

**TECHNICAL SUPPORT DOCUMENT**  
**For**  
**DRAFT/PROPOSED AIR EMISSION PERMIT NO. 13700005-006**

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: <b>1011</b>)</b>
U.S. Steel Corp. Minnesota Ore Operations P.O. Box 417 Mountain Iron, MN 55768	Minntac 8819 Old Highway 169 Mountain Iron St. Louis County
Contact: <b>Chrissy Bartovich</b> <b>Director Environmental Control</b> Phone: 218-749-7364	

**1.2 Facility Description**

The Permittee owns and operates a taconite mine and processing facility, known as Minntac, at County Highway 102, on the Mesabi Range north of the City of Mountain Iron, St. Louis County, Minnesota.

Taconite is a rock bearing from 15 to 30 percent magnetic iron particles (magnetite). The iron ore is mined in an open pit, and reduced in size by a series of crushers until it has a powdery consistency. Iron oxide concentrate is separated magnetically, while the remaining portion of the mined ore (tailings) is sent to a tailings disposal basin. Limestone and/or dolomite (fluxstone) and bentonite (binder) are added to the concentrate and the mixture is formed into round "green balls (pellets)" in a balling drum. The green balls are heat hardened in an indurating process (agglomerator or grate-kiln) line, which consists of a traveling grate, a rotary kiln, and a horizontal rotary hearth (commonly called annular cooler). Finished taconite pellets are stored for transport to blast iron furnaces. While the main product of the Minntac facility is fluxed pellets which are used in blast furnaces to make molten iron, other products such as iron ore concentrate, blast furnace trim, and railroad ballast are made for special customers.

The Minntac facility was built in three successive stages or steps. The first taconite pellets were produced by the Step I facility in 1967. When Step II (1972) and Step III (1978) were added, the facility's pellet-making capacity was tripled.

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

This Major Amendment permit action authorizes the replacement of the existing main kiln burners with Low NO<sub>x</sub> Main Burners on the facility's induration lines 4 and 5 (adding CE 181 and CE 182, which vent through SV118 and SV 127; respectively). This project will reduce NO<sub>x</sub> emissions from baseline emission rates. Remaining pollutants will remain at previously calculated rates. This amendment is processed as a Major Amendment due to the requirements located at the Total Facility Level indicating such.

This permit action also removes language from the Total Facility level identified as "F. Retroactive PSD Permitting Requirements – Tasks, Reports and CEMS related to language requesting a Computational Fluid Dynamics (CFD) modeling report and installation of LowNo<sub>x</sub> Burners at the traveling grate preheat zones of the Agglomerator Lines 3 -7. Minntac completed conditions related to CFD modeling as well as installed the traveling grate preheat Low NO<sub>x</sub> burners in 2009.

Requiring installation of control equipment to reduce NO<sub>x</sub> emissions was a component of the previous Permit Action for this Facility (Permit Action 13700005-005, issued 12/22/2008). Further discussion of this and the previous permit action can be found in Section 3 of this TSD.

### 1.4. Facility Emissions:

**Table 2. PSD Applicability Emissions Summary**

<b>Pollutant</b>	<b>Projected Actual Emissions* (tpy)</b>	<b>Baseline Actual Emissions** (tpy)</b>	<b>Emissions Increase Prior to Excludable (tpy)</b>	<b>Excludable Emissions*** (tpy)</b>	<b>Emissions Increase (tpy)</b>	<b>NSR Significant Thresholds for major sources (tpy)</b>	<b>NSR Review Required? (Yes/No)</b>
PM	274.9	461.7	0	0	0	25	No
PM <sub>10</sub>	328.5	668.0	0	0	0	15	No
PM <sub>2.5</sub>	328.5	668.0	0	0	0	10	No
NO <sub>x</sub>	2511.6	5010.5	0	0	0	40	No
SO <sub>2</sub>	896.4	957.9	0	39.1	0	40	No
CO	448.4	402.6	45.9	42.7	3.2	100	No
Ozone (VOC)	58.1	52.2	6.0	5.3	0.7	40	No
Lead	0.4	0.4	0	0	0	0.6	No
Fluorides	12.6	11.6	0.9	1.1	0	3	No
CO <sub>2</sub> e****	747,121	674,354	72,767	58,657	15,049	75,000	No

\*Projected Actual Emissions as defined in 40 CFR § 52.21(b)(41).

\*\*Baseline Actual Emissions as defined in 40 CFR § 52.21(b)(48).

\*\*\*Emissions that can be excluded as detailed in 40 CFR § 52.21(b)(41(ii)(c).

\*\*\*\*Carbon dioxide equivalents as defined in Minn. R. 7007.0100.

**Table 5. Facility Classification**

Classification	Major/Affected Source	Synthetic Minor/Area	Minor/Area
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 regulations.

### Part 70 Permit Program

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

### New Source Performance Standards (NSPS)

Portions of the facility are subject to 40 CFR pt. 60, subpart Y, "Standards of Performance for Coal Preparation Plants," and 40 CFR pt. 60, subpart LL "Standards of Performance for Metallic Mineral Processing Plants," are relevant to the Minntac facility, but not to the indurating process modification.

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

The facility is a major source of HAPs. The facility is subject to the following NESHAPs:

- Taconite and Iron Ore Processing (40 CFR Part 63 subpart RRRRR)
- Reciprocating Internal Combustion Engines (40 CFR Part 63 subpart ZZZZ)

### Compliance Assurance Monitoring (CAM)

CAM does not apply to the modification allowed in this permit amendment, since the units added are control equipment and do not meet the three-part test for CAM applicability.

### Environmental Review & AERA

No changes in this permitting action trigger Environmental Review or AERA requirements.

### Environmental Justice

Environmental Justice (EJ) is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and the enforcement of environmental laws, regulations, and policies. EPA has this goal for all communities and persons across the U.S.A. It will be achieved when everyone enjoys the same degree of protection from

environmental and health hazards and equal access to the decision-making process to have a healthy environment in which to live, learn, and work.

As part of this permitting process, the MPCA contacts US E.P.A. Region 5 staff to verify if there are any possible EJ issues for the facility location that need to be addressed in the permit action. For this project, MPCA staff contacted EPA Region 5 staff who used the draft Environmental Justice Strategic Enforcement Assessment Tool (EJSEAT) that identified the facility location did not potentially have EJ concerns.

#### Minnesota State Rules

Portions of the facility are subject to the following Minnesota Standards of Performance. This permit action does not change the list below.

The Minntac facility is subject to the following state standards for stationary sources:

- Minn. R. 7011.0150: Preventing avoidable amounts of fugitive particulate matter emissions from becoming airborne.
- Minn. R. 7011.0510: Standards of performance for existing indirect heating equipment.
- Minn. R. 7011.0515: Standards of performance for new indirect heating equipment. (It means that construction, modification, or reconstruction of the indirect heating equipment commenced after January 31, 1977.)
- Minn. R. 7011.0610: Standards of performance for fossil-fuel-burning direct heating equipment.
- Minn. R. 7011.0710: Standards of performance for pre-1969 industrial process equipment.
- Minn. R. 7011.0715: Standards of performance for post-1969 industrial process equipment.
- Minn. R. 7011.1150: Standards of coal preparation plants.
- Minn. R. 7011.2300: Standards of performance for stationary internal combustion engines.
- Minn. R. 7011.2700: Standards of performance for new metallic mineral processing plants (which incorporates the federal NSPS by reference).

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

The table reflects regulatory overview of those conditions related to the Low NO<sub>x</sub> burners (CE 181 and 182) as well as those conditions related to visibility mitigation strategies implemented in Permit Action - 005.

Level *	Applicable Regulations	Comments:
Facility	40 CFR pt. 50; Minn. Stat. Section 116.07, subds. 4a & 9; Minn.	Ambient Air Quality Standards. Language added to require Minntac to make any necessary changes to their permit to ensure compliance with the 1-hour SO <sub>2</sub> and 1-hour NO <sub>2</sub> NAAQS.

	R. 7007.0100, subp. 7(A), 7(L), & 7(M); Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080	
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### **3. Technical Information**

#### **3.1 Calculations of Potential to Emit and Emissions Increase Analysis**

Attachment 1 to this TSD contains PSD summary spreadsheets prepared by the Permittee and the MPCA.

##### **3.1.1 Baseline Actual Emissions:**

The Permittee used a baseline period from January 2006 – December 2007 for SO<sub>2</sub>, a baseline period of January 2007 – December 2008 to determine baseline emissions for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, and Lead and a baseline emission period of January 2010 – December 2011 for CO, VOC, and F. Emissions were determined by CEMS for NO<sub>x</sub> and by fuel usage and emission factors for SO<sub>2</sub>, CO, PM, PM<sub>10</sub>, PM<sub>2.5</sub>, VOC, Fluorides, Lead, and greenhouse gases.

**Projected Actual Emissions:** Future actual emissions were calculated using supporting CEMS information for NO<sub>x</sub> and by fuel usage and emission factors for SO<sub>2</sub>, CO, PM, PM<sub>10</sub>, PM<sub>2.5</sub>, VOC, Fluorides, Lead, and greenhouse gases.

Emissions of PM<sub>10</sub> and PM<sub>2.5</sub> have decreased from baseline rates due to implementation of the Taconite MACT (Taconite and Iron Ore Processing, 40 CFR Part 63 subpart RRRRR). This NESHAP regulates PM as a surrogate for HAPs and does not directly regulate PM<sub>10</sub> and PM<sub>2.5</sub>. As such, permit conditions have been added to explicitly require use of control equipment for emission units affected by this permit action because these emission characteristics were relied upon for the calculations of this permit action. While the multi-cyclones (CE 102 and CE 112) are listed in the facility description as control equipment, the purpose of this equipment is to remove the very large particles out of the process equipment in order to prevent damage to the preheat fans. These units are not relied upon for control of PM<sub>10</sub> or PM<sub>2.5</sub>.

##### **3.1.2 Excludable Emissions:** The excludable emissions calculations made under 40 CFR 52.21(b)(41(ii)(c)) must account for post-change emissions:

- i. That the unit was capable of emitting prior to the proposed change, and
- ii. That is unrelated to the proposed change (including increased utilization due to demand growth).

The excludable emission calculations made by the Permittee addresses both points.

Note that the BAE 24-month period must be the same for a specific pollutant for all emission units (if there are multiple emissions units in the applicability analysis that emit that pollutant). However the BAE 24-month period may differ for each PSD pollutant.

### **3.2 Visibility Mitigation Strategies Implemented in Permit Action -005**

During Permit Action -005, the MCPA chose to set forth NOx emission limits pursuant to the requirements for addressing impact to federal Class I areas in PSD regulations, 40 CFR 52.21 (p). This resulted in an aggressive schedule of activities intended to achieve significant reductions in NOx emission. The goal is to reduce the long-term NOx emission limit by at least 70% from the initial limit at Permit Issuance (13,300 ton/yr, in Permit: 13700005-005). Because it was not known at that time whether any of the available identified add-on technologies would be acceptable under the criteria set forth in the previous permit action, the permit did not establish a final NOx emission limit.

To date, Minntac has fulfilled several of those activities, including: a CFD study of indurating NOx formation and grate pre-heat Low NOx burners, as well as pilot testing a NOx control technology. Pilot testing has occurred with Low NOx burners installed on Line 7 in May 2010 and Line 6 in April 2011. These lines have certified CEMS installed and with the emissions data provided by the CEMS, the low NOx main burners were able to be evaluated and optimized. Installation of Low NOx burners on Line 4 and Line 5 (EU 261 and EU 282, respectively) continues this plan for reduction of NOx emissions as laid out in Permit Action -005.

Permit conditions related to the visibility strategy remain within the permit with the exception of those conditions which have been satisfied.

The Permittee will install Low NOx burners on Lines 4 and 5 which will be considered the 'full-scale' demonstration of the control technology as discussed in Permit Action -005. As the permit conditions indicate, Minntac will submit an engineering analysis to summarize a number of operating parameters and their outcomes. If determined to be successful, Minntac will submit a major amendment to propose to install Low NOx burner on Line 3 (the final furnace located at the facility to not have Low NOx burner control technology). The remaining steps for this visibility mitigation strategy are located at the Total Facility Level of this permit action.

### **3.3 New and Revised 1-hour NAAQS**

In 2010, the U. S .Environmental Protection Agency (EPA) promulgated the new National Ambient Air Quality Standards (NAAQS) for sulfur dioxide (SO<sub>2</sub>) and nitrogen dioxide (NO<sub>2</sub>) averaged over one hour. The attainment dates (the date by which the state must be able to demonstrate compliance with the applicable standard) are five years after EPA publishes Minnesota's attainment designation in the Federal Register.

### **3.3.1 1-hour NAAQS for Sulfur Dioxide**

In June 2010, the new one-hour NAAQS for SO<sub>2</sub> was set at 75 ppb. Minnesota has no monitored violations of the standard. When EPA promulgates a new standard an infrastructure SIP is due within three years; for SO<sub>2</sub>, this is June 2013. EPA initially indicated that all states, even those without monitored violations, would need to demonstrate in the infrastructure SIP that sufficient emission limits would be in place to model compliance with the SO<sub>2</sub> standard. These emission limits were to be in place by the attainment date – five years after promulgation of designations under the new standard. (See 75 FR 35573).

As indicated in a letter to the MPCA dated April 12, 2012, EPA acknowledged that it has not issued implementation guidance for this standard. EPA indicated that stakeholders, including states, have responded to EPA's implementation proposal by identifying a number of concerns. EPA also indicated that it no longer expects Minnesota's infrastructure SIP submittal for the one-hour SO<sub>2</sub> NAAQS to include modeling demonstrations showing attainment of the standard in unclassifiable areas.

Previously, the MPCA completed the following steps in the SO<sub>2</sub> SIP process:

- In the spring of 2011, the MPCA identified key sources. MPCA staff requested modeling parameters from 65 sources that met a certain emissions threshold or otherwise were considered to potentially cause or contribute to a violation of the SO<sub>2</sub> standard.
- During the summer of 2011, key sources submitted SO<sub>2</sub> modeling parameters. All facilities submitted modeling parameters by the end of July 2011.
- In fall 2011, the MPCA completed the initial round of baseline modeling of 75 sources and identified sources that modeled an exceedance of the standard. The MPCA developed model input files based on the modeling parameters received from the facilities or information available in house.

After receiving the April 12, 2012 letter from EPA, the MPCA suspended these efforts.

Minntac was modeled during the MPCA's baseline modeling. This modeling showed that Minntac's emissions led to a predicted maximum ambient concentration that may exceed the one-hour SO<sub>2</sub> NAAQS. Minntac was also modeled for Polymet Mining, Inc.'s Northmet Project, a proposed neighboring facility. Polymet's modeling also predicted that Minntac's emissions may contribute to a modeled exceedance of the 1-hour SO<sub>2</sub> NAAQS.

Since Minntac is not increasing its hourly SO<sub>2</sub> emissions in this permitting action, the MPCA is not requiring Minntac to conduct its own SO<sub>2</sub> modeling demonstration prior to permit issuance. The draft permit requires Minntac to submit a permit application, as applicable, to incorporate limits and other conditions into an enforceable document, if such limits and/or conditions are necessary to achieve compliance with the 1-hour NAAQS for SO<sub>2</sub> by: the 1-hour SO<sub>2</sub> NAAQS attainment date established by EPA; the Regional Haze State Implementation Plan Revision date which is currently, 2018; or as required by any other applicable federal law, whichever is earliest.

Minntac is one of a number of facilities which are currently involved in an overall modeling effort to address their ambient impacts for Minnesota's Regional Haze State Implementation Plan ("Regional Haze SIP"). Each of those facilities must submit dispersion modeling to the MPCA. The initial modeling is limited to the facility itself (plus an ambient background); this modeling must demonstrate compliance

with the SO<sub>2</sub> NAAQS. The MPCA will combine the inputs from those submittals with those from other SO<sub>2</sub>-emitting facilities in the area, including the emissions from Minntac. If modeled exceedances remain, the MPCA will work with the facilities in the area to reduce emissions so that the one-hour SO<sub>2</sub> NAAQS is protected.

### **3.3.2 1-hour NAAQS for Nitrogen Dioxide**

On February 9, 2010, EPA established the new one-hour NAAQS for NO<sub>2</sub> at an ambient concentration of 100 ppb. Monitoring data indicates that Minnesota meets the one-hour standard. EPA has indicated that they intend to designate Minnesota counties as attainment or as unclassifiable with the one-hour NO<sub>2</sub> standard.

Minntac was also modeled for Polymet Mining, Inc.'s Northmet Project, a proposed neighboring facility. Polymet's modeling also predicted that Minntac's emissions may contribute to a modeled exceedance of the 1-hour NO<sub>2</sub> NAAQS.

Since Minntac is not increasing its hourly NO<sub>2</sub> emissions in this permitting action, the MPCA is not requiring Minntac to conduct its own NO<sub>2</sub> modeling demonstration prior to permit issuance. The draft permit required Minntac to submit a permit application, as applicable to incorporate limits and other conditions into an enforceable document, if such limits and/or conditions are necessary to achieve compliance with the 1-hour NAAQS for NO<sub>2</sub> by: the 1-hour NO<sub>2</sub> NAAQS attainment date established by EPA; the Regional Haze State Implementation Plan Revision date, which is currently 2018; or as required by any other applicable federal law, whichever is earliest.

### **3.4 Periodic Monitoring**

In accordance with the Clean Air Act, it is the responsibility of the owner or operator of a facility to have sufficient knowledge of the facility to certify that the facility is in compliance with all applicable requirements.

In evaluating the monitoring included in the permit, the MPCA considered the following:

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

The table below documents the periodic monitoring requirements for control of particulate matter for the wet scrubbers (CE 103 and CE 113).



**Table 7. Periodic Monitoring**

<b>Level*</b>	<b>Requirement (rule basis)</b>	<b>Additional Monitoring</b>	<b>Discussion</b>
GP 010 CE 103 CE 113	Total Particulate Matter: $\leq 0.3$ gr/dscf	Recordkeeping: Daily records of Gas Stream Pressure Drop, O & M Plan	Records are generated on a daily basis of gas stream pressure drop for compliance with PM limits. These records can be used to demonstrate reasonable assurance of operation and maintenance of the wet scrubbers.
GP 010 CE 103 CE 113	Total Particulate Matter: $\leq 0.3$ gr/dscf	Recordkeeping: Daily records of Liquid Flow Rate, O & M Plan	Records are generated on a daily basis of liquid flow rates for compliance with PM limits. These records can be used to demonstrate reasonable assurance of operation and maintenance of the wet scrubbers.

### **3.5 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.

This permit action has generated reserved numbering for CE 145-180. This deviates from typical MPCA practice.

#### **Comments Received**

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

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

### **4. Permit Fee Assessment**

Attachment 3 to this TSD contains the MPCA's assessment of Application and Additional Points used to determine the permit application fee for this permit action as required by Minn. R. 7002.0019. The permit action includes one permit application received after the effective date of the rule (July 1, 2009).

