limitations.  Performance tests shall be conducted at least two times every 5 calendar years (the test must be conducted at least 1 yr apart but no more than 4 yrs apart to determine particulate matter emissions for compliance with the Taconite MACT Standard)
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



# COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 024 Venturi Scrubber

**Associated Items:** EU 020 Pellet Indurating Furnace Line No 1

GP 003 Furnaces Nos. 1-3

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 012 Indurating Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 041 Furnace Line 1 Venturi Scrubber

MR 042 Furnace Line 1 Venturi Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 3.1 inches of water column using 24-hour Block Average measured across the Venturi of the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 723 gallons/minute using 24-hour Block Average .
4.0		CD	hdr	DIRECT HEATING EQUIPMENT PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0610; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 1.65 inches of water column using 24-hour Block Average measured across the Venturi of the Wet Scrubber. Limit established through statistical analysis of historical performance test results. Limit is not re-set by a single performance test. The MPCA may revise the limit at any time at the MPCA's discretion.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0610; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 246 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Section 63.9630(b); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each calendar 30 months starting 06/23/2010 to measure front-catch particulate matter to demonstrate compliance with the Taconite NESHAP indurating furnace limitations.  Performance tests shall be conducted at least two times every 5 calendar years (the test must be conducted at least 1 yr apart but no more than 4 yrs apart to determine particulate matter emissions for compliance with the Taconite MACT Standard)
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



# COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 025 Venturi Scrubber

**Associated Items:** EU 020 Pellet Indurating Furnace Line No 1

GP 003 Furnaces Nos. 1-3

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 012 Indurating Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 043 Furnace Line 1 Venturi ScrubberFurnace Line 1 Venturi Scrubber

MR 044 Furnace Line 1 Venturi Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 3.4 inches of water column using 24-hour Block Average measured across the Venturi of the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 445 gallons/minute using 24-hour Block Average .
4.0		CD	hdr	DIRECT HEATING EQUIPMENT PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0610; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 1.65 inches of water column using 24-hour Block Average measured across the Venturi of the Wet Scrubber. Limit established through statistical analysis of historical performance test results. Limit is not re-set by a single performance test. The MPCA may revise the limit at any time at the MPCA's discretion.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0610; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 259 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Section 63.9630(b); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each calendar 30 months starting 06/23/2010 to measure front-catch particulate matter to demonstrate compliance with the Taconite NESHAP indurating furnace limitations.  Performance tests shall be conducted at least two times every 5 calendar years (the test much be conducted at least 1 yr apart but no more than 4 yrs apart to determine particulate matter emissions for compliance with the Taconite MACT Standard)
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 026 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones

**Associated Items:** EU 020 Pellet Indurating Furnace Line No 1

GP 003 Furnaces Nos. 1-3

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 012 Indurating Sources Subject to Taconite MACT

GP 018 Multiclones Subject to Taconite MACT

MR 045 Line 1 Multiclone

	NC/ CA	Type	Citation	Requirement
1.0		LIMIT	Minn. R. 7011.0610; 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 using 24-hour Block Average across the Multiclone for, per operation parameters submitted on 12/21/2005 via e-mail.





## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 027 Venturi Scrubber

**Associated Items:** EU 021 Pellet Indurating Furnace Line No 2

GP 003 Furnaces Nos. 1-3

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 012 Indurating Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 046 Furnace Line 2 Venturi Scrubber

MR 047 Furnace Line 2 Venturi Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 3.3 inches of water column using 24-hour Block Average measured across the Venturi of the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 412 gallons/minute using 24-hour Block Average .
4.0		CD	hdr	DIRECT HEATING EQUIPMENT PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0610; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 1.65 inches of water column using 24-hour Block Average measured across the Venturi of the Wet Scrubber. Limit established through statistical analysis of historical performance test results. Limit is not re-set by a single performance test. The MPCA may revise the limit at any time at the MPCA's discretion.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0610; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 259 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Section 63.9630(b); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each calendar 30 months starting 06/23/2010 to measure front-catch particulate matter to demonstrate compliance with the Taconite NESHAP indurating furnace limitations.  Performance tests shall be conducted at least two times every 5 calendar years (the test must be conducted at least 1 yr apart but no more than 4 yrs apart to determine particulate matter emissions for compliance with the Taconite MACT Standard)
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



# COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 028 Venturi Scrubber

**Associated Items:** EU 021 Pellet Indurating Furnace Line No 2

GP 003 Furnaces Nos. 1-3

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 012 Indurating Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 048 Furnace Line 2 Venturi Scrubber

MR 049 Furnace Line 2 Venturi Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 2.9 inches of water column using 24-hour Block Average measured across the Venturi of the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 327 gallons/minute using 24-hour Block Average .
4.0		CD	hdr	DIRECT HEATING EQUIPMENT PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0610; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 1.65 inches of water column using 24-hour Block Average measured across the Venturi of the Wet Scrubber. Limit established through statistical analysis of historical performance test results. Limit is not re-set by a single performance test. The MPCA may revise the limit at any time at the MPCA's discretion.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0610; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 246 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Section 63.9630(b); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each calendar 30 months starting 06/23/2010 to measure front-catch particulate matter to demonstrate compliance with the Taconite NESHAP indurating furnace limitations.  Performance tests shall be conducted at least two times every 5 calendar years (the test must be conducted at least 1 yr apart but no more than 4 yrs apart to determine particulate matter emissions for compliance with the Taconite MACT Standard)
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



# COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 029 Venturi Scrubber

**Associated Items:** EU 021 Pellet Indurating Furnace Line No 2

GP 003 Furnaces Nos. 1-3

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 012 Indurating Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 050 Furnace Line 2 Venturi Scrubber

MR 051 Furnace Line 2 Venturi Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 3.9 inches of water column using 24-hour Block Average measured across the Venturi of the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 305 gallons/minute using 24-hour Block Average .
4.0		CD	hdr	DIRECT HEATING EQUIPMENT PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0610; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 1.65 inches of water column using 24-hour Block Average measured across the Venturi of the Wet Scrubber. Limit established through statistical analysis of historical performance test results. Limit is not re-set by a single performance test. The MPCA may revise the limit at any time at the MPCA's discretion.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0610; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 279 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Section 63.9630(b); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each calendar 30 months starting 06/23/2010 to measure front-catch particulate matter to demonstrate compliance with the Taconite NESHAP indurating furnace limitations.  Performance tests shall be conducted at least two times every 5 calendar years (the test much be conducted at least 1 yr apart but no more than 4 yrs apart to determine particulate matter emissions for compliance with the Taconite MACT Standard)
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 030 Venturi Scrubber

**Associated Items:** EU 021 Pellet Indurating Furnace Line No 2

GP 003 Furnaces Nos. 1-3

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 012 Indurating Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 052 Furnace Line 2 Venturi Scrubber

MR 053 Furnace Line 2 Venturi Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 3.1 inches of water column using 24-hour Block Average measured across the Venturi of the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 351 gallons/minute using 24-hour Block Average .
4.0		CD	hdr	DIRECT HEATING EQUIPMENT PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0610; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 1.65 inches of water column using 24-hour Block Average measured across the Venturi of the Wet Scrubber. Limit established through statistical analysis of historical performance test results. Limit is not re-set by a single performance test. The MPCA may revise the limit at any time at the MPCA's discretion.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0610; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 270 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Section 63.9630(b); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each calendar 30 months starting 06/23/2010 to measure front-catch particulate matter to demonstrate compliance with the Taconite NESHAP indurating furnace limitations.  Performance tests shall be conducted at least two times every 5 calendar years (the test must be conducted at least 1 yr apart but no more than 4 yrs apart to determine particulate matter emissions for compliance with the Taconite MACT Standard)
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 031 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones

**Associated Items:** EU 021 Pellet Indurating Furnace Line No 2

GP 003 Furnaces Nos. 1-3

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 012 Indurating Sources Subject to Taconite MACT

GP 018 Multiclones Subject to Taconite MACT

MR 054 Line 2 Multiclone

	NC/ CA	Type	Citation	Requirement
1.0		LIMIT	Minn. R. 7011.0610; 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 using 24-hour Block Average across the Multiclone for, per operation parameters submitted on 12/21/2005 via e-mail.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 032 Venturi Scrubber

