

STATE OF MINNESOTA
COUNTY OF RAMSEY

DISTRICT COURT
SECOND JUDICIAL DISTRICT

Case Type: Other Civil

State of Minnesota, by its Minnesota
Pollution Control Agency,

Court File No. _____

Plaintiff,

vs.

COMPLAINT

Cliffs Erie, L.L.C.,

Defendant.

INTRODUCTION

This is an action for civil penalties and for an order requiring the Defendant to take certain specific corrective actions to address various violations of environmental protection requirements.

PARTIES

1. The Minnesota Pollution Control Agency ("MPCA") is a statutory agency of the State of Minnesota responsible for administering and enforcing statutes, rules, and permits relating to the pollution of the waters of the State of Minnesota. Minn. Stat. chs. 115 and 116 (2010) and rules promulgated thereunder.

2. Defendant Cliffs Erie ("Cliffs Erie") is a Limited Liability Corporation that owns and operates a number of mining facilities in northeastern Minnesota. Defendant operates its facilities pursuant to several water discharge permits that were issued and are enforced by the MPCA.

JURISDICTION

3. This is an action for civil penalties and for an order compelling performance of corrective actions to address violations of Defendant's permits and unpermitted discharges from Defendant's facilities. This Court has jurisdiction over the Defendant and is authorized to hear this matter pursuant to Minn. Stat. § 115.071, subs. 3, 4 and 5 (2010).

VENUE

4. The parties have expressly consented to venue in Ramsey County.

FACTUAL BACKGROUND

5. Defendant owns and operates a number of mining facilities in Minnesota. As part of its operations, Defendant operates the three facilities known as the Hoyt Lakes Tailings Basin, the Hoyt Lakes Mine Area, and the Dunka Mine Area (collectively hereinafter "Facilities"). Each of these three Facilities is subject to a MPCA-issued National Pollutant Discharge Elimination System / State Disposal System ("NPDES/SDS") permit that regulates the discharge of wastewater from the Facilities. Prior to Cliffs Erie, L.L.C., being issued NPDES/SDS Permit coverage for the three facilities, the LTV Steel Mining Company (LTVSMC) was the previous Permittee. After LTVSMC's bankruptcy in 2000 or 2001, the three NPDES/SDS permits for these facilities, originally issued to LTVSMC, were transferred to Cliffs Erie, L.L.C., on October 30, 2001. At that time Cliffs Erie became responsible for maintaining compliance with the permits at the three facilities. As discussed in greater detail below, the Defendant has violated its NPDES/SDS permits and other applicable environmental protection requirements regarding the pollution of the waters of the State of Minnesota.

APPLICABLE LAW

6. Pursuant to Minn. Stat. § 115.03, subd. 1 (a) (2010), the MPCA is authorized and required to enforce all laws relating to the pollution of the waters of the State of Minnesota. Pursuant to Minn. Stat. § 115.03, subd. 5 (2010), the MPCA is authorized and required to enforce the National Pollutant Discharge Elimination (“NPDES”) permitting program in Minnesota.

7. Pursuant to Minn. Stat. § 115.071, subd. 1 (2010), the statutes, rules, and permits that are administered by the MPCA “may be enforced by any one or any combination of the following: criminal prosecution; action to recover civil penalties; injunction; action to compel performance; or other appropriate action, in accordance with the provisions of said chapters and this section.”

8. Pursuant to Minn. Stat. § 115.071, subd. 3 (2010), a person who violates, among other things, any provision of ch. 115, or any rules or permits issued by the MPCA is subject to a penalty not to exceed \$10,000 per day of violation. Such penalties may be recovered by a civil action brought in the name of the State of Minnesota.

9. Pursuant to Minn. Stat. § 115.071, subd. 5 (2010), “In any action to compel performance of an order of [the MPCA] for any purpose relating to the prevention, pollution, control or abatement of pollution under this chapter and chapters 114C and 116, the court may require any defendant adjudged responsible to do and perform any and all acts and things within the defendant’s power which are reasonably necessary to accomplish the purpose of the order.”

COUNT I VIOLATION OF HOYT LAKES TAILINGS BASIN PERMIT

10. The Defendant owns and operates a facility referred to as the Hoyt Lakes Tailings Basin. The Defendant operates the Hoyt Lakes Tailings Basin facility pursuant to NPDES/SDS

Permit No. MN0054089. The permit regulates surface and groundwater discharges from this closed taconite tailings basin.

11. The NPDES/SDS Permit for the Tailings Basin (NPDES/SDS Permit No. MN0054089) includes enforceable discharge limits that govern how much of a specific pollutant the Defendant may legally discharge. The permit identifies five surface discharge stations known as SD001, SD002, SD004, SD005, and SD006. The permit requires the Defendant to monitor the discharge from those stations to verify that the discharge meets the applicable discharge limits. The Defendant has exceeded the allowable discharge limits set forth in NPDES/SDS Permit No. MN0054089 as identified in the table below. The following table identifies the applicable permit discharge limits and the reported values for those months when violations of those limits occurred, through the filing of this Complaint.

| Monitoring Station | Parameter | Limit (mg/l unless otherwise noted) | Reported Value (mg/l unless otherwise noted) | Limit Type | Reporting Period |
|--------------------|------------------------|-------------------------------------|--|------------|------------------|
| SD001 | Total Suspended Solids | 20 | 24 | CalMoAvg | February 2005 |
| SD001 | Total Suspended Solids | 20 | 26 | CalMoAvg | February 2007 |
| SD001 | Turbidity | 25 NTU | 28 NTU | CalMoAvg | March 2005 |
| SD001 | Turbidity | 25 NTU | 26 NTU | CalMoAvg | February 2007 |
| SD001 | Dissolved Iron | 1.0 | 2.6 | CalMoAvg | March 2005 |
| SD001 | Dissolved Iron | 2.0 | 2.6 | CalMoMax | March 2005 |
| SD001 | Dissolved Iron | 1.0 | 1.3 | CalMoAvg | December 2005 |
| SD001 | Dissolved Iron | 1.0 | 1.5 | CalMoAvg | March 2006 |
| SD002 | Total Boron | 500 µg/l | 502 µg/l | CalMoAvg | January 2009 |
| SD002 | Total Suspended Solids | 20 | 22 | CalMoAvg | January 2007 |

| | | | | | |
|-------|------------------------|----------|----------|----------|----------------|
| SD002 | Total Suspended Solids | 20 | 30 | CalMoAvg | November 2007 |
| SD004 | Total Boron | 500 µg/l | 521 µg/l | CalMoAvg | June 2005 |
| SD004 | Total Boron | 500 µg/l | 520 µg/l | CalMoAvg | September 2005 |
| SD004 | Total Boron | 500 µg/l | 511 µg/l | CalMoAvg | December 2005 |
| SD004 | Total Boron | 500 µg/l | 547 µg/l | CalMoAvg | March 2006 |
| SD004 | Total Boron | 500 µg/l | 514 µg/l | CalMoAvg | December 2006 |
| SD004 | Total Boron | 500 µg/l | 503 µg/l | CalMoAvg | March 2007 |
| SD004 | Total Boron | 500 µg/l | 504 µg/l | CalMoAvg | December 2007 |
| SD004 | Total Boron | 500 µg/l | 526 µg/l | CalMoAvg | December 2008 |
| SD004 | Total Boron | 500 µg/l | 515 µg/l | CalMoAvg | March 2009 |
| SD004 | Total Boron | 500 µg/l | 518 µg/l | CalMoAvg | September 2009 |
| SD004 | Dissolved Iron | 1.0 | 2.8 | CalMoAvg | June 2005 |
| SD004 | Dissolved Iron | 2.0 | 2.8 | CalMoMax | June 2005 |
| SD004 | Dissolved Iron | 1.0 | 3.5 | CalMoAvg | September 2005 |
| SD004 | Dissolved Iron | 2.0 | 3.5 | CalMoMax | September 2005 |
| SD004 | Dissolved Iron | 1.0 | 3.7 | CalMoAvg | December 2005 |
| SD004 | Dissolved Iron | 2.0 | 3.7 | CalMoMax | December 2005 |
| SD004 | Dissolved Iron | 1.0 | 2.9 | CalMoAvg | March 2006 |
| SD004 | Dissolved Iron | 2.0 | 2.9 | CalMoMax | March 2006 |
| SD004 | Dissolved Iron | 1.0 | 2.6 | CalMoAvg | June 2006 |
| SD004 | Dissolved Iron | 2.0 | 2.6 | CalMoMax | June 2006 |
| SD004 | Dissolved Iron | 1.0 | 2.5 | CalMoAvg | September 2006 |
| SD004 | Dissolved Iron | 2.0 | 2.5 | CalMoMax | September 2006 |
| SD004 | Dissolved Iron | 1.0 | 2.9 | CalMoAvg | December 2006 |
| SD004 | Dissolved Iron | 2.0 | 2.9 | CalMoMax | December 2006 |
| SD004 | Dissolved Iron | 1.0 | 2.8 | CalMoAvg | March 2007 |
| SD004 | Dissolved Iron | 2.0 | 2.8 | CalMoMax | March 2007 |

| | | | | | |
|-------|----------------|--------|--------|----------|----------------|
| SD004 | Dissolved Iron | 1.0 | 2.5 | CalMoAvg | June 2007 |
| SD004 | Dissolved Iron | 2.0 | 2.5 | CalMoMax | June 2007 |
| SD004 | Dissolved Iron | 1.0 | 2.7 | CalMoAvg | September 2007 |
| SD004 | Dissolved Iron | 2.0 | 2.7 | CalMoMax | September 2007 |
| SD004 | Dissolved Iron | 1.0 | 2.8 | CalMoAvg | December 2007 |
| SD004 | Dissolved Iron | 2.0 | 2.8 | CalMoMax | December 2007 |
| SD004 | Dissolved Iron | 1.0 | 4.1 | CalMoAvg | March 2008 |
| SD004 | Dissolved Iron | 2.0 | 4.1 | CalMoMax | March 2008 |
| SD004 | Dissolved Iron | 1.0 | 4.6 | CalMoAvg | June 2008 |
| SD004 | Dissolved Iron | 2.0 | 4.6 | CalMoMax | June 2008 |
| SD004 | Dissolved Iron | 1.0 | 5.5 | CalMoAvg | September 2008 |
| SD004 | Dissolved Iron | 2.0 | 5.5 | CalMoMax | September 2008 |
| SD004 | Dissolved Iron | 1.0 | 6.0 | CalMoAvg | December 2008 |
| SD004 | Dissolved Iron | 2.0 | 6.0 | CalMoMax | December 2008 |
| SD004 | Dissolved Iron | 1.0 | 6.4 | CalMoAvg | March 2009 |
| SD004 | Dissolved Iron | 2.0 | 6.4 | CalMoMax | March 2009 |
| SD004 | Dissolved Iron | 1.0 | 6.2 | CalMoAvg | September 2009 |
| SD004 | Dissolved Iron | 2.0 | 6.2 | CalMoMax | September 2009 |
| SD004 | Dissolved Iron | 1.0 | 6.9 | CalMoAvg | December 2009 |
| SD004 | Dissolved Iron | 2.0 | 6.9 | CalMoMax | December 2009 |
| SD004 | Dissolved Iron | 1.0 | 2.0 | CalMoAvg | March 2010 |
| SD004 | Turbidity | 25 NTU | 80 NTU | CalMoAvg | March 2005 |
| SD004 | Turbidity | 25 NTU | 29 NTU | CalMoAvg | June 2005 |
| SD004 | Turbidity | 25 NTU | 33 NTU | CalMoAvg | September 2005 |
| SD004 | Turbidity | 25 NTU | 38 NTU | CalMoAvg | March 2006 |

| | | | | | |
|-------|------------------------|----------|----------|------------|----------------|
| SD004 | Turbidity | 25 NTU | 56 NTU | CalMoAvg | December 2006 |
| SD004 | Turbidity | 25 NTU | 26 NTU | CalMoAvg | March 2007 |
| SD004 | Turbidity | 25 NTU | 40 NTU | CalMoAvg | December 2007 |
| SD004 | Turbidity | 25 NTU | 49 NTU | CalMoAvg | March 2008 |
| SD004 | Turbidity | 25 NTU | 65 NTU | CalMoAvg | June 2008 |
| SD004 | Turbidity | 25 NTU | 93 NTU | CalMoAvg | September 2008 |
| SD004 | Turbidity | 25 NTU | 99 NTU | CalMoAvg | December 2008 |
| SD004 | Turbidity | 25 NTU | 89 NTU | CalMoAvg | March 2009 |
| SD004 | Turbidity | 25 NTU | 89 NTU | CalMoAvg | September 2009 |
| SD004 | Turbidity | 25 NTU | 113 NTU | CalMoAvg | December 2009 |
| SD004 | Turbidity | 25NTU | 95NTU | CalMoAvg | March 2010 |
| SD004 | Total Suspended Solids | 20 | 79 | CalMoAvg | October 2006 |
| SD004 | Total Suspended Solids | 20 | 21 | CalMoAvg | October 2007 |
| SD006 | pH | 8.5 s.u. | 8.6 s.u. | InstantMax | October 2005 |

**COUNT II
VIOLATION OF HOYT LAKES MINE AREA PERMIT**

12. The Defendant owns and operates a facility known as the Hoyt Lakes Mine Area. The Defendant operates the Hoyt Lakes Mine Area pursuant to NPDES/SDS Permit No. MN0042536.