### **5. Conclusion**

Based on the information provided by Minntac, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 13700005-006 and this TSD, as well as requirement to address potential NAAQS standards will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Sarah Seelen (permit writer/engineer)  
Steve Palzkill (enforcement)  
Andrew Place (stack testing)  
Joe Miller (peer reviewer)

AQ File No. 26A; DQ 4078

Attachments: 1. PTE Summary Calculation Spreadsheets  
2. Facility Description and CD-01 Forms  
3. Points Calculator

Attachment One:  
PTE Summary

**TSD Attachment 1: Summary of Calculations**

Baseline Years    2007/2008    2007/2008    2007/2008    2007/2008    2006/2007    2010/2011    2010/2011    2010/2011    2010/2011    2004/2005

**Line 4 (EU 261) Low NOx PSD/NSR Emissions Evaluation**

	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	NO <sub>x</sub>	SO <sub>2</sub>	CO	VOC	F	Lead	GHG
Baseline Emissions (TPY)	121.3	246.6	246.6	2664.1	536.1	286.0	28.45	5.35	0.19	323,163
Baseline Bypass Emissions	1.9	1.3	1.3	181.2	1.3	6.3	0.4	0.33	1.5E-05	8,734
Baseline Total	123.2	247.9	247.9	2845.3	537.5	292.3	28.9	5.7	0.2	331,897
Projected Actual (TPY)	46.5	67.9	67.9	1255.8	452.9	320.4	31.9	6.00	0.20	367,904
Projected Actual Bypass Emissions	1.9	1.3	1.3	N/A	1.3	6.3	0.4	0.33	1.5E-05	8,734
Total Projected Actual	48.4	69.3	69.3	1255.8	454.2	326.7	32.3	6.3	0.2	376,638
Low NOx - Excluded Emissions	0.0	0.0	0.0	0.0	16.4	34.4	3.4	0.6	0.0	29,692
Project Emission Increases/Decreases	-74.8	-178.6	-178.6	-1589.5	-99.7	0.0	0.0	0.0	0.0	15,049
<b>PSD Significance Threshold</b>	<b>25</b>	<b>15</b>	<b>10</b>	<b>40</b>	<b>40</b>	<b>100</b>	<b>40</b>	<b>3</b>	<b>0.6</b>	<b>75,000</b>
Projected Actual - Baseline - Excluded	-74.8	-178.6	-178.6	-1589.5	-99.7	0.0	0.0	0.0	0.0	15,049

**Line 5 (EU 282) Low NOx PSD/NSR Emissions Evaluation**

	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	NO <sub>x</sub>	SO <sub>2</sub>	CO	VOC	F	Lead	GHG
Baseline Emissions (TPY)	336.6	418.8	418.8	2011.7	419.0	103.3	22.83	5.61	0.17	332,092
Baseline Bypass Emissions	1.9	1.4	1.4	153.5	1.3	7.0	0.5	0.33	1.9E-05	10,366
Baseline Total	338.5	420.1	420.1	2165.2	420.4	110.3	23.3	5.9	0.2	342,458
Projected Actual (TPY)	224.6	257.8	257.8	1255.8	440.8	114.8	25.4	6.24	0.19	360,117
Projected Actual Bypass Emissions	1.9	1.4	1.4	N/A	1.3	7.0	0.5	0.33	1.9E-05	10,366
Total Projected Actual	226.5	259.2	259.2	1255.8	442.1	121.8	25.8	6.2	0.2	370,483
Low NOx - Excluded Emissions	0.0	0.0	0.0	0.0	22.6	8.3	1.8	0.5	0.0	28,965
Project Emission Increases/Decreases	-338.5	-420.1	-420.1	-2165.2	-397.7	-102.0	-21.5	-5.5	-0.17	-939
<b>PSD Significance Threshold</b>	<b>25</b>	<b>15</b>	<b>10</b>	<b>40</b>	<b>40</b>	<b>100</b>	<b>40</b>	<b>3</b>	<b>0.6</b>	<b>75,000</b>
Projected Actual - Baseline - Excluded	-112.0	-160.9	-160.9	-909.4	-0.9	3.2	0.7	-0.2	0.0	-939

**Line 4 & 5 Project Summary**

	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	NO <sub>x</sub>	SO <sub>2</sub>	CO	VOC	F	Lead	GHG
Line 4 Emissions Increase/Decrease	-74.8	-178.6	-178.6	-1589.5	-99.7	0.0	0.0	0.0	0.0	15,049
Line 5 Emissions Increase/Decrease	-112.0	-160.9	-160.9	-909.4	-0.9	3.2	0.7	-0.2	0.0	-939
<b>Total</b>	<b>-186.8</b>	<b>-339.6</b>	<b>-339.6</b>	<b>-2499.0</b>	<b>-100.6</b>	<b>3.2</b>	<b>0.7</b>	<b>-0.2</b>	<b>0.0</b>	<b>14,110</b>
<b>PSD Significance Threshold</b>	<b>25</b>	<b>15</b>	<b>10</b>	<b>40</b>	<b>40</b>	<b>100</b>	<b>40</b>	<b>3</b>	<b>0.6</b>	<b>75,000</b>
Baseline Emissions	461.7	668.0	668.0	5010.5	957.9	402.6	52.2	11.6	0.4	674,355
Projected Actual	274.9	328.5	328.5	2511.6	896.4	448.4	58.1	12.6	0.4	747,121
Excluded Emissions	0.0	0.0	0.0	0.0	39.1	42.7	5.3	1.1	0.0	58,657
difference without excludables	-186.8	-339.6	-339.6	-2499.0	-61.5	45.9	6.0	0.9	0.0	72,767
difference including excludables	-186.8	-339.6	-339.6	-2499.0	-100.6	3.2	0.7	-0.2	0.0	14,110

Attachment Two:  
Facility Description and CD-01 Forms



# COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 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 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 submit limits and other conditions, if necessary, to be incorporated into an enforceable document by: the 1-hour SO <sub>2</sub> NAAQS attainment date established by EPA; the Regional Haze State Implementation Plan Revision date which is currently, 2018; or as required by any other applicable federal law, whichever is earliest.
4.0		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 submit limits and other conditions, if necessary, to be incorporated into an enforceable document by: the 1-hour NO <sub>2</sub> NAAQS attainment date established by EPA; the Regional Haze State Implementation Plan Revision date which is currently, 2018; or as required by any other applicable federal law, whichever is earliest.
5.0		S/A	Minn. R. 7007.0080	Ambient Air Monitoring Report: due 45 days after end of each calendar quarter following Effective Date of Permit: total suspended particulate matter (TSP) monitoring reports to determine compliance with the Minnesota Ambient Air Quality Standards for TSP. Ambient monitoring will be conducted for a 3 year period, as provided by Attachment B to the September 17, 1999, Stipulation Agreement. Monitoring may be extended if violations occur.
6.0		CD	Minn. R. 7011.0150	Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.
7.0		S/A	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2	Fugitive Emissions Control Plan: due 60 days after 02/26/2003 for approval by the commissioner. The plan shall identify all fugitive emission sources, primary and contingent control measures, and record keeping. The Permittee shall follow the actions and record keeping specified in the control plan. The commissioner may require additions or changes to the O&M plan when granting approval. The Permittee will be given an opportunity to comment on any required additions or changes to the plan before the commissioner grants approval of the 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 emission control plan, then the permittee may be required to amend the control plan and/or to install and operate particulate matter ambient monitors.  The plan shall incorporate tailings basin emissions control measures required by the September 17, 1999, Stipulation Agreement, with changes approved by the Commissioner.
8.0		CD	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2	Comply with Fugitive Emission Control Plan: The Permittee shall follow the actions and record keeping specified in the control plan. The plan will include a statement of objectives, listing and daily observation of major fugitive emission sources, operating and control measures, dust suppressant application description, corrective actions, training and records. 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.



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9.0		S/A	Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)	Operation and Maintenance Plan: due 120 days after 02/26/2003 for review and approval by the commissioner. The O&M plan shall identify all air pollution control equipment, a preventative maintenance program for that equipment, description of corrective actions to be taken in the event of a malfunction or breakdown, description of the employee training program, and the records kept to demonstrate plan implementation. The commissioner may require additions or changes to the O&M plan when granting approval. The Permittee will be given an opportunity to comment on any required additions or changes to the plan before the commissioner grants approval of the plan.
10.0		S/A	Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)	Submittal of Permit Application: due 360 days after Effective Date of Permit the Permittee shall submit parameter ranges, along with rationale for their development, in a permit amendment application, to incorporate the air pollution control equipment parameter ranges (scrubber water flow and/or pressure drop) into this permit. The rationale for choosing these ranges shall include the control equipment manufacturer's suggested ranges and any reasons for deviating from the recommended ranges.
11.0		CD	Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)	Comply with the O & M Plan: Follow the actions and recordkeeping specified in the O & M plan. The plan may be amended by the Commissioners written approval.
12.0		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.
13.0		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, unless otherwise noted in Table A.
14.0		CD	hdr	B. PERFORMANCE TESTING REQUIREMENTS
15.0		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.
16.0		CD	Minn. R. 7017.2025	Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as specified by Minn. R. 7017.2025 following formal review of a subsequent performance test on the same unit.
17.0		CD	hdr	C. MONITORING REQUIREMENTS
18.0		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 - Subject Item: Total Facility, Section F; Subject Items MR1 through MR5).
19.0		CD	Minn. R. 7007.0800, subp. 4(D)	Monitoring Equipment: Install or make needed repairs to monitoring equipment within 180 days of issuance of the permit if monitoring equipment is not installed and operational on the date the permit is issued.
20.0		CD	Minn. R. 7007.0800, subp. 4(D)	Monitoring Equipment Debugging, Troubleshooting, and Establishment of Parameter Ranges: Complete within 180 days of installation or of completion of needed repair of all monitoring equipment, including the air pollution control equipment operating at the time of Permit Issuance.
21.0		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.
22.0		CD	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)	Visible Emissions Check: The Permittee shall check visible emissions from the 26 selected stacks/vents, which are specified else where in this permit, once daily when in operation during daylight hours. A form meeting the requirements of Appendix B shall be used to indicate whether process or control equipment requires attention. In the event the Permittee makes a finding that attention is required, the Permittee shall investigate the process and control equipment performance and implement appropriate corrective action, if necessary.  Upon approval of the O&M Plan, the Permittee shall check visible emissions from {SVs} once daily when in operation during daylight hours. The Permittee shall use the visible emissions checklists in the O&M Plan as a means to indicate when appropriate corrective actions in the O&M Plan should be taken.



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23.0		CD	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)	<p>Fugitive Dust Observations: Prior to the approval of the Fugitive Control Plan, the Permittee shall observe fugitive dust sources {FS} once daily during daylight hours. In the event the Permittee makes a finding that attention to fugitive dust sources is required, the Permittee shall investigate the fugitive dust sources and implement corrective action, if necessary. For unpaved haul roads, the Permittee may use the existing Unpaved Haul Road Fugitive Control Plan and may submit this plan for approval as part of the overall fugitive control plan.</p> <p>Upon approval of the Fugitive Control Plan, the Permittee shall observe fugitive dust sources {FS} once daily during daylight hours in accordance with the approved plan.</p>
24.0		CD	Minn. R. 7007.0800, subp. 4(D); Minn. R. 7007.0800, subp. 14; Minn. R. 7007.0800, subp. 16(J)	<p>Visible Emissions Training: The Permittee shall (1) ensure that one plant employee obtain an initial EPA Method 9 certification and be recertified every three years or (2) employ a similarly certified contractor. This person will train other plant employees to perform the daily visible emissions check as detailed in the O&amp;M Plan and Fugitive Control Plan.</p>
25.0		CD	hdr	D. RECORD KEEPING REQUIREMENTS
26.0		CD	Minn. R. 7007. 0800, subp. 5(B)	<p>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.</p>
27.0		CD	Minn. R. 7007.0800, subp. 5(C)	<p>Record keeping: 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). Computerized formats can be used, provided that the Permittee maintains reliable backup for data retrieval.</p>
28.0		CD	Minn. R. 7007.0800, subp. 2	<p>Contractors: The Permittee shall retain records on site of all contractors that are allowed on site that include any crushers, screens and conveyors. The Permittee shall also retain records on site of all contractors whose operations would require an Air Emission Permit from the MPCA. The records shall include the contractor's company name, MPCA air emission permit number, short description of activities undertaken by the contractor, estimate of emissions or materials handled and the dates the contractor was on site. The record shall be updated at least monthly.</p> <p>The Permittee shall evaluate if the activities of any contractor required NSR permitting prior to the contractor performing such activities. If a contractor has its own permit, but it is determined that the contractor is under the common control of the taconite plant then the contractor's permit does not shield the taconite plant or the contractor from the NSR &amp; Part 70 modification regulations or enforcement actions.</p>
29.0		CD	hdr	E. REPORTING REQUIREMENTS
30.0		CD	Minn. R. 7019.1000, subp. 1	<p>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.</p>
31.0		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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32.0		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>
33.0		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>
34.0		CD	Minn. R. 7002.0005 through Minn. R. 7002.0095	Emission Fees: due 60 days after receipt of an MPCA bill.
35.0		CD	hdr	F. Retroactive PSD Permitting Requirements - Tasks, Reports and CEMS (Table A under Subject Item: MR 001 through MR 005, and Table B have additional CEMS requirements)
36.0		CD	Title I conditions: to mitigate adverse impacts on Class I areas visibility from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000	<p>The Permittee shall commence pilot testing of selected NOx control technologies, upon receipt of written MPCA approval of the selection and the test schedule and receipt of permit(s) as needed. The Permittee shall collect data to be used for evaluation of control technology success. Pilot tests shall be completed by 12/31/2009, or as outlined in MPCA approved schedule, whichever is later.</p> <p>MPCA will evaluate the control technology using the following criteria at a minimum:</p> <ol style="list-style-type: none"> <li>1. technical feasibility or impact to pellet quality;</li> <li>2. significant NOx reduction;</li> <li>3. cross media impacts;</li> <li>4. multi-pollutant co-control benefits;</li> <li>5. energy efficiency or consumption impact; and</li> <li>6. economic feasibility.</li> </ol>
37.0		CD	Title I conditions: to mitigate adverse impacts on Class I areas visibility from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000	No more than 60 days after pilot test completion, submit Pilot Test Results of NOx control technologies for MPCA's approval. The Pilot Test Results submittal shall include, at a minimum, a technical description of each control technology tested, and a summary of major physical and chemical data obtained that are important for deciding whether or not the technology should be demonstrated. With the Pilot Test Results, the Permittee shall propose one control technology for full scale demonstration on one Agglomerator line and shall rank the other control technologies that have been pilot tested for potential demonstration.
38.0		S/A	Title I conditions: to mitigate adverse impacts on Class I areas visibility from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000	<p>Submittal of Permit Application: due 60 days after receipt of written MPCA approval of NOx emission control pilot testing results, for a major permit amendment to install a control technology at one Agglomerator line for a full scale demonstration.</p> <p>The Permittee shall submit a schedule of equipment installation, anticipated startup, and final reporting of the demonstration within 60 days of receipt of the Permit from the MPCA.</p>
39.0		CD	Title I conditions: to mitigate adverse impacts on Class I areas visibility from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000	The Permittee shall submit a schedule of equipment installation and anticipated startup of the full - scale demonstration on Line 4 (EU 261) Line 5 (EU 282) within 60 days of Permit Issuance. { This is a reminder; the requirement can also be found in Table B. }



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40.0		CD	Title I conditions: to mitigate adverse impacts on Class I areas visibility from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000	The Permittee shall commence full scale demonstration of the selected NOx control technology at one Agglomerator line, upon receipt of MPCA permit(s). This includes, but is not limited to the following tasks: 1) compiling emission monitoring and stack testing data that were generated before installing the control technology; 2) installing and operating the control technology; 3) monitoring emissions and conducting stack testing with the control technology operating; 4) collect capital and operating cost data. The goal is to have the demonstration completed by 2/1/2011. A goal is a target for the Permittee but is not intended to be an enforceable permit condition.
41.0		CD	Title I conditions: to mitigate adverse impacts on Class I areas visibility from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000	Within 60 days following completion of the full scale demonstration, submit a Full Scale Demonstration Report for MPCA approval. At a minimum, the report shall include a summary of: 1) mass rate (lb/hr) and concentration (ppmv, dry) of NOx, SO2, CO, and mercury entering and exiting each demonstrated control technology; 2) control efficiencies and emission factors in lb/dry, long ton of pellets made and in lb/million Btu total heat input for NOx, SO2, CO, and mercury, based on statistical analyses of hourly continuous emission and process monitoring results and, if necessary, additional stack testing results; and 3) cross-media quantification for scrubbing and/or plant process water.  (To be continued in the next box)
42.0		CD	Title I conditions: to mitigate adverse impacts on Class I areas visibility from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000	(Continued from the box above)  MPCA will evaluate the full scale technology demonstration using the criteria specified to evaluate the pilot testing at a minimum. The goal is to have NOx control technology installation completed for all operating lines by 2/1/2014, or as outlined in MPCA approved schedule, whichever is later. A goal is a target for the Permittee but is not intended to be an enforceable permit condition.
43.0		S/A	Title I conditions: to mitigate adverse impacts on Class I areas visibility from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000	Submittal of Permit Application: due 60 days after receipt of written MPCA approval of the final report on control technology demonstration on Line 4 (EU 261) and Line 5 (EU 282) for a major permit amendment to install the demonstrated control technology on the remaining Agglomerator lines.  The Permittee shall submit a schedule of equipment installation and anticipated startup of individual lines within 60 days of receipt of the Permit from the MPCA.
44.0		CD	Title I conditions: to mitigate adverse impacts on Class I areas visibility from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000	If the MPCA determines that the demonstrated control technology should not be installed on the remaining lines in operation, the Permittee shall commence demonstration of the next-ranked control technology option that was submitted with the Pilot Test Results and shall submit a Full Scale Demonstration report as required above. The Permittee shall continue this process until either the MPCA approves a control technology for installation on the remaining lines in operation or all of the ranked technology options have been exhausted. If all of the ranked technology options are exhausted and the MPCA has not approved a technology for installation on the remaining lines in operation, the Permittee shall propose a schedule for completion of a Supplemental Engineering Analysis that at a minimum identifies any previously unidentified NOx control technologies, NOx reduction strategies or then current industry practices. (To be continued in the next box)
45.0		CD	Title I conditions: to mitigate adverse impacts on Class I areas visibility from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000	(Continued from the box above) The specific provisions of the Supplemental Engineering Analysis shall be incorporated into the permit through the submission of a major permit amendment.  The Supplemental Engineering Analysis shall be submitted to the MPCA no later than 60 days after written notification from the MPCA that none of the pilot tested technologies are approvable for installation on all lines in operation. The Supplemental Engineering Analysis will identify new potentially feasible control technologies, based on previously identified criteria, and propose a schedule, for MPCA approval, of supplemental pilot tests, pilot test reports, installation of technology for a full scale demonstration, demonstration project reports, and full installation of control technology at remaining operating Agglomerator lines.  (To be continued in the next box)



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46.0		CD	Title I conditions: to mitigate adverse impacts on Class I areas visibility from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000	<p>(Continued from the box above)</p> <p>If the Supplemental Engineering Analysis concludes that no technologies are currently feasible, based on previously identified criteria, and MPCA approves, another Supplemental Engineering Analysis will be submitted by the Permittee within 1095 days of last Supplement Engineering Analysis submittal, with all of the procedures that the MPCA has previously approved, with the exception that the Permittee need not obtain a major permit amendment to implement additional Supplemental Engineering Analyses. The Permittee shall continue to submit Supplemental Engineering Analyses every 1095 days until NOx control technologies have been installed on all operating Agglomerator lines.</p> <p>(To be continued in the next box)</p>
47.0		CD	Title I conditions: to mitigate adverse impacts on Class I areas visibility from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000	<p>(Continued from the box above)</p> <p>If, after initial engineering analyses, pilot testing, demonstration projects, and an initial Supplemental Engineering Analysis, no control technologies are approved for full installation and significant NOx emission reductions have been achieved without full installation of control technologies on all operating Agglomerator lines, the Permittee may submit a request, in the form of a major permit amendment, to cease trials of NOx emissions control technologies.</p> <p>(End of the requirement that takes 4 boxes to hold)</p>
48.0		CD	Title I conditions: to mitigate adverse impacts on Class I areas visibility from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000	If the MPCA approves a demonstrated control technology for installation at the remaining lines in operation, the Permittee shall commence installation upon receipt of MPCA permits(s). If a non-operating line recommences operation, the Permittee shall install the approved NOx control technology before the line resumes operation. Installation includes, but is not limited to: 1) installing and operating the control technology; 2) monitoring emissions and conducting stack testing with the control technology operating and setting emission limits; and 3) collect capital and operating cost data.
49.0		CD	Title I conditions: to mitigate adverse impacts on Class I areas visibility from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000	Within 60 days after completion of full scale installation, submit a Final NOx Reduction Report for MPCA approval to document the NOx reduction process and major findings. At a minimum, the Final Report shall include a summary of: 1) demonstrated control efficiency of the control technology installed at each line and the emission factors (lb/LT pellets; lb/million Btu of total heat input) for each pollutant determined during the full scale demonstration; 2) associated cross-media impacts assessed and mitigation measures; 3) annualized cost of NOx control for the control technology installed (of capital cost for equipment and operation cost) per ton of NOx removed; 4) Low NOx burners, CFD work, the benefit of CEMS application, and other measures taken that contribute to reduction in induration NOx formation.
50.0		CD	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1006	Emission Monitoring: The owner or operator shall use a CEMS to measure mass emissions of NOx and SO2 from each of the following stacks: SV 103 (GP 009), SV 118 & SV 127 (GP 010), and SV 144 & SV 151 (GP 011). Monitoring requirements are located under the associated subject items (MR 001 through MR 005).
51.0		CD	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1090.	Continuous Operation: CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A CEMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment.
52.0		CD	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1160, subp. 1 and 2.	Monitoring Data: All data points collected by a CEMS shall be used to calculate individual hourly emission averages unless another applicable requirement or compliance document requires more frequent averaging. Each hourly average starts at the beginning of the hour and ends at the beginning of the following hour. In order for an hour of data to be considered, it must contain the following minimum number of data points: a) four data points, equally spaced, if the emission unit operated during the entire hour; b) two data points, at least 15 minutes apart, during periods of monitor calibration or routine maintenance; and c) one data point, if the emission unit operated for 15 minutes or less during the hour.



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53.0		CD	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1170, subp. 2.	QA Plan: Develop and implement a written quality assurance plan that covers each CEMS. The plan shall be on site and available for inspection within 30 days after monitor certification. The plan shall contain all of the information required by 40 CFR 60, Appendix F, section 3. The plan shall include the manufacturer's spare parts list for each CEMS and require that those parts be kept at the facility unless the Commissioner gives written approval to exclude specific spare parts from the list.
54.0		CD	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1170, subp. 3.	CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) gas concentrations at least once daily according to the procedures listed in Minn. R. 7017.1170, subp. 3 and 40 CFR 60.13(d)(1) for each pollutant concentration, each diluent monitor, and for each monitor range. The CEMS shall be adjusted whenever the CD exceeds twice the specification of 40 CFR 60, Appendix B. If no span value is specified in the applicable requirement or in a compliance document, the Permittee shall use a span value equivalent to 1.5 times the emission limit. 40 CFR 60, Appendix F, shall be used to determine out-of-control periods for CEMS. Follow the procedures in 40 CFR 60, Appendix F.
55.0		CD	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1180, subp. 2.	Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS Relative Accuracy Test Audit (RATA).
56.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1110, subp. 1 and 2.	Excess Emissions/Downtime Reports (EER's): due 30 days after end of each calendar quarter following Initial Startup of the Monitor. Submit Deviations Reporting Form DRF-1 as amended. The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e., during startup, shutdown, and malfunctions. The EER must be submitted even if there were no excess emissions, downtime or bypass during the quarter.
57.0		CD	hdr	G. MISCELLANEOUS
58.0		CD	Minn. R. 7007.1400, subp. 1(H)	Extension Requests: Except for Title I Conditions, 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).
59.0		CD	Minn. R. 7007.1150 through Minn. R. 7007.1500	Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.
60.0		CD	Minn. R. 7007.0800, subp. 9(A)	Inspections: Upon presentation of credentials and other documents as may be required by law, allow the Agency, or its representative, to enter the Permittee's premises to have access to and copy any records required by this permit, to inspect at reasonable times (which include any time the source is operating) any facilities, equipment, practices or operations, and to sample or monitor any substances or parameters at any location.
61.0		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.
62.0		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.
63.0		S/A	Minn. R. 7007.0400, subp. 3	Application for Permit Reissuance: due 180 days before expiration of Existing Permit
64.0		S/A	Minn. R. 7007.0800, subp. 6(A)(2)	Semiannual Deviations Report: due 30 days after end of each calendar half-year starting 02/26/2003. 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.