**Associated Items:** EU 022 Pellet Indurating Furnace Line No 3

GP 003 Furnaces Nos. 1-3

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 012 Indurating Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 055 Furnace Line 3 Venturi Scrubber

MR 056 Furnace Line 3 Venturi Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 2.9 inches of water column using 24-hour Block Average measured across the Venturi of the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 270 gallons/minute using 24-hour Block Average .
4.0		CD	hdr	DIRECT HEATING EQUIPMENT PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0610; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 1.65 inches of water column using 24-hour Block Average measured across the Venturi of the Wet Scrubber. Limit established through statistical analysis of historical performance test results. Limit is not re-set by a single performance test. The MPCA may revise the limit at any time at the MPCA's discretion.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0610; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 270 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Section 63.9630(b); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each calendar 30 months starting 06/23/2010 to measure front-catch particulate matter to demonstrate compliance with the Taconite NESHAP indurating furnace limitations.  Performance tests shall be conducted at least two times every 5 calendar years (the test must be conducted at least 1 yr apart but no more than 4 yrs apart to determine particulate matter emissions for compliance with the Taconite MACT Standard)
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



# COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 033 Venturi Scrubber

**Associated Items:** EU 022 Pellet Indurating Furnace Line No 3

GP 003 Furnaces Nos. 1-3

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 012 Indurating Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 057 Furnace Line 3 Venturi Scrubber

MR 058 Furnace Line 3 Venturi Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 3.7 inches of water column using 24-hour Block Average measured across the Venturi of the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 279 gallons/minute using 24-hour Block Average .
4.0		CD	hdr	DIRECT HEATING EQUIPMENT PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0610; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 1.65 inches of water column using 24-hour Block Average measured across the Venturi of the Wet Scrubber. Limit established through statistical analysis of historical performance test results. Limit is not re-set by a single performance test. The MPCA may revise the limit at any time at the MPCA's discretion.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0610; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 279 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Section 63.9630(b); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each calendar 30 months starting 06/23/2010 to measure front-catch particulate matter to demonstrate compliance with the Taconite NESHAP indurating furnace limitations.  Performance tests shall be conducted at least two times every 5 calendar years (the test must be conducted at least 1 yr apart but no more than 4 yrs apart to determine particulate matter emissions for compliance with the Taconite MACT Standard)
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



# COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 034 Venturi Scrubber

**Associated Items:** EU 022 Pellet Indurating Furnace Line No 3

GP 003 Furnaces Nos. 1-3

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 012 Indurating Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 059 Furnace Line 3 Venturi Scrubber

MR 060 Furnace Line 3 Venturi Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 3.0 inches of water column using 24-hour Block Average measured across the Venturi of the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 246 gallons/minute using 24-hour Block Average .
4.0		CD	hdr	DIRECT HEATING EQUIPMENT PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0610; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 1.65 inches of water column using 24-hour Block Average measured across the Venturi of the Wet Scrubber. Limit established through statistical analysis of historical performance test results. Limit is not re-set by a single performance test. The MPCA may revise the limit at any time at the MPCA's discretion.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0610; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 246 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Section 63.9630(b); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each calendar 30 months starting 06/23/2010 to measure front-catch particulate matter to demonstrate compliance with the Taconite NESHAP indurating furnace limitations.  Performance tests shall be conducted at least two times every 5 calendar years (the test must be conducted at least 1 yr apart but no more than 4 yrs apart to determine particulate matter emissions for compliance with the Taconite MACT Standard)
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.





# COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 035 Venturi Scrubber

**Associated Items:** EU 022 Pellet Indurating Furnace Line No 3

GP 003 Furnaces Nos. 1-3

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 012 Indurating Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 061 Furnace Line 3 Venturi Scrubber

MR 062 Furnace Line 3 Venturi Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 3.4 inches of water column using 24-hour Block Average measured across the Venturi of the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 259 gallons/minute using 24-hour Block Average .
4.0		CD	hdr	DIRECT HEATING EQUIPMENT PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0610; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 1.65 inches of water column using 24-hour Block Average measured across the Venturi of the Wet Scrubber. Limit established through statistical analysis of historical performance test results. Limit is not re-set by a single performance test. The MPCA may revise the limit at any time at the MPCA's discretion.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0610; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 259 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Section 63.9630(b); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each calendar 30 months starting 06/23/2010 to measure front-catch particulate matter to demonstrate compliance with the Taconite NESHAP indurating furnace limitations.  Performance tests shall be conducted at least two times every 5 calendar years (the test must be conducted at least 1 yr apart but no more than 4 yrs apart to determine particulate matter emissions for compliance with the Taconite MACT Standard)
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 036 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones

**Associated Items:** EU 022 Pellet Indurating Furnace Line No 3

GP 003 Furnaces Nos. 1-3

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 012 Indurating Sources Subject to Taconite MACT

GP 018 Multiclones Subject to Taconite MACT

MR 063 Line 3 Multiclone

	NC/ CA	Type	Citation	Requirement
1.0		LIMIT	Minn. R. 7011.0610; 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 using 24-hour Block Average across the Multiclone for, per operation parameters submitted on 12/21/2005 via e-mail.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 037 Wet Scrubber-High Efficiency

**Associated Items:** EU 023 Pellet Machine Discharge Line No 1

GP 004 Pelletizing - Scrubbers

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 011 Finished Pellet Handling Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 064 Machine Discharge Line 1: HE Wet Scrubber

MR 065 Machine Discharge Line 1: HE Wet Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 2.4 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 69 gallons/minute using 24-hour Block Average
4.0		CD	hdr	IPER PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 3.0 inches of water column using 24-hour Block Average measured across the Wet Scrubber..
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 50 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Part 63.9630(c); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before 60 months following permit issuance to measure front-catch particulate matter to demonstrate compliance with Taconite NESHAP finished pellet handling limitations. The limit is found in GP004.
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 038 Wet Scrubber-High Efficiency

**Associated Items:** EU 024 Pellet Machine Discharge Line No 2

GP 004 Pelletizing - Scrubbers

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 011 Finished Pellet Handling Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 066 Machine Discharge Line 2: HE Wet Scrubber

MR 067 Machine Discharge Line 2: HE Wet Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 3.0 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 50 gallons/minute using 24-hour Block Average
4.0		CD	hdr	IPER PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 3.0 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 50 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Part 63.9630(c); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before 60 months following permit issuance to measure front-catch particulate matter to demonstrate compliance with Taconite NESHAP finished pellet handling limitations. The limit is found in GP004.
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



# COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 039 Wet Scrubber-High Efficiency

**Associated Items:** EU 025 Pellet Machine Discharge Line No 3

GP 004 Pelletizing - Scrubbers

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 011 Finished Pellet Handling Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 068 Machine Discharge Line 3: HE Wet Scrubber

MR 069 Machine Discharge Line 3: HE Wet Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 3.4 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 49 gallons/minute using 24-hour Block Average
4.0		CD	hdr	IPER PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 3.0 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 50 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Part 63.9630(c); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before 60 months following permit issuance to measure front-catch particulate matter to demonstrate compliance with Taconite NESHAP finished pellet handling limitations. The limit is found in GP004.
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 040 Wet Scrubber-High Efficiency

**Associated Items:** EU 026 Pellet Hearth Layer Screening

GP 004 Pelletizing - Scrubbers

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 011 Finished Pellet Handling Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 070 Hearth Layer Screen: HE Wet Scrubber

MR 071 Hearth Layer Screen: HE Wet Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 3.4 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 29 gallons/minute using 24-hour Block Average
4.0		CD	hdr	IPER PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 3.4 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 29 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Part 63.9630(c); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before 60 months following permit issuance to measure front-catch particulate matter to demonstrate compliance with Taconite NESHAP finished pellet handling limitations. The limit is found in GP004.
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 041 Wet Scrubber-High Efficiency