13. The permit for the Hoyt Lakes Mine Area (NPDES/SDS Permit No. MN0042536) includes enforceable limits that govern how much of a specific pollutant the Defendant may legally discharge. The permit identifies nine surface discharge stations known as SD008, SD009, SD0013, SD010, SD011, SD012, SD026, SD030, and SD033. The permit requires the Defendant to monitor the discharge from those stations to verify that the discharge meets the applicable limits. The Defendant has exceeded the allowable discharge limits set forth in NPDES/SDS Permit No. MN 0042356 as identified in the table below. The following table identifies the applicable permit discharge limits and the reported values for those months when violations of those limits occurred, through the filing of this Complaint. The temperature difference limit at SD012 is

based on a comparison of temperature monitored at SD012 with the temperature of the receiving water (E. Branch Wyman Creek), downstream of where SD012 discharges to the receiving water.

| Monitoring Station | Parameter | Limit | Reported Value | Limit Type | Reporting Period |
|--------------------|------------------------|----------|----------------|------------|------------------|
| SD012 | pH | 8.5 s.u. | 8.8 s.u. | InstantMax | February 2005 |
| SD012 | pH | 8.5 s.u. | 8.8 s.u. | InstantMax | June 2005 |
| SD012 | pH | 8.5 s.u. | 8.7 s.u. | InstantMax | December 2005 |
| SD012 | pH | 8.5 s.u. | 8.7 s.u. | InstantMax | August 2006 |
| SD012 | pH | 8.5 s.u. | 8.6 s.u. | InstantMax | September 2006 |
| SD012 | pH | 8.5 s.u. | 8.6 s.u. | InstantMax | October 2008 |
| SD012 | pH | 8.5 s.u. | 8.6 s.u. | InstantMax | November 2008 |
| SD012 | pH | 8.5 s.u. | 8.6 s.u. | InstantMax | December 2008 |
| SD012 | Temperature difference | 0° C. | 1.8° C. | InstantMax | February 2005 |
| SD012 | Temperature difference | 0° C. | 0.1° C. | InstantMax | March 2005 |
| SD012 | Temperature difference | 0° C. | 2.0° C. | InstantMax | April 2005 |
| SD012 | Temperature difference | 0° C. | 2.8° C. | InstantMax | September 2005 |
| SD012 | Temperature difference | 0° C. | 4.4° C. | InstantMax | October 2005 |
| SD012 | Temperature difference | 0° C. | 0.3° C. | InstantMax | December 2005 |
| SD012 | Temperature difference | 0° C. | 0.4° C. | InstantMax | March 2006 |
| SD012 | Temperature difference | 0° C. | 3.0° C. | InstantMax | April 2006 |
| SD012 | Temperature difference | 0° C. | 0.5° C. | InstantMax | August 2006 |
| SD012 | Temperature difference | 0° C. | 3.8° C. | InstantMax | October 2006 |
| SD012 | Temperature difference | 0° C. | 0.2° C. | InstantMax | December 2006 |
| SD012 | Temperature difference | 0° C. | 0.5° C. | InstantMax | March 2007 |
| SD012 | Temperature difference | 0° C. | 2.3° C. | InstantMax | April 2007 |
| SD012 | Temperature difference | 0° C. | 0.4° C. | InstantMax | June 2007 |
| SD012 | Temperature difference | 0° C. | 2.5° C. | InstantMax | August 2007 |

| | | | | | |
|-------|------------------------|-------|---------|------------|----------------|
| SD012 | Temperature difference | 0° C. | 0.2° C. | InstantMax | September 2007 |
| SD012 | Temperature difference | 0° F. | 2.0° F. | InstantMax | December 2007 |
| SD012 | Temperature difference | 0° F. | 1.8° F. | InstantMax | January 2008 |
| SD012 | Temperature difference | 0° F. | 2.0° F. | InstantMax | February 2008 |
| SD012 | Temperature difference | 0° F. | 2.9° F. | InstantMax | March 2008 |
| SD012 | Temperature difference | 0° F. | 2.3° F. | InstantMax | April 2008 |
| SD012 | Temperature difference | 0° F. | 1.0° F. | InstantMax | June 2008 |
| SD012 | Temperature difference | 0° F. | 1.1° F. | InstantMax | July 2008 |
| SD012 | Temperature difference | 0° F. | 9.2° F. | InstantMax | September 2008 |
| SD012 | Temperature difference | 0° F. | 3.6° F. | InstantMax | December 2008 |
| SD012 | Temperature difference | 0° F. | 0.5° F. | InstantMax | March 2009 |
| SD012 | Temperature difference | 0° F. | 4.1° F. | InstantMax | April 2009 |
| SD012 | Temperature difference | 0° F. | 8.1° F. | InstantMax | September 2009 |
| SD012 | Temperature difference | 0° F. | 3.4° F. | InstantMax | December 2009 |
| SD012 | Temperature difference | 0° F. | 1.4° F. | InstantMax | March 2010 |

14. The permit for the Hoyt Lakes Mine Area (NPDES/SDS Permit No. MN0042536) requires the Defendant to monitor and report specific information about its discharge. These reports are referred to as Discharge Monitoring Reports (“DMRs”). Chapter 2 Part 5.1 of NPDES/SDS Permit No. MN0042536 states: [For] SD008, SD009, SD010, SD011, SD012, SD013, SD026, SD030, SD033: Submit a monthly DMR monthly by 21 days after the end of each calendar month following issuance of major permit modification. Chapter 2, Part 6.2 of NPDES/SDS Permit No. 0042536 states, in part, that if there is no discharge from any of the

outfalls from a given mine pit for the entire calendar month, the Permittee shall sample the mine pit water itself for the same list of parameters as required for the outfalls. In this case the Permittee shall check the “No Discharge” box on the monthly Discharge Monitoring Report (DMR) for each of the outfalls originating from that mine pit and shall make a notation in the “comments” section of each DMR that a sample of the mine pit water was collected and analyzed. In addition, the Permittee shall provide the results of the mine pit water sampling as an attachment to the DMR.

15. The Defendant originally submitted timely DMRs for SD008, SD009, SD010, SD011, SD012 and SD013 for May, 2009 that indicated there were no discharges from these stations but did not include the required mine pit monitoring results for pits 2W, 2/2E, and 3. The Defendant subsequently submitted amended DMRs for these stations, received on July 2, 2009, that included the required mine pit monitoring results.

16. NPDES/SDS Permit No. MN0042356, Chapter 6, Part 1.1 states: For outfall SD030, the Permittee shall obtain discharge authorization or abandon discharge location by December 31, 2001. Discharge from mine pit 5S at outfall SD030 has occurred as seepage into an adjacent wetland since permit issuance. The Regulated Party neither obtained authorization to discharge at this location nor abandoned the discharge at this location by December 31, 2001.

**COUNT III
VIOLATION OF DUNKA MINE AREA PERMIT**

17. The Defendant owns and operates a facility known as the Dunka Mine Area. The Defendant operates the Dunka Mine Area pursuant to NPDES/SDS Permit No. MN0042579.

18. The permit for the Dunka Mine Area (NPDES/SDS Permit No. MN0042579) includes enforceable limits that govern how much of a specific pollutant the Defendant may legally discharge. The permit identifies seven surface discharge stations known as SD001, SD004,

SD005, SD006, SD007, SD008, and SD009. The permit requires the Defendant to monitor the discharge from those stations to verify that the discharge meets the applicable limits. The Defendant has exceeded the allowable discharge limits set forth in NPDES/SDS Permit No. MN 0042579 as identified in the table below. The following table identifies the applicable permit discharge limits and the reported values for those months when violations of those limits occurred, through the filing of this Complaint.

| Monitoring Station | Parameter | Limit (mg/l unless otherwise noted) | Reported Value (mg/l unless otherwise noted) | Limit Type | Reporting Period |
|--------------------|-----------------------|-------------------------------------|--|------------|------------------|
| SD005 | Dissolved Iron | 1.0 | 1.2 | CalMoAvg | March 2007 |
| SD005 | Dissolved Iron | 1.0 | 1.8 | CalMoAvg | March 2009 |
| SD006 | Dissolved Iron | 1.0 | 1.4 | CalMoAvg | January 2006 |
| SD006 | Dissolved Iron | 1.0 | 1.4 | CalMoAvg | December 2007 |
| SD006 | Dissolved Iron | 1.0 | 1.1 | CalMoAvg | April 2008 |
| SD008 | Dissolved Iron | 1.0 | 2.0 | CalMoAvg | December 2009 |
| SD008 | Toxicity Final Conc. | 1.50 toxic units | 4.25 toxic units | CalMoMax | September 2007 |
| SD009 | Toxicity, Final Conc. | 1.00 toxic units | 1.08 toxic units | CalMoMax | June 2008 |
| SD009 | Toxicity Final Conc. | 1.00 toxic units | 1.20 toxic units | CalMoMax | July 2008 |

RELIEF

WHEREFORE, Plaintiff prays that the Court issue its order and judgment as follows:

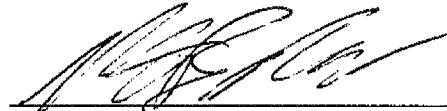
1. Declaring that Defendant has violated its permits;
2. Ordering Defendant to implement corrective actions as directed by the MPCA to remedy the Defendant's noncompliance; and

3. Ordering Defendant to pay an appropriate civil penalty as provided under law.

Dated: 2-25-10

Respectfully submitted,

LORI SWANSON
Attorney General
State of Minnesota



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Assistant Attorney General
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ATTORNEYS FOR PLAINTIFF
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AGENCY

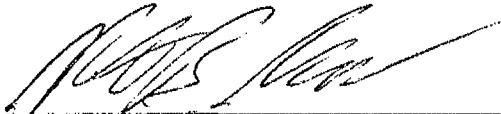
MINN. STAT. § 549.211

ACKNOWLEDGMENT

The party or parties on whose behalf the attached document is served acknowledge through their undersigned counsel that sanctions may be imposed pursuant to Minn. Stat. § 549.211 (2010).

Dated: _____

2-25-10



ROBERT B. ROCHE
Assistant Attorney General
Atty. Reg. No. 0289589

ATTORNEY FOR STATE OF MINNESOTA

AG: #2606599-v1

STATE OF MINNESOTA

DISTRICT COURT

COUNTY OF RAMSEY

SECOND JUDICIAL DISTRICT

State of Minnesota, by its
Minnesota Pollution Control Agency,

Case Type: Other Civil
(Environmental Enforcement)

Plaintiff,

Court File No. _____

vs.

Cliffs Erie L.L.C.,

CONSENT DECREE

Defendant.

Based on the information available to the parties on the effective date of this Consent Decree, without trial or adjudication of any issues of fact or law and upon consent of the parties hereto, it is ORDERED, ADJUDGED, AND DECREED, as follows:

I.

JURISDICTION AND VENUE

1. The Court has jurisdiction of the subject matter of this action pursuant to Minnesota Statutes Chapters 115 and 116 and jurisdiction over the parties herein. The Complaint filed by the State of Minnesota, by its Minnesota Pollution Control Agency, states a claim upon which relief can be granted pursuant to Minnesota Statutes § 115.071. The parties expressly consent to venue in Ramsey County.

II.

PARTIES

2. This Consent Decree applies to and is binding upon the Plaintiff, State of Minnesota, by the Minnesota Pollution Control Agency (MPCA) and the Defendant, Cliffs Erie L.L.C. and its successors (hereinafter Regulated Party).

III.

PURPOSE AND SCOPE OF CONSENT DECREE

3. The purpose of this Consent Decree is to resolve all alleged violations of National Pollutant Discharge Elimination System/State Disposal System Permit ("NPDES/SDS Permit") Nos. MN0054089, MN0042536, or MN0042579 that the MPCA alleged in its Complaint in this action and any alleged violations of NPDES/SDS Permit Nos. MN0054089, MN0042536, or MN0042579 known by the MPCA based on information in the MPCA's records as of the date that the MPCA filed the Complaint, including but not limited to any allegedly unpermitted discharges. A summary of the discharge violations associated with NPDES/SDS Permit Nos. MN0054089, MN0042536, and MN0042579 and alleged in the Complaint is set forth in Part VII of this Consent Decree. This Consent Decree also specifies actions the Regulated Party agrees to take with respect to the Regulated Party's Facilities at the Hoyt Lakes Tailings Basin, Hoyt Lakes Mine Area, and Dunka Mine Area (collectively hereinafter Facilities).

4. By entering into this Consent Decree, the Regulated Party is settling a disputed matter between itself and the MPCA and does not admit to any alleged violations of NPDES/SDS Permit Nos. MN0054089, MN0042536, or MN0042579. Except for the purposes of implementing and enforcing this Consent Decree, nothing in this Consent Decree constitutes an admission by either party, or creates rights, substantive or procedural, that can be asserted or

enforced with respect to any claim of or legal action brought by a person who is not a party to this Consent Decree.

IV.

AUTHORITY

5. This Consent Decree is entered into under the authority vested in the MPCA by Minnesota Statutes Chapters 115 and 116, and the rules promulgated thereunder.

V.

DEFINITIONS

6. Unless otherwise explicitly stated, the definitions in Minnesota Statutes Chapters 115, 115B, 116, 116B and the rules promulgated thereunder apply, as appropriate, to the terms used in this Consent Decree.

VI.

FINDINGS OF FACT

7. Cliff Erie L.L.C. is a Delaware limited liability company and a subsidiary of Cliffs Mining Company, a Delaware corporation.

Background

8. The Regulated Party owns and operates a number of mining facilities in Minnesota. As part of its operations, the Regulated Party operates the three Facilities known as the Hoyt Lakes Tailings Basin, the Hoyt Lakes Mine Area, and the Dunka Mine Area (collectively hereinafter Facilities). Each of these three Facilities is subject to a MPCA-issued NPDES/SDS permit that regulates the discharge of wastewater from the Facilities. Prior to Cliffs Erie L.L.C. being issued NPDES/SDS Permit coverage for the three Facilities, the LTV Steel Mining Company (LTVSMC) was the previous Permittee. LTVSMC declared bankruptcy in

December 2000. The three NPDES/SDS permits for these Facilities, originally issued to LTVSMC, were transferred to Cliffs Erie L.L.C. on October 30, 2001, at which time Cliffs Erie L.L.C. became responsible for maintaining compliance with the permits at the three Facilities.