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

65.0		S/A	Minn. R. 7007.0800, subp. 6(C)	Compliance Certification: due 31 days after end of each calendar year starting 02/26/2003 (for the previous calendar year). To be submitted on a form approved by the Commissioner <, both to the Commissioner, and to the U.S. EPA regional office in Chicago>. This report covers all deviations experienced during the calendar year. < 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>
66.0		CD	Minn. R. 7007.0800, subp. 16	The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.
67.0		S/A	Minn. R. 7019.3000 through Minn. R. 7019.3010	Emissions Inventory Report: due 91 days after end of each calendar year starting 02/26/2003 (April 1). To be submitted on a form approved by the Commissioner.
68.0		S/A	Minn. R. 7007.0800, subp. 2	Submittal: due 1096 days after 02/26/2003 to provide modeling data as specified in MPCA Guidance for Modeling Information Request. The modeling information is for data collection purposes, no modeling analysis is required at this time. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 001 Pre-1977 heating boilers

**Associated Items:** EU 001 SI 104 MMBtu Heating Boiler  
EU 002 SI 104 MMBtu Heating Boiler  
EU 003 SII 125 MMBtu Heating Boiler  
EU 010 24.6 MMBtu Boiler  
EU 011 24.6 MMBtu Boiler  
SV 001 SI 104 MMBtu Boiler  
SV 002 SI 104 MMBtu Boiler  
SV 003 SII 125 MMBtu Boiler  
SV 010 24.6 MMBtu Boiler  
SV 011 24.6 MMBtu Boiler

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. POLLUTANT LIMITS
2.0		LIMIT	Minn. R. 7011.0510, subp. 1	Total Particulate Matter: less than or equal to 0.6 lbs/million Btu heat input
3.0		LIMIT	Minn. R. 7011.0510, subp. 1	Sulfur Dioxide: less than or equal to 2.0 lbs/million Btu heat input
4.0		LIMIT	Minn. R. 7011.0510, subp. 2	Opacity: less than or equal to 20 percent opacity , except for one six-minute period per hour of not more than 60 percent opacity.
5.0		CD	hdr	B. OPERATION REQUIREMENTS
6.0		CD	Minn. R. 7007.0800, subp. 4(B)	The Permittee shall record the amount of fuel oil burned each month. The Permittee shall obtain and maintain a fuel supplier certification of the sulfur weight percent for each shipment of fuel oil. If supplier certification is not available, the Permittee shall sample the fuel oil from multiple the tank(s) after each delivery but not more than once each calendar week when multiple deliveries are made. The Permittee shall analyze the oil sample to determine sulfur content of the fuel oil in ppercent by weight in accordance with the current ASTM method. The Permittee shall maintain records of the fuel deliveries and results of the fuel analysis.



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 002 Post-1977 heating boilers

**Associated Items:** EU 004 SIII 153 MMBtu Heating Boiler

EU 005 SIII 153 MMBtu Heating Boiler

SV 004 SIII 153 MMBtu Boiler

SV 005 SIII 153 MMBtu Boiler

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. POLLUTANT LIMITS
2.0		LIMIT	Minn. R. 7011.0515, subp. 1	Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input
3.0		LIMIT	Minn. R. 7011.0515, subp. 1	Sulfur Dioxide: less than or equal to 2.0 lbs/million Btu heat input
4.0		LIMIT	Minn. R. 7011.0515, subp. 2	Opacity: less than or equal to 20 percent opacity , except for one six-minute period per hour of not more than 60 percent opacity.
5.0		CD	hdr	B. OPERATION REQUIREMENTS
6.0		CD	Minn. R. 7007.0800, subp. 4(B)	The Permittee shall record the amount of fuel oil burned each month. The Permittee shall obtain and maintain a fuel supplier certification of the sulfur weight percent for each shipment of fuel oil. If supplier certification is not available, the Permittee shall sample the fuel oil from multiple the tank(s) after each delivery but not more than once each calendar week when multiple deliveries are made. The Permittee shall analyze the oil sample to determine sulfur content of the fuel oil in ppercent by weight in accordance with the current ASTM method. The Permittee shall maintain records of the fuel deliveries and results of the fuel analysis.



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 003 Panfeeders (Pre-1969)

**Associated Items:** CE 004 Wet Scrubber-High Efficiency w/o Lime

CE 005 Wet Scrubber-High Efficiency w/o Lime

EU 022 Step I Coarse Crusher Pan Feeders

EU 023 Step I Coarse Crusher Pan Feeders

EU 024 Step II Coarse Crusher Pan Feeders

EU 025 Step II Coarse Crusher Pan Feeders

SV 016 Step I Coarse Crusher Pan Feeders

SV 017 Step II Coarse Crusher Pan Feeders

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. POLLUTANT LIMITS
2.0		LIMIT	Minn. R. 7011.0710, 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; or, alternatively, as below:
3.0		LIMIT	Minn. R. 7011.0710, subp. 3	Total Particulate Matter: greater than or equal to 85 percent collection efficiency, provided that the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)
4.0		LIMIT	Minn. R. 7011.0710, subp. 1(B)	Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.
5.0		CD	hdr	B. CONTROL EQUIPMENT MONITORING
6.0		CD	Minn. R. 7007.0800, subp. 4(D); 14; 16(J)	Gas Stream Pressure Drop: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
7.0		CD	Minn. R. 7007.0800, subp. 4(D); 14; 16(J)	Liquid Flow Rate: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
8.0		CD	hdr	C. PERFORMANCE TESTING REQUIREMENTS
9.0		S/A	Minn. R. 7017.2020, subp. 1	Initial Performance Test: due 730 days after 02/26/2003 on one stack to measure PM emission.
10.0		S/A	Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each 60 months following Initial Performance Test on one stack that was not tested in the previous 60-month period to measure PM emission.
11.0		S/A	Minn. R. 7017.2030, subp. 1	Performance Test Notification (written): due 30 days before Performance Test
12.0		S/A	Minn. R. 7017.2030, subp. 2 and 3	Performance Test Plan: due 30 days before Performance Test
13.0		S/A	Minn. R. 7017.2030, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test
14.0		S/A	Minn. R. 7017.2035, subp. 1 and 2	Performance Test Report: due 45 days after Performance Test
15.0		S/A	Minn. R. 7017.2035, subp. 2	Performance Test Report - Microfiche Copy: due 105 days after Performance Test





## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 004 Zinc furnaces & miscellaneous ovens

**Associated Items:**

- EU 028 Zinc Melt Furnace
- EU 031 Zinc Melt Furnace
- EU 032 Zinc Melt Furnace
- EU 142 Zinc Melt Furnace
- EU 143 Zinc Melt Furnace
- EU 389 Electric Shop Curing Oven (new)
- EU 390 Burnout Oven
- SV 019 Zinc Melt Furnace
- SV 020 Zinc Melt Furnace
- SV 086 Zinc Melt Furnace
- SV 189 Electric Shop Curing Oven
- SV 190 Burnout Oven

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. POLLUTANT LIMITS
2.0		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.
3.0		LIMIT	Minn. R. 7011.0610, subp. 2(B)(1)	Sulfur Dioxide: less than or equal to 2 lbs/million Btu heat input
4.0		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.
5.0		CD	hdr	B. OPERATION REQUIREMENTS
6.0		CD	Minn. R. 7007.0800, subp. 4(B)	The Permittee shall record the amount of fuel oil burned each month. The Permittee shall obtain and maintain a fuel supplier certification of the sulfur weight percent for each shipment of fuel oil. If supplier certification is not available, the Permittee shall sample the fuel oil from multiple the tank(s) after each delivery but not more than once each calendar week when multiple deliveries are made. The Permittee shall analyze the oil sample to determine sulfur content of the fuel oil in ppercent by weight in accordance with the current ASTM method. The Permittee shall maintain records of the fuel deliveries and results of the fuel analysis.



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 005 Conveyor transfer points (26A-91-I/O-1)

**Associated Items:** CE 014 Wet Scrubber-High Efficiency w/o Lime

CE 015 Wet Scrubber-High Efficiency w/o Lime

EU 049 Conveyor Transfer 005 Feed

EU 050 Conveyor Transfer 005 Discharge

SV 027 Conveyor Transfer 005 Feed

SV 028 Conveyor Transfer 005 Discharge

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. POLLUTANT LIMITS
2.0		LIMIT	Title I Condition: a 1991 action that avoided major classification under 40 CFR 52.21	Total Particulate Matter: less than or equal to 0.02 grains/dry standard cubic foot
3.0		LIMIT	Title I Condition: a 1991 action that avoided major classification under 40 CFR 52.21	Particulate Matter < 10 micron: less than or equal to 0.01 grains/dry standard cubic foot
4.0		CD	hdr	B. CONTROL EQUIPMENT MONITORING
5.0		CD	Minn. R. 7007.0800, subp. 4(D); 14; 16(J)	Gas Stream Pressure Drop: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
6.0		CD	Minn. R. 7007.0800, subps. 4(D); 14; 16(J)	Liquid Flow Rate: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
7.0		CD	hdr	C. PERFORMANCE TESTING REQUIREMENTS
8.0		S/A	Minn. R. 7017.2020, subp. 1	Initial Performance Test: due 730 days after 11/30/2004 on one stack to measure PM and PM10 emissions.
9.0		S/A	Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each 60 months following Initial Performance Test on the stack that was not tested in the previous 60-month period to measure PM and PM10 emissions.
10.0		S/A	Minn. R. 7017.2030, subp. 1	Performance Test Notification (written): due 30 days before Performance Test
11.0		S/A	Minn. R. 7017.2030, subp. 2 and 3	Performance Test Plan: due 30 days before Performance Test
12.0		S/A	Minn. R. 7017.2030, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test
13.0		S/A	Minn. R. 7017.2035, subp. 1 and 2	Performance Test Report: due 45 days after Performance Test
14.0		S/A	Minn. R. 7017.2035, subp. 2	Performance Test Report - Microfiche Copy: due 105 days after Performance Test



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 006 Stationary internal combustion engines

**Associated Items:**

- EU 006 Diesel Generator
- EU 008 Diesel Generator
- EU 009 Diesel Fire Pump
- EU 012 Diesel Generator
- EU 051 Diesel Generator
- EU 215 Diesel Generator
- EU 216 Diesel Generator
- EU 383 Diesel Generator
- EU 384 Diesel Generator
- EU 385 Diesel Generator
- EU 386 Diesel Generator
- EU 387 Air Compressor
- SV 006 Diesel Generator
- SV 009 Diesel Fire Pump
- SV 012 Diesel Generator
- SV 029 Diesel Generator
- SV 098 Diesel Generator
- SV 099 Diesel Generator
- SV 183 Diesel Generator
- SV 184 Diesel Generator
- SV 185 Diesel Generator
- SV 186 Diesel Generator
- SV 187 Diesel Air Compressor

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. POLLUTANT LIMITS
2.0		LIMIT	Minn. R. 7011.2300, subp. 2	Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input
3.0		LIMIT	Minn. R. 7011.2300, subp. 1	Opacity: less than or equal to 20 percent opacity once operating temperatures have been attained.
4.0		CD	hdr	B. OPERATION REQUIREMENTS
5.0		CD	Minn. R. 7007.0800, subp. 4(B)	The Permittee shall record the amount of diesel fuel consumed each calendar quarter. The Permittee shall obtain and maintain a fuel supplier certification of the sulfur weight percent for each shipment of diesel fuel. If supplier certification is not available, the Permittee shall sample diesel fuel from multiple the tank(s) after each delivery but not more than once each calendar week when multiple deliveries are made. The Permittee shall analyze the fuel sample to determine sulfur content of diesel fuel in ppercent by weight in accordance with the current ASTM method. The Permittee shall maintain records of the fuel deliveries and results of the fuel analysis.



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 007 Coal handling sources

**Associated Items:** CE 139 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 140 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 367 Coal Unloading Silo

EU 368 Coal Unloading Silo

EU 369 Coal Unloading Silo

EU 370 Coal Unloading Silo

EU 371 Coal Unloading Silo

EU 372 Coal Unloading Silo

EU 373 Coal Unloading Silo

EU 374 Coal Day Bin/Conveyor Transfer

EU 375 Coal Day Bin/Conveyor Transfer

EU 376 Coal Day Bin/Conveyor Transfer

EU 377 Coal Day Bin/Conveyor Transfer

EU 378 Coal Day Bin/Conveyor Transfer

EU 379 Coal Day Bin/Conveyor Transfer

EU 380 Coal Day Bin/Conveyor Transfer

EU 381 Coal Day Bin/Conveyor Transfer

EU 382 Coal Day Bin/Conveyor Transfer

SV 181 Coal Unloading Silo

SV 182 Coal Day Bin/Conveyor Transfer

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. POLLUTANT LIMITS
2.0		LIMIT	40 CFR 60.252(c); Minn. R. 7011.1150	Opacity: less than or equal to 20 percent opacity
3.0		CD	hdr	B. CONTROL EQUIPMENT MONITORING
4.0		CD	Minn. R. 7007.0800, subp. 4(D); 14; 16(J)	Gas Stream Pressure Drop: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
5.0		CD	Minn. R. 7007.0800, subp. 4(D); 14; 16(J)	Process Monitoring: the visual emissions observer in the facility staff shall check stack visible emissions (opacity) once daily using a checklist that at a minimum contains the information required in Appendix B. If the Permittee uses for a control device a broken bag detector approved by the MPCA, the Permittee does not need to conduct visible emissions checks for the stack associated with the control device in this group.
6.0		CD	hdr	C. PERFORMANCE TESTING REQUIREMENTS
7.0		S/A	Minn. R. 7017.2020, subp. 1	Initial Performance Test: due 180 days after 11/07/2003 on both stacks to measure Opacity emission.
8.0		S/A	Minn. R. 7017.2020, subp. 1	Testing Frequency Plan: due 60 days after Initial Performance Test. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.
9.0		S/A	Minn. R. 7017.2030, subp. 1	Performance Test Notification (written): due 30 days before Performance Test
10.0		S/A	Minn. R. 7017.2030, subp. 2 and 3	Performance Test Plan: due 30 days before Performance Test
11.0		S/A	Minn. R. 7017.2030, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test
12.0		S/A	Minn. R. 7017.2035, subp. 1 and 2	Performance Test Report: due 45 days after Performance Test
13.0		S/A	Minn. R. 7017.2035, subp. 2	Performance Test Report - Microfiche Copy: due 105 days after Performance Test



# COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 009 Agglomerator Line 3

**Associated Items:** CE 086 Other

CE 088 Gravity Collector - Low Efficiency

CE 145 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones

CE 146 Wet Scrubber-High Efficiency

EU 223 L3 Traveling Grate

EU 225 L3 Rotary Kiln

EU 226 L3 Pellet Cooler Secondary Air

MR 001 NOx & SO2 CEMS at Line 3 Waste Gas Stack (SV 103)

SV 103 L3 Waste Gas Stack

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. POLLUTANT LIMITS
2.0		LIMIT	Title I conditions: to mitigate adverse impacts on Class I areas visibility from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000	Nitrogen Oxides: less than or equal to 5000 lbs/hour using 24-hour Block Average from all five waste gas stacks combined (GP 009 through 011; SV 103, 118, 127, 144, and 151) at Permit Issuance.
3.0		LIMIT	Title I conditions: to mitigate adverse impacts on Class I areas visibility from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000	Nitrogen Oxides: less than or equal to 13300 tons/year using 365-day Rolling Sum from all five waste gas stacks combined (GP 009 through 011; SV 103, 118, 127, 144, and 151) at Permit Issuance. Representative NOx emission data shall be used to demonstrate compliance for the first 365 days.
4.0		LIMIT	Title I conditions: to mitigate adverse impacts on Class I areas visibility from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000	Nitrogen Oxides: less than or equal to 7300 tons/year using 365-day Rolling Sum from all five waste gas stacks combined (GP 009 through 011; SV 103, 118, 127, 144, and 151) no later than Feb. 1, 2010.
5.0		LIMIT	Title I Condition: BACT emission limit, 40 CFR 52.21(j)(3); Minn. R. 7007.3000.	Fluorides: less than or equal to 1.04 lbs/hour using 3-hour Average at Line 3 Waste Gas Stack (SV 103).
6.0		LIMIT	Title I Condition: BACT emission limit, 40 CFR 52.21(j)(3); Minn. R. 7007.3000.	Carbon Monoxide: less than or equal to 68.8 lbs/hour using 3-hour Average at Line 3 Waste Gas Stack (SV 103).
7.0		LIMIT	Title I Condition: BACT emission limit, 40 CFR 52.21(j)(3); Minn. R. 7007.3000.	Volatile Organic Compounds: less than or equal to 51.6 lbs/hour using 3-hour Average, as propane, at Line 3 Waste Gas Stack (SV 103).
8.0		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.
9.0		LIMIT	Minn. R. 7011.0610, subp. 2(B)	Sulfur Dioxide: less than or equal to 2 lbs/million Btu heat input when liquid fuel is combusted.
10.0		LIMIT	Minn. R. 7011.0610, subp. 2(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.
11.0		CD	hdr	B. OPERATION REQUIREMENTS  (Note - CEMS requirements can be found in Table A under Subject Item: Total Facility, Section F, and Subject Items MR 001 through MR 005; and in Table B)
12.0		CD	Title I Condition: To address fuel options for the indurating process modification of 1987-1989, 40 CFR 52.21(j)(3); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2	Fuel Restrictions: The Permittee shall combust at the kiln burner natural gas, fuel oil, and/or types of biomass that are specified in Appendix 1 of this permit; and at the preheat burners natural gas. Other fuels may be combusted for a short period of time during a trial burn as approved by an amendment to this permit.



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

13.0		LIMIT	Minn. R. 7007.0800, subp. 2	Material Usage: less than or equal to 3000 gallons/month of fuel additive for Agglomerator Lines 3, 4, 5, 6, and 7 (Groups 9, 10, and 11) combined. The Permittee shall maintain for at least three years a monthly record of fuel additive usage including brands and suppliers.
14.0		LIMIT	Minn. R. 7007.0800, subp. 2	Material Usage: less than or equal to 16000 gallons/month of slag inhibitor for Agglomerator Lines 3, 4, 5, 6, and 7 (Groups 9, 10, and 11) combined. The Permittee shall maintain for at least three years a monthly record of slag inhibitor usage including brands and suppliers.
15.0		CD	Minn. R. 7007.0800, subp. 4(B)	Material/Fuel Usage and Sulfur Content: The Permittee shall 1) record the amount of materials and fuel consumed each day; 2) obtain and maintain a fuel supplier certification of the sulfur weight percent for each shipment of fuel, or sample the fuel oil from multiple the tank(s) after each delivery but not more than once each calendar week when multiple deliveries are made; 3) sample materials entering the grate-kiln once each calendar week; and 4) maintain records of the fuel deliveries, material usage, and analyses results. The Permittee shall analyze the fuel and material samples to determine their sulfur content in ppercent by weight and fuel heating value in accordance with the current ASTM method.
16.0		CD	hdr	C. CONTROL EQUIPMENT MONITORING
17.0		CD	Title I Condition: Monitoring for fluoride BACT, 40 CFR 52.21(j)(3); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Gas Stream Pressure Drop: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
18.0		CD	Title I Condition: Monitoring for fluoride BACT, 40 CFR 52.21(j)(3); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Liquid Flow Rate: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
19.0		CD	Title I Condition: Monitoring for CO & VOC BACT, 40 CFR 52.21(j)(3); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Waste Gas to Heat Input Ratio: The Permittee shall calculate and record, for each hour when valid data are available, the ratio of SV 103 gas flow, as measured by CEMS in cubic feet per hour in standard conditions (scfh), to total heat input at kiln and grate burners in British Thermal Units per hour (Btu/hr). This ratio will be used as an indicator to learn how complete CO & VOC are destroyed in the indurating furnace.
20.0		CD	hdr	D. PERFORMANCE TESTING REQUIREMENTS
21.0		S/A	Title I Condition: BACT emission limit, 40 CFR 52.21(j)(3); Minn. R. 7007.3000.	Initial Performance Test: due 180 days after 12/22/2008 to measure Fluorides, CO, and VOC emissions at Line 3 Waste Gas Stack (SV 103).
22.0		S/A	Title I Condition: BACT emission limit, 40 CFR 52.21(j)(3); Minn. R. 7007.3000.	Testing Frequency Plan: due 60 days after Initial Performance Test. The plan shall specify a testing frequency for fluorides, CO, and VOC based on the test data and MPCA guidance. Future performance tests based on one-year (12-month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.
23.0		S/A	Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each 60 months starting 05/17/2005 to measure PM and Opacity emissions.
24.0		S/A	Minn. R. 7017.2030, subp. 1	Performance Test Notification (written): due 30 days before Performance Test
25.0		S/A	Minn. R. 7017.2030, subp. 2 and 3	Performance Test Plan: due 30 days before Performance Test
26.0		S/A	Minn. R. 7017.2030, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test
27.0		S/A	Minn. R. 7017.2035, subp. 1 and 2	Performance Test Report: due 45 days after Performance Test
28.0		S/A	Minn. R. 7017.2035, subp. 2	Performance Test Report - Microfiche Copy: due 105 days after Performance Test



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 010 Agglomeration Lines 4 & 5

**Associated Items:**

- CE 101 Other
- CE 102 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones
- CE 103 Wet Scrubber-High Efficiency w/o Lime
- CE 111 Other
- CE 112 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones
- CE 113 Wet Scrubber-High Efficiency w/o Lime
- CE 181 Line 4 Low NOx Main Burner
- CE 182 Line 5 Low NOx Main Burner
- EU 259 L4 Traveling Grate
- EU 260 L4 Recoup System Air
- EU 261 L4 Rotary Kiln
- EU 262 L4 Pellet Cooler Secondary Air
- EU 280 L5 Traveling Grate
- EU 281 L5 Recoup System Air
- EU 282 L5 Rotary Kiln
- EU 283 L5 Pellet Cooler Secondary Air
- MR 002 NOx & SO2 CEMS at Line 4 Waste Gas Stack (SV 118)
- MR 003 NOx & SO2 CEMS at Line 5 Waste Gas Stack (SV 127)
- SV 118 L4 Waste Gas Stack
- SV 127 L5 Waste Gas Stack

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	CONSTRUCTION AUTHORIZATION
2.0		CD	Title I Condition: To avoid classification of changes as major modifications under 40 CFR Section 52.21 & Minn. R. 7007.3000	Construction Authorization for CE 181 and CE 182: The construction authorization expires 5 years after permit issuance. The Permittee must keep a record of the dates of installation and start-up on site. The Permittee may apply for an extension of the construction authorization deadline by following the Administrative Amendment provisions in Minn. R. 7007.1400.
3.0		CD	hdr	A. POLLUTANT LIMITS
4.0		LIMIT	Title I conditions: to mitigate adverse impacts on Class I areas visibility from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000	Nitrogen Oxides: less than or equal to 5000 lbs/hour using 24-hour Block Average from all five waste gas stacks combined (GP 009 through 011; SV 103, 118, 127, 144, and 151) at Permit Issuance.
5.0		LIMIT	Title I conditions: to mitigate adverse impacts on Class I areas visibility from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000	Nitrogen Oxides: less than or equal to 13300 tons/year using 365-day Rolling Sum from all five waste gas stacks combined (GP 009 through 011; SV 103, 118, 127, 144, and 151) at Permit Issuance. Representative NOx emission data shall be used to demonstrate compliance for the first 365 days.
6.0		LIMIT	Title I conditions: to mitigate adverse impacts on Class I areas visibility from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000	Nitrogen Oxides: less than or equal to 7300 tons/year using 365-day Rolling Sum from all five waste gas stacks combined (GP 009 through 011; SV 103, 118, 127, 144, and 151) no later than Feb. 1, 2010.
7.0		LIMIT	Title I Condition: BACT emission limit, 40 CFR 52.21(j)(3); Minn. R. 7007.3000.	Fluorides: less than or equal to 1.62 lbs/hour using 3-hour Average at Line 4 Waste Gas Stack (SV 118) and Line 5 Waste Gas Stack (SV 127), respectively.
8.0		LIMIT	Title I Condition: BACT emission limit, 40 CFR 52.21(j)(3); Minn. R. 7007.3000.	Carbon Monoxide: less than or equal to 98.6 lbs/hour using 3-hour Average at Line 4 Waste Gas Stack (SV 118) and Line 5 Waste Gas Stack (SV 127), respectively.