**Associated Items:** EU 027 Pellet Transfer House

GP 004 Pelletizing - Scrubbers

GP 008 Point Sources and Fugitive Sources Subject to MACT

GP 009 Point Sources Subject to Taconite MACT

GP 011 Finished Pellet Handling Sources Subject to Taconite MACT

GP 014 Wet Scrubbers Subject to Taconite MACT

MR 072 Pellet Transfer House: HE Wet Scrubber

MR 073 Pellet Transfer House: HE Wet Scrubber

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	MACT PARAMETRIC LIMITS
2.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Pressure Drop: greater than or equal to 3.2 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
3.0		LIMIT	40 CFR Part 63.9590(b)(1); Minn. R. 7011.8030; Minn. R. 7007.0800, subps. 2 and 14	Water flow rate: greater than or equal to 37 gallons/minute using 24-hour Block Average
4.0		CD	hdr	IPER PARAMETRIC LIMITS
5.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 3.2 inches of water column using 24-hour Block Average measured across the Wet Scrubber.
6.0		LIMIT	40 CFR Section 64.7: CAM and Minn. R. 7017.0200; Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Water flow rate: greater than or equal to 37 gallons/minute using 24-hour Block Average . Downtime of 15 or more minutes is not to be included as operating time.
7.0		CD	hdr	PERFORMANCE TESTING REQUIREMENTS  Also see GP008.
8.0		S/A	40 CFR Part 63.9630(c); Minn. R. 7011.8030; Minn. R. 7017.2020, subp. 1	Performance Test: due before 60 months following permit issuance to measure front-catch particulate matter to demonstrate compliance with Taconite NESHAP finished pellet handling limitations. The limit is found in GP004.
9.0		CD	hdr	MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS  See GP008 and GP009.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 042 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

**Associated Items:** EU 028 Bentonite Storage Silo - East

GP 005 Pelletizing - Baghouses

MR 074 Bentonite Silo - East: Fabric Filter

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	IPER PARAMETRIC LIMITS
2.0		LIMIT	Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 0.4 inches of water column using 24-hour Block Average across the fabric filter. Note that this baghouse is operated when the silo is being loaded or unloaded; therefore, pressure drop monitoring will not be continuous through any given day (batch operation). This limit applies during all operating periods.





## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 043 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

**Associated Items:** EU 029 Bentonite Storage Silo - West

GP 005 Pelletizing - Baghouses

MR 075 Bentonite Silo - West: Fabric Filter

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	POLLUTION CONTROL EQUIPMENT LIMITS
2.0		LIMIT	Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 0.4 inches of water column using 24-hour Block Average across the fabric filter. Note that this baghouse is operated when the silo is being loaded or unloaded; therefore, pressure drop monitoring will not be continuous through any given day (batch operation). This limit applies during all operating periods.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item:** CE 044 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

**Associated Items:** EU 033 Limestone Storage Silo

GP 005 Pelletizing - Baghouses

MR 076 Limestone Silo: Fabric Filter

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	POLLUTION CONTROL EQUIPMENT LIMITS
2.0		LIMIT	Minn. R. 7011.0715; Minn. R. 7007.0800, subps. 2 and 14; Minn. R. 7017.2025, subp. 3	Pressure Drop: greater than or equal to 0.4 inches of water column using 24-hour Block Average across the fabric filter, per operation parameters submitted on 12/22/2005 via e-mail. Note that this baghouse is operated when the silo is being loaded or unloaded; therefore, pressure drop monitoring will not be continuous through any given day (batch operation). This limit applies during all operating periods.



## COMPLIANCE PLAN **CD-01**

Facility Name: Hibbing Taconite Co

Permit Number: 13700061 - 006

**Subject Item: BG 003 Pelletizing Phase II**

	NC/ CA	Type	Citation	Requirement
1.0		S/A	TBD	Performance Test: due 120 days after Startup for NOx. The Permittee shall conduct a performance test for NOx on a least one indurating furnace to validate the NOx emission factor used in the netting analysis for the burner replacement/modification. If this performance test determines that the actual NOx emission factor after the burner replacement/modification is higher than what was used in the netting analysis, the Permittee shall reevaluate PSD applicability for the burner replacement/modification.