9. The following is a summary of the NPDES/SDS permits for the Facilities:

(a) Hoyt Lakes Tailings Basin

The Hoyt Lakes Tailings Basin facility includes the former LTVSMC taconite processing facility (crushers, concentrator, pellet plant and associated equipment shops, haul roads, and the tailings basin). The tailings basin perimeter dams are constructed of graded rock fill, till and clay starter dams, and consolidated lifts of taconite tailings with horizontal gravel filter drains at the base of the dams. The basin is divided into three cells and an emergency basin. Pumps from the processing facility pumped fine tailings slurry to the tailings basin.

The MPCA issued NPDES/SDS Permit No. MN0054089 to LTVSMC on May 4, 2001. After the LTVSMC bankruptcy, the MPCA modified the permit on October 30, 2001, to identify Cliffs Erie L.L.C. as the Permittee.

The permit regulates surface and groundwater discharges from this closed taconite tailings basin. The tailings basin consists of three main cells – 1E, 2E and 2W. Currently, Cells 1E and 2E contain stable ponds and Cell 2W contains a small pool of water only following snow melt. The permit requires monitoring of eight groundwater monitoring wells (GW001 – GW008), four of which are downgradient of the tailings basin (GW001, GW006 - GW008). Downgradient wells have instantaneous maximum limits for boron, fluoride, manganese and molybdenum. If these limits are exceeded the Permittee must notify the Agency, assess trends in concentration, indicate mitigation alternatives, and provide a report within 365 days after the date of exceedance. Although there were exceedances of limits for molybdenum and manganese at GW001, GW006, and GW008,

the exceedances are not considered violations because the Permittee is in compliance with submittal of the above-referenced report.

The permit identifies five surface discharge stations known as SD001, SD002, SD004, SD005, and SD006. Station SD005 has not discharged during the previous five years. Each station requires monitoring for, among other parameters, conductivity, hardness and bicarbonates. The Permittee was required to have submitted by January 1, 2003 a report for approval that addresses trends in concentrations of these three parameters, methods to achieve compliance at the discharge locations and associated costs, and a variance request. Although there have been exceedances of the limits for these three parameters at all surface discharge stations with the exception of SD005, the exceedances are not considered violations because the Permittee is in compliance with the requirement to submit a report by January 1, 2003.

Past alleged effluent limit violations for dissolved iron, turbidity, and boron have occurred at SD004.

(b) Hoyt Lakes Mine Area

The Hoyt Lakes Mine Area consists of the excavation areas, mining waste disposal sites, haul roads, railways and railroad yards, and material and equipment storage areas. The MPCA issued NPDES/SDS Permit No. MN0042536 to LTVSMC on May 4, 2001. After the LTVSMC bankruptcy, MPCA modified the permit on October 30, 2001, to identify Cliffs Erie L.L.C. as the Permittee.

The permit for the mine area has the following surface discharge stations:

- SD008, SD009 and SD013 discharge water from mine pit 2W. There have been no discharges from these stations during the past five years.

- SD010 and SD011 discharge water from mine pit 2/2E. There have been no discharges from these stations during the past five years.
- SD012 discharges water from mine pit 3. During the past five years there have been alleged effluent limit violations of pH and temperature at this station.
- SD026 is monitored at a culvert. The discharge at SD026 consists of seepage from the tailings basin as well as stormwater runoff. There are applicable effluent limits for pH, total suspended solids, and specific conductance at this station. Although there have been past exceedances of limits for specific conductance at SD026, the exceedances are not considered violations because the Permittee is in compliance with the requirement in NPDES/SDS Permit No. MN0042536 to submit a compliance report by the deadline set in the permit.
- SD030 is a monitoring station within mine pit 5S. Although a discharge of outflow water from mine pit 5S is not authorized by this permit, should one occur the discharge is to be monitored. If no discharge occurs then monitoring of pit water is to be completed for the same parameters and under the same monitoring schedule as indicated in the limits and monitoring requirements table in the permit. Since permit issuance, mine pit 5S has overflowed through dispersed seepage locations into an adjacent wetland on the south side of the pit. Monitoring for the required parameters and according to the required schedule has taken place adjacent to the area where pit water seeps into the wetland. There are no effluent limits associated with this monitoring station.
- SD033 discharges outflow water from mining area 5N. This discharge forms the headwaters for Spring Mine Creek which discharges to the Embarrass River.

Although monitoring is required, there are no applicable effluent limits for total hardness, total dissolved solids, specific conductivity and total sulfate, concentrations/measurements at this monitoring station.

(c) Dunka Mine Area

The Dunka mine opened in 1964 and ceased operation in 1994. During active mining surface and overburden rock was removed to expose underlying taconite ore. This material was stockpiled by type of rock adjacent to the open pit. During the 1970s it became apparent that stockpile seeps on the east side of the pit contained elevated concentrations of copper, nickel, cobalt, zinc and sulfate. Previous permits required installation of treatment systems capable of meeting effluent limitations for the seepages. Previous permits also required capping of stockpiles and construction of diversion ditches to reduce the volume and concentration of pollutants in the seeps. The result has been capping of six stockpiles with compacted glacial till or flexible membrane liners, or a combination, a lined equalization basin, a 350 gallons per minute lime precipitation treatment plant and construction of five wetland treatment systems at the base of stockpile seeps. The lime precipitation treatment system is to be used if effluent from the wetland treatment systems does not meet effluent limits, as required in NPDES/SDS Permit No. MN0042579. MPCA issued NPDES/SDS Permit No. MN0042579 to LTVSMC on August 3, 2000. After the LTVSMC bankruptcy, MPCA modified the permit on October 30, 2001, to identify Cliffs Erie L.L.C. as the Permittee.

The facility has seven surface discharge stations which consist of one mine pit dewatering station to the Dunka River (SD001), one lime precipitation treatment system discharge (SD004) and five wetland treatment systems:

SD005 – wetland treatment system discharge (seep 051 treatment/WS005)

SD006 – wetland treatment system discharge (seep 061 treatment)

SD007 - wetland treatment system discharge (seep 041 treatment/WS001)

SD008 - wetland treatment system discharge (seep 043 treatment/WS003)

SD009 - wetland treatment system discharge (seep 044 treatment/WS004)

The treated effluent from these systems may be pumped to the lime precipitation system and discharged through outfall SD004. Such treatment is required if there are three exceedances of the additive acute toxicity effluent limit over a running two month period.

Compliance for total copper, nickel and zinc at each wetland treatment system outfall (SD005 – SD009) is determined by calculation of an Additive Toxicity Value (value). This value is a replacement for individual effluent limitations for these three total metals. The value is equal to the sum of the monitored concentration of each total metal divided by the Final Acute Value (FAV) of that metal at the monitored hardness. Since effluent hardness at all SD stations exceeds 400 mg/l, the FAV for each metal is based on hardness of 400 mg/l. Thus the formula becomes [total copper]/131 ug/l + [total nickel]/9164 ug/l + [total zinc]/758 ug/l.

The MPCA granted a variance from water quality standards for total copper/nickel/zinc at outfalls SD008 and SD009. The variance allows total metal concentrations to exceed the FAV value for that metal at the point of discharge during a defined portion of the year.

10. MPCA staff met with the Regulated Party beginning on June 17, 2009 to discuss mitigation at the tailings basin and mine areas. Meetings and telephone discussions continued with the Regulated Party through the summer and fall of 2009.

11. The Regulated Party submitted draft compliance plans (Plans) for the tailings basin and mine area on November 11, 2009. The Plans included Temporary Treatment Survey Outlines, Mitigation Plans and Field Study Plans for both locations. MPCA staff met with the

Regulated Party on November 16, 2009, to discuss the draft Plans. On December 11, 2009, the Regulated Party submitted revised Plans for the mine area and on December 18, 2009, the Regulated Party submitted a revised Plan for the Tailings Basin. MPCA staff provided a review of the revised Plans for the mine area and Tailings basin by letter to the Regulated Party, dated February 2, 2010. In response to the MPCA review the Regulated Party submitted further revised Plans on February 26, 2010.

12. Cliffs Erie L.L.C. has had alleged permit effluent limit violations at its three Facilities during the past five years.

13. Before MPCA re-issues the NPDES/SDS permits for these Facilities, the Regulated Party must develop plans for eliminating the alleged effluent limit violations and unpermitted discharges at the three Facilities and complete certain studies necessary to provide information to the MPCA.

VII.

ALLEGED VIOLATIONS

Tailings Basin

14. The NPDES/SDS Permit for the Tailings Basin (NPDES/SDS Permit No. MN0054089) includes enforceable limits that govern how much of a specific pollutant the Regulated Party may legally discharge. MPCA alleges the Regulated Party has exceeded the allowable discharge limits set forth in NPDES/SDS Permit No. MN 0054089 as identified in the table below. The following table identifies the applicable permit discharge limits and the reported values for those months when alleged violations of those limits occurred, through the date of filing of this Consent Decree.

| Monitoring Station | Parameter | Limit (mg/l unless otherwise noted) | Reported Value (mg/l unless otherwise noted) | Limit Type | Reporting Period |
|--------------------|------------------------|-------------------------------------|--|------------|------------------|
| SD001 | Total Suspended Solids | 20 | 24 | CalMoAvg | February 2005 |
| SD001 | Total Suspended Solids | 20 | 26 | CalMoAvg | February 2007 |
| SD001 | Turbidity | 25 NTU | 28 NTU | CalMoAvg | March 2005 |
| SD001 | Turbidity | 25 NTU | 26 NTU | CalMoAvg | February 2007 |
| SD001 | Dissolved Iron | 1.0 | 2.6 | CalMoAvg | March 2005 |
| SD001 | Dissolved Iron | 2.0 | 2.6 | CalMoMax | March 2005 |
| SD001 | Dissolved Iron | 1.0 | 1.3 | CalMoAvg | December 2005 |
| SD001 | Dissolved Iron | 1.0 | 1.5 | CalMoAvg | March 2006 |
| SD002 | Total Boron | 500 µg/l | 502 µg/l | CalMoAvg | January 2009 |
| SD002 | Total Suspended Solids | 20 | 22 | CalMoAvg | January 2007 |
| SD002 | Total Suspended Solids | 20 | 30 | CalMoAvg | November 2007 |
| SD004 | Total Boron | 500 µg/l | 521 µg/l | CalMoAvg | June 2005 |
| SD004 | Total Boron | 500 µg/l | 520 µg/l | CalMoAvg | September 2005 |
| SD004 | Total Boron | 500 µg/l | 511 µg/l | CalMoAvg | December 2005 |
| SD004 | Total Boron | 500 µg/l | 547 µg/l | CalMoAvg | March 2006 |
| SD004 | Total Boron | 500 µg/l | 514 µg/l | CalMoAvg | December 2006 |
| SD004 | Total Boron | 500 µg/l | 503 µg/l | CalMoAvg | March 2007 |
| SD004 | Total Boron | 500 µg/l | 504 µg/l | CalMoAvg | December 2007 |
| SD004 | Total Boron | 500 µg/l | 526 µg/l | CalMoAvg | December 2008 |
| SD004 | Total Boron | 500 µg/l | 515 µg/l | CalMoAvg | March 2009 |
| SD004 | Total Boron | 500 µg/l | 518 µg/l | CalMoAvg | September 2009 |
| SD004 | Dissolved Iron | 1.0 | 2.8 | CalMoAvg | June 2005 |
| SD004 | Dissolved Iron | 2.0 | 2.8 | CalMoMax | June 2005 |
| SD004 | Dissolved Iron | 1.0 | 3.5 | CalMoAvg | September 2005 |
| SD004 | Dissolved | 2.0 | 3.5 | CalMoMax | September 2005 |

| | Iron | | | | |
|-------|----------------|-----|-----|----------|----------------|
| SD004 | Dissolved Iron | 1.0 | 3.7 | CalMoAvg | December 2005 |
| SD004 | Dissolved Iron | 2.0 | 3.7 | CalMoMax | December 2005 |
| SD004 | Dissolved Iron | 1.0 | 2.9 | CalMoAvg | March 2006 |
| SD004 | Dissolved Iron | 2.0 | 2.9 | CalMoMax | March 2006 |
| SD004 | Dissolved Iron | 1.0 | 2.6 | CalMoAvg | June 2006 |
| SD004 | Dissolved Iron | 2.0 | 2.6 | CalMoMax | June 2006 |
| SD004 | Dissolved Iron | 1.0 | 2.5 | CalMoAvg | September 2006 |
| SD004 | Dissolved Iron | 2.0 | 2.5 | CalMoMax | September 2006 |
| SD004 | Dissolved Iron | 1.0 | 2.9 | CalMoAvg | December 2006 |
| SD004 | Dissolved Iron | 2.0 | 2.9 | CalMoMax | December 2006 |
| SD004 | Dissolved Iron | 1.0 | 2.8 | CalMoAvg | March 2007 |
| SD004 | Dissolved Iron | 2.0 | 2.8 | CalMoMax | March 2007 |
| SD004 | Dissolved Iron | 1.0 | 2.5 | CalMoAvg | June 2007 |
| SD004 | Dissolved Iron | 2.0 | 2.5 | CalMoMax | June 2007 |
| SD004 | Dissolved Iron | 1.0 | 2.7 | CalMoAvg | September 2007 |
| SD004 | Dissolved Iron | 2.0 | 2.7 | CalMoMax | September 2007 |
| SD004 | Dissolved Iron | 1.0 | 2.8 | CalMoAvg | December 2007 |
| SD004 | Dissolved Iron | 2.0 | 2.8 | CalMoMax | December 2007 |
| SD004 | Dissolved Iron | 1.0 | 4.1 | CalMoAvg | March 2008 |
| SD004 | Dissolved Iron | 2.0 | 4.1 | CalMoMax | March 2008 |
| SD004 | Dissolved Iron | 1.0 | 4.6 | CalMoAvg | June 2008 |
| SD004 | Dissolved Iron | 2.0 | 4.6 | CalMoMax | June 2008 |