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

9.0		LIMIT	Title I Condition: BACT emission limit, 40 CFR 52.21(j)(3); Minn. R. 7007.3000.	Volatile Organic Compounds: less than or equal to 74.0 lbs/hour using 3-hour Average , as propane, at Line 4 Waste Gas Stack (SV 118) and Line 5 Waste Gas Stack (SV 127), respectively.
10.0		LIMIT	Minn. R. 7011.0610, subp. 2(B)(1)	Sulfur Dioxide: less than or equal to 2 lbs/million Btu heat input , if a liquid fossil fuel is burned.
11.0		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; or, alternatively, as below:
12.0		LIMIT	Minn. R. 7011.0610, subp. 1(A)(1); Minn. R. 7011.0715, subp. 3	Total Particulate Matter: greater than or equal to 85 percent collection efficiency , provided that the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)
13.0		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.
14.0		CD	hdr	B. OPERATION REQUIREMENTS  (Note - CEMS requirements can be found in Table A under Subject Item: Total Facility, Section F, and Subject Items MR 001 through MR 005; and in Table B)
15.0		CD	Title I Condition: To address fuel options for the indurating process modification of 1987-1989, 40 CFR 52.21(j)(3); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2	Fuel Restrictions: The Permittee shall combust at the kiln burner natural gas, fuel oil, and/or types of biomass that are specified in Appendix 1 of this permit; and at the preheat burners natural gas. Other fuels may be combusted for a short period of time during a trial burn as approved by an amendment to this permit.
16.0		LIMIT	Minn. R. 7007.0800, subp. 2	Material Usage: less than or equal to 3000 gallons/month of fuel additive for Agglomerator Lines 3, 4, 5, 6, and 7 (Groups 9, 10, and 11) combined. The Permittee shall maintain for at least three years a monthly record of fuel additive usage including brands and suppliers.
17.0		LIMIT	Minn. R. 7007.0800, subp. 2	Material Usage: less than or equal to 16000 gallons/month of slag inhibitor for Agglomerator Lines 3, 4, 5, 6, and 7 (Groups 9, 10, and 11) combined. The Permittee shall maintain for at least three years a monthly record of slag inhibitor usage including brands and suppliers.
18.0		CD	Minn. R. 7007.0800, subp. 4(B)	Material/Fuel Usage and Sulfur Content: The Permittee shall record the amount of materials and fuel consumed each day. The Permittee shall obtain and maintain a fuel supplier certification of the sulfur weight percent for each shipment of fuel or sample the fuel oil from multiple the tank(s) after each delivery but not more than once each calendar week when multiple deliveries are made. The Permittee shall sample materials entering the grate-kiln once each calendar week. The Permittee shall analyze the fuel and material samples to determine their sulfur content in ppercent by weight and fuel heating value in accordance with the current ASTM method. The Permittee shall maintain records of the fuel deliveries, material usage, and analyses results.
19.0		CD	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14	The Permittee shall operate and maintain the scrubber (CE 103) at any time that the process equipment controlled by the scrubber (EU 261) is in operation. The Permittee shall document periods of non-operation of the control equipment.
20.0		CD	Title I Condition: To avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 2 and 14	The Permittee shall operate and maintain the scrubber (CE 113) at any time that the process equipment controlled by the scrubber (EU 282) is in operation. The Permittee shall document periods of non-operation of the control equipment.
21.0		CD	Minn. R. 7007.0800, subp. 14	The Permittee shall operate and maintain the scrubbers in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available for use by staff and MPCA staff.
22.0		CD	hdr	C. CONTROL EQUIPMENT MONITORING





## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

23.0		CD	Title I Condition: Monitoring for fluoride BACT, 40 CFR 52.21(j)(3); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Gas Stream Pressure Drop: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
24.0		CD	Title I Condition: Monitoring for fluoride BACT, 40 CFR 52.21(j)(3); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Liquid Flow Rate: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
25.0		CD	Title I Condition: Monitoring for CO & VOC BACT, 40 CFR 52.21(j)(3); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Waste Gas to Heat Input Ratio: The Permittee shall calculate and record, for each hour when valid data are available, the ratio of SV 118 gas flow, as measured by CEMS in cubic feet per hour in standard conditions (scfh), to total heat input at kiln and grate burners of Line 4 in British Thermal Units per hour (Btu/hr); and, similarly, the ratio of SV 127 gas flow to total heat input of Line 5. The ratio will be used as an indicator to learn how complete CO & VOC are destroyed in each indurating furnace.
26.0		CD	hdr	D. PERFORMANCE TESTING REQUIREMENTS
27.0		S/A	Title I Condition: BACT emission limit, 40 CFR 52.21(j)(3); Minn. R. 7007.3000.	Initial Performance Test: due 180 days after 12/22/2008 to measure Fluorides, CO, and VOC emissions at Line 4 Waste Gas Stack (SV 118) and Line 5 Waste Gas Stack (SV 127), respectively.
28.0		S/A	Title I Condition: BACT emission limit, 40 CFR 52.21(j)(3); Minn. R. 7007.3000.	Testing Frequency Plan: due 60 days after Initial Performance Test. For each of Lines 4 and 5, the plan shall specify a testing frequency for fluorides, CO, and VOC based on the test data and MPCA guidance. Future performance tests based on one-year (12-month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.
29.0		S/A	Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each 60 months starting 05/18/2005 on the stack that was not tested in the previous 60-month period to measure PM and Opacity emissions.
30.0		S/A	Minn. R. 7017.2030, subp. 1	Performance Test Notification (written): due 30 days before Performance Test
31.0		S/A	Minn. R. 7017.2030, subp. 2 and 3	Performance Test Plan: due 30 days before Performance Test
32.0		S/A	Minn. R. 7017.2030, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test
33.0		S/A	Minn. R. 7017.2035, subp. 1 and 2	Performance Test Report: due 45 days after Performance Test
34.0		S/A	Minn. R. 7017.2035, subp. 2	Performance Test Report - Microfiche Copy: due 105 days after Performance Test



# COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 011 Agglomeration Lines 6 & 7 (Action 007)

**Associated Items:**

- CE 123 Other
- CE 124 Gravity Collector - High Efficiency
- CE 125 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones
- CE 126 Wet Scrubber-High Efficiency w/o Lime
- CE 133 Other
- CE 134 Gravity Collector - High Efficiency
- CE 135 Multiple Cyclone w/o Fly Ash Reinjection - Most Multiclones
- CE 136 Wet Scrubber-High Efficiency w/o Lime
- EU 313 L6 Traveling Grate
- EU 314 L6 Recoup System Air
- EU 315 L6 Rotary Kiln
- EU 316 L6 Pellet Cooler Secondary Air
- EU 332 L7 Traveling Grate
- EU 333 L7 Recoup System Air
- EU 334 L7 Rotary Kiln
- EU 335 L7 Pellet Cooler Secondary Air
- MR 004 NOx & SO2 CEMS at Line 6 Waste Gas Stack (SV 144)
- MR 005 NOx & SO2 CEMS at Line 7 Waste Gas Stack (SV 151)
- SV 144 L6 Waste Gas Stack
- SV 151 L7 Waste Gas Stack

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. POLLUTANT LIMITS
2.0		LIMIT	Title I conditions: to mitigate adverse impacts on Class I areas visibility from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000	Nitrogen Oxides: less than or equal to 5000 lbs/hour using 24-hour Block Average from all five waste gas stacks combined (GP 009 through 011; SV 103, 118, 127, 144, and 151) at Permit Issuance.
3.0		LIMIT	Title I conditions: to mitigate adverse impacts on Class I areas visibility from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000	Nitrogen Oxides: less than or equal to 13300 tons/year using 365-day Rolling Sum from all five waste gas stacks combined (GP 009 through 011; SV 103, 118, 127, 144, and 151) at Permit Issuance. Representative NOx emission data shall be used to demonstrate compliance for the first 365 days.
4.0		LIMIT	Title I conditions: to mitigate adverse impacts on Class I areas visibility from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000	Nitrogen Oxides: less than or equal to 7300 tons/year using 365-day Rolling Sum from all five waste gas stacks combined (GP 009 through 011; SV 103, 118, 127, 144, and 151) no later than Feb. 1, 2010.
5.0		LIMIT	Title I Condition: BACT emission limit, 40 CFR 52.21(j)(3); Minn. R. 7007.3000.	Fluorides: less than or equal to 1.62 lbs/hour using 3-hour Average at Line 6 Waste Gas Stack (SV 144) and Line 7 Waste Gas Stack (SV 151), respectively.
6.0		LIMIT	Title I Condition: BACT emission limit, 40 CFR 52.21(j)(3); Minn. R. 7007.3000.	Carbon Monoxide: less than or equal to 74.0 lbs/hour using 3-hour Average at Line 6 Waste Gas Stack (SV 144) and Line 7 Waste Gas Stack (SV 151), respectively.
7.0		LIMIT	Title I Condition: a 1997 action that avoided major classification under 40 CFR 52.21	Carbon Monoxide: less than or equal to 99 tons/year using 12-month Rolling Sum for the combustion of wood waste (wood, wood bark, and sawdust) at Lines 6 and 7 combined.
8.0		LIMIT	Title I Condition: BACT emission limit, 40 CFR 52.21(j)(3); Minn. R. 7007.3000.	Volatile Organic Compounds: less than or equal to 54.3 lbs/hour using 3-hour Average, as propane, at Line 6 Waste Gas Stack (SV 144) and Line 7 Waste Gas Stack (SV 151), respectively.



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

9.0		LIMIT	Title I Condition: a 1997 action that avoided major classification under 40 CFR 52.21	Volatile Organic Compounds: less than or equal to 39 tons/year using 12-month Rolling Sum for the combustion of wood waste (wood, wood bark, and sawdust) at Lines 6 and 7 combined.
10.0		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; or, alternatively, as below:
11.0		LIMIT	Minn. R. 7011.0610, subp. 1(A)(1); Minn. R. 7011.0715, subp. 3	Total Particulate Matter: greater than or equal to 85 percent collection efficiency , provided that the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)
12.0		LIMIT	Minn. R. 7011.0610, subp. 2(B)(1)	Sulfur Dioxide: less than or equal to 2 lbs/million Btu heat input , if a liquid fossil fuel is burned; or less than or equal to 4 lbs/million Btu heat input, if a solid fossil fuel is burned.
13.0		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.
14.0		CD	hdr	B. OPERATION REQUIREMENTS  (Note - CEMS requirements can be found in Table A under Subject Item: Total Facility, Section F, and Subject Items MR 001 through MR 005; and in Table B)
15.0		CD	Title I Condition: To address fuel options for the indurating process modification of 1987-1989, 40 CFR 52.21(j)(3); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2	Fuel Restrictions: The Permittee shall combust at the kiln burner natural gas, coal, fuel oil, and/or types of biomass that are specified in Appendix 1 of this permit; and at the preheat burners natural gas. Other fuels may be combusted for a short period of time during a trial burn as approved by an amendment to this permit.
16.0		CD	Title I Condition: a 1997 action that avoided major classification under 40 CFR 52.21	Heating Value and Usage of Wood Waste Fuel: a representative wood waste fuel sample shall be collected and analyzed for heating value (Btu/lb) once each calendar quarter. The Permittee shall record, in tons/month, the amount of wood waste combusted in the kilns of this Group.
17.0		CD	Title I Condition: a 1997 action that avoided major classification under 40 CFR 52.21	CO and VOC Emission Factors: a performance test for CO and VOC shall be conducted, at either one or both kilns of this Group for at least once, to generate emission factors in lbs/million Btu for purpose of emission calculation for the combustion of wood waste (wood, wood bark, and sawdust).
18.0		LIMIT	Minn. R. 7007.0800, subp. 2	Material Usage: less than or equal to 3000 gallons/month of fuel additive for Agglomerator Lines 3, 4, 5, 6, and 7 (Groups 9, 10, and 11) combined. The Permittee shall maintain for at least three years a monthly record of fuel additive usage including brands and suppliers.
19.0		LIMIT	Minn. R. 7007.0800, subp. 2	Material Usage: less than or equal to 16000 gallons/month of slag inhibitor for Agglomerator Lines 3, 4, 5, 6, and 7 (Groups 9, 10, and 11) combined. The Permittee shall maintain for at least three years a monthly record of slag inhibitor usage including brands and suppliers.
20.0		CD	Minn. R. 7007.0800, subp. 4(B)	Material/Fuel Usage and Sulfur Content: The Permittee shall record the amount of materials and fuel consumed each day. The Permittee shall obtain and maintain a fuel supplier certification of the sulfur weight percent for each shipment of fuel or sample the fuel oil from multiple the tank(s) after each delivery but not more than once each calendar week when multiple deliveries are made. The Permittee shall sample other fuels and materials entering the grate-kiln once each calendar week. The Permittee shall analyze the fuel and material samples to determine their sulfur content in ppercent by weight and fuel heating value in accordance with the current ASTM method. The Permittee shall maintain records of the fuel deliveries, material usage, and analyses results.
21.0		CD	hdr	C. CONTROL EQUIPMENT MONITORING
22.0		CD	Title I Condition: Monitoring for fluoride BACT, 40 CFR 52.21(j)(3); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Gas Stream Pressure Drop: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
23.0		CD	Title I Condition: Monitoring for fluoride BACT, 40 CFR 52.21(j)(3); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Liquid Flow Rate: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

24.0		CD	Title I Condition: Monitoring for CO & VOC BACT, 40 CFR 52.21(j)(3); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Waste Gas to Heat Input Ratio: The Permittee shall calculate and record, for each hour when valid data are available, the ratio of SV 144 gas flow, as measured by CEMS in cubic feet per hour in standard conditions (scfh), to total heat input at kiln and grate burners of Line 6 in British Thermal Units per hour (Btu/hr); and, similarly, the ratio of SV 151 gas flow to total heat input of Line 7. The ratio will be used as an indicator to learn how complete CO & VOC are destroyed in each indurating furnace.
25.0		CD	hdr	D. PERFORMANCE TESTING REQUIREMENTS
26.0		S/A	Title I Condition: BACT emission limit, 40 CFR 52.21(j)(3); Minn. R. 7007.3000.	Initial Performance Test: due 180 days after 12/22/2008 to measure Fluorides, CO, and VOC emissions at Line 6 Waste Gas Stack (SV 144) and Line 7 Waste Gas Stack (SV 151), respectively.
27.0		S/A	Title I Condition: BACT emission limit, 40 CFR 52.21(j)(3); Minn. R. 7007.3000.	Testing Frequency Plan: due 60 days after Initial Performance Test. For each of Lines 6 and 7, the plan shall specify a testing frequency for fluorides, CO, and VOC based on the test data and MPCA guidance. Future performance tests based on one-year (12-month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.
28.0		S/A	Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each 60 months starting 04/20/2005 on the stack that was not tested in the previous 60-month period to measure PM and Opacity emissions.
29.0		S/A	Minn. R. 7017.2030, subp. 1	Performance Test Notification (written): due 30 days before Performance Test
30.0		S/A	Minn. R. 7017.2030, subp. 2 and 3	Performance Test Plan: due 30 days before Performance Test
31.0		S/A	Minn. R. 7017.2030, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test
32.0		S/A	Minn. R. 7017.2035, subp. 1 and 2	Performance Test Report: due 45 days after Performance Test
33.0		S/A	Minn. R. 7017.2035, subp. 2	Performance Test Report - Microfiche Copy: due 105 days after Performance Test



# COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 012 Pre-1969 ore transfer points around crushers

**Associated Items:** CE 001 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 008 Wet Scrubber-High Efficiency w/o Lime

CE 010 Wet Scrubber-High Efficiency w/o Lime

CE 016 Wet Scrubber-High Efficiency w/o Lime

CE 021 Wet Scrubber-High Efficiency w/o Lime

CE 022 Wet Scrubber-High Efficiency w/o Lime

CE 047 Wet Scrubber-High Efficiency w/o Lime

EU 013 Step I Coarse Crusher

EU 014 Step I Coarse Crusher

EU 034 Conveyor Transfer 005-006

EU 035 Conveyor Transfer 005-006

EU 040 Conveyor Transfer 005-006

EU 052 Conveyor Transfer 008 to 009

EU 053 Conveyor Transfer 008 to 009

EU 058 Conveyor Transfer 005 to 006

EU 059 Conveyor Transfer 005 to 006

EU 060 Conveyor Transfer 005 to 006

EU 061 Conveyor Transfer 003 to 004

EU 062 Conveyor Transfer 003 to 004

EU 063 Conveyor Transfer 003 to 004

EU 064 Conveyor Transfer 003 to 004

EU 065 Tertiary Storage Bin 1-4

EU 066 Tertiary Storage Bin 1-4

EU 067 Tertiary Storage Bin 1-4

EU 102 Storage Bin 070-02

SV 013 Step I Coarse Crusher

SV 021 Conveyor Transfer 005-006

SV 023 Conveyor Transfer 005-006

SV 030 Conveyor Transfer 008-009

SV 035 Conveyor Transfer 005-006

SV 036 Conveyor Transfer 003-004

SV 037 Tertiary Storage Bins 1-4

SV 061 Storage Bin 070-02

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. POLLUTANT LIMITS
2.0		LIMIT	Minn. R. 7011.0710, 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; or, alternatively, as below:
3.0		LIMIT	Minn. R. 7011.0710, subp. 3	Total Particulate Matter: greater than or equal to 85 percent collection efficiency , provided that the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

4.0		LIMIT	Minn. R. 7011.0710, subp. 1(B)	Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.
5.0		CD	hdr	B. CONTROL EQUIPMENT MONITORING
6.0		CD	Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Gas Stream Pressure Drop: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
7.0		CD	Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Liquid Flow Rate for Wet Scrubbers: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
8.0		CD	Minn. R. 7007.0800, subp. 4(D); 14; 16(J)	Process Monitoring: the visual emissions observer in the facility staff shall check stack visible emissions (opacity) for SV 013 (CE 001) once daily using a checklist that at a minimum contains the information required in Appendix B. If the Permittee uses for CE 001 a broken bag detector approved by the MPCA, the Permittee does not need to conduct visible emissions checks for SV 013.
9.0		CD	hdr	C. PERFORMANCE TESTING REQUIREMENTS
10.0		S/A	Minn. R. 7017.2020, subp. 1	Initial Performance Test: due 730 days after 12/22/2008 on one stack to measure PM emission.
11.0		S/A	Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each 60 months following Initial Performance Test on one stack that was not tested in the previous 60-month period to measure PM emission.
12.0		S/A	Minn. R. 7017.2030, subp. 1	Performance Test Notification (written): due 30 days before Performance Test
13.0		S/A	Minn. R. 7017.2030, subp. 2 and 3	Performance Test Plan: due 30 days before Performance Test
14.0		S/A	Minn. R. 7017.2030, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test
15.0		S/A	Minn. R. 7017.2035, subp. 1 and 2	Performance Test Report: due 45 days after Performance Test
16.0		S/A	Minn. R. 7017.2035, subp. 2	Performance Test Report - Microfiche Copy: due 105 days after Performance Test