| | | | | | |
|-------|------------------------|--------|---------|----------|----------------|
| | Iron | | | | |
| SD004 | Dissolved Iron | 1.0 | 5.5 | CalMoAvg | September 2008 |
| SD004 | Dissolved Iron | 2.0 | 5.5 | CalMoMax | September 2008 |
| SD004 | Dissolved Iron | 1.0 | 6.0 | CalMoAvg | December 2008 |
| SD004 | Dissolved Iron | 2.0 | 6.0 | CalMoMax | December 2008 |
| SD004 | Dissolved Iron | 1.0 | 6.4 | CalMoAvg | March 2009 |
| SD004 | Dissolved Iron | 2.0 | 6.4 | CalMoMax | March 2009 |
| SD004 | Dissolved Iron | 1.0 | 6.2 | CalMoAvg | September 2009 |
| SD004 | Dissolved Iron | 2.0 | 6.2 | CalMoMax | September 2009 |
| SD004 | Dissolved Iron | 1.0 | 6.9 | CalMoAvg | December 2009 |
| SD004 | Dissolved Iron | 2.0 | 6.9 | CalMoMax | December 2009 |
| SD004 | Dissolved Iron | 1.0 | 2.0 | CalMoAvg | March 2010 |
| SD004 | Turbidity | 25 NTU | 80 NTU | CalMoAvg | March 2005 |
| SD004 | Turbidity | 25 NTU | 29 NTU | CalMoAvg | June 2005 |
| SD004 | Turbidity | 25 NTU | 33 NTU | CalMoAvg | September 2005 |
| SD004 | Turbidity | 25 NTU | 38 NTU | CalMoAvg | March 2006 |
| SD004 | Turbidity | 25 NTU | 56 NTU | CalMoAvg | December 2006 |
| SD004 | Turbidity | 25 NTU | 26 NTU | CalMoAvg | March 2007 |
| SD004 | Turbidity | 25 NTU | 40 NTU | CalMoAvg | December 2007 |
| SD004 | Turbidity | 25 NTU | 49 NTU | CalMoAvg | March 2008 |
| SD004 | Turbidity | 25 NTU | 65 NTU | CalMoAvg | June 2008 |
| SD004 | Turbidity | 25 NTU | 93 NTU | CalMoAvg | September 2008 |
| SD004 | Turbidity | 25 NTU | 99 NTU | CalMoAvg | December 2008 |
| SD004 | Turbidity | 25 NTU | 89 NTU | CalMoAvg | March 2009 |
| SD004 | Turbidity | 25 NTU | 89 NTU | CalMoAvg | September 2009 |
| SD004 | Turbidity | 25 NTU | 113 NTU | CalMoAvg | December 2009 |
| SD004 | Turbidity | 25NTU | 95NTU | CalMoAvg | March 2010 |
| SD004 | Total Suspended Solids | 20 | 79 | CalMoAvg | October 2006 |
| SD004 | Total Suspended Solids | 20 | 21 | CalMoAvg | October 2007 |

| | | | | | |
|-------|----|----------|----------|------------|--------------|
| SD006 | pH | 8.5 s.u. | 8.6 s.u. | InstantMax | October 2005 |
|-------|----|----------|----------|------------|--------------|

Mine Area

15. The NPDES/SDS Permit for the Mine Area (NPDES/SDS Permit No. MN0042536) includes enforceable limits that govern how much of a specific pollutant the Regulated Party may legally discharge. MPCA alleges the Regulated Party has exceeded the allowable discharge limits set forth in NPDES/SDS Permit No. MN 0042536 as identified in the table below. The following table identifies the applicable permit discharge limits and the reported values for those months when alleged violations of those limits occurred, through the date of filing of this Consent Decree. The temperature difference limit at SD012 is based on a comparison of temperature monitored at SD012 with the temperature of the receiving water (E. Branch Wyman Creek), downstream of where SD012 discharges to the receiving water.

| Monitoring Station | Parameter | Limit | Reported Value | Limit Type | Reporting Period |
|--------------------|-----------|----------|----------------|------------|------------------|
| SD012 | pH | 8.5 s.u. | 8.8 s.u. | InstantMax | February 2005 |
| SD012 | pH | 8.5 s.u. | 8.8 s.u. | InstantMax | June 2005 |
| SD012 | pH | 8.5 s.u. | 8.7 s.u. | InstantMax | December 2005 |
| SD012 | pH | 8.5 s.u. | 8.7 s.u. | InstantMax | August 2006 |
| SD012 | pH | 8.5 s.u. | 8.6 s.u. | InstantMax | September 2006 |
| SD012 | pH | 8.5 s.u. | 8.6 s.u. | InstantMax | October 2008 |
| SD012 | pH | 8.5 s.u. | 8.6 s.u. | InstantMax | November 2008 |
| SD012 | pH | 8.5 s.u. | 8.6 s.u. | InstantMax | December 2008 |

| | | | | | |
|-------|------------------------|-------|---------|------------|----------------|
| SD012 | Temperature difference | 0° C. | 1.8° C. | InstantMax | February 2005 |
| SD012 | Temperature difference | 0° C. | 0.1° C. | InstantMax | March 2005 |
| SD012 | Temperature difference | 0° C. | 2.0° C. | InstantMax | April 2005 |
| SD012 | Temperature difference | 0° C. | 2.8° C. | InstantMax | September 2005 |
| SD012 | Temperature difference | 0° C. | 4.4° C. | InstantMax | October 2005 |
| SD012 | Temperature difference | 0° C. | 0.3° C. | InstantMax | December 2005 |
| SD012 | Temperature difference | 0° C. | 0.4° C. | InstantMax | March 2006 |
| SD012 | Temperature difference | 0° C. | 3.0° C. | InstantMax | April 2006 |
| SD012 | Temperature difference | 0° C. | 0.5° C. | InstantMax | August 2006 |
| SD012 | Temperature difference | 0° C. | 3.8° C. | InstantMax | October 2006 |
| SD012 | Temperature difference | 0° C. | 0.2° C. | InstantMax | December 2006 |
| SD012 | Temperature difference | 0° C. | 0.5° C. | InstantMax | March 2007 |
| SD012 | Temperature difference | 0° C. | 2.3° C. | InstantMax | April 2007 |
| SD012 | Temperature difference | 0° C. | 0.4° C. | InstantMax | June 2007 |
| SD012 | Temperature difference | 0° C. | 2.5° C. | InstantMax | August 2007 |
| SD012 | Temperature difference | 0° C. | 0.2° C. | InstantMax | September 2007 |
| SD012 | Temperature difference | 0° F. | 2.0° F. | InstantMax | December 2007 |
| SD012 | Temperature difference | 0° F. | 1.8° F. | InstantMax | January 2008 |
| SD012 | Temperature difference | 0° F. | 2.0° F. | InstantMax | February 2008 |
| SD012 | Temperature difference | 0° F. | 2.9° F. | InstantMax | March 2008 |
| SD012 | Temperature difference | 0° F. | 2.3° F. | InstantMax | April 2008 |
| SD012 | Temperature difference | 0° F. | 1.0° F. | InstantMax | June 2008 |

| | | | | | |
|-------|------------------------|-------|---------|------------|----------------|
| SD012 | Temperature difference | 0° F. | 1.1° F. | InstantMax | July 2008 |
| SD012 | Temperature difference | 0° F. | 9.2° F. | InstantMax | September 2008 |
| SD012 | Temperature difference | 0° F. | 3.6° F. | InstantMax | December 2008 |
| SD012 | Temperature difference | 0° F. | 0.5° F. | InstantMax | March 2009 |
| SD012 | Temperature difference | 0° F. | 4.1° F. | InstantMax | April 2009 |
| SD012 | Temperature difference | 0° F. | 8.1° F. | InstantMax | September 2009 |
| SD012 | Temperature difference | 0° F. | 3.4° F. | InstantMax | December 2009 |
| SD012 | Temperature difference | 0°F. | 1.4°F. | InstantMax | March 2010 |

16. NPDES/SDS Permit No. MN0042536 Chapter 2 Part 5.1 states:
SD008, SD009, SD010, SD011, SD012, SD013, SD026, SD030, SD033: Submit a monthly DMR monthly by 21 days after the end of each calendar month following issuance of major permit modification.

NPDES/SDS Permit No. MN0042536, Chapter 2, Part 6.2 states in part that if there is no discharge from any of the outfalls from a given mine pit for the entire calendar month, the Permittee shall sample the mine pit water itself for the same list of parameters as required for the outfalls. In this case the Permittee shall check the "No Discharge" box on the monthly Discharge Monitoring Report (DMR) for each of the outfalls originating from that mine pit and shall make a notation in the "comments" section of each DMR that a sample of the mine pit water was collected and analyzed. In addition, the Permittee shall provide the results of the mine pit water sampling as an attachment to the DMR.

17. The Regulated Party originally submitted timely DMRs for SD008, SD009, SD010, SD011, SD012 and SD013 for May, 2009 that indicated there were no discharges from

these stations but did not include the required mine pit monitoring results for pits 2W, 2/2E, and 3. The Regulated Party subsequently submitted amended DMRs for these stations, received on July 2, 2009, that included the required mine pit monitoring results.

18. NPDES/SDS Permit No. MN0042536, Chapter 6, Part 1.1 states: For outfall SD030, the Permittee shall obtain discharge authorization or abandon discharge location by December 31, 2001. Discharge from mine pit 5S at-outfall SD030 has occurred as seepage into an adjacent wetland since permit issuance. The Regulated Party neither obtained authorization to discharge at this location nor abandoned the discharge at this location by December 31, 2001.

Dunka

19. NPDES/SDS Permit No. MN0042579 Limits and Monitoring Requirements states that the Permittee shall comply with the limits and monitoring requirements specified. The NPDES/SDS Permit for the Dunka Pit (NPDES/SDS Permit No. MN00425799) includes enforceable limits that govern how much of a specific pollutant the Regulated Party may legally discharge. MPCA alleges the Regulated Party has exceeded the allowable discharge limits set forth in NPDES/SDS Permit No. MN 0042579 as identified in the table below. The following table identifies the applicable permit discharge limits and the reported values for those months when alleged violations of those limits occurred, through the date of filing of this Consent Decree.

| Monitoring Station | Parameter | Limit (mg/l unless otherwise noted) | Reported Value (mg/l unless otherwise noted) | Limit Type | Reporting Period |
|--------------------|----------------|-------------------------------------|--|------------|------------------|
| SD005 | Dissolved Iron | 1.0 | 1.2 | CalMoAvg | March 2007 |
| SD005 | Dissolved Iron | 1.0 | 1.8 | CalMoAvg | March 2009 |

| | | | | | |
|-------|-----------------------|------------------|------------------|----------|----------------|
| SD006 | Dissolved Iron | 1.0 | 1.4 | CalMoAvg | January 2006 |
| SD006 | Dissolved Iron | 1.0 | 1.4 | CalMoAvg | December 2007 |
| SD006 | Dissolved Iron | 1.0 | 1.1 | CalMoAvg | April 2008 |
| SD008 | Dissolved Iron | 1.0 | 2.0 | CalMoAvg | December 2009 |
| SD008 | Toxicity Final Conc. | 1.50 toxic units | 4.25 toxic units | CalMoMax | September 2007 |
| SD009 | Toxicity, Final Conc. | 1.00 toxic units | 1.08 toxic units | CalMoMax | June 2008 |
| SD009 | Toxicity Final Conc. | 1.00 toxic units | 1.20 toxic units | CalMoMax | July 2008 |

VIII.

STATE STATUTE OF LIMITATIONS WAIVER

20. The Regulated Party agrees to waive the three-year statute of limitations for MPCA enforcement actions set forth in Minn. Stat. § 541.075, to allow the MPCA to allege violations of NPDES/SDS Permit Nos. MN0054089, MN0042536, or MN0042579 going back to the year 2005.

IX.

CONSENT DECREE REQUIREMENTS

21. Based upon the foregoing Stipulated Findings of Fact, the Regulated Party and the MPCA agree that the Court may enter the following Consent Decree as an Order and Decree of the Court:

CORRECTIVE ACTIONS.

22. The Regulated Party must submit separate Short-Term Mitigation Evaluation Plans (Short-Term Plans) for the Tailings Basin, SD012 (Hoyt Lakes Mine Area), SD026 (Hoyt Lakes Mine Area), SD033 (Hoyt Lakes Mine Area) and the Dunka Mine Area. The Short-Term

Plans must comply with the respective detailed Short-Term Mitigation Plan Outline for each area, approved by the MPCA on March 24, 2010. The detailed outlines are Attachments A, B, C, D, and E to this Consent Decree. The Short-Term Plans must be submitted to the MPCA for review and approval within sixty (60) days of entry of this Consent Decree as an order of the Court (entry). Upon MPCA approval of the Short-Term Plans, the schedules and deadlines contained within the Short-Term Plans shall be incorporated into and become an enforceable part of this Consent Decree, subject to penalties described in Part XIV.

23. The Regulated Party must submit separate, detailed Field Studies Plan Outlines for the Tailings Basin, Outfall SD026, and Outfall SD033 for MPCA review and approval within thirty (30) days of entry of this Consent Decree. Upon MPCA approval of the Field Studies Plan Outlines, the schedules and deadlines contained within the Field Studies Plan Outlines shall be incorporated into and become an enforceable part of this Consent Decree, subject to penalties described in Part XIV.

24. The Regulated Party shall implement the MPCA-approved Field Studies Plan Outlines according to the schedules within the Field Studies Plan Outlines. The Regulated Party must complete the respective Field Studies Plans within twelve (12) months of MPCA approval of the Field Studies Plan Outlines and must submit a separate Field Studies Plan with the findings and recommendations of the separate implemented Field Studies Plans within fifteen (15) months of MPCA approval of the Field Studies Plan Outlines. Each Field Study Plan shall compile the results of the implemented, approved Field Studies Plan Outlines and shall provide recommendations for either development of mitigation alternatives or development of site specific approaches that will address sulfate and all parameters of concern.

25. The purpose of the Field Studies Plan for the Tailings Basin is to develop an understanding of the sources and potential impacts of the elevated concentrations of sulfate and parameters of concern, as defined in the approved Short-Term Mitigation Plan Outline for the Tailings Basin, in the surface seeps and in the groundwater and to collect adequate data to support either the need for development of recommendations for long-term mitigation alternatives or the development of site specific approaches. The Field Studies Plan will collect data to assess the impact of the elevated sulfate in surface discharges and groundwater on waters that support the production of wild rice and methylmercury concentrations in receiving waters as well as the impact of elevated parameters of concern in surface discharges and groundwater on the water quality and aquatic life (fish and macroinvertebrates) of receiving waters.

26. The purpose of the Field Studies Plan for SD026 is to develop an understanding of the sources and potential impacts of the elevated concentrations of sulfate and parameters of concern, as defined in the approved Short-Term Mitigation Plan Outline for SD026, in the surface seep and to collect adequate data to support either the need for development of recommendations for long-term mitigation alternatives or the development of site specific approaches. The Field Studies Plan will collect data to assess the impact of the elevated sulfate in surface discharges on waters supporting the production of wild rice and methyl mercury concentrations in receiving waters as well as the impact of elevated parameters of concern in surface discharges on the water quality and aquatic life (fish and macroinvertebrates) of receiving waters.

27. The purpose of the Field Studies Plan for Outfall SD033 is to collect data to assess surface and groundwater flow patterns in the Area 5NE and 5NW Pits and adjacent stockpiles as well as the likely source or sources of elevated sulfate in SD033 and to assess the

impact of the elevated sulfate in SD033 on waters supporting the production of wild rice and methylmercury concentrations in receiving waters and the impact of elevated parameters of concern, as defined in the approved Short-Term Mitigation Plan Outline for SD033, on the water quality and aquatic life (fish and macroinvertebrates) of receiving waters. The Field Studies Plan shall collect adequate data to support either the need for development of recommendations for long-term mitigation alternatives or the development of site specific approaches.

28. If the Field Studies Plans recommend that site specific approaches be used to address elevated sulfate and parameters of concern but the MPCA rejects the recommendations or if the Field Study Plans recommend development of mitigation alternatives, the Regulated Party must submit for MPCA review and approval a separate Long-Term Mitigation Evaluation Plan (Long-Term Plan) for each of the relevant locations identified in the Field Study Plans. Long-Term Plans must be submitted to the MPCA within three (3) months of submittal of Field Study Plans that recommend mitigation or within three (3) months of receipt of notification from the MPCA that the MPCA has rejected the Regulated Party's recommendation for site specific approaches.

29. Long-Term Plans shall identify mitigation strategies to address elevated concentrations of sulfates and parameters of concern and shall include schedules for bench and pilot scale testing of identified technologies. Upon MPCA approval of the Long-Term Plans the schedules and deadlines contained within the Long Term Plans shall become an integral and enforceable part of this Consent Decree, subject to penalties described in Part XIV.

30. If the Regulated Party intends to pursue MPCA authorization to discharge from outfall SD030, the Regulated Party must submit, within 90 days of entry of this Consent Decree an evaluation report of the mine pit 5S overflow (SD030 of the Hoyt Lakes Mine Area) that

provides a compilation and summary of all existing monitoring data obtained relative to mine pit 5S, an estimate of the flow rate of the mine pit overflow including any seasonal component based on existing data, a preliminary evaluation of the impact of the mine pit overflow on downstream receiving waters Wyman Creek and Colby Lake, and any recommendations for additional monitoring required to prepare a final evaluation of downstream water quality impacts.

X.

CIVIL PENALTY

31. Within thirty (30) days of entry of this Consent Decree, the Regulated Party agrees to pay \$58,000 to the MPCA for all alleged violations of NPDES/SDS Permit Nos. MN0054089, MN0042536, or MN0042579 that the MPCA alleged in its Complaint in this action and any alleged violations of NPDES/SDS Permit Nos. MN0054089, MN0042536, or MN0042579 known by the MPCA based on information in the MPCA's records as of the date that the MPCA filed the Complaint, including but not limited to any allegedly unpermitted discharges. Payment of the penalty shall be by check or money order payable to the Minnesota Pollution Control Agency. The check or money order must be mailed to: Enforcement Penalty Coordinator, Minnesota Pollution Control Agency, 520 Lafayette Road, St. Paul, Minnesota 55155-4194. For purposes of this Consent Decree, the payment is deemed timely if the Regulated Party mails the check or money order within thirty (30) days of entry of this Consent Decree.

XI.

COVENANT NOT TO SUE AND RESERVATION OF REMEDIES

32. With respect to the Regulated Party, the MPCA agrees not to exercise any administrative, legal, or equitable remedies available to the MPCA to address alleged violations of NPDES/SDS Permit Nos. MN0054089, MN0042536, or MN0042579 that the MPCA alleged in its Complaint in this action or any alleged violations of NPDES/SDS Permit Nos. MN0054089, MN0042536, or MN0042579 known by the MPCA based on information in the MPCA's records as of the date that the MPCA filed the Complaint, including but not limited to any allegedly unpermitted discharges. Future exceedances of NPDES discharge standards, water quality standards, or both for the parameters and outfalls listed in Part VII or that are the subject of the corrective actions that the Regulated Party will undertake under Part IX will not be considered to be violations so long as the Regulated Party is in compliance with the requirements set forth in this Consent Decree.

33. The MPCA reserves the right to enforce this Consent Decree or take any action authorized by law if the Regulated Party fails to comply with the terms and conditions of this Consent Decree. Further, the MPCA reserves the right to seek to enjoin violations of this Consent Decree and to exercise its emergency powers pursuant to Minn. Stat. § 116.11 in the event conditions or the Regulated Party's conduct warrant such action. Nothing in this Consent Decree shall prevent the MPCA from exercising these rights and nothing in this Consent Decree constitutes a waiver of these rights.

34. The Regulated Party agrees to waive all claims it may now have, as of the effective date of this Consent Decree, under Minn. Stat. § 15.472 for fees and expenses arising out of matters leading up to and addressed in this Consent Decree.

XII.

CONFESSION OF JUDGMENT

35. The Regulated Party shall have thirty (30) days from the date of entry of this Consent Decree to pay the full amount of the Civil Penalty required by Part X. If the Regulated Party does not mail the scheduled payment within that period, the Regulated Party agrees to pay a late payment charge in an amount equal to 10 percent of the unpaid civil penalty. If any part of the Civil Penalty remains unpaid sixty days after the entry of this Consent Decree, the Regulated Party agrees to pay an additional late charge in an amount equal to 20 percent of the unpaid civil penalty. If the payment, including late charges, is not received by the MPCA within 90 days after the entry of this Consent Decree, the MPCA may immediately exercise any and all administrative and judicial remedies available to it to collect the amount due. The Regulated Party agrees to pay and shall also be indebted to the MPCA for its attorneys' fees and cost incurred by the MPCA in connection with its collection of the amounts owed pursuant to this Consent Decree.

XIII.

REPEAT VIOLATIONS

36. In a proceeding to resolve alleged violations by the Regulated Party, if any, occurring after the date the Complaint in this action is filed, the Regulated Party may argue about the extent to which the violations alleged in the Complaint in this action should affect the penalty amount for the later alleged violations but waives the right: (1) to contend that the violations alleged in the Complaint in this action did not occur as alleged and (2) to require the MPCA to prove the violations alleged in the Complaint in this action.

XIV.

PENALTIES FOR VIOLATIONS OF THIS CONSENT DECREE

37. If the Regulated Party fails to comply with any of the requirements of Part IX of this Consent Decree, the Regulated Party shall pay to the MPCA a penalty in the amount of \$500 per requirement for each day that the Regulated Party fails to complete or perform a required action.

38. Penalties for failure to comply with requirements of Part IX of this Consent Decree shall accrue from the date that the Regulated Party failed to fulfill the requirement until the Regulated Party fulfills the requirement. Penalties shall not accrue while the MPCA considers a timely extension request under Part XV.

XV.

EXTENSION OF SCHEDULES AND DEADLINES

39. If the Regulated Party seeks an extension of any deadline in this Consent Decree or in a Short-Term Report or a Long-Term Report submitted under Part IX, the Regulated Party must request the extension in writing at least ten (10) days before the scheduled deadline, or as soon as possible before that date if the reason for the extension request arises less than ten (10) days before the deadline. Each extension request shall separately specify the reason why the extension is needed. No requested extension shall be effective until approved in writing by MPCA staff. The MPCA shall grant an extension only for that period the MPCA determines is reasonable under the circumstances. The written approval or denial of an extension shall be considered an enforceable part of this Consent Decree.

40. The Regulated Party has the burden of demonstrating to the satisfaction of the MPCA that the request for extension is timely, and that good cause exists for granting the

extension. Good cause may include, but is not limited to, the following:

- a. Circumstances entirely beyond the reasonable control of the Regulated Party; and
- b. Delays caused by the MPCA in reviewing timely submittals required by this Consent Decree, that the Regulated Party submitted in complete and approvable form as determined by the MPCA.

41. Good cause does not include unanticipated costs, increases in the cost of control equipment, or delays in the MPCA's review of submittals when the submittals are not in complete and approvable form.

42. Any decision by the MPCA to deny a request for an extension under this Part is subject to dispute resolution under Part XVI.

XVI.

DISPUTE RESOLUTION

43. The parties to this Consent Decree Agreement shall resolve all disputes that arise as to any part of the Consent Decree as follows:

a. Either party, acting through its Case Contact (as named in Part XVII below), may initiate dispute resolution by providing to the Case Contact of the other party an initial written statement setting forth the matter in dispute, the position of the party, and the information the party is relying upon to support its position. The other party, acting through its Case Contact, shall provide a written statement of its position and supporting information to the Case Contact of the initiating party within fourteen (14) calendar days after receipt of the initial written statement.

b. If the parties, acting through their Case Contacts, do not reach a resolution of the dispute and reduce such resolution to writing in a form agreed upon by the parties within

twenty-one (21) calendar days after the initiating party receives the statement of position from the responding party, the Commissioner shall issue a written decision resolving the dispute. The written decision may address stipulated penalties, if any, assessed pursuant to Part XIV.

c. The Commissioner's decision shall become an integral and enforceable part of this Consent Decree unless the Regulated Party, with thirty (30) days of the decision, challenges the decision in Ramsey County District Court. Failure to file a timely challenge means the Regulated Party agrees to comply with the MPCA Commissioner's decision on the matter in dispute and to pay any penalties that accrue pursuant to Part XIV for failure to fulfill requirements of this Consent Decree that are the subject of the dispute resolution. Further, if the Commissioner's decision assesses penalties pursuant to Part XIV of this Consent Decree, the Regulated Party agrees to and shall pay the amount of penalty determined by the Commissioner within sixty (60) days after receiving the Commissioner's decision.

d. If either Party chooses to invoke dispute resolution, any Consent Decree requirement or requirement to pay any penalties assessed under Part XIV that is the subject of dispute resolution is stayed until the Commissioner issues a written decision resolving the dispute. If, following the Commissioner's decision, the Regulated Party files a timely challenge in Ramsey County District Court, then the Regulated Party has the right to petition the Ramsey County District Court to extend the stay of Consent Decree requirements, the stay of the requirement to pay any penalties assessed under Part XIV of this Consent Decree, or both, during the litigation. The burden shall be on the Regulated Party to demonstrate why a stay should be extended during litigation.

e. Throughout any dispute resolution, the Regulated Party shall comply with all portions of the Consent Decree that the MPCA determines are not in dispute.

XVII.

CASE CONTACTS

44. The Case Contract for Cliffs Erie L.L.C. is Craig L. Hartmann, Senior Staff Engineer—Mine, P.O. Box 207, Babbitt, Minnesota, 55706, 218-827-2101, craig.hartmann@cliffsnr.com. The Case Contact for the MPCA is John Thomas, MPCA, 525 S. Lake Avenue, Suite 400, Duluth, Minnesota 58802, (218) 302-6616.

XVIII.

ACCESS

45. During the term of this Consent Decree, the Regulated Party agrees to provide the MPCA and its agents and representatives with access to the Facility, its records, and its documents relating to the implementation of this Consent Decree to the extent provided under Minn. Stat. § 116.091 (2008) or any other applicable law, conditioned only upon the presentation of credentials.

XIX.

RETENTION OF RECORDS

46. The Regulated Party shall retain in its possession all records and documents related to this Consent Decree. The Regulated Party shall preserve these records, documents, reports and data for three years after the termination of this Consent Decree despite any document retention policy of the Regulated Party to the contrary, and shall promptly make all such documentation available for review upon request by the MPCA as provided under the access provision in Part XVIII above.