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 013 Post-1969 ore transfer points around crushers

**Associated Items:** CE 002 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 003 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 006 Wet Scrubber-High Efficiency w/o Lime

CE 007 Wet Scrubber-High Efficiency w/o Lime

CE 009 Wet Scrubber-High Efficiency w/o Lime

CE 011 Wet Scrubber-High Efficiency w/o Lime

CE 012 Wet Scrubber-High Efficiency w/o Lime

CE 013 Wet Scrubber-High Efficiency w/o Lime

CE 023 Wet Scrubber-High Efficiency w/o Lime

CE 040 Wet Scrubber-High Efficiency w/o Lime

EU 015 Step II Coarse Crusher

EU 016 Step II Coarse Crusher

EU 017 Step III Coarse Crusher & Lime Dump

EU 018 Step III Coarse Crusher & Lime Dump

EU 019 Step III Coarse Crusher & Lime Dump

EU 020 Step III Coarse Crusher & Lime Dump

EU 026 Step III Coarse Crusher Pan Feeders & Lime Transfer

EU 027 Step III Coarse Crusher Pan Feeders & Lime Transfer

EU 036 Conveyor Transfer 010-01

EU 037 Conveyor Transfer 010-01

EU 038 Conveyor Transfer 010-01

EU 039 Conveyor Transfer 010-01

EU 041 Conveyor Transfer 004-005

EU 042 Conveyor Transfer 004-005

EU 043 Conveyor Transfer 004-005

EU 044 Conveyor Transfer 004-005

EU 045 Conveyor Transfer 004-005

EU 046 Conveyor Transfer 004-005

EU 047 Conveyor Transfer 011-02/03

EU 048 Surge Pile/Reclaim 011-01

EU 068 Tertiary Storage Bin 1-4

EU 085 Tertiary Crusher 080 Bins 5-8

EU 086 Tertiary Crusher 080 Bins 5-8

EU 087 Tertiary Crusher 080 Bins 5-8

EU 088 Tertiary Crusher 080 Bins 5-8

EU 089 Tertiary Crusher 080 Bins 5-8

EU 090 Tertiary Crusher 080 Bins 5-8

EU 091 Tertiary Crusher 080 Bins 5-8

EU 092 Tertiary Crusher 080 Bins 5-8

SV 014 Step II Coarse Crusher

SV 015 Step III Coarse Crusher

SV 018 Step III Coarse Crusher Pan Feeders

SV 022 Conveyor Transfer 010-01



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Associated Items:** SV 024 Conveyor Transfer 004-005  
SV 025 Conveyor Transfer 011-02/03  
SV 026 Surge Pile/Reclaim 011-01  
SV 037 Tertiary Storage Bins 1-4  
SV 054 Tertiary Crusher 080 5-8 Bins

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. 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; or, alternatively, as below:
3.0		LIMIT	Minn. R. 7011.0715, subp. 3	Total Particulate Matter: greater than or equal to 85 percent collection efficiency , provided that the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)
4.0		LIMIT	Minn. R. 7011.0715, subp. 1(B)	Opacity: less than or equal to 20 percent opacity
5.0		CD	hdr	B. CONTROL EQUIPMENT MONITORING
6.0		CD	Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Gas Stream Pressure Drop: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
7.0		CD	Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Liquid Flow Rate for Wet Scrubbers: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
8.0		CD	Minn. R. 7007.0800, subp. 4(D); 14; 16(J)	Process Monitoring: the visual emissions observer in the facility staff shall check stack visible emissions (opacity) for SV 014 (CE 002) and SV 015 (CE 003) once daily using a checklist that at a minimum contains the information required in Appendix B. If the Permittee uses for a control device a broken bag detector approved by the MPCA, the Permittee does not need to conduct visible emissions checks for the stack associated with the control device in this group.
9.0		CD	hdr	C. PERFORMANCE TESTING REQUIREMENTS
10.0		S/A	Minn. R. 7017.2020, subp. 1	Initial Performance Test: due 730 days after 11/30/2004 on SV 054 and another stack to measure PM emission.
11.0		S/A	Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each 60 months following Initial Performance Test on one stack that was not tested in the previous 60-month period to measure PM emission.
12.0		S/A	Minn. R. 7017.2030, subp. 1	Performance Test Notification (written): due 30 days before Performance Test
13.0		S/A	Minn. R. 7017.2030, subp. 2 and 3	Performance Test Plan: due 30 days before Performance Test
14.0		S/A	Minn. R. 7017.2030, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test
15.0		S/A	Minn. R. 7017.2035, subp. 1 and 2	Performance Test Report: due 45 days after Performance Test
16.0		S/A	Minn. R. 7017.2035, subp. 2	Performance Test Report - Microfiche Copy: due 105 days after Performance Test





## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 014 Pre-1969 secondary crushers

**Associated Items:** CE 017 Wet Scrubber-High Efficiency w/o Lime  
CE 018 Wet Scrubber-High Efficiency w/o Lime  
CE 019 Wet Scrubber-High Efficiency w/o Lime  
CE 020 Wet Scrubber-High Efficiency w/o Lime  
EU 054 Secondary Crusher L1  
EU 055 Secondary Crusher L2  
EU 056 Secondary Crusher L3  
EU 057 Secondary Crusher L4  
SV 031 Secondary Crusher L1  
SV 032 Secondary Crusher L2  
SV 033 Secondary Crusher L3  
SV 034 Secondary Crusher L4

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. POLLUTANT LIMITS
2.0		LIMIT	Minn. R. 7011.0710, 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; or, alternatively, as below:
3.0		LIMIT	Minn. R. 7011.0710, subp. 3	Total Particulate Matter: greater than or equal to 85 percent collection efficiency , provided that the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)
4.0		LIMIT	Minn. R. 7011.0710, subp. 1(B)	Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.
5.0		CD	hdr	B. CONTROL EQUIPMENT MONITORING
6.0		CD	Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Gas Stream Pressure Drop: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
7.0		CD	Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Liquid Flow Rate: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
8.0		CD	hdr	C. PERFORMANCE TESTING REQUIREMENTS
9.0		S/A	Minn. R. 7017.2020, subp. 1	Initial Performance Test: due 180 days after 11/07/2003 on one stack to measure PM emission.
10.0		S/A	Minn. R. 7017.2020, subp. 1	Testing Frequency Plan: due 60 days after Initial Performance Test. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.
11.0		S/A	Minn. R. 7017.2030, subp. 1	Performance Test Notification (written): due 30 days before Performance Test
12.0		S/A	Minn. R. 7017.2030, subp. 2 and 3	Performance Test Plan: due 30 days before Performance Test
13.0		S/A	Minn. R. 7017.2030, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test
14.0		S/A	Minn. R. 7017.2035, subp. 1 and 2	Performance Test Report: due 45 days after Performance Test
15.0		S/A	Minn. R. 7017.2035, subp. 2	Performance Test Report - Microfiche Copy: due 105 days after Performance Test



# COMPLIANCE PLAN CD-01

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 015 Pre-1969 tertiary crushers

**Associated Items:**

- CE 024 Wet Scrubber-High Efficiency w/o Lime
- CE 025 Wet Scrubber-High Efficiency w/o Lime
- CE 026 Wet Scrubber-High Efficiency w/o Lime
- CE 027 Wet Scrubber-High Efficiency w/o Lime
- CE 028 Wet Scrubber-High Efficiency w/o Lime
- CE 029 Wet Scrubber-High Efficiency w/o Lime
- EU 069 Tertiary Crusher L1
- EU 070 Tertiary Crusher L2
- EU 071 Tertiary Crusher L3
- EU 072 Tertiary Crusher L4
- EU 073 Tertiary Crusher L5
- EU 074 Tertiary Crusher L6
- SV 038 Tertiary Crusher L1
- SV 039 Tertiary Crusher L2
- SV 040 Tertiary Crusher L3
- SV 041 Tertiary Crusher L4
- SV 042 Tertiary Crusher L5
- SV 043 Tertiary Crusher L6

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. POLLUTANT LIMITS
2.0		LIMIT	Minn. R. 7011.0710, 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; or, alternatively, as below:
3.0		LIMIT	Minn. R. 7011.0710, subp. 3	Total Particulate Matter: greater than or equal to 85 percent collection efficiency , provided that the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)
4.0		LIMIT	Minn. R. 7011.0710, subp. 1(B)	Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.
5.0		CD	hdr	B. CONTROL EQUIPMENT MONITORING
6.0		CD	Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Gas Stream Pressure Drop: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
7.0		CD	Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Liquid Flow Rate: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
8.0		CD	hdr	C. PERFORMANCE TESTING REQUIREMENTS
9.0		S/A	Minn. R. 7017.2020, subp. 1	Initial Performance Test: due 365 days after 11/30/2004 on one stack to measure PM emission.
10.0		S/A	Minn. R. 7017.2020, subp. 1	Testing Frequency Plan: due 60 days after Initial Performance Test. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.
11.0		S/A	Minn. R. 7017.2030, subp. 1	Performance Test Notification (written): due 30 days before Performance Test
12.0		S/A	Minn. R. 7017.2030, subp. 2 and 3	Performance Test Plan: due 30 days before Performance Test



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

13.0		S/A	Minn. R. 7017.2030, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test
14.0		S/A	Minn. R. 7017.2035, subp. 1 and 2	Performance Test Report: due 45 days after Performance Test
15.0		S/A	Minn. R. 7017.2035, subp. 2	Performance Test Report - Microfiche Copy: due 105 days after Performance Test



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 016 Post-1969 secondary crushers

**Associated Items:**

- CE 041 Wet Scrubber-High Efficiency w/o Lime
- CE 042 Wet Scrubber-High Efficiency w/o Lime
- CE 043 Wet Scrubber-High Efficiency w/o Lime
- CE 044 Wet Scrubber-High Efficiency w/o Lime
- CE 045 Wet Scrubber-High Efficiency w/o Lime
- CE 048 Wet Scrubber-High Efficiency w/o Lime
- CE 050 Wet Scrubber-High Efficiency w/o Lime
- CE 051 Wet Scrubber-High Efficiency w/o Lime
- CE 052 Wet Scrubber-High Efficiency w/o Lime
- CE 053 Wet Scrubber-High Efficiency w/o Lime
- CE 054 Wet Scrubber-High Efficiency w/o Lime
- EU 093 Secondary Crusher L6
- EU 094 Secondary Crusher L7
- EU 095 Secondary Crusher L8
- EU 096 Secondary Crusher L9
- EU 097 Secondary Crusher L10
- EU 103 Secondary Crusher L5
- EU 106 Secondary Crusher L11
- EU 107 Secondary Crusher L12
- EU 108 Secondary Crusher L13
- EU 109 Secondary Crusher L14
- EU 110 Secondary Crusher L15
- SV 055 Secondary Crusher L6
- SV 056 Secondary Crusher L7
- SV 057 Secondary Crusher L8
- SV 058 Secondary Crusher L9
- SV 059 Secondary Crusher L10
- SV 062 Secondary Crusher L5
- SV 064 Secondary Crusher L11
- SV 065 Secondary Crusher L12
- SV 066 Secondary Crusher L13
- SV 067 Secondary Crusher L14
- SV 068 Secondary Crusher L15

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. 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; or, alternatively, as below:
3.0		LIMIT	Minn. R. 7011.0715, subp. 3	Total Particulate Matter: greater than or equal to 85 percent collection efficiency , provided that the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

4.0		LIMIT	Minn. R. 7011.0715, subp. 1(B)	Opacity: less than or equal to 20 percent opacity
5.0		CD	hdr	B. CONTROL EQUIPMENT MONITORING
6.0		CD	Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Gas Stream Pressure Drop: M Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
7.0		CD	Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Liquid Flow Rate: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
8.0		CD	hdr	C. PERFORMANCE TESTING REQUIREMENTS
9.0		S/A	Minn. R. 7017.2020, subp. 1	Initial Performance Test: due 730 days after 11/07/2003 on one stack to measure PM emission.
10.0		S/A	Minn. R. 7017.2020, subp. 1	Testing Frequency Plan: due 60 days after Initial Performance Test. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.
11.0		S/A	Minn. R. 7017.2030, subp. 1	Performance Test Notification (written): due 30 days before Performance Test
12.0		S/A	Minn. R. 7017.2030, subp. 2 and 3	Performance Test Plan: due 30 days before Performance Test
13.0		S/A	Minn. R. 7017.2030, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test
14.0		S/A	Minn. R. 7017.2035, subp. 1 and 2	Performance Test Report: due 45 days after Performance Test
15.0		S/A	Minn. R. 7017.2035, subp. 2	Performance Test Report - Microfiche Copy: due 105 days after Performance Test



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 017 Post-1969 ore transfer for fine crushers

**Associated Items:**

- CE 046 Wet Scrubber-High Efficiency w/o Lime
- CE 049 Wet Scrubber-High Efficiency w/o Lime
- CE 055 Wet Scrubber-High Efficiency w/o Lime
- CE 056 Wet Scrubber-High Efficiency w/o Lime
- CE 057 Wet Scrubber-High Efficiency w/o Lime
- CE 058 Wet Scrubber-High Efficiency w/o Lime
- CE 071 Wet Scrubber-High Efficiency w/o Lime
- EU 098 Conveyor Transfer 008 to 009
- EU 099 Conveyor Transfer 008 to 009
- EU 100 Conveyor Transfer 008 to 009
- EU 101 Conveyor Transfer 008 to 009
- EU 104 Conveyor Transfer 008-009
- EU 105 Conveyor Transfer 008-009
- EU 111 Conveyor Transfer 001-070 Bin
- EU 112 Conveyor Transfer 003
- EU 113 Conveyor Transfer 003
- EU 114 Conveyor Transfer 003-004
- EU 115 Conveyor Transfer 003-004
- EU 116 Tertiary Storage 006-080 Bin
- EU 117 Tertiary Storage 006-080 Bin
- EU 118 Tertiary Storage 006-080 Bin
- EU 119 Tertiary Storage 006-080 Bin
- EU 120 Tertiary Storage 006-080 Bin
- EU 121 Tertiary Storage 006-080 Bin
- EU 122 Tertiary Storage 006-080 Bin
- EU 123 Tertiary Storage 006-080 Bin
- EU 124 Tertiary Storage 006-080 Bin
- EU 125 Tertiary Storage 006-080 Bin
- EU 126 Tertiary Storage 006-080 Bin
- EU 127 Tertiary Storage 006-080 Bin
- EU 140 Conveyor Transfer 005-006
- EU 141 Conveyor Transfer 005-006
- SV 060 Conveyor Transfer 008-009
- SV 063 Conveyor Transfer 008-009
- SV 069 Conveyor Transfer 001-070 Bin
- SV 070 Conveyor Transfer 003
- SV 071 Conveyor Transfer 003-004
- SV 072 Tertiary Storage 006-080 Bins
- SV 085 Conveyor Transfer 005-006

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. POLLUTANT LIMITS



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

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; or, alternatively, as below:
3.0		LIMIT	Minn. R. 7011.0715, subp. 3	Total Particulate Matter: greater than or equal to 85 percent collection efficiency , provided that the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)
4.0		LIMIT	Minn. R. 7011.0715, subp. 1(B)	Opacity: less than or equal to 20 percent opacity
5.0		CD	hdr	B. CONTROL EQUIPMENT MONITORING
6.0		CD	Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Gas Stream Pressure Drop: Monitor and record as least once every day when in operation, once the pressure gauge is installed for each piece of control equipment in this group. Complete pressure drop monitoring equipment debugging, trouble-shooting, and establishment of parameter range within 180 days of installation.
7.0		CD	Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Liquid Flow Rate: Monitor and record as least once every day when in operation, once the monitoring equipment is installed for each piece of wet scrubbers in this group. Complete monitoring equipment debugging, trouble-shooting, and establishment of parameter range within 180 days of installation.
8.0		CD	hdr	C. PERFORMANCE TESTING REQUIREMENTS
9.0		S/A	Minn. R. 7017.2020, subp. 1	Initial Performance Test: due 730 days after 11/30/2004 on two stacks to measure PM emission.
10.0		S/A	Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each 60 months following Initial Performance Test on two stacks that were not tested in the previous 60-month period to measure PM emission.
11.0		S/A	Minn. R. 7017.2030, subp. 1	Performance Test Notification (written): due 30 days before Performance Test
12.0		S/A	Minn. R. 7017.2030, subp. 2 and 3	Performance Test Plan: due 30 days before Performance Test
13.0		S/A	Minn. R. 7017.2030, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test
14.0		S/A	Minn. R. 7017.2035, subp. 1 and 2	Performance Test Report: due 45 days after Performance Test
15.0		S/A	Minn. R. 7017.2035, subp. 2	Performance Test Report - Microfiche Copy: due 105 days after Performance Test



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 018 Post-1969 tertiary crushers

**Associated Items:**

- CE 030 Wet Scrubber-High Efficiency w/o Lime
- CE 031 Wet Scrubber-High Efficiency w/o Lime
- CE 032 Wet Scrubber-High Efficiency w/o Lime
- CE 033 Wet Scrubber-High Efficiency w/o Lime
- CE 034 Wet Scrubber-High Efficiency w/o Lime
- CE 035 Wet Scrubber-High Efficiency w/o Lime
- CE 036 Wet Scrubber-High Efficiency w/o Lime
- CE 037 Wet Scrubber-High Efficiency w/o Lime
- CE 038 Wet Scrubber-High Efficiency w/o Lime
- CE 039 Wet Scrubber-High Efficiency w/o Lime
- CE 059 Wet Scrubber-High Efficiency w/o Lime
- CE 060 Wet Scrubber-High Efficiency w/o Lime
- CE 061 Wet Scrubber-High Efficiency w/o Lime
- CE 062 Wet Scrubber-High Efficiency w/o Lime
- CE 063 Wet Scrubber-High Efficiency w/o Lime
- CE 064 Wet Scrubber-High Efficiency w/o Lime
- CE 065 Wet Scrubber-High Efficiency w/o Lime
- CE 066 Wet Scrubber-High Efficiency w/o Lime
- CE 067 Wet Scrubber-High Efficiency w/o Lime
- CE 068 Wet Scrubber-High Efficiency w/o Lime
- CE 069 Wet Scrubber-High Efficiency w/o Lime
- EU 075 Tertiary Crusher L7
- EU 076 Tertiary Crusher L8
- EU 077 Tertiary Crusher L9
- EU 078 Tertiary Crusher L10
- EU 079 Tertiary Crusher L11
- EU 080 Tertiary Crusher L12
- EU 081 Tertiary Crusher L13
- EU 082 Tertiary Crusher L14
- EU 083 Tertiary Crusher L15
- EU 084 Tertiary Crusher L16
- EU 128 Tertiary Crusher L18
- EU 129 Tertiary Crusher L19
- EU 130 Tertiary Crusher L20
- EU 131 Tertiary Crusher L21
- EU 132 Tertiary Crusher L22
- EU 133 Tertiary Crusher L23
- EU 134 Tertiary Crusher L24
- EU 135 Tertiary Crusher L25
- EU 136 Tertiary Crusher L26
- EU 137 Tertiary Crusher L27
- EU 138 Tertiary Crusher L28
- SV 044 Tertiary Crusher L7





## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Associated Items:**

- SV 045 Tertiary Crusher L8
- SV 046 Tertiary Crusher L9
- SV 047 Tertiary Crusher L10
- SV 048 Tertiary Crusher L11
- SV 049 Tertiary Crusher L12
- SV 050 Tertiary Crusher L13
- SV 051 Tertiary Crusher L14
- SV 052 Tertiary Crusher L15
- SV 053 Tertiary Crusher L16
- SV 073 Tertiary Crusher L18
- SV 074 Tertiary Crusher L19
- SV 075 Tertiary Crusher L20
- SV 076 Tertiary Crusher L21
- SV 077 Tertiary Crusher L22
- SV 078 Tertiary Crusher L23
- SV 079 Tertiary Crusher L24
- SV 080 Tertiary Crusher L25
- SV 081 Tertiary Crusher L26
- SV 082 Tertiary Crusher L27
- SV 083 Tertiary Crusher L28

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. 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; or, alternatively, as below:
3.0		LIMIT	Minn. R. 7011.0715, subp. 3	Total Particulate Matter: greater than or equal to 85 percent collection efficiency , provided that the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)
4.0		LIMIT	Minn. R. 7011.0715, subp. 1(B)	Opacity: less than or equal to 20 percent opacity
5.0		CD	hdr	B. CONTROL EQUIPMENT MONITORING
6.0		CD	Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Gas Stream Pressure Drop: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
7.0		CD	Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Liquid Flow Rate: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
8.0		CD	hdr	C. PERFORMANCE TESTING REQUIREMENTS
9.0		S/A	Minn. R. 7017.2020, subp. 1	Initial Performance Test: due 730 days after 11/30/2004 on three stacks to measure PM emission.
10.0		S/A	Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each 60 months following Initial Performance Test on two stacks that were not tested in the previous 60-month period to measure PM emission.
11.0		S/A	Minn. R. 7017.2030, subp. 1	Performance Test Notification (written): due 30 days before Performance Test
12.0		S/A	Minn. R. 7017.2030, subp. 2 and 3	Performance Test Plan: due 30 days before Performance Test