XX.

APPLICABLE LAWS AND PERMITS

47. All actions required to be taken pursuant to this Consent Decree shall be undertaken in accordance with the requirements of all applicable state and federal laws and regulations. Nothing in this Consent Decree exempts or relieves the Regulated Party of its obligation to comply with local governmental requirements.

XXI.

OTHER CLAIMS

48. Nothing herein shall release any claims, causes of action, or demands in law or equity against any person, firm partnership or corporation not a signatory to this Consent Decree for any liability it may have arising out of or relating to the release of any pollutant or contaminant from its operations or from its Facility. Neither the Regulated Party nor the MPCA shall be held as a party to any contract entered into by the other party to implement the requirements of this Consent Decree.

XXII.

RESERVATION OF REMEDIES

49. Nothing in this Consent Decree shall preclude the MPCA from seeking additional remedies from the Court to prevent an imminent threat to human health or the environment during the terms of this Consent Decree. Subject to Paragraph 32 of this Consent Decree, this Consent Decree does not resolve alleged violations of Minnesota or federal statutes and rules occurring after the date of entry of this Consent Decree. In addition, this Consent Decree does not resolve any alleged violations that do not fall within the scope of this Consent Decree as set out at Paragraphs 3 and 32 of this Consent Decree. The MPCA reserves the right to exercise

any administrative, legal or equitable remedies available to it for such noncompliance.

50. The Regulated Party agrees to waive all claims it may now have, as of the effective date of this Consent Decree, under Minn. Stat. § 15.472 for fees and expenses arising out of matters addressed in this Consent Decree.

XXIII.

HOLD HARMLESS AGREEMENT

51. The Regulated Party agrees to indemnify, save and hold the MPCA, its agents and employees harmless from any and all claims or causes of action arising from or on account of acts or omissions of the Regulated Party, its officers, employees, agents, or contractors in implementing the activities conducted pursuant to this Consent Decree; provided, however, that the Regulated Party shall not indemnify the MPCA or save or hold its employees and agents harmless from any claims or causes of action arising out of the acts or omissions of the MPCA, or its employees and agents. When the Regulated Party is required to hold the MPCA harmless, the Regulated Party shall be given notice by the MPCA of any claims or cause of action subject to this Part and have the right to participate in the defense against any claim or cause of action, and no settlement shall be effective against the Regulated Party unless the Regulated Party agrees to the settlement.

XXIV.

SUCCESSORS

52. This Consent Decree shall be binding upon the Regulated Party and its successors and assigns and upon the MPCA, its successors and assigns. If the Regulated Party sells or otherwise conveys or assigns any of its right, title, or interest in the Facility, the conveyance shall not release the Regulated Party from any obligation imposed by this Consent Decree, unless the

party to whom the right, title, or interest has been transferred or assigned agrees in writing to fulfill the obligations of this Consent Decree and the MPCA approves the transfer or assignment.

XXV.

EFFECTIVE DATE AND CONTINUING JURISDICTION

53. This Consent Decree shall be effective on the date on which it is entered by the Clerk of Court. The Court shall retain jurisdiction of this matter until termination of this Consent Decree, in order to enforce or modify the Consent Decree and to interpret the rights and obligations of the parties to the Consent Decree.

54. This Consent Decree shall not be modified by any prior oral or written agreement, representation, or understanding. This Consent Decree may be modified with the written consent of the parties and approval of the Court. Any agreed-upon modification to this Consent Decree shall be filed with the Court. During the pendency of the Consent Decree, any party may apply to the Court to modify this Consent Decree or for any relief necessary to implement the Consent Decree. The party making the application has the burden of justifying the requested modification.

XXVI.

TERMINATION

55. Unless the term of this Consent Decree is extended by mutual written consent of the parties, the Consent Decree shall terminate and be of no further force or effect upon the MPCA's issuance or reissuance of NPDES/SDS Permit Nos. MN0054089, MN0042536, and MN0042579. The Regulated Party may also request that the MPCA terminate the Consent Decree before the issuance or reissuance of NPDES/SDS Permit Nos. MN0054089, MN0042536, and MN0042579. Any decision by the MPCA to deny a request for termination of

the Consent Decree under this Part is subject to dispute resolution under Part XV.

XXVII.

SURVIVAL

56. The provisions of Parts III, XI, XIII, XIX, XX, XXI, XXII, XXIII, XXIV, and XXVII of this Consent Decree and the rights, duties and obligations of the MPCA and the Regulated Party created in those provisions shall survive termination of this Consent Decree.

XXVIII.

EXECUTION OF SIGNATURE PAGES

57. The respective signatories may execute this Consent Decree in separate counterparts. Executed counterparts communicated by facsimile transmission shall be as fully effective as an original executed counterpart.

**THE PARTIES ENTER INTO AND APPROVE THIS CONSENT DECREE AND
SUBMIT IT TO THE COURT SO THAT IT MAY BE APPROVED AND ENTERED,
AND BY THEIR SIGNATURES, THE UNDERSIGNED REPRESENT THAT THEY
HAVE AUTHORITY TO BIND THE PARTIES THEY REPRESENT.**

As to the State of Minnesota, by its
**MINNESOTA POLLUTION CONTROL
AGENCY**

By: Paul Eger
Paul Eger, Commissioner
520 Lafayette Road North
St. Paul, MN 55155-4194

Dated: 3/25/10

LORI SWANSON
Attorney General
State of Minnesota

By: Robert Roche
Robert Roche
Assistant Attorney General
Atty. Reg. No. 0289589

445 Minnesota Street, Suite 900
St. Paul, MN 55101-2127
(651) 296-7344 (Voice)
(651) 296-1410 (TTY)

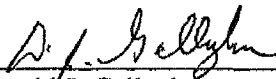
Dated: 3-25-10

ATTORNEYS FOR PLAINTIFF

**CONSENT DECREE SIGNATURE PAGE
MINNESOTA POLLUTION CONTROL AGENCY v. CLIFFS ERIE L.L.C.
RAMSEY COUNTY DISTRICT COURT**

**THE PARTIES ENTER INTO AND APPROVE THIS CONSENT DECREE AND
SUBMIT IT TO THE COURT SO THAT IT MAY BE APPROVED AND ENTERED,
AND BY THEIR SIGNATURES, THE UNDERSIGNED REPRESENT THAT THEY
HAVE AUTHORITY TO BIND THE PARTIES THEY REPRESENT.**

CLIFFS ERIE L.L.C.

By: 
Donald J. Gallagher
President and Chief Executive Officer

Cliffs Erie L.L.C.

Dated: March 24, 2010

ORDER

Based upon the foregoing,

IT IS HEREBY ORDERED THAT:

1. The foregoing Stipulated Findings of Fact and Consent Decree are hereby accepted and adopted as an Order and Order of the Court.
2. Defendant Cliffs Erie L.L.C. is ordered to pay \$58,000 to the MPCA according to the schedule in Paragraph 35 of this Consent Decree.

IT IS SO DECREED AND ORDERED. LET JUDGMENT BE ENTERED ACCORDINGLY.

Date

[Judge's Name]

Judge of _____ District Court

AG: #2296735-v1

CONSENT DECREE ATTACHMENTS
MINNESOTA POLLUTION CONTROL AGENCY v. CLIFFS ERIE L.L.C.
RAMSEY COUNTY DISTRICT COURT

- Attachment A Short Term Mitigation Evaluation Plan Outline for Tailings Basin, NPDES/SDS Permit No. MN0054089
- Attachment B Short Term Mitigation Evaluation Plan Outline for SD012, NPDES/SDS Permit No. MN0042536
- Attachment C Short Term Mitigation Evaluation Plan Outline for SD026, NPDES/SDS Permit No. MN0042536
- Attachment D Short Term Mitigation Evaluation Plan Outline for SD033, NPDES/SDS Permit No. MN0042536
- Attachment E Short Term Mitigation Evaluation Plan Outline for Dunka Mine, NPDES/SDS Permit No. 0042579

***Short Term Mitigation Evaluation Plan Outline for
Tailings Basin***

NPDES/SDS Permit No. MN0054089

Prepared for

***Cliffs Erie L.L.C. and
PolyMet Mining Inc***

Approved by MPCA on March 24, 2010

Short Term Mitigation Evaluation Plan Outline for Tailings Basin

March 24, 2010

Overall Approach / Objectives

The objectives of the Short Term Mitigation Evaluation Plan (Plan) are to investigate existing methods and technologies to partially or completely mitigate the elevated sulfate and elevated parameters of concern in surface discharges and in groundwater at the property boundary. Sulfate concentrations are elevated at all monitoring locations (SD001, SD002, SD004, SD006, GW001, GW006, GW007 and GW008).

In this document, 'parameters of concern' vary depending upon the monitoring location, as follows:

SD001/SD002/SD006: bicarbonates, specific conductance

SD004: bicarbonates, total boron, total hardness (Ca + Mg as CaCO₃), dissolved iron, specific conductance, turbidity

GW001: dissolved manganese, TDS

GW006/GW007: dissolved manganese, dissolved molybdenum, TDS

The Plan is intended to address and mitigate the existing elevated concentrations of sulfate and the parameters of concern during the period that field studies are being conducted to determine an appropriate long-term mitigation strategy. Depending on the outcome of the field studies and the associated development of a long-term mitigation strategy that adequately addresses water quality concerns, the ongoing need for short-term mitigation/treatment may be re-evaluated in the future. In addition, the short-term mitigation/treatment may be incorporated, in whole or in part, into the long-term mitigation strategy as necessary or appropriate.

Factors that will be considered in determining appropriate mitigation/treatment alternatives to be implemented will include the effectiveness of the alternative in reducing/eliminating concentrations of sulfate and parameters of concern, the time required to implement the alternative and the cost of implementing the alternative, especially when compared to the effectiveness of the alternative.

For surface discharges, components of the Plan will include:

1. A literature search of mitigation/treatment technologies for sulfate and parameters of concern and integration of the results of the search into a usable format.
2. Conceptual designs for existing applicable mitigation/treatment systems for sulfate and parameters of concern in surface seepage from the tailings basin. Year round collection of seepage water and pump back to the tailings basin will be among the designs proposed and evaluated at SD004 and SD006.

For SD001 and SD002, justification for why these stations should not be considered surface discharge stations in subsequent permit reissuance will be provided. Justification will include an analysis of the water being discharged with estimates of the proportion that is seepage versus wetland in origin. If the MPCA determines that justification for elimination of one or both of these outfalls is insufficient, then conceptual designs will be

Short Term Mitigation Evaluation Plan Outline for Tailings Basin

March 24, 2010

provided to the MPCA for mitigation/treatment systems at the relevant location(s) via a Plan consolidating the above information.

3. An assessment of any emerging or non-proven sulfate mitigation/treatment that could be developed through a program of bench, pilot and field testing if collection of seepage water and pump back to the tailings basin is not determined to be the sole short-term mitigation strategy for eliminating the discharge of elevated concentrations of sulfate. The assessment will include, at minimum precipitation, ion exchange, membrane technologies and biological treatment. A schedule for bench and pilot scale testing of potentially feasible technologies of water from the relevant surface discharge locations shall be included.
4. An evaluation of the technical and economic feasibility of the mitigation/treatment technologies evaluated in (2 & 3) above. Capital costs, annual operation and annual maintenance costs will be developed for each of the mitigation/treatment options presented in the Plan. The cost estimates will be conceptual level costs or Class 5 estimates, as defined by the Association for the Advancement of Cost Engineering International.
5. An assessment of the ability of evaluated mitigation/treatment technologies in (2 & 3) above to address potential permit effluent limits for sulfate and the parameters of concern.
6. A proposed short-term mitigation/treatment action, with implementation schedule. An implementation plan with detailed description and rationale sufficient for MPCA approval to proceed and a schedule with milestone dates will be prepared.

For groundwater, components of the Plan will include:

1. A literature search of mitigation/treatment technologies for sulfate and parameters of concern in groundwater and integration of the results of the search into a usable format or, for molybdenum and manganese provision of documentation (groundwater pollutant transport modeling, etc) from groundwater studies done at the site indicating that molybdenum and manganese shall not exceed current drinking water standards at the property boundary.
2. Conceptual designs for existing applicable mitigation/treatment systems for sulfate, and parameters of concern in groundwater at the property boundary that could be applied unless, for molybdenum and manganese there is documentation that molybdenum and manganese shall not exceed current drinking water standards at the property boundary.
3. An evaluation of the technical and economic feasibility of the mitigation/treatment technologies evaluated in (2) above. Capital costs, annual operation and annual maintenance costs will be developed for each of the mitigation/treatment options presented in the Plan. The cost estimates will be conceptual level costs or Class 5

Short Term Mitigation Evaluation Plan Outline for Tailings Basin

March 24, 2010

estimates, as defined by the Association for the Advancement of Cost Engineering International.

4. An assessment of the ability of evaluated mitigation/treatment technologies in (2) above to address elevated sulfate and parameters of concern at the property boundary.
5. A proposed short-term mitigation/treatment action, with implementation schedule. An implementation plan with detailed description and rationale sufficient for MPCA approval to proceed and a schedule with milestone dates will be prepared.

Requirements

Collection of seepage water and pump back to the tailings basin at SD004 and SD006 shall be installed by no later than December 31, 2010 unless another mitigation/treatment option is identified that will eliminate effluent limit violations, the discharge of elevated concentrations of sulfate and the discharge of concentrations of parameters of concern that are above in-stream water quality standards. If a mitigation/treatment option other than seepage collection and pump back is proposed with an implementation schedule that extends beyond December 31, 2011 then a seepage collection and pump back system will be installed at SD004 and/or SD006 in the interim, by no later than December 31, 2010.