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

13.0		S/A	Minn. R. 7017.2030, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test
14.0		S/A	Minn. R. 7017.2035, subp. 1 and 2	Performance Test Report: due 45 days after Performance Test
15.0		S/A	Minn. R. 7017.2035, subp. 2	Performance Test Report - Microfiche Copy: due 105 days after Performance Test



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 019 Pre-1969 ore transfer to bins

**Associated Items:** CE 073 Wet Scrubber-High Efficiency w/o Lime

CE 074 Wet Scrubber-High Efficiency w/o Lime

CE 075 Wet Scrubber-High Efficiency w/o Lime

EU 144 Conveyor Transfer 009-020

EU 145 Conveyor Transfer 009-020

EU 148 Storage Bin L1,2

EU 149 Storage Bin L1,2

EU 150 Storage Bin L1,2

EU 151 Storage Bin L1,2

EU 152 Storage Bin L1,2

EU 153 Storage Bin L1,2

EU 154 Storage Bin L1,2

EU 155 Storage Bin L3,4

EU 156 Storage Bin L3,4

EU 157 Storage Bin L3,4

EU 158 Storage Bin L3,4

EU 159 Storage Bin L3,4

EU 160 Storage Bin L3,4

EU 161 Storage Bin L3,4

EU 162 Storage Bin L5,6

EU 163 Storage Bin L5,6

EU 164 Storage Bin L5,6

EU 165 Storage Bin L5,6

EU 166 Storage Bin L5,6

EU 167 Storage Bin L5,6

EU 168 Storage Bin L5,6

SV 088 Storage Bin L1, 2

SV 089 Storage Bin L3, 4

SV 090 Storage Bin L5, 6

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. POLLUTANT LIMITS
2.0		LIMIT	Minn. R. 7011.0710, 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; or, alternatively, as below:
3.0		LIMIT	Minn. R. 7011.0710, subp. 3	Total Particulate Matter: greater than or equal to 85 percent collection efficiency , provided that the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)
4.0		LIMIT	Minn. R. 7011.0710, subp. 1(B)	Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.
5.0		CD	hdr	B. CONTROL EQUIPMENT MONITORING



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

6.0		CD	Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Gas Stream Pressure Drop: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
7.0		CD	Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Liquid Flow Rate: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
8.0		CD	hdr	C. PERFORMANCE TESTING REQUIREMENTS
9.0		S/A	Minn. R. 7017.2020, subp. 1	Initial Performance Test: due 180 days after 11/07/2003 on two stacks to measure PM emission, and on all stacks to measure Opacity emission.
10.0		S/A	Minn. R. 7017.2020, subp. 1	Testing Frequency Plan: due 60 days after Initial Performance Test. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.
11.0		S/A	Minn. R. 7017.2030, subp. 1	Performance Test Notification (written): due 30 days before Performance Test
12.0		S/A	Minn. R. 7017.2030, subp. 2 and 3	Performance Test Plan: due 30 days before Performance Test
13.0		S/A	Minn. R. 7017.2030, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test
14.0		S/A	Minn. R. 7017.2035, subp. 1 and 2	Performance Test Report: due 45 days after Performance Test
15.0		S/A	Minn. R. 7017.2035, subp. 2	Performance Test Report - Microfiche Copy: due 105 days after Performance Test



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 020 Post-1969 ore transfer to bins

**Associated Items:**

- CE 072 Wet Scrubber-High Efficiency w/o Lime
- CE 076 Wet Scrubber-High Efficiency w/o Lime
- CE 077 Wet Scrubber-High Efficiency w/o Lime
- CE 078 Wet Scrubber-High Efficiency w/o Lime
- CE 079 Wet Scrubber-High Efficiency w/o Lime
- CE 080 Wet Scrubber-High Efficiency w/o Lime
- CE 081 Wet Scrubber-High Efficiency w/o Lime
- CE 082 Wet Scrubber-High Efficiency w/o Lime
- EU 146 Conveyor Transfer 009-020
- EU 147 Conveyor Transfer 009-020
- EU 169 Storage Bin L7,8
- EU 170 Storage Bin L7,8
- EU 171 Storage Bin L7,8
- EU 172 Storage Bin L7,8
- EU 173 Storage Bin L7,8
- EU 174 Storage Bin L7,8
- EU 175 Storage Bin L7,8
- EU 176 Storage Bin L9,10
- EU 177 Storage Bin L9,10
- EU 178 Storage Bin L9,10
- EU 179 Storage Bin L9,10
- EU 180 Storage Bin L9,10
- EU 181 Storage Bin L9,10
- EU 182 Storage Bin L9,10
- EU 183 Storage Bin L11,12
- EU 184 Storage Bin L11,12
- EU 185 Storage Bin L11,12
- EU 186 Storage Bin L11,12
- EU 187 Storage Bin L11,12
- EU 188 Storage Bin L11,12
- EU 189 Storage Bin L11,12
- EU 190 Conveyor Transfer 009-020
- EU 191 Conveyor Transfer 009-020
- EU 192 Conveyor Transfer 009-020
- EU 193 Conveyor Transfer 009-020
- EU 194 Storage Bin L13,14
- EU 195 Storage Bin L13,14
- EU 196 Storage Bin L13,14
- EU 197 Storage Bin L13,14
- EU 198 Storage Bin L13,14
- EU 199 Storage Bin L13,14
- EU 200 Storage Bin L13,14
- EU 201 Storage Bin L15,16



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Associated Items:**

- EU 202 Storage Bin L15,16
- EU 203 Storage Bin L15,16
- EU 204 Storage Bin L15,16
- EU 205 Storage Bin L15,16
- EU 206 Storage Bin L15,16
- EU 207 Storage Bin L15,16
- EU 208 Storage Bin L17,18
- EU 209 Storage Bin L17,18
- EU 210 Storage Bin L17,18
- EU 211 Storage Bin L17,18
- EU 212 Storage Bin L17,18
- EU 213 Storage Bin L17,18
- EU 214 Storage Bin L17,18
- SV 087 Conveyor Transfer 009-020
- SV 091 Storage Bin L7, 8
- SV 092 Storage Bin L9, 10
- SV 093 Storage Bin L11, 12
- SV 094 Conveyor Transfer 009-020
- SV 095 Storage Bin L13, 14
- SV 096 Storage Bin L15, 16
- SV 097 Storage Bin L17, 18

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. 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; or, alternatively, as below:
3.0		LIMIT	Minn. R. 7011.0715, subp. 3	Total Particulate Matter: greater than or equal to 85 percent collection efficiency , provided that the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)
4.0		LIMIT	Minn. R. 7011.0715, subp. 1(B)	Opacity: less than or equal to 20 percent opacity
5.0		CD	hdr	B. CONTROL EQUIPMENT MONITORING
6.0		CD	Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Gas Stream Pressure Drop: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
7.0		CD	Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Liquid Flow Rate: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
8.0		CD	hdr	C. PERFORMANCE TESTING REQUIREMENTS
9.0		S/A	Minn. R. 7017.2020, subp. 1	Initial Performance Test: due 730 days after 11/30/2004 on two stacks to measure PM emission, and on all stacks to measure Opacity emission.
10.0		S/A	Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each 60 months following Initial Performance Test on two stacks that were not tested in the previous 60-month period to measure PM emission, and on all stacks to measure Opacity emission.
11.0		S/A	Minn. R. 7017.2030, subp. 1	Performance Test Notification (written): due 30 days before Performance Test



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

12.0		S/A	Minn. R. 7017.2030, subp. 2 and 3	Performance Test Plan: due 30 days before Performance Test
13.0		S/A	Minn. R. 7017.2030, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test
14.0		S/A	Minn. R. 7017.2035, subp. 1 and 2	Performance Test Report: due 45 days after Performance Test
15.0		S/A	Minn. R. 7017.2035, subp. 2	Performance Test Report - Microfiche Copy: due 105 days after Performance Test



# COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 021 Pre-1969 mixing & pellet handling for Step I

**Associated Items:** CE 083 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

CE 084 Wet Scrubber-High Efficiency w/o Lime

CE 085 Wet Scrubber-High Efficiency w/o Lime

CE 089 Wet Scrubber-High Efficiency w/o Lime

CE 090 Wet Scrubber-High Efficiency w/o Lime

CE 091 Wet Scrubber-High Efficiency w/o Lime

CE 092 Wet Scrubber-High Efficiency w/o Lime

EU 217 L3 Bentonite Blending

EU 218 L3 Bentonite Blending

EU 219 L3 Bentonite Blending

EU 220 L3 Bentonite Blending

EU 221 L3 Grate Feed

EU 222 L3 Grate Discharge

EU 228 L3 Cooler Discharge

EU 229 L3 Feeder 041/046 Belts

EU 230 L3 041/046 Conveyor Belt Vent

EU 231 L3 041/046 Conveyor Belt Vent

EU 232 S1 Conveyor Transfer 042-043

EU 233 S1 Conveyor Transfer 042-043

EU 234 L3 Conveyor Transfer 041-042

EU 235 L3 Conveyor Transfer 041-042

SV 101 L3 Grate Feed

SV 102 L3 Grate Discharge

SV 105 L3 Cooler Dump Zone

SV 106 L3 Feeder 041, 046 Belts

SV 107 L3 041/046 Conveyor Belt Vent

SV 108 S1 Conveyor Transfer 042-043

SV 109 L1 Conveyor Transfer 041-042

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. POLLUTANT LIMITS
2.0		LIMIT	Minn. R. 7011.0710, 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; or, alternatively, as below:
3.0		LIMIT	Minn. R. 7011.0710, subp. 3	Total Particulate Matter: greater than or equal to 85 percent collection efficiency , provided that the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)
4.0		LIMIT	Minn. R. 7011.0710, subp. 1(B)	Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.
5.0		CD	hdr	B. CONTROL EQUIPMENT MONITORING





## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

6.0		CD	Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Gas Stream Pressure Drop: Monitor and record as least once every day when in operation, once the pressure gauge is installed for each piece of control equipment in this group. Complete pressure drop monitoring equipment debugging, trouble-shooting, and establishment of parameter range within 180 days of installation.
7.0		CD	Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Liquid Flow Rate for Wet Scrubbers: Monitor and record as least once every day when in operation, once the monitoring equipment is installed for each piece of wet scrubbers in this group. Complete monitoring equipment debugging, trouble-shooting, and establishment of parameter range within 180 days of installation.
8.0		CD	Minn. R. 7007.0800, subp. 4(D); 14; 16(J)	Process Monitoring: the visual emissions observer in the facility staff shall check stack visible emissions (opacity) for SV 100 (CE 083) once daily using a checklist that at a minimum contains the information required in Appendix B. If the Permittee uses for CE 083 a broken bag detector approved by the MPCA, the Permittee does not need to conduct visible emissions checks for SV 100.
9.0		CD	hdr	C. PERFORMANCE TESTING REQUIREMENTS
10.0		S/A	Minn. R. 7017.2020, subp. 1	Initial Performance Test: due 365 days after 11/07/2003 on SV 105 and another stack to measure PM and Opacity emissions.
11.0		S/A	Minn. R. 7017.2020, subp. 1	Testing Frequency Plan: due 60 days after Initial Performance Test. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.
12.0		S/A	Minn. R. 7017.2030, subp. 1	Performance Test Notification (written): due 30 days before Performance Test
13.0		S/A	Minn. R. 7017.2030, subp. 2 and 3	Performance Test Plan: due 30 days before Performance Test
14.0		S/A	Minn. R. 7017.2030, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test
15.0		S/A	Minn. R. 7017.2035, subp. 1 and 2	Performance Test Report: due 45 days after Performance Test
16.0		S/A	Minn. R. 7017.2035, subp. 2	Performance Test Report - Microfiche Copy: due 105 days after Performance Test



# COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 022 Post-1969 cooler vent stacks for Steps II & III

**Associated Items:** EU 263 L4 Pellet Cooler Vent Stack  
EU 284 L5 Pellet Cooler Vent Stack  
EU 397 L6 Pellet Cooler Vent Stack  
EU 398 L7 Pellet Cooler Vent Stack  
SV 119 L4 Cooler Vent Stack  
SV 128 L5 Cooler Vent Stack  
SV 196 L6 Pellet Cooler Stack  
SV 197 L7 Pellet Cooler Stack

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. 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. 1(B)	Opacity: less than or equal to 20 percent opacity
4.0		CD	hdr	B. OPERATION REQUIREMENTS
5.0		CD	Minn. R. 7007.0800, subp. 4(D); 14; 16(J)	Process Monitoring: the visual emissions observer in the facility staff shall check stack visible emissions (opacity) once daily using a checklist that at a minimum contains the information required in Appendix B.
6.0		CD	hdr	C. PERFORMANCE TESTING REQUIREMENTS
7.0		S/A	Minn. R. 7017.2020, subp. 1	Initial Performance Test: due 365 days after 11/30/2004 on all stacks to measure PM and Opacity emissions.
8.0		S/A	Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each year following Initial Performance Test on all stacks to measure PM and Opacity emissions. After at least three years of performance testing data are submitted, the Permittee may request that future testing be scheduled according to a test frequency plan proposed based on submitted testing data.
9.0		S/A	Minn. R. 7017.2030, subp. 1	Performance Test Notification (written): due 30 days before Performance Test
10.0		S/A	Minn. R. 7017.2030, subp. 2 and 3	Performance Test Plan: due 30 days before Performance Test
11.0		S/A	Minn. R. 7017.2030, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test
12.0		S/A	Minn. R. 7017.2035, subp. 1 and 2	Performance Test Report: due 45 days after Performance Test
13.0		S/A	Minn. R. 7017.2035, subp. 2	Performance Test Report - Microfiche Copy: due 105 days after Performance Test



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 023 Pre-1969 bentonite equipment

**Associated Items:** CE 093 Fabric Filter - Low Temperature, i.e., T<180 Degrees F  
CE 094 Fabric Filter - Low Temperature, i.e., T<180 Degrees F  
CE 095 Fabric Filter - Low Temperature, i.e., T<180 Degrees F  
EU 236 S1 Bentonite Storage Bin  
EU 237 S1 Bentonite Storage Bin  
EU 238 S1 Bentonite Storage Bin  
EU 239 L2,3 Bentonite Day Bin  
EU 240 L2,3 Bentonite Day Bin  
EU 241 L2,3 Bentonite Day Bin  
EU 242 L2,3 Bentonite Day Bin  
EU 243 S1,2 Bentonite Unloading  
SV 110 S1 Bentonite Storage Bin  
SV 111 L2, 3 Bentonite Day Bin  
SV 112 S1, 2 Bentonite Unloading

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. POLLUTANT LIMITS
2.0		LIMIT	Minn. R. 7011.0710, 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; or, alternatively, as below:
3.0		LIMIT	Minn. R. 7011.0710, subp. 3	Total Particulate Matter: greater than or equal to 85 percent collection efficiency , provided that the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)
4.0		LIMIT	Minn. R. 7011.0710, subp. 1(B)	Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.
5.0		CD	hdr	B. CONTROL EQUIPMENT MONITORING
6.0		CD	Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Gas Stream Pressure Drop: Monitor and record as least once every day when in operation, once the pressure gauge is installed for each piece of control equipment in this group. Complete pressure drop monitoring equipment debugging, trouble-shooting, and establishment of parameter range within 180 days of installation.
7.0		CD	Minn. R. 7007.0800, subp. 4(D); 14; 16(J)	Process Monitoring: the visual emissions observer in the facility staff shall check stack visible emissions (opacity) once daily using a checklist that at a minimum contains the information required in Appendix B. If the Permittee uses for a control device a broken bag detector approved by the MPCA, the Permittee does not need to conduct visible emissions checks for the stack associated with the control device in this group.
8.0		CD	hdr	C. PERFORMANCE TESTING REQUIREMENTS
9.0		S/A	Minn. R. 7017.2020, subp. 1	Initial Performance Test: due 730 days after 11/07/2003 on one stack to measure PM emission, and on all stacks to measure Opacity emission.
10.0		S/A	Minn. R. 7017.2020, subp. 1	Testing Frequency Plan: due 60 days after Initial Performance Test. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.
11.0		S/A	Minn. R. 7017.2030, subp. 1	Performance Test Notification (written): due 30 days before Performance Test
12.0		S/A	Minn. R. 7017.2030, subp. 2 and 3	Performance Test Plan: due 30 days before Performance Test
13.0		S/A	Minn. R. 7017.2030, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test
14.0		S/A	Minn. R. 7017.2035, subp. 1 and 2	Performance Test Report: due 45 days after Performance Test



MINNESOTA POLLUTION CONTROL AGENCY  
AIR QUALITY  
520 LAFAYETTE ROAD  
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## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

15.0		S/A	Minn. R. 7017.2035, subp. 2	Performance Test Report - Microfiche Copy: due 105 days after Performance Test
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## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 024 Post-1969 bentonite equipment

**Associated Items:**

- CE 096 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
- CE 097 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
- CE 107 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
- CE 118 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
- CE 119 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
- CE 129 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
- CE 142 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
- EU 244 S2 Bentonite Storage Bin
- EU 245 S2 Bentonite Storage Bin
- EU 246 S2 Bentonite Storage Bin
- EU 247 L4 Bentonite Day Bins
- EU 248 L4 Bentonite Day Bins
- EU 249 L4 Bentonite Day Bins
- EU 250 L4 Bentonite Day Bins
- EU 251 L4 Bentonite Day Bins
- EU 268 L5 Bentonite Day Bins
- EU 269 L5 Bentonite Day Bins
- EU 270 L5 Bentonite Day Bins
- EU 271 L5 Bentonite Day Bins
- EU 272 L5 Bentonite Day Bins
- EU 297 S3 Bentonite Storage
- EU 298 S3 Bentonite Storage
- EU 299 S3 Bentonite Storage
- EU 300 S3 Ben storage+unloading hopper
- EU 301 L6 Bentonite Day Bin
- EU 302 L6 Bentonite Day Bin
- EU 303 L6 Bentonite Day Bin
- EU 304 L6 Bentonite Day Bin
- EU 305 L6 Bentonite Day Bin
- EU 320 L7 Bentonite Day Bin
- EU 321 L7 Bentonite Day Bin
- EU 322 L7 Bentonite Day Bin
- EU 323 L7 Bentonite Day Bin
- EU 324 L7 Bentonite Day Bin
- SV 113 S2 Bentonite Storage Bin
- SV 114 L4 Bentonite Day Bin
- SV 123 L5 Bentonite Day Bin
- SV 139 S3 Bentonite Storage
- SV 140 L6 Bentonite Day Bin
- SV 147 L7 Bentonite Day Bin
- SV 193 Step III Bentonite Storage Baghouse



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. 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; or, alternatively, as below:
3.0		LIMIT	Minn. R. 7011.0715, subp. 3	Total Particulate Matter: greater than or equal to 85 percent collection efficiency , provided that the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)
4.0		LIMIT	Minn. R. 7011.0715, subp. 1(B)	Opacity: less than or equal to 20 percent opacity
5.0		CD	hdr	B. CONTROL EQUIPMENT MONITORING
6.0		CD	Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Gas Stream Pressure Drop: Upon installation of monitoring equipment, monitor and record at least once every day when in operation. Once the operating range is established it becomes an enforceable part of this permit. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
7.0		CD	Minn. R. 7007.0800, subp. 4(D); 14; 16(J)	Process Monitoring: the visual emissions observer in the facility staff shall check stack visible emissions (opacity) once daily using a checklist that at a minimum contains the information required in Appendix B. If the Permittee uses for a control device a broken bag detector approved by the MPCA, the Permittee does not need to conduct visible emissions checks for the stack associated with the control device in this group.
8.0		CD	hdr	C. PERFORMANCE TESTING REQUIREMENTS
9.0		S/A	Minn. R. 7017.2020, subp. 1	Initial Performance Test: due 730 days after 11/07/2003 on one stack to measure PM emission, and on all stacks to measure Opacity emission.
10.0		S/A	Minn. R. 7017.2020, subp. 1	Testing Frequency Plan: due 60 days after Initial Performance Test. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.
11.0		S/A	Minn. R. 7017.2030, subp. 1	Performance Test Notification (written): due 30 days before Performance Test
12.0		S/A	Minn. R. 7017.2030, subp. 2 and 3	Performance Test Plan: due 30 days before Performance Test
13.0		S/A	Minn. R. 7017.2030, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test
14.0		S/A	Minn. R. 7017.2035, subp. 1 and 2	Performance Test Report: due 45 days after Performance Test
15.0		S/A	Minn. R. 7017.2035, subp. 2	Performance Test Report - Microfiche Copy: due 105 days after Performance Test



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 025 Post-1969 mixers for Steps II & III

**Associated Items:**

- CE 098 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
- CE 099 Wet Scrubber-High Efficiency w/o Lime
- CE 100 Wet Scrubber-High Efficiency w/o Lime
- CE 108 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
- CE 109 Wet Scrubber-High Efficiency w/o Lime
- CE 110 Wet Scrubber-High Efficiency w/o Lime
- CE 120 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
- CE 121 Wet Scrubber-High Efficiency w/o Lime
- CE 122 Wet Scrubber-High Efficiency w/o Lime
- CE 130 Fabric Filter - Low Temperature, i.e., T<180 Degrees F
- CE 131 Wet Scrubber-High Efficiency w/o Lime
- CE 132 Wet Scrubber-High Efficiency w/o Lime
- EU 252 L4 Bentonite Blending
- EU 253 L4 Bentonite Blending
- EU 254 L4 Bentonite Blending
- EU 255 L4 Bentonite Blending
- EU 256 L4 Bentonite Blending
- EU 257 L4 Grate Feed
- EU 258 L4 Grate Discharge
- EU 273 L5 Bentonite Blending
- EU 274 L5 Bentonite Blending
- EU 275 L5 Bentonite Blending
- EU 276 L5 Bentonite Blending
- EU 277 L5 Bentonite Blending
- EU 278 L5 Grate Feed
- EU 279 L5 Grate Discharge
- EU 306 L6 Bentonite Blending
- EU 307 L6 Bentonite Blending
- EU 308 L6 Bentonite Blending
- EU 309 L6 Bentonite Blending
- EU 310 L6 Bentonite Blending
- EU 311 L6 Grate Feed
- EU 312 L6 Grate Discharge
- EU 325 L7 Bentonite Blending
- EU 326 L7 Bentonite Blending
- EU 327 L7 Bentonite Blending
- EU 328 L7 Bentonite Blending
- EU 329 L7 Bentonite Blending
- EU 330 L7 Grate Feed
- EU 331 L7 Grate Discharge
- SV 115 L4 Bentonite Blending
- SV 116 L4 Grate Feed
- SV 117 L4 Grate Discharge