If seepage water collection and pump back is not the sole short-term strategy for eliminating elevated concentrations of sulfate at SD004 and/or SD006, bench scale testing of at least one technology shall be initiated, using water from SD004 and SD006 (as applicable) by December 31, 2010.

Within 60 days following entry of the Consent Decree, a Plan consolidating the above information will be submitted to the MPCA for SD004, SD006 and groundwater monitoring stations. For SD001 and SD002, provide justification for elimination of these discharge locations in future permit re-issuances, for MPCA approval. Immediately upon MPCA approval of the Plan, implementation of the Plan shall begin according to the schedule contained in the approved Plan.

If applicable, within 60 days following MPCA notification of rejection of the justification for elimination of SD001 and/or SD002 from future permitting, a Plan consolidating the above information will be submitted to the MPCA. Immediately upon MPCA approval of the Plan, implementation of the Plan shall begin according to the schedule contained in the approved Plan.

Short Term Mitigation Evaluation Plan Outline for Tailings Basin
March 24, 2010

Plan Format / Outline

The Short Term Mitigation Evaluation Plan will contain the following sections (subject to change during the course of the initial literature review and data compilation):

Executive Summary

1. Introduction
2. Water Quality and Mitigation/Treatment Objectives
 - 2.1. Current Water Quality/Quantity and Mitigation/Treatment Objectives
 - 2.2. Basis of Preliminary Cost Estimates
3. Results of Literature Review
 - 3.1. List of literature reviewed
 - 3.2. Technologies that can meet objectives
4. Mitigation Options (at a minimum, the following will be considered: Year round collection of seepage water and pump back to tailings basin)
 - 4.1. Mitigation Alternative (format for each Mitigation alternative evaluated)
 - 4.2. Description
 - 4.3. Implementation Considerations
 - 4.4. Preliminary Cost Estimates
 - 4.5. Expected Outcome
5. Treatment Options (at a minimum, the following will be considered: Lime Softening Plant, Membrane Filtration Plant, Ion Exchange Plant, In-Pond Biological/Chemical Treatment, Biological Treatment of Discharge)
 - 5.1. Treatment Alternative (format for each Mitigation alternative evaluated)
 - 5.2. Description
 - 5.3. Implementation Considerations
 - 5.4. Preliminary Cost Estimates
 - 5.5. Expected Outcome
6. Technical and Economic Evaluation Summary
7. Conclusions
 - 7.1. Short-Term Mitigation/Treatment Alternatives Considered but Eliminated with Reason for Elimination
 - 7.2. Implementable Short-Term Mitigation/Treatment Alternatives with Expected Outcomes
8. Recommended Short-Term Implementation Action
 - 8.1. Description and conceptual design
 - 8.2. Assessment of ability to address effluent limit violations and/or elevated concentrations of sulfate and parameters of concern.
 - 8.3. Schedule
9. References

Short Term Mitigation Evaluation Plan Outline for Tailings Basin

March 24, 2010

- Tables – Water quality summary table, cost estimate tables
- Figures & Site Map(s) - process flow diagrams for mitigation/treatment options

***Short Term Mitigation Evaluation Plan Outline for
SD012***

NPDES/SDS Permit No. MN0042536

Cliffs Erie L.L.C.

Approved by MPCA on March 24, 2010

Short Term Mitigation Evaluation Plan Outline for SD012
March 24, 2010

Overall Approach / Objectives

A Wild Rice Field Study shall be conducted to determine whether or not wild rice is present downstream of SD012. Results of the Wild Rice Field Study shall be incorporated into a Short Term Mitigation Evaluation Plan (Plan). The objectives of the Plan are: (1) to determine if a reduction in sulfate concentrations at outfall SD012 is warranted based on findings of the Wild Rice Study, and (2) to investigate existing methods and technologies to partially or completely mitigate the parameter(s) of concern for outfall SD012. The only current parameter of concern for outfall SD012 is the temperature differential, a physical parameter, between Pit 3 overflow waters and the receiving stream. As set forth below, the Pit 3 Field Study will investigate water temperature and chemistry to determine what feasible actions, if any, the Regulated Party may undertake to partially or completely mitigate the temperature differential in discharges from outfall SD012. Arsenic or sulfate, or both, may become parameters of concern depending upon findings of the Wild Rice Field Survey and the Pit 3 Field Study.

A Wild Rice Field Study will be completed to determine if wild rice is present downstream of SD012 in Wyman Creek and, if wild rice is present, a determination of sulfate concentrations at the location of the wild rice. The Wild Rice Field Study report will be submitted to MPCA by December 31, 2010 and will document the findings of the study indicating where wild rice is present, (if applicable) the relative density and area where it was found, the concentration of total sulfate in the water at that location and conclusions as to whether mitigation of sulfate concentration from SD012 is justified.

Factors that will be considered in determining appropriate mitigation/treatment alternatives to be implemented will include the effectiveness of the alternative in reducing/eliminating concentrations of sulfate and the parameter of concern, the time required to implement the alternative and the cost of implementing the alternative, especially when compared to the effectiveness of the alternative.

The Plan components include:

1. A summary of results of the Wild Rice Study.
2. A Pit 3 Field Study to investigate water temperature and chemistry at different depths in Pit 3 over a 12 month period, and a discussion of how a discharge of Pit 3 'at-depth' water to Wyman Creek may affect the temperature and chemistry of Wyman Creek and include an assessment of whether arsenic concentrations in the SD012 discharge could cause exceedance of the Class 2Bd water quality standard for arsenic in Colby Lake.
3. Conceptual designs for options to discharge potentially cooler water from greater depths within the mine pit. If the conclusion of the MPCA approved Wild Rice Study is that sulfate mitigation at SD012 is required, conceptual designs for existing applicable mitigation/treatment systems for sulfate will be included. If the conclusion of the MPCA approved Pit 3 Field Study is that discharges from Pit 3 are likely to cause exceedances of

Short Term Mitigation Evaluation Plan Outline for SD012

March 24, 2010

the arsenic water quality standard at Colby Lake, conceptual designs for existing applicable mitigation/treatment systems for arsenic removal shall be included.

4. Following completion of field studies, an assessment of the ability of evaluated mitigation technologies in (3) above to address the parameter of concern, sulfate and/or arsenic, if applicable. The assessment of sulfate mitigation technologies will include, at minimum precipitation, ion exchange, membrane technologies and biological treatment. A schedule for bench and pilot scale testing of potentially feasible technologies shall be included.
5. An evaluation of the technical and economic feasibility of the mitigation technologies evaluated in (3) above. Capital costs, annual operation and annual maintenance costs will be developed for each of the mitigation options presented in the Plan. The cost estimates will be conceptual level costs or Class 5 estimates, as defined by the Association for the Advancement of Cost Engineering International.

If it is determined that meeting water quality standards for the parameter of concern is not feasible or that discharging water from the desired pit depth would result in the discharge of elevated concentrations of other pollutants, provide an alternative approach for compliance with water quality rules, which may include a request for a variance from water quality standards or a permit modification for appropriate requirements.

6. Proposed mitigation actions with implementation schedules to address the parameter of concern, sulfate and/or arsenic, if applicable. An implementation plan with detailed description and rationale sufficient for MPCA approval to proceed and a schedule with milestone dates will be prepared.

The Plan will incorporate findings of the Wild Rice Study, evaluate the potential to mitigate the existing parameter of concern, sulfate and/or arsenic, if applicable at SD012 during the period that studies are being conducted and determine an appropriate long-term mitigation strategy.

Requirements

Within 60 days of entry of the Consent Decree, detailed descriptions of the Wild Rice Field Study proposal and the Pit 3 Field Study proposal shall be submitted to the MPCA for review and approval. Immediately upon MPCA approval of the proposals, implementation of the proposals shall begin according to the schedule contained in the approved proposals.

A Wild Rice Field Study report shall be submitted to the MPCA, for review and approval, by December 31, 2010.

The Pit 3 Field Study shall be completed within 12 months following notification of MPCA approval of the Pit 3 Field Study proposal.

Short Term Mitigation Evaluation Plan Outline for SD012
March 24, 2010

Within 30 days following completion of the Pit 3 Field Study proposal, a Plan consolidating the information gathered from the studies noted above will be submitted to the MPCA. Immediately upon MPCA approval of the Plan, implementation of the Plan shall begin according to the schedule contained in the approved Plan.

Short Term Mitigation Evaluation Plan Outline for SD012

March 24, 2010

Plan Format / Outline

The Short Term Mitigation Evaluation Plan will contain the following sections (subject to change during the course of the initial literature review and data compilation):

Executive Summary

1. Introduction
2. Water Quality and Mitigation Objectives
 - 2.1. Current Water Quality/Quantity and Mitigation Objectives
 - 2.2. Basis of Preliminary Cost Estimates
3. Field Studies Results
 - 3.1. Wild Rice and Sulfate Study
 - 3.2. Pit 3 Temperature and Chemistry Profiles During All Seasons
4. Mitigation Alternatives for Parameter of Concern
 - 4.1. Mitigation Alternative 1 – Discharge of Deeper, Potentially Cooler Waters from Pit 3
 - 4.1.1. Description
 - 4.1.2. Implementation Considerations
 - 4.1.3. Preliminary Cost Estimates
 - 4.1.4. Expected Outcome
 - 4.2. Mitigation Alternative X (continued as needed for additional options)
 - 4.2.1. Description
 - 4.2.2. Implementation Considerations
 - 4.2.3. Preliminary Cost Estimates
 - 4.2.4. Expected Outcome
 - 4.3. Mitigation Alternative Y – Sulfate mitigation/treatment (if necessary)
 - 4.3.1. Description
 - 4.3.2. Implementation Considerations
 - 4.3.3. Preliminary Cost Estimates
 - 4.3.4. Expected Outcome
 - 4.4. Mitigation Alternative Z – Arsenic mitigation/treatment (if necessary)
 - 4.4.1. Description
 - 4.4.2. Implementation Considerations
 - 4.4.3. Preliminary Cost Estimates
 - 4.4.4. Expected Outcome
5. Technical and Economic Evaluation Summary
6. Conclusions
7. Recommended Mitigation Implementation Plan

Short Term Mitigation Evaluation Plan Outline for SD012
March 24, 2010

7.1. Description

7.2. Schedule

8. References

8.1. -Tables – Water quality summary table, cost estimate tables

8.2. -Figures – Site Map(s), process flow diagrams for mitigation options

***Short Term Mitigation Evaluation Plan Outline for
SD026***

NPDES/SDS Permit No. MN0042536

Prepared for

***Cliffs Erie L.L.C. and
PolyMet Mining Inc***

Approved by MPCA on March 24, 2010

Short Term Mitigation Evaluation Plan Outline for SD026

March 24, 2010

Overall Approach / Objectives

The objectives of the Short Term Mitigation Evaluation Plan (Plan) are to investigate existing methods and technologies to partially or completely mitigate the elevated sulfate and parameters of concern. In this document, 'parameters of concern' are total dissolved solids, bicarbonates total hardness (Ca + Mg as CaCO₃) and specific conductivity in SD026 of NPDES/SDS permit MN0042536.

The Plan is intended to address and mitigate the existing elevated concentrations of sulfate and the parameters of concern in SD026 during the period that field studies are being conducted to determine an appropriate long-term mitigation strategy. Depending on the outcome of the field studies and the associated development of a long-term mitigation strategy that adequately addresses water quality concerns at SD026, the ongoing need for short-term mitigation/treatment may be re-evaluated in the future. In addition, the short-term mitigation/treatment may be incorporated, in whole or in part, into the long-term mitigation strategy as necessary or appropriate.

Factors that will be considered in determining appropriate mitigation/treatment alternatives to be implemented will include the effectiveness of the alternative in reducing/eliminating concentrations of sulfate and parameters of concern, the time required to implement the alternative and the cost of implementing the alternative, especially when compared to the effectiveness of the alternative.

Components of the Plan will include:

1. A literature search of mitigation/treatment technologies for sulfate and parameters of concern and integration of the results of the search into a usable format.
2. Conceptual designs for existing applicable mitigation/treatment systems for sulfate and parameters of concern that could be applied to the discharge at SD026. Year round collection of seepage water and pump back to the tailings basin will be among the designs proposed and evaluated.
3. An assessment of any emerging or non-proven sulfate mitigation/treatment that could be developed through a program of bench, pilot and field testing if collection of seepage water and pump back to the tailings basin is not determined to be the sole short term mitigation strategy for eliminating the discharge of elevated concentrations of sulfate. The assessment will include, at minimum precipitation, ion exchange, membrane technologies and biological treatment. A schedule for bench and pilot scale testing of potentially feasible technologies shall be included.
4. An evaluation of the technical and economic feasibility of the mitigation/treatment technologies evaluated in (2 & 3) above. Capital costs, annual operation and annual maintenance costs will be developed for each of the mitigation/treatment options presented in the Plan. The cost estimates will be conceptual level costs or Class 5

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estimates, as defined by the Association for the Advancement of Cost Engineering International.

5. An assessment of the ability of evaluated mitigation/treatment technologies in (2 & 3) above to address potential future permit effluent limits for sulfate and the parameters of concern.
6. A proposed short-term mitigation/treatment action with implementation schedule. An implementation plan with detailed description and rationale sufficient for MPCA approval to proceed and a schedule with milestone dates will be prepared.

Requirements

Collection of seepage water and pump back to the tailings basin at SD026 shall be installed by no later than December 31, 2010 unless another mitigation/treatment option is identified that will eliminate effluent limit violations and the discharge of concentrations of parameters of concern that are above in stream water quality standards. If a mitigation/treatment option other than seepage collection and pump back is proposed with an implementation schedule that extends beyond December 31, 2011 then a seepage collection and pump back system will be installed at SD026 in the interim, by no later than December 31, 2010.

If collection of seepage water and pump back to the tailings basin is not determined to be the sole short term mitigation strategy for eliminating the discharge of elevated concentrations of sulfate, bench scale testing of at least one sulfate removal technology using water from SD026 shall be initiated by December 31, 2010.

Within 60 days following entry of the Consent Decree, a Plan consolidating the above information will be submitted to the MPCA. Immediately upon MPCA approval of the Plan, implementation of the Plan shall begin according to the schedule contained in the approved Plan.

Short Term Mitigation Evaluation Plan Outline for SD026

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Plan Format / Outline

The Short Term Mitigation Evaluation Plan will contain the following sections (subject to change during the course of the initial literature review and data compilation):

Executive Summary

1. Introduction
2. Water Quality and Mitigation/Treatment Objectives
 - 2.1. Current Water Quality/Quantity and Mitigation/Treatment Objectives
 - 2.2. Basis of Preliminary Cost Estimates
3. Results of Literature Review
 - 3.1. List of literature reviewed
 - 3.2. Technologies that can meet objectives
4. Mitigation Options (at a minimum, the following will be considered: Year round collection of seepage water and pump back to tailings basin)
 - 4.1. Mitigation Alternative (format for each Mitigation alternative evaluated)
 - 4.1.1. Description
 - 4.1.2. Implementation Considerations
 - 4.1.3. Preliminary Cost Estimates
 - 4.1.4. Expected Outcome
5. Treatment Options (at a minimum, the following will be considered: Lime Softening Plant, Membrane Filtration Plant, Ion Exchange Plant, In-Pond Biological/Chemical Treatment, Biological Treatment of Discharge)
 - 5.1. Treatment Alternative (format for each Treatment alternative evaluated)
 - 5.1.1. Description
 - 5.1.2. Implementation Considerations
 - 5.1.3. Preliminary Cost Estimates
 - 5.1.4. Expected Outcome
6. Technical and Economic Evaluation Summary
7. Conclusions
 - 7.1. Short-Term Mitigation/Treatment Alternatives Considered but Eliminated with Reason for Elimination
 - 7.2. Implementable Short-Term Mitigation/Treatment Alternatives with Expected Outcomes
8. Recommended Short-Term Action Plan
 - 8.1. Description and conceptual design
 - 8.2. Assessment of ability to address elevated concentrations of sulfate and parameters of concern.
 - 8.3. Schedule
9. References

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- Tables – Water quality summary table, cost estimate tables
- Figures – Site Map(s), process flow diagrams for mitigation/treatment options

***Short Term Mitigation Evaluation Plan Outline for
SD033***

NPDES/SDS Permit No. MN0042536

Prepared for

***Cliffs Erie L.L.C. and
PolyMet Mining Inc***

Approved by MPCA on March 24, 2010

Short Term Mitigation Evaluation Plan Outline for SD033

March 24, 2010

Overall Approach / Objectives

The objectives of the Short Term Mitigation Evaluation Plan (Plan) are to investigate existing methods and technologies to partially or completely mitigate the elevated sulfate and parameters of concern. In this document, 'parameters of concern' are total dissolved solids, bicarbonates, total hardness (Ca + Mg as CaCO₃) and specific conductivity in SD033. Emerging or unproven technologies for sulfate mitigation/treatment will also be studied.

The Plan is intended to address and mitigate the existing elevated concentrations of sulfates and the parameters of concern in SD033 during the period that field studies are being conducted to determine an appropriate long-term mitigation strategy. Depending on the outcome of the field studies and the associated development of a long-term mitigation strategy that adequately addresses water quality concerns at SD033, the ongoing need for short-term mitigation/treatment may be re-evaluated in the future. In addition, the short-term mitigation/treatment may be incorporated, in whole or in part, into the long-term mitigation strategy as necessary or appropriate.

Factors that will be considered in determining appropriate mitigation/treatment alternatives to be implemented will include the effectiveness of the alternative in reducing/eliminating concentrations of sulfate and parameters of concern, the time required to implement the alternative and the cost of implementing the alternative, especially when compared to the effectiveness of the alternative.

Components of the Plan will include:

1. A literature search of mitigation/treatment technologies for sulfate and parameters of concern and integration of the results of the search into a usable format.
2. Conceptual designs for existing applicable mitigation/treatment systems for sulfate and parameters of concern that could be applied to discharge at SD033.
3. Assessment of any emerging or non-proven sulfate mitigation/treatment that could be developed through a program of bench, pilot and field testing. The assessment will include, at minimum precipitation, ion exchange, membrane technologies and biological treatment. A schedule for bench and pilot scale testing of potentially feasible technologies shall be included.
4. An evaluation of the technical and economic feasibility of the mitigation/treatment technologies evaluated in (2 & 3) above. Capital costs, annual operation and annual maintenance costs will be developed for each of the mitigation/treatment options presented in the Plan. The cost estimates will be conceptual level costs or Class 5 estimates, as defined by the Association for the Advancement of Cost Engineering International
5. An assessment of the ability of evaluated mitigation/treatment technologies in (2 & 3) above to address potential future permit effluent limits for sulfate and the parameters of concern.

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6. A proposed short-term mitigation/treatment action with implementation schedule. An implementation plan with detailed description and rationale sufficient for MPCA approval to proceed and a schedule with milestone dates will be prepared.

Requirements

Bench scale testing of at least one sulfate removal technology shall be initiated by December 31, 2010.

Within 60 days following entry of the Consent Decree, a Plan consolidating the above information will be submitted to the MPCA. Immediately upon MPCA approval of the Plan, implementation of the Plan shall begin according to the schedule contained in the approved Plan.

Short Term Mitigation Evaluation Plan Outline for SD033

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Plan Format / Outline

The Short Term Mitigation Evaluation Plan will contain the following sections (subject to change during the course of the initial literature review and data compilation):

- Executive Summary
- 1. Introduction
- 2. Water Quality and Mitigation/Treatment Objectives
 - 2.1. Current Water Quality/Quantity and Mitigation/Treatment Objectives
 - 2.2. Basis of Preliminary Cost Estimates
- 3. Results of Literature Review
 - 3.1. List of literature reviewed
 - 3.2. Technologies that can meet treatment objectives
- 4. Non-Treatment Mitigation Alternatives
 - 4.1. Mitigation Alternative (format for each Mitigation alternative evaluated)
 - 4.1.1. Description
 - 4.1.2. Implementation Considerations
 - 4.1.3. Preliminary Cost Estimates
 - 4.1.4. Expected Outcome
- 5. Treatment Alternatives (at a minimum, the following will be considered: Lime Softening Plant, Membrane Filtration Plant, Ion Exchange Plant, In-Pit Biological/Chemical Treatment, Biological Treatment of Discharge)
 - 5.1. Treatment Alternative (format for each Treatment alternative evaluated)
 - 5.1.1. Description
 - 5.1.2. Implementation Considerations
 - 5.1.3. Preliminary Cost Estimates
 - 5.1.4. Expected Outcome
- 6. Technical and Economic Evaluation Summary
- 7. Conclusions
 - 7.1. Short-Term Mitigation/Treatment Alternatives Considered but Eliminated with Reason for Elimination
 - 7.2. Implementable Short-Term Mitigation/Treatment Alternatives with Expected Outcomes
- 8. Proposed Short-Term Action Plan
 - 8.1. Description and conceptual design
 - 8.2. Assessment of ability to address elevated sulfate and parameters of concern.
 - 8.3. Schedule
- 9. References
 - Tables – Water quality summary table, cost estimate tables
 - Figures – Site Map(s), process flow diagrams for mitigation/treatment options

***Short Term Mitigation Evaluation Plan Outline for
Dunka Mine***

NPDES /SDS Permit No. MN0042579

Cliffs Erie L.L.C.

Approved by MPCA on March 24, 2010

Short Term Mitigation Evaluation Plan Outline for Dunka Mine

March 24, 2010

Overall Approach / Objectives

The objective of the Short Term Mitigation Evaluation Plan (Plan) is to investigate methods and technologies to partially or completely mitigate: 1) the dissolved iron effluent limit violations at SD005, SD006 and SD008, 2) the toxicity final concentration effluent limit violations at SD008 and SD009 and 3) elevated sulfate and parameters of concern (total hardness [Ca + Mg as CaCO₃] and conductivity) at SD005- SD009.

Factors that will be considered in determining appropriate mitigation/treatment alternatives to be implemented will include the effectiveness of the alternative in reducing/eliminating the above described pollutants, the time required to implement the alternative and the cost of implementing the alternative, especially when compared to the effectiveness of the alternative.

Components of the Plan shall address/include:

1. A literature search of mitigation/treatment technologies for dissolved iron, sulfate and parameters of concern and integration of the results of the search into a usable format.
2. Conceptual designs for existing applicable mitigation/treatment systems for sulfate, dissolved iron and parameters of concern that could be applied at the relevant outfalls.
3. Assessment of any emerging or non-proven sulfate mitigation/treatment that could be developed through a program of bench, pilot and field testing. The assessment will include, at minimum, precipitation, ion exchange, membrane technologies and biological treatment. A schedule for bench and pilot scale testing of potentially feasible technologies shall be included.
4. An evaluation of the technical and economic feasibility of the mitigation/treatment technologies evaluated in (2 & 3) above. Capital costs, annual operation and annual maintenance costs will be developed for each of the mitigation/treatment options presented in the Plan. The cost estimates will be conceptual level costs or Class 5 estimates, as defined by the Association for the Advancement of Cost Engineering International. If it is determined that meeting water quality standards for the parameters of concern is not feasible, provide an alternative approach for compliance with water quality rules, which may include a request for variances from water quality standards.
5. An assessment of the ability of evaluated mitigation/treatment technologies in (2 & 3) above to address dissolved iron effluent limit violations and elevated concentrations of sulfate and parameters of concern.
6. Proposed short term mitigation actions with implementation schedules to address dissolved iron effluent limit violations, elevated sulfate and parameters of concern. An implementation plan with detailed description and rationale sufficient for MPCA approval to proceed and a schedule with milestone dates will be prepared.

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7. Submission of as-built plans for, or other detailed descriptions of recent improvements completed at the wetland treatment systems within 10 days of entry of the Consent Decree to address toxicity final concentration effluent limit violations. In addition, a plan for compliance with toxicity final concentration limits at SD008 and SD009 without a variance (CalMoAvg 1.00 toxunit) will be submitted within 60 days of Consent Decree entry, for MPCA review and approval. The plan will include a schedule for implementation that indicates construction shall be completed by December 31, 2010. If the plan includes upgrades to piping and pumping systems as well as further limestone and peat enhancements, details of those upgrades should be included. The schedule shall include a wetland treatment system operation plan that describes operational procedures that will be implemented when it is determined that effluent limit violations of the toxicity final concentration effluent limits may occur at wetland treatment system outfalls.

8. Within 60 days of entry of the Consent Decree, a Plan will be submitted to the MPCA consolidating the above information. Immediately upon MPCA approval of the Plan, implementation of the Plan shall begin according to the schedule contained in the approved Plan.

Requirements

Within 10 days of entry of the Consent Decree, submittal of as-built or other detailed descriptions of recent improvements at wetland treatment systems.

Completion of improvements to SD008 and SD009 by December 31, 2010 to achieve toxicity final concentration limits without a variance.

Bench scale testing of at least one sulfate reducing technology shall be initiated by December 31, 2010.

Within 60 days following entry of the Consent Decree, a Plan consolidating the above information will be submitted to the MPCA. Immediately upon MPCA approval of the Plan, implementation of the Plan shall begin according to the schedule contained in the approved Plan.

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Plan Format / Outline

The Short Term Mitigation Evaluation Plan will contain the following sections (subject to change during the course of the initial literature review and data compilation):

- Executive Summary
- 1. Introduction
- 2. Water Quality and Mitigation/Treatment Objectives
 - 2.1. Current Water Quality/Quantity and Mitigation/Treatment Objectives
 - 2.2. Basis of Preliminary Cost Estimates
- 3. Results of Literature Review
 - 3.1. List of literature reviewed
 - 3.2. Technologies that can meet treatment objectives
- 4. Non-Treatment Mitigation Alternatives
 - 4.1. Mitigation Alternative 1 – Wetland Water Rerouting (Pumping and Piping) System
 - 4.2. Description
 - 4.3. Implementation Considerations
 - 4.4. Preliminary Cost Estimates
 - 4.5. Expected Outcome

 - 4.6. Mitigation Alternative Y (continued as needed for additional options)
 - 4.7. Description
 - 4.8. Implementation Considerations
 - 4.9. Preliminary Cost Estimates
 - 4.10. Expected Outcome
- 5. Treatment Alternatives
 - 5.1. Treatment Alternative 1 – Wetland Cell Enhancements
 - 5.2. Description
 - 5.3. Implementation Considerations
 - 5.4. Preliminary Cost Estimates
 - 5.5. Expected Outcome

 - 5.6. Treatment Alternative Y (continued as needed for additional options)
 - 5.7. Description
 - 5.8. Implementation Considerations
 - 5.9. Preliminary Cost Estimates
 - 5.10. Expected Outcome
- 6. Technical and Economic Evaluation Summary
- 7. Conclusions

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March 24, 2010

- 7.1. Short-Term Mitigation/Treatment Alternatives Considered but Eliminated with Reason for Elimination
- 7.2. Implementable Short-Term Mitigation/Treatment Alternatives with Expected Outcomes
- 8. Recommended Short-Term Implementation Plan
 - 8.1. Description and conceptual design
 - 8.2. Assessment of ability to address effluent limit violations and elevated concentrations of sulfate, dissolved iron and parameters of concern.
 - 8.3. Schedule
- 9. References