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Associated Items:**

- SV 124 L5 Bentonite Blending
- SV 125 L5 Grate Feed
- SV 126 L5 Grate Discharge
- SV 141 L6 Bentonite Blending
- SV 142 L6 Grate Feed
- SV 143 L6 Grate Discharge
- SV 148 L7 Bentonite Blending
- SV 149 L7 Grate Feed
- SV 150 L7 Grate Discharge

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. 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; or, alternatively, as below:
3.0		LIMIT	Minn. R. 7011.0715, subp. 3	Total Particulate Matter: greater than or equal to 85 percent collection efficiency , provided that the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)
4.0		LIMIT	Minn. R. 7011.0715, subp. 1(B)	Opacity: less than or equal to 20 percent opacity
5.0		CD	hdr	B. CONTROL EQUIPMENT MONITORING
6.0		CD	Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Gas Stream Pressure Drop: Monitor and record as least once every day when in operation, once the pressure gauge is installed for each piece of control equipment in this group. Complete pressure drop monitoring equipment debugging, trouble-shooting, and establishment of parameter range within 180 days of installation.
7.0		CD	Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J)	Liquid Flow Rate for Wet Scrubbers: Monitor and record as least once every day when in operation, once the monitoring equipment is installed for each piece of wet scrubbers in this group. Complete monitoring equipment debugging, trouble-shooting, and establishment of parameter range within 180 days of installation.
8.0		CD	Minn. R. 7007.0800, subp. 4(D); 14; 16(J)	Process Monitoring: the visual emissions observer in the facility staff shall check stack visible emissions (opacity) for SV 115, SV 124, SV 141, and SV 148 once daily using a checklist that at a minimum contains the information required in Appendix B. If the Permittee uses for a fabric filter (CE 098, CE 108, CE 120, or CE 130) a broken bag detector approved by the MPCA, the Permittee does not need to conduct visible emissions checks for the stack controlled by that fabric filter (SV 115, SV 124, SV 141, or SV 148, respectively).
9.0		CD	hdr	C. PERFORMANCE TESTING REQUIREMENTS
10.0		S/A	Minn. R. 7017.2020, subp. 1	Initial Performance Test: due 730 days after 11/07/2003 on one stack from (SV 116, 117, 125, 126, 142, 143, 149, or 150) and another stack to measure PM and Opacity emissions.
11.0		S/A	Minn. R. 7017.2020, subp. 1	Testing Frequency Plan: due 60 days after Initial Performance Test. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.
12.0		S/A	Minn. R. 7017.2030, subp. 1	Performance Test Notification (written): due 30 days before Performance Test
13.0		S/A	Minn. R. 7017.2030, subp. 2 and 3	Performance Test Plan: due 30 days before Performance Test
14.0		S/A	Minn. R. 7017.2030, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test
15.0		S/A	Minn. R. 7017.2035, subp. 1 and 2	Performance Test Report: due 45 days after Performance Test
16.0		S/A	Minn. R. 7017.2035, subp. 2	Performance Test Report - Microfiche Copy: due 105 days after Performance Test





# COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 026 Post-1969 pellet handling for Steps II and III

**Associated Items:**

- CE 104 Wet Scrubber-High Efficiency w/o Lime
- CE 105 Wet Scrubber-High Efficiency w/o Lime
- CE 114 Wet Scrubber-High Efficiency w/o Lime
- CE 115 Wet Scrubber-High Efficiency w/o Lime
- CE 117 Wet Scrubber-High Efficiency w/o Lime
- CE 127 Wet Scrubber-High Efficiency w/o Lime
- CE 137 Wet Scrubber-High Efficiency w/o Lime
- EU 265 L4 Cooler Discharge
- EU 286 L5 Cooler Discharge
- EU 295 S3 Conveyor Transfer
- EU 296 S3 Conveyor Transfer
- EU 317 L6 Cooler Dump zone
- EU 336 L7 Cooler Dump Zone
- EU 339 Step I 043/044 Conveyor Transfer
- EU 340 Step I 043/044 Conveyor Transfer
- SV 120 L4 Conveyor Transfer Feeder
- SV 121 L4 Cooler Dump Zone
- SV 129 L5 Conveyor Transfer Feeder
- SV 130 L5 Cooler Dump Zone
- SV 138 S3 Conveyor Transfer
- SV 146 L6 Conveyor Transfer
- SV 153 L7 Conveyor Transfer
- SV 154 Step I 043/044 Conv. Trans
- SV 155 Step I 043/044 Conv. Trans

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. 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; or, alternatively, as below:
3.0		LIMIT	Minn. R. 7011.0715, subp. 3	Total Particulate Matter: greater than or equal to 85 percent collection efficiency , provided that the entire emission facility is in compliance with NAAQS and MAAQS, and the emission facility is located not less than one-fourth mile from any residence or public roadway. (This is an alternative demonstration of compliance to Total Particulate Matter Limit.)
4.0		LIMIT	Minn. R. 7011.0715, subp. 1(B)	Opacity: less than or equal to 20 percent opacity
5.0		CD	hdr	B. CONTROL EQUIPMENT MONITORING
6.0		LIMIT	Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J); 7017.2025, subp. 3	Pressure Drop: greater than or equal to 13.5 inches of water column using 8-hour Block Average on the gas stream. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
7.0		LIMIT	Minn. R. 7007.0800, subp. 4(D); subp. 14; subp. 16(J); 7017.2025, subp. 3	Liquid Flow Rate: greater than or equal to 297 gallons/minute using 8-hour Block Average on the wet scrubber. A deviation from the established range shall trigger a corrective action as detailed in the O&M plan.
8.0		CD	hdr	C. PERFORMANCE TESTING REQUIREMENTS
9.0		S/A	Minn. R. 7017.2020, subp. 1	Initial Performance Test: due 365 days after 11/07/2003 on one stack from (SV 121, 130, 146, or 153) and another stack to measure PM and Opacity emissions.



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

10.0		S/A	Minn. R. 7017.2020, subp. 1	Testing Frequency Plan: due 60 days after Initial Performance Test. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.
11.0		S/A	Minn. R. 7017.2030, subp. 1	Performance Test Notification (written): due 30 days before Performance Test
12.0		S/A	Minn. R. 7017.2030, subp. 2 and 3	Performance Test Plan: due 30 days before Performance Test
13.0		S/A	Minn. R. 7017.2030, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test
14.0		S/A	Minn. R. 7017.2035, subp. 1 and 2	Performance Test Report: due 45 days after Performance Test
15.0		S/A	Minn. R. 7017.2035, subp. 2	Performance Test Report - Microfiche Copy: due 105 days after Performance Test



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 027 Post-1969 conveyor transfer points without APCE

**Associated Items:**

- EU 289 Step I 043 Conveyor Vents
- EU 290 Step I 043 Conveyor Vents
- EU 291 Step I 043 Conveyor Vents
- EU 292 Step I 043 Conveyor Vents
- EU 293 Step I 043 Conveyor Vents
- EU 294 Step I 043 Conveyor Vents
- EU 318 L6 Conveyor Transfer
- EU 319 L6 Conveyor Transfer
- EU 337 L7 Conveyor Transfer
- EU 338 L7 Conveyor Transfer
- EU 341 Step III 042 Conveyor Vent
- EU 342 Step III 042 Conveyor Vent
- EU 343 Step III 043 Conveyor Vent
- EU 344 Step III 043 Conveyor Vent
- EU 345 Step III 044 Conveyor Vent
- EU 346 Step III 044 Conveyor Vent
- EU 347 Step III 044 Conveyor Vent
- EU 348 Step III 044 Conveyor Vent
- EU 349 Step III 044 Conveyor Vent
- EU 350 Step III 044 Conveyor Vent
- EU 351 Step III 044 Conveyor Vent
- EU 352 Step III 044 Conveyor Vent
- EU 353 Step III 044 Conveyor Vent
- EU 354 Step III 044 Conveyor Vent
- EU 355 Step III 044 Conveyor Vent
- EU 356 Step III 044 Conveyor Vent
- EU 357 Step III 044 Conveyor Vent
- EU 358 Step III 044 Conveyor Vent
- EU 359 Step III 043/044 Conveyor Transfer
- EU 360 Step III 043/044 Conveyor Transfer
- EU 361 Step III 043/044 Conveyor Transfer
- EU 362 Step III 043/044 Conveyor Transfer
- EU 363 Step III 044-6/044-7 Conveyor Transfer
- EU 364 Step III 044-6/044-7 Conveyor Transfer
- EU 365 Step III 044-6/044-7 Conveyor Transfer
- EU 366 Step III Pellet Loadout
- SV 132 Step I 043 Conveyor Vents
- SV 133 Step I 043 Conveyor Vents
- SV 134 Step I 043 Conveyor Vents
- SV 135 Step I 043 Conveyor Vents
- SV 136 Step I 043 Conveyor Vents
- SV 137 Step I 043 Conveyor Vents
- SV 156 Step III 042 Conveyor Vent



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Associated Items:**

- SV 157 Step III 042 Conveyor Vent
- SV 158 Step III 043 Conveyor Vent
- SV 159 Step III 043 Conveyor Vent
- SV 160 Step III 044 Conveyor Vent
- SV 161 Step III 044 Conveyor Vent
- SV 162 Step III 044 Conveyor Vent
- SV 163 Step III 044 Conveyor Vent
- SV 164 Step III 044 Conveyor Vent
- SV 165 Step III 044 Conveyor Vent
- SV 166 Step III 044 Conveyor Vent
- SV 167 Step III 044 Conveyor Vent
- SV 168 Step III 044 Conveyor Vent
- SV 169 Step III 044 Conveyor Vent
- SV 170 Step III 044 Conveyor Vent
- SV 171 Step III 044 Conveyor Vent
- SV 172 Step III 044 Conveyor Vent
- SV 173 Step III 044 Conveyor Vent
- SV 174 Step III 043/044 Conveyor Transfer
- SV 175 Step III 043/044 Conveyor Transfer
- SV 176 Step III 043/044 Conveyor Transfer
- SV 177 Step III 043/044 Conveyor Transfer
- SV 178 Step III 044-6/044-7 Conveyor Transfer
- SV 179 Step III 044-6/044-7 Conveyor Transfer
- SV 180 Step III Pellet Loadout

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. 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. 1(B)	Opacity: less than or equal to 20 percent opacity



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** GP 028 Limestone handling (Actions 007 and 008)

**Associated Items:** CE 070 Wet Scrubber-High Efficiency w/o Lime

CE 143 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

EU 139 Tertiary Crusher L29

EU 393 Limestone Dump Pocket

EU 394 Limestone conveyer trnsfr 1

EU 395 Limestone conveyer trnsfr 2

SV 084 Tertiary Crusher L29

SV 194 Limestone Receiving System

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. POLLUTANT LIMITS
2.0		LIMIT	40 CFR 60.672(a)(1)	Total Particulate Matter: less than or equal to 0.022 grains/dry standard cubic foot (0.05 grams per dry standard cubic meter).
3.0		LIMIT	40 CFR 60.672(a)(2)	Opacity: less than or equal to 7 percent opacity for SV 194, which is controlled by CE 143 (the fabric filter for limestone receiving system dump pocket & transfer point no. 1).
4.0		CD	hdr	B. CONTROL EQUIPMENT REQUIREMENTS
5.0		LIMIT	Title I Condition: a 1997&2000 action that avoided review under CFR 52.21 set this	Pressure Drop: greater than or equal to 3.2 inches of water column and less than or equal to 5.7 inches of water column for CE 070 (wet scrubber) that controls SV 084 for EU 395 (limestone receiving system transfer point no. 2).
6.0		LIMIT	Title I Condition: a 1997&2000 action that avoided review under CFR 52.21 set this	Pressure Drop: greater than or equal to 0.5 inches of water column and less than or equal to 8.0 inches of water column for CE 143 (fabric filter) that controls SV 194 for EU 393 & EU 394 (limestone receiving system dump pocket & transfer point no. 1).
7.0		LIMIT	Title I Condition: a 1997&2000 action that avoided review under CFR 52.21 set this	Liquid Flow Rate: greater than or equal to 25 gallons/minute and less than or equal to 45 gallons/minute for CE 070 (wet scrubber) that controls SV 084 for EU 395 (limestone receiving system transfer point no. 2).
8.0		S/A	40 CFR 60.676(d)	Semiannual Deviations Report: due before end of each half-year following Initial Performance Test. The Permittee shall report occurrences when the measurements of gas stream pressure drop (or gain) and liquid flow rate of CE 070 differ by more than 30%, plus or minus, from the average obtained during the most recent performance test.
9.0		CD	hdr	C. CONTROL EQUIPMENT MONITORING
10.0		CD	Title I Condition: a 1997&2000 action that avoided review under CFR 52.21 set this	Gas Stream Pressure Drop: Monitor and record as least once every day when in operation for CE 070 and CE 143.
11.0		CD	Title I Condition: a 1997&2000 action that avoided review under CFR 52.21 set this	Liquid Flow Rate: Monitor and record as least once every day when in operation for CE 070.
12.0		CD	Minn. R. 7007.0800, subp. 4(D); 14; 16(J)	Process Monitoring: the visual emissions observer in the facility staff shall check stack visible emissions (opacity) for SV 194 once daily using a checklist that at a minimum contains the information required in Appendix B. If the Permittee uses for CE 143 a broken bag detector approved by the MPCA, the Permittee does not need to conduct visible emissions checks for SV 194.
13.0		CD	hdr	D. PERFORMANCE TESTING REQUIREMENTS
14.0		S/A	Minn. R. 7017.2020, subp. 1	Initial Performance Test: due 365 days after 11/30/2004 on one stack to measure PM and Opacity emissions.
15.0		S/A	Minn. R. 7017.2020, subp. 1	Testing Frequency Plan: due 60 days after Initial Performance Test. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.
16.0		S/A	Minn. R. 7017.2030, subp. 1	Performance Test Notification (written): due 30 days before Performance Test
17.0		S/A	Minn. R. 7017.2030, subp. 2 and 3	Performance Test Plan: due 30 days before Performance Test



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

18.0		S/A	Minn. R. 7017.2030, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test
19.0		S/A	Minn. R. 7017.2035, subp. 1 and 2	Performance Test Report: due 45 days after Performance Test
20.0		S/A	Minn. R. 7017.2035, subp. 2	Performance Test Report - Microfiche Copy: due 105 days after Performance Test



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** SV 104 L3 Cooler Vent Stack

**Associated Items:** EU 227 L3 Cooler Vent Stack

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. POLLUTANT LIMITS
2.0		LIMIT	Minn. R. 7011.0710, 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. 7011.0710, subp. 1(B)	Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.
4.0		CD	hdr	B. OPERATION REQUIREMENTS
5.0		CD	Minn. R. 7007.0800, subp. 4(D); 14; 16(J)	Process Monitoring: the visual emissions observer in the facility staff shall check stack visible emissions (opacity) once daily using a checklist that at a minimum contains the information required in Appendix B.
6.0		CD	hdr	C. PERFORMANCE TESTING REQUIREMENTS
7.0		S/A	Minn. R. 7017.2020, subp. 1	Initial Performance Test: due 365 days after 11/30/2004 to measure PM and Opacity emissions.
8.0		S/A	Minn. R. 7017.2020, subp. 1	Performance Test: due before end of each year following Initial Performance Test to measure PM and Opacity, if Line 3 utilization for that 12-month period is 50% or higher. (Line 3 utilization is 100%, if its kiln burner is fired for 8760 hours in the 12-month period, regardless of the rate of heat input or the rate of green ball feed.) However, Performance Test must be conducted at least ONCE for each 60 month period following Initial Performance Test.
9.0		S/A	Minn. R. 7017.2030, subp. 1	Performance Test Notification (written): due 30 days before Performance Test
10.0		S/A	Minn. R. 7017.2030, subp. 2 and 3	Performance Test Plan: due 30 days before Performance Test
11.0		S/A	Minn. R. 7017.2030, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test
12.0		S/A	Minn. R. 7017.2035, subp. 1 and 2	Performance Test Report: due 45 days after Performance Test
13.0		S/A	Minn. R. 7017.2035, subp. 2	Performance Test Report - Microfiche Copy: due 105 days after Performance Test



# COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** SV 122 L4 Conveyor Transfer 041-046 to 042 Belts

**Associated Items:** EU 264 L4 Conveyor Transfer Feeder

EU 266 L4 Conveyor Transfer 041/046 to 042 Belts

EU 267 L4 Conveyor Transfer 041/046 to 042 Belts

EU 399 L4 Pellet Scrn Fine Belt

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. POLLUTANT LIMITS
2.0		LIMIT	40 CFR 60.382(a); Minn. R. 7011.2700	Total Particulate Matter: less than or equal to 0.05 grams/dry standard cubic meter (0.022 grains/dry standard cubic foot) of exhaust gas on and after the date on which the performance test required is completed.
3.0		LIMIT	40 CFR 60.382(b); Minn. R. 7011.2700	Opacity: less than or equal to 10 percent opacity using 6-minute average for any process fugitive emissions on and after the 60th day after achieving the maximum production rate at which EU 399 and the screen at EU 264 will be operated, but not later than 180 days after the initial startup of EU 399 and the screen at EU 264.
4.0		CD	hdr	B. POLLUTION CONTROL EQUIPMENT LIMITS
5.0		LIMIT	Minn. R. 7017.2025, subp. 3	Liquid Flow Rate: greater than or equal to 240 gallons/minute using 24-hour Rolling Average .
6.0		CD	hdr	C. POLLUTION CONTROL EQUIPMENT REQUIREMENTS
7.0		CD	40 CFR 60.384(a); Minn. R. 7011.2700	Gas Stream Pressure Drop: The Permittee shall install, calibrate, maintain, and operate a monitoring device for the wet scrubber (CE 106) for the continuous measurement of the change in pressure of the gas stream through the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within 250 Pascals (1 inch water) gauge pressure, plus or minus; and must be calibrated on an annual basis in accordance with manufacturer's instructions.
8.0		CD	Minn. R. 7011.0800	Record Gas Stream Pressure Drop and Liquid Flow Rate for CE 106 each day in operation.
9.0		CD	40 CFR 60.384(b); Minn. R. 7011.2700	Liquid Flow Rate: The Permittee shall install, calibrate, maintain, and operate a monitoring device for the wet scrubber (CE106) for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within 5%, plus or minus, of design scrubbing liquid flow rate; and must be calibrated on an annual basis in accordance with manufacturer's instructions.
10.0		CD	hdr	D. PERFORMANCE TESTING REQUIREMENTS
11.0		S/A	40 CFR 60.385(a); Minn. R. 7011.2700	Initial Performance Test: due 60 days after achieving maximum capacity but not later than 180 days after initial startup of the affected facility (EU 399 and the screen at EU 264) to determine Total Particulate Matter emissions.
12.0		S/A	Minn. R. 7017.2030, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test.
13.0		CD	40 CFR 60.385(b); Minn. R. 7011.2700	The Permittee shall record the measurements of both the change in pressure of the gas stream across the wet scrubber (CE 106) and the scrubbing liquid flow rate during the Initial Performance Test of the wet scrubber and at least weekly thereafter.
14.0		S/A	40 CFR 60.7(a)(1)	Notification of the Date Construction Began: due 30 days after Start Of Construction. Submit the name and number of each unit and the date construction of each unit began (EU 399 and the screen at EU 264).
15.0		S/A	40 CFR 60.7(a)(3)	Notification of the Actual Date of Initial Startup: due 15 days after Initial Startup of EU 399 and the screen at EU 264.
16.0		S/A	Minn. R. 7017.2030, subp. 1	Performance Test Notification (written): due 30 days before Performance Test
17.0		S/A	Minn. R. 7017.2030, subp. 2 and 3	Performance Test Plan: due 30 days before Performance Test
18.0		S/A	Minn. R. 7017.2035, subp. 1 and 2	Performance Test Report: due 45 days after Performance Test
19.0		S/A	Minn. R. 7017.2035, subp. 2	Performance Test Report - Microfiche Copy: due 105 days after Performance Test





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

## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

20.0		S/A	40 CFR 60.385(c); Minn. R. 7011.2700	Semiannual Deviations Report: due 30 days after end of each calendar half-year following Initial Performance Test. The Permittee shall report occurrences when the measurements of the wet scrubber gas stream pressure drop (or gain) and scrubbing liquid flow differ by more than 30%, plus or minus, from the average obtained during the most recent performance test.
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# COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** SV 131 L5 Conveyor Transfer 041-046 to 042 Belts

**Associated Items:** EU 285 L5 Conveyor Transfer Feeder (B4 L5 hygiene)

EU 287 L5 Conveyor Transfer 041/046 to 042 Belts

EU 288 L5 Conveyor Transfer 041/046 to 042 Belts

EU 400 L5 Pellet Scrn Fine Belt

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. POLLUTANT LIMITS
2.0		LIMIT	40 CFR 60.382(a); Minn. R. 7011.2700	Total Particulate Matter: less than or equal to 0.05 grams/dry standard cubic meter (0.022 grains/dry standard cubic foot) of exhaust gas on and after the date on which the performance test required is completed.
3.0		LIMIT	40 CFR 60.382(b); Minn. R. 7011.2700	Opacity: less than or equal to 10 percent opacity using 6-minute average for any process fugitive emissions on and after the 60th day after achieving the maximum production rate at which the screen at EU 285 will be operated, but not later than 180 days after the initial startup of the screen at EU 285.
4.0		CD	hdr	B. POLLUTION CONTROL EQUIPMENT REQUIREMENTS
5.0		CD	40 CFR 60.384(a); Minn. R. 7011.2700	Gas Stream Pressure Drop: The Permittee shall install, calibrate, maintain, and operate a monitoring device for the wet scrubber (CE 116) for the continuous measurement of the change in pressure of the gas stream through the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within 250 Pascals (1 inch water) gauge pressure, plus or minus; and must be calibrated on an annual basis in accordance with manufacturer's instructions.
6.0		CD	40 CFR 60.384(b); Minn. R. 7011.2700	Liquid Flow Rate: The Permittee shall install, calibrate, maintain, and operate a monitoring device for the wet scrubber (CE116) for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within 5%, plus or minus, of design scrubbing liquid flow rate; and must be calibrated on an annual basis in accordance with manufacturer's instructions.
7.0		CD	Minn. R. 7011.0800	Record Gas Stream Pressure Drop and Liquid Flow Rate for CE 116 each day in operation.
8.0		CD	hdr	C. PERFORMANCE TESTING REQUIREMENTS
9.0		S/A	40 CFR 60.385(a); Minn. R. 7011.2700	Initial Performance Test: due 60 days after achieving maximum capacity, but not later than 180 days after initial startup of the affected facility (the screen at EU 285) to determine Total Particulate Matter emission. {Please Note: Air Emission Permit No. 13700005-013 has 2 Initial Performance Test requirements for SV 131 - one before the Industrial Hygiene Upgrade Project and the other after the Industrial Hygiene Upgrade Project.}
10.0		S/A	Minn. R. 7017.2030, subp. 4	Performance Test Pre-test Meeting: due 7 days before Performance Test.
11.0		CD	40 CFR 60.385(b); Minn. R. 7011.2700	The Permittee shall record the measurements of both the change in pressure of the gas stream across the wet scrubber (CE 116) and the scrubbing liquid flow rate during the Initial Performance Test of the wet scrubber and at least weekly thereafter.
12.0		S/A	40 CFR 60.7(a)(1)	Notification of the Date Construction Began: due 30 days after Start Of Construction. Submit the name and number of each unit and the date construction of each unit began (the screen at EU 285).
13.0		S/A	40 CFR 60.7(a)(3)	Notification of the Actual Date of Initial Startup: due 15 days after Initial Startup of the screen at EU 285.
14.0		S/A	Minn. R. 7017.2030, subp. 1	Performance Test Notification (written): due 30 days before Performance Test
15.0		S/A	Minn. R. 7017.2030, subp. 2 and 3	Performance Test Plan: due 30 days before Performance Test
16.0		S/A	Minn. R. 7017.2035, subp. 1 and 2	Performance Test Report: due 45 days after Performance Test
17.0		S/A	Minn. R. 7017.2035, subp. 2	Performance Test Report - Microfiche Copy: due 105 days after Performance Test
18.0		S/A	40 CFR 60.385(c); Minn. R. 7011.2700	Semiannual Deviations Report: due 30 days after end of each calendar half-year following Initial Performance Test. The Permittee shall report occurrences when the measurements of the wet scrubber gas stream pressure drop (or gain) and scrubbing liquid flow differ by more than 30%, plus or minus, from the average obtained during the most recent performance test.



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** SV 191 Carpenters Shop

**Associated Items:** EU 391 Carpenters Shop

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. 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. 1(B)	Opacity: less than or equal to 20 percent opacity



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** SV 192 Paint Shop Booth

**Associated Items:** EU 392 Paint Shop Booth

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	A. 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. 1(B)	Opacity: less than or equal to 20 percent opacity



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** SV 195 Hill Wood Products system

**Associated Items:** EU 396 Hill Wood Products system

	NC/ CA	Type	Citation	Requirement
1.0		LIMIT	Title I Condition: Limit to avoid classification as a major modification under 40 CFR 52.21; and Minn. R. 7007.3000	Process Throughput: less than or equal to 220,000 tons/year using 12-month Rolling Sum of wood waste. The amount of wood waste received shall be calculated by the 15th of each month for the previous 12-month period. A record of the amount of wood waste received shall be kept on a daily basis.
2.0		LIMIT	Title I Condition: Limit to avoid classification as a major modification under 40 CFR 52.21; and Minn. R. 7007.3000	Total Particulate Matter: greater than or equal to 90 percent capture efficiency and less than 0.54 lb/hr at SV 195 after control by CE 144 (fabric filter)
3.0		LIMIT	Title I Condition: Limit to avoid classification as a major modification under 40 CFR 52.21; and Minn. R. 7007.3000	Particulate Matter < 10 micron: greater than or equal to 90 percent capture efficiency and less than 0.32 lb/hr at SV 195 after control by CE 144 (fabric filter)
4.0		LIMIT	Minn. R. 7011.0715, subp. 1(B)	Opacity: less than or equal to 20 percent opacity
5.0		CD	Minn. R. 7007.0800, subp. 4(D), 14, and 16(J)	Monitoring: The visible emissions observer on the facility staff shall check stack visible emissions (opacity) once daily using a checklist that at a minimum contains the information required in Appendix B.



# COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** MR 001 NOx & SO2 CEMS at Line 3 Waste Gas Stack (SV 103)

**Associated Items:** CE 146 Wet Scrubber-High Efficiency

GP 009 Agglomerator Line 3

SV 103 L3 Waste Gas Stack

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	CONTINUOUS EMISSION MONITORING SYSTEMS (CEMS) Requirements  (See additional CEMS requirements in Table A under Subject Item: Total Facility, Section F, and Subject Items MR 002 through MR 005; and in Table B)
2.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1006.	Initial Startup of the Monitor: due 30 days after 12/22/2008 . Monitor is the continuous emission monitoring system (CEMS), which is defined as the total equipment used to sample, condition (if applicable), analyze, and provide a permanent record of emissions of NOx and SO2 in lb/hr.
3.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1050, subp. 1.	CEM Certification Test: due 90 days after Excess Emissions/Downtime Reports (EER's) are first required. The first EER is due 30 days after the end of the calendar quarter following Permit Issuance. Follow the Performance Specifications listed in 40 CFR 60, Appendix B. Note that some changes that affect the CEMS may require recertification.
4.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1170, subp. 4.	CEMS Cylinder Gas Audit (CGA): due before end of each calendar quarter following CEM Certification Test, except that a CGA is not required during any calendar half year in which a RATA was performed. The initial CGA must be performed within 80 days following certification of the CEMS. The CGAs shall be conducted at least three months apart but no more than eight months apart. A CGA shall be conducted according to the procedures in 40 CFR 60, Appendix F, section 5.1.2. If the monitored emission unit was operated for less than 24 hours during the calendar half year, a CGA is not required for that calendar half year.
5.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1170, subp. 5.	CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following CEM Certification Test. A RATA is not required in any calendar year if a RATA conducted in the previous year demonstrated a relative accuracy value of less than 15 percent or if the associated emission unit operated less than 48 hours during the calendar year. If the exception is used, the next RATA shall be conducted during the first half of the following calendar year. RATAs shall be conducted at least 3 months apart according to 40 CFR 60, Appendix F, section 5.1.1.
6.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1180, subp. 1.	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter following end of the calendar quarter in which the Audit was performed. A CGA is not required during any calendar quarter in which a RATA was performed.
7.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1180, subp. 3.	Relative Accuracy Test Audit (RATA) Results Summary: due 45 days after CEMS Relative Accuracy Test Audit (RATA).
8.0		CD	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1110, subp. 1 and 2.	Excess Emissions/Downtime Reports (EER's): due 30 days after end of each calendar quarter following Initial Startup of the Monitor. Submit Deviations Reporting Form DRF-1 as amended. The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e., during startup, shutdown, and malfunctions. The EER must be submitted even if there were no excess emissions, downtime or bypass during the quarter. { This is a reminder; the same requirement can be found in Table B of this permit. }



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** MR 002 NOx & SO2 CEMS at Line 4 Waste Gas Stack (SV 118)

**Associated Items:** CE 103 Wet Scrubber-High Efficiency w/o Lime

GP 010 Agglomeration Lines 4 & 5

SV 118 L4 Waste Gas Stack

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	CONTINUOUS EMISSION MONITORING SYSTEMS (CEMS) Requirements  (See additional CEMS requirements in Table A under Subject Item: Total Facility, Section F, and Subject Items MR 001, and MR 003 through MR 005; and in Table B)
2.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1006.	Initial Startup of the Monitor: due 30 days after 12/22/2008 . Monitor is the continuous emission monitoring system (CEMS), which is defined as the total equipment used to sample, condition (if applicable), analyze, and provide a permanent record of emissions of NOx and SO2 in lb/hr.
3.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1050, subp. 1.	CEM Certification Test: due 90 days after Excess Emissions/Downtime Reports (EER's) are first required. The first EER is due 30 days after the end of the calendar quarter following Permit Issuance. Follow the Performance Specifications listed in 40 CFR 60, Appendix B. Note that some changes that affect the CEMS may require recertification.
4.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1170, subp. 4.	CEMS Cylinder Gas Audit (CGA): due before end of each calendar quarter following CEM Certification Test, except that a CGA is not required during any calendar half year in which a RATA was performed. The initial CGA must be performed within 80 days following certification of the CEMS. The CGAs shall be conducted at least three months apart but no more than eight months apart. A CGA shall be conducted according to the procedures in 40 CFR 60, Appendix F, section 5.1.2. If the monitored emission unit was operated for less than 24 hours during the calendar half year, a CGA is not required for that calendar half year.
5.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1170, subp. 5.	CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following CEM Certification Test. A RATA is not required in any calendar year if a RATA conducted in the previous year demonstrated a relative accuracy value of less than 15 percent or if the associated emission unit operated less than 48 hours during the calendar year. If the exception is used, the next RATA shall be conducted during the first half of the following calendar year. RATAs shall be conducted at least 3 months apart according to 40 CFR 60, Appendix F, section 5.1.1.
6.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1180, subp. 1.	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter following end of the calendar quarter in which the Audit was performed. A CGA is not required during any calendar quarter in which a RATA was performed.
7.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1180, subp. 3.	Relative Accuracy Test Audit (RATA) Results Summary: due 45 days after CEMS Relative Accuracy Test Audit (RATA).
8.0		CD	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1110, subp. 1 and 2.	Excess Emissions/Downtime Reports (EER's): due 30 days after end of each calendar quarter following Initial Startup of the Monitor. Submit Deviations Reporting Form DRF-1 as amended. The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e., during startup, shutdown, and malfunctions. The EER must be submitted even if there were no excess emissions, downtime or bypass during the quarter. { This is a reminder; the same requirement can be found in Table B of this permit. }



## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** MR 003 NOx & SO2 CEMS at Line 5 Waste Gas Stack (SV 127)

**Associated Items:** CE 113 Wet Scrubber-High Efficiency w/o Lime

GP 010 Agglomeration Lines 4 & 5

SV 127 L5 Waste Gas Stack

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	CONTINUOUS EMISSION MONITORING SYSTEMS (CEMS) Requirements  (See additional CEMS requirements in Table A under Subject Item: Total Facility, Section F, and Subject Items MR 001, MR 002, MR 004, and MR 005; and in Table B)
2.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1006.	Initial Startup of the Monitor: due 30 days after 12/22/2008 . Monitor is the continuous emission monitoring system (CEMS), which is defined as the total equipment used to sample, condition (if applicable), analyze, and provide a permanent record of emissions of NOx and SO2 in lb/hr.
3.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1050, subp. 1.	CEM Certification Test: due 90 days after Excess Emissions/Downtime Reports (EER's) are first required. The first EER is due 30 days after the end of the calendar quarter following Permit Issuance. Follow the Performance Specifications listed in 40 CFR 60, Appendix B. Note that some changes that affect the CEMS may require recertification.
4.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1170, subp. 4.	CEMS Cylinder Gas Audit (CGA): due before end of each calendar quarter following CEM Certification Test, except that a CGA is not required during any calendar half year in which a RATA was performed. The initial CGA must be performed within 80 days following certification of the CEMS. The CGAs shall be conducted at least three months apart but no more than eight months apart. A CGA shall be conducted according to the procedures in 40 CFR 60, Appendix F, section 5.1.2. If the monitored emission unit was operated for less than 24 hours during the calendar half year, a CGA is not required for that calendar half year.
5.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1170, subp. 5.	CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following CEM Certification Test. A RATA is not required in any calendar year if a RATA conducted in the previous year demonstrated a relative accuracy value of less than 15 percent or if the associated emission unit operated less than 48 hours during the calendar year. If the exception is used, the next RATA shall be conducted during the first half of the following calendar year. RATAs shall be conducted at least 3 months apart according to 40 CFR 60, Appendix F, section 5.1.1.
6.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1180, subp. 1.	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter following end of the calendar quarter in which the Audit was performed. A CGA is not required during any calendar quarter in which a RATA was performed.
7.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1180, subp. 3.	Relative Accuracy Test Audit (RATA) Results Summary: due 45 days after CEMS Relative Accuracy Test Audit (RATA).
8.0		CD	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1110, subp. 1 and 2.	Excess Emissions/Downtime Reports (EER's): due 30 days after end of each calendar quarter following Initial Startup of the Monitor. Submit Deviations Reporting Form DRF-1 as amended. The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e., during startup, shutdown, and malfunctions. The EER must be submitted even if there were no excess emissions, downtime or bypass during the quarter. { This is a reminder; the same requirement can be found in Table B of this permit. }





## COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** MR 004 NOx & SO2 CEMS at Line 6 Waste Gas Stack (SV 144)

**Associated Items:** CE 126 Wet Scrubber-High Efficiency w/o Lime

GP 011 Agglomeration Lines 6 & 7 (Action 007)

SV 144 L6 Waste Gas Stack

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	CONTINUOUS EMISSION MONITORING SYSTEMS (CEMS) Requirements  (See additional CEMS requirements in Table A under Subject Item: Total Facility, Section F, and Subject Items MR 001 through MR 003, and MR 005; and in Table B)
2.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1006.	Initial Startup of the Monitor: due 30 days after 12/22/2008 . Monitor is the continuous emission monitoring system (CEMS), which is defined as the total equipment used to sample, condition (if applicable), analyze, and provide a permanent record of emissions of NOx and SO2 in lb/hr.
3.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1050, subp. 1.	CEM Certification Test: due 90 days after Excess Emissions/Downtime Reports (EER's) are first required. The first EER is due 30 days after the end of the calendar quarter following Permit Issuance. Follow the Performance Specifications listed in 40 CFR 60, Appendix B. Note that some changes that affect the CEMS may require recertification.
4.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1170, subp. 4.	CEMS Cylinder Gas Audit (CGA): due before end of each calendar quarter following CEM Certification Test, except that a CGA is not required during any calendar half year in which a RATA was performed. The initial CGA must be performed within 80 days following certification of the CEMS. The CGAs shall be conducted at least three months apart but no more than eight months apart. A CGA shall be conducted according to the procedures in 40 CFR 60, Appendix F, section 5.1.2. If the monitored emission unit was operated for less than 24 hours during the calendar half year, a CGA is not required for that calendar half year.
5.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1170, subp. 5.	CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following CEM Certification Test. A RATA is not required in any calendar year if a RATA conducted in the previous year demonstrated a relative accuracy value of less than 15 percent or if the associated emission unit operated less than 48 hours during the calendar year. If the exception is used, the next RATA shall be conducted during the first half of the following calendar year. RATAs shall be conducted at least 3 months apart according to 40 CFR 60, Appendix F, section 5.1.1.
6.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1180, subp. 1.	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter following end of the calendar quarter in which the Audit was performed. A CGA is not required during any calendar quarter in which a RATA was performed.
7.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1180, subp. 3.	Relative Accuracy Test Audit (RATA) Results Summary: due 45 days after CEMS Relative Accuracy Test Audit (RATA).
8.0		CD	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1110, subp. 1 and 2.	Excess Emissions/Downtime Reports (EER's): due 30 days after end of each calendar quarter following Initial Startup of the Monitor. Submit Deviations Reporting Form DRF-1 as amended. The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e., during startup, shutdown, and malfunctions. The EER must be submitted even if there were no excess emissions, downtime or bypass during the quarter. { This is a reminder; the same requirement can be found in Table B of this permit. }



# COMPLIANCE PLAN **CD-01**

Facility Name: US Steel Corp - Minntac

Permit Number: 13700005 - 006

**Subject Item:** MR 005 NOx & SO2 CEMS at Line 7 Waste Gas Stack (SV 151)

**Associated Items:** CE 136 Wet Scrubber-High Efficiency w/o Lime

GP 011 Agglomeration Lines 6 & 7 (Action 007)

SV 151 L7 Waste Gas Stack

	NC/ CA	Type	Citation	Requirement
1.0		CD	hdr	CONTINUOUS EMISSION MONITORING SYSTEMS (CEMS) Requirements  (See additional CEMS requirements in Table A under Subject Item: Total Facility, Section F, and Subject Items MR 001 through MR 004; and in Table B)
2.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1006.	Initial Startup of the Monitor: due 30 days after 12/22/2008 . Monitor is the continuous emission monitoring system (CEMS), which is defined as the total equipment used to sample, condition (if applicable), analyze, and provide a permanent record of emissions of NOx and SO2 in lb/hr.
3.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1050, subp. 1.	CEM Certification Test: due 90 days after Excess Emissions/Downtime Reports (EER's) are first required. The first EER is due 30 days after the end of the calendar quarter following Permit Issuance. Follow the Performance Specifications listed in 40 CFR 60, Appendix B. Note that some changes that affect the CEMS may require recertification.
4.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1170, subp. 4.	CEMS Cylinder Gas Audit (CGA): due before end of each calendar quarter following CEM Certification Test, except that a CGA is not required during any calendar half year in which a RATA was performed. The initial CGA must be performed within 80 days following certification of the CEMS. The CGAs shall be conducted at least three months apart but no more than eight months apart. A CGA shall be conducted according to the procedures in 40 CFR 60, Appendix F, section 5.1.2. If the monitored emission unit was operated for less than 24 hours during the calendar half year, a CGA is not required for that calendar half year.
5.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1170, subp. 5.	CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following CEM Certification Test. A RATA is not required in any calendar year if a RATA conducted in the previous year demonstrated a relative accuracy value of less than 15 percent or if the associated emission unit operated less than 48 hours during the calendar year. If the exception is used, the next RATA shall be conducted during the first half of the following calendar year. RATAs shall be conducted at least 3 months apart according to 40 CFR 60, Appendix F, section 5.1.1.
6.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1180, subp. 1.	Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar quarter following end of the calendar quarter in which the Audit was performed. A CGA is not required during any calendar quarter in which a RATA was performed.
7.0		S/A	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1180, subp. 3.	Relative Accuracy Test Audit (RATA) Results Summary: due 45 days after CEMS Relative Accuracy Test Audit (RATA).
8.0		CD	Title I Conditions: to monitor NOx mitigation for Class I visibility impacts from pellet induration; 40 CFR 52.21 (p); Minn. R. 7007.3000; Minn. R. 7017.1110, subp. 1 and 2.	Excess Emissions/Downtime Reports (EER's): due 30 days after end of each calendar quarter following Initial Startup of the Monitor. Submit Deviations Reporting Form DRF-1 as amended. The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e., during startup, shutdown, and malfunctions. The EER must be submitted even if there were no excess emissions, downtime or bypass during the quarter. { This is a reminder; the same requirement can be found in Table B of this permit. }

## Attachment Three: Points Calculator

## Points Calculator

1) AQ Facility ID No.:	13700005
2) Facility Name:	US Steel Corp - Minntac
3) Small business? y/n?	N
4) DQ Numbers (including all rolled) :	4078
5) Date of each Application Received:	August 01, 2012, updated application: 04/08/13
6) Final Permit No.	13700005-006
7) Permit Staff	Sarah Seelen
8) "Work completed" in which .xls file (i.e. unit 2b, unit 1a, biofuels)?	

<b>Total Points</b>	<b>25</b>
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<u>Application Type</u>	<u>DQ No.</u>	<u>Qty.</u>	<u>Points</u>	<u>Total Points</u>	<u>Details</u>
Administrative Amendment			1	0	
Minor Amendment			4	0	
Applicability Request			10	0	
Moderate Amendment			15	0	
Major Amendment	4078	1	25	25	
Individual State Permit (not reissuance)			50	0	
Individual Part 70 Permit (not reissuance)			75	0	

### Additional Points

Modeling Review			15	0
BACT Review			15	0
LAER Review			15	0
CAIR/Part 75 CEM analysis			10	0
NSPS Review			10	0
NESHAP Review			10	0
Case-by-case MACT Review			20	0
Netting			10	0
Limits to remain below threshold			10	0
Plantwide Applicability Limit (PAL)			20	0
AERA review			15	0
Variance request under 7000.7000			35	0
Confidentiality request under 7000.1300			2	0

### EAW review

Part 4410.4300, subparts 18, item A; and 29			15	0
Part 4410.4300, subparts 8, items A & B; 10, items A to C; 16, items A & D; 17, items A to C & E to G; and 18, items B & C			35	0
Part 4410.4300, subparts 4; 5 items A & B; 13; 15; 16, items B & C; and 17 item D			70	0

**Add'l Points 0**

NOTES: