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STATE OF MINNESOTA

Minnesota Pollution Control Agency

Industrial Division

National Pollutant Discharge Elimination System (NPDES)/
State Disposal System (SDS) Permit MN0057207

PERMITTEE:	U.S. Steel Corp - Minntac
FACILITY NAME:	U.S. Steel - Minntac Tailings Basin Area
RECEIVING WATER:	Dark River (Class 2B, 3C, 4A, 4B, 5, 6 water)

CITY OR TOWNSHIP:	Mountain Iron	**COUNTY:**	St. Louis
ISSUANCE DATE:		**EXPIRATION DATE:**	

The state of Minnesota, on behalf of its citizens through the Minnesota Pollution Control Agency (MPCA), authorizes the Permittee to operate a disposal system at the facility named above and to discharge from this facility to the receiving water named above, in accordance with the requirements of this permit.

The goal of this permit is to reduce pollutant levels in point source discharges and protect water quality in accordance with Minnesota and U.S. statutes and rules, including Minn. Stat. chs. 115 and 116, Minn. R. chs. 7001, 7050, 7053, 7060, 7090, and the U.S. Clean Water Act.

This permit is effective on the issuance date identified above, and supersedes the previous permit that was issued for this facility on September 30, 1987. This permit expires at midnight on the expiration date identified above.

Signature: _____

Jeff Udd, P.E.
Supervisor, Water Quality Permits Unit
Water Section
Industrial Division

for The Minnesota Pollution Control Agency

Submit eDMRs
Submit via the MPCA Online Services Portal at https://netweb.pca.state.mn.us/private/

Submit Other WQ Reports to:
Attention: WQ Submittals Center
Minnesota Pollution Control Agency
520 Lafayette Rd N
St Paul, MN 55155-4194

Questions on this permit?

- For eDMR and other permit reporting issues, contact: Belinda Nicholas, 651-757-2613.
- For specific permit requirements or permit compliance status, contact: Erik Smith 651-757-2719.
- General permit or NPDES program questions, contact: MPCA, 651-282-6143 or 1-800-657-3938.

Table of Contents

Permitted Facility Description 4
Map of Permitted Facility 8
Aerial Photo of Facility 9
Summary of Stations and Station Locations 10
Limits and Monitoring Requirements 11

Chapter 1. Compliance Schedule 22
1. Compliance Schedule
2. Compliance Schedule Special Requirements
3. Reporting
Chapter 2. Special Requirements 28
1. Special Requirements
Chapter 3. Domestic Wastewater (non-POTW) 28
1. Operator Certification
2. Bypass Structures
3. Sanitary Sewer Extension Permit
4. Solids Management
Chapter 4. Industrial Process Wastewater 30
1. Prohibited Discharges
2. Toxic Substance Reporting
3. Polychlorinated Biphenyls (PCBs)
4. New Proposed Dewatering
5. Application for Permit Reissuance
Chapter 5. Metallic Mining 32
1. Mine Tailings Basin
Chapter 6. Mercury Minimization Plan 32
1. Mercury Pollutant Minimization Plan
Chapter 7. Whole Effluent Toxicity (WET) Testing – Chronic 33
1. General Requirements
2. Species and Procedural Requirements
3. Quality Control and Report Submittals
4. Positive Toxicity Result for WET
5. WET Data and Test Acceptability Criteria (TAC) Submittal
6. Permit Re-opening for WET
7. Whole Effluent Toxicity Requirement Definitions
Chapter 8. Industrial Stormwater -- Sector G: Metal Mining (ore mining & dressing) 35
1. Authorization

2. Water Quality Standards
3. Stormwater Pollution Prevention Plan
4. Employee Training Program
5. Inspection and Maintenance
6. Sedimentation Basin Design and Construction
7. Industry Specific Stormwater Controls
8. Reporting
9. Records
10. Notification
11. No Exposure
12. Definitions

Chapter 9. Ground Water Stations 40
1. Monitoring Wells
2. Requirements for Specific Stations

Chapter 10. Surface Discharge Stations 41
1. Requirements for Specific Stations
2. Sampling Location
3. Surface Discharges
4. Winter Sampling Conditions
5. Mercury Limits and Monitoring Requirements
6. Discharge Monitoring Reports

Chapter 11. Surface Water Stations 42
1. Requirements for Specific Stations
2. Special Requirements
3. Discharge Monitoring Reports
4. Sampling Location
5. Sampling Protocol

Chapter 12. Waste Stream Stations 43
1. Requirements for Specific Stations
2. Sampling Location

Chapter 13. Total Facility Requirements 43-51
1. General Requirements

Facility Description

Facility Location Legal Description
The U.S. Steel - Minntac Tailings Basin Area facility (facility) is located in multiple Sections of Township 59 North, Ranges 18 and 19 West, Mountain Iron, St. Louis County, Minnesota.

The facility covers approximately 8,700 acres (13.6 square miles) and consists of the Minntac tailings basin, the drainage area contributing surface runoff to the basin, and all wastewater disposal systems within the area designated on the map on page 8. The contributing drainage area includes part of an overburden/rock stockpile area to the southwest of the basin, as well as part of the Minntac plant area. That portion of the plant area which drains to the basin includes the concentrator, the agglomerator, the sewage treatment plant, the lube storage area, a substation, the plant area reservoir, and part of the crushing facilities.

Facility Operations Description
The principal activity at this facility is taconite processing. At the maximum operating rate, the facility will generate 15 million long tons of taconite pellets per year. The Minntac plant consists of a series of crushers and screens, a crusher thickener, a concentrator, an agglomerator, and various auxiliary facilities. The concentrator utilizes a series of mills, magnetic separators, classifiers, hydroclones, hydroseparators, screens and thickeners, as well as a flotation process. Chemical additives include flocculants and various flotation reagents. The flocculants comprise Calgon M-5729, added to the crushing plant dust collector slurry at a rate of one pound per hour (lb/hr), and Calgon M-5372 or equivalent cationic homopolymers added to the concentrator tailings slurry prior to the thickening stage, at a rate of 170 lb/hr. The flotation reagents comprise: (a) an alkyl ether primary amine acetate or alkyl ether diamine acetate collector, Arosurf MG-83, Arosurf MG-83A, Tomah DA-17-5% Acetate, or equivalent (alkyl chain R no greater than C_{14}), added at a maximum rate of 295 lb/hr; (b) an alcohol frother, methyl isobutyl carbinol, Arosurf 2057, Nalflote 8848, or equivalent (mixed C_4 to C_9 aliphatic alcohols only), added at a maximum rate of 101 lb/hr; and (c) anti-foaming agents Oreprep D-202 or Nalco 7810 Antifoam, added at a maximum rate of 162 lb/hr.

The agglomerator receives the concentrate, which is then dewatered by disc filters. The filter cake is then mixed with bentonite and formed into pellets in balling drums. The pellets are dried, heated, and fired in a grate kiln, and then loaded for rail transport.

Wastewater inputs to the tailings basin consist of the following, with their estimated average rates:

- Fine tailings slurry/concentrator process water — 22,000 gpm
- Agglomerator process water — 14,800 gpm
- Sewage plant discharge, formerly covered under NPDES/SDS Permit MN0050504 — 40 gpm

- Laboratory wastewater (neutralized) 3,650 gal/yr
- Plant non-process water (wet scrubber discharge, floor wash, roof runoff, non-contact cooling water Unknown
- Runoff from plant area, stockpile areas and adjacent upland areas Unknown

The agglomerator process water, sewage plant discharge, laboratory wastewater, plant non-process water and surface runoff from the plant area enter the south side of the basin through a series of pipes and ditches to the north of the concentrator and agglomerator buildings, in Section 28. Surface runoff from the upland area to the southeast of the basin enters through a series of four culverts through the perimeter dam. Runoff from the stockpile area and upland area to the southwest of the basin enters by seepage through the perimeter dam.

An average of 21 million long tons of dry fine tailings and 14 million long tons of dry coarse tailings are disposed of each year in the tailings basin. The coarse tailings are generated from the classifier, following the first stage of milling and magnetic separation. The fine tailings are generated from the crusher thickener overflow and the tailings thickener underflow. The fine tailings slurry and concentrator process water is directed by gravity flow through pipes from the Step I, II, and III thickeners to a fine tailings pump house, which lifts the slurry for disposal through a series of open ditches to the Minntac tailings basin. The flow from the flotation process is restricted to Step I thickeners, but is mixed with discharge from Steps II and III in the pump house. The basin is segmented into several cells, and the fine tailings spigot point is periodically moved from one cell to another. A permanent pumping station located within the basin returns water to the plant site reservoir. The station is located on the east side of Cell 1 (SE ¼, Section 15). Calcium chloride is occasionally used as a chemical dust suppressant on the basin and haul-roads in the facility. Some coarse tailings are used for sanding on roads in the facility during the winter, and others are sold as aggregate product.

The various basin cells are separated by dams, each constructed of a single berm of coarse tailings placed by truck and various pieces of auxiliary equipment. Most of the perimeter dam for the tailings basin was constructed by spigotting a fine tailings slurry into the core between parallel inner and outer coarse tailings dams; that part of the perimeter dam on the southwest side of the basin was constructed in the same manner as the interior basin dams. The coarse tailings dams were constructed by truck in ten foot lifts. The perimeter dam spigot lines were located on the dry side of the core; this created a surface slope from the dry side (outer) down to the wet (inner) side, thus causing the water from the slurry to pond on the wet side of the core and seep through the wet side dam to the retained water within the disposal facility. Peat was removed from the original ground area to be occupied by the perimeter dam, and a ten foot deep key-way was dug in the glacial drift prior to spigotting fine tailings into the core portion of this area.

A demolition debris landfill (Solid Waste Permit SW-240) is located on the southeast corner of Cell A-2, but was closed per MPCA guidelines in 2013. The abandoned Minntac dump site (Agency Landfill

Inventory Number SL-183) is located in the southwest corner of Cell 1 (SW ¼, SE ¼, Section 21 and NW ¼, NE ¼, Section 28). Paper, lunch wastes, wood scrapes, scrap metal, mill grease, and waste oil were disposed of at this dump during its period of operation.

A minor permit modification was done in 2010 to allow for the construction of a Seep Collection and Return System (SCRS) as required by a Schedule of Compliance originally entered into by the Company and the MPCA on November 14, 2007, and as amended by Amendment No. 1 on February 25, 2010.

A domestic wastewater treatment plant for the facility was previously covered under SDS permit number MN0050504, but will be incorporated into this reissued permit. The plant consists of a lift station which discharges to bar screens followed by an activated sludge package plant. The package plant is an extended aeration Infilco Accelo-BIOX Type "C" Plant. It provides continual aeration, mixing, recirculation, settling, and clarification within a single circular unit. Raw domestic wastewater is introduced at the bottom, outer zone of the unit; aeration and mixing is provided by a sparge ring at the bottom of this outer zone. Mixed liquor from the outer zone overflows into an inner cone that provides settling; the settling sludge is returned by gravity to the outer zone as return activated sludge. A cylindrical clarification zone within the inner cone then discharges through a peripheral launder. The effluent is disinfected using sodium hypochlorite prior to routing from the system to the tailings basin. Monitoring of the effluent to the basin will occur at WS008. Waste activated sludge is periodically pumped directly from the outer zone as needed and transported to the Mt. Iron wastewater treatment plant (WWTP). The WWTP was originally designed for an average flow of 0.06 million gallons per day (mgd) and a maximum flow of 0.09 mgd. The WWTP is a Class C facility.

The location of designated monitoring stations is specified on the "Summary of Stations and Station Locations" (page 10).

The location of the facility is shown on the Facility Map (page 8).

In accordance with MPCA rules regarding nondegradation for all waters that are not Outstanding Resource Value Waters, nondegradation review is required for any new or expanded significant discharge (Minn. R. 7050.0185). A significant discharge is: (1) a new discharge (not in existence before January 1, 1988) that is greater than 200,000 gallons per day (gpd) to any water other than a Class 7 water or (2) an expanded discharge that expands by greater than 200,000 gpd that discharges to any water other than a Class 7 water or (3) a new or expanded discharge containing any toxic pollutant at a mass loading rate likely to increase the concentration of the toxicant in the receiving water by greater than one percent over the baseline quality.

The discharge from the Minntac Tailings basin existed prior to January 1, 1988; therefore it is not a new discharge. In determining if it is an expanded discharge, the earliest available Discharge Monitoring Reports (DMR's) for the facility are from 1991, so those records were used. The average discharge rates

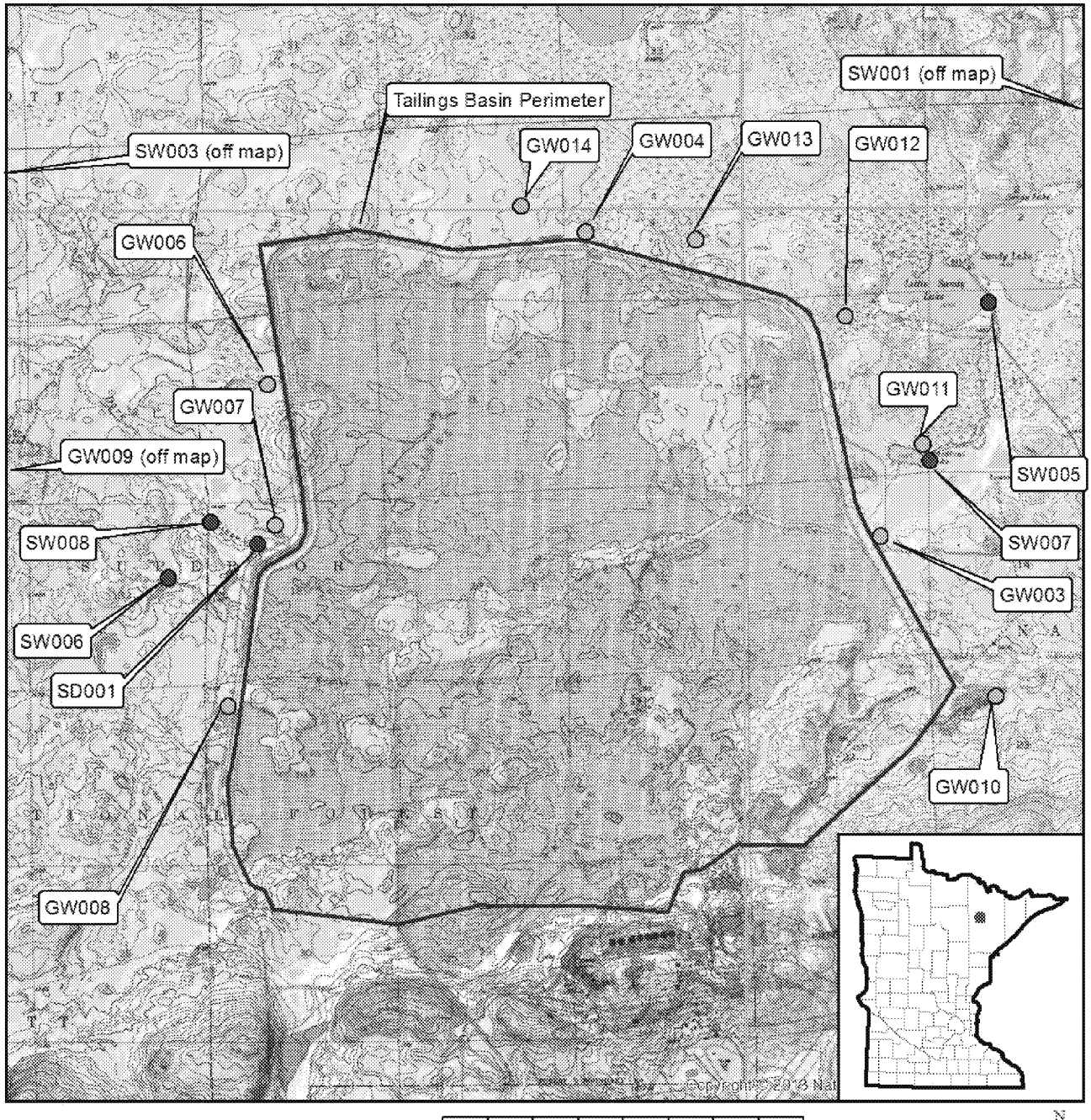
from SD001 and SD002 during the 1991 calendar year were 84,000 gpd and 365,000 gpd, respectively. Discharge from those same points over the past 3 years were 130,000 gpd and 0 gpd. There are also other seepage points along the basin perimeter, but these have not been monitored comprehensively enough to assess changes in gross discharge from the basin, however, with the installation of the Sand River SCRS it is presumed that the current gross discharge is less than it was in 1988. Given this, and that the Permittee will install a comparable SCRS for discharges to the Dark River Watershed, there is not a new or expanded discharge at the facility, and therefore, a nondegradation review is not necessary.

This Permit also complies with Minn. R. 7053.0275 regarding anti-backsliding.

Any point source discharger of sewage, industrial, or other wastes for which a NPDES permit has been issued by the MPCA that contains effluent limits more stringent than those that would be established by Minn. R. 7053.0215 to 7053.0265 shall continue to meet the effluent limits established by the permit, unless the permittee establishes that less stringent effluent limits are allowable pursuant to federal law, under section 402(o) of the Clean Water Act, United States Code, title 33, section 1342.

Topographic Map of Permitted Facility

MN0057207: US Steel Minntac Tailings Basin
T59N, R18W, Sections 3-10, 14-23, 27-30
Mt. Iron, St. Louis County, Minnesota



Map produced by: MPCA Staff, 1/30/2015
Source: USGS Quad
Scale: 1:50,000

0 0.5 1 2 Miles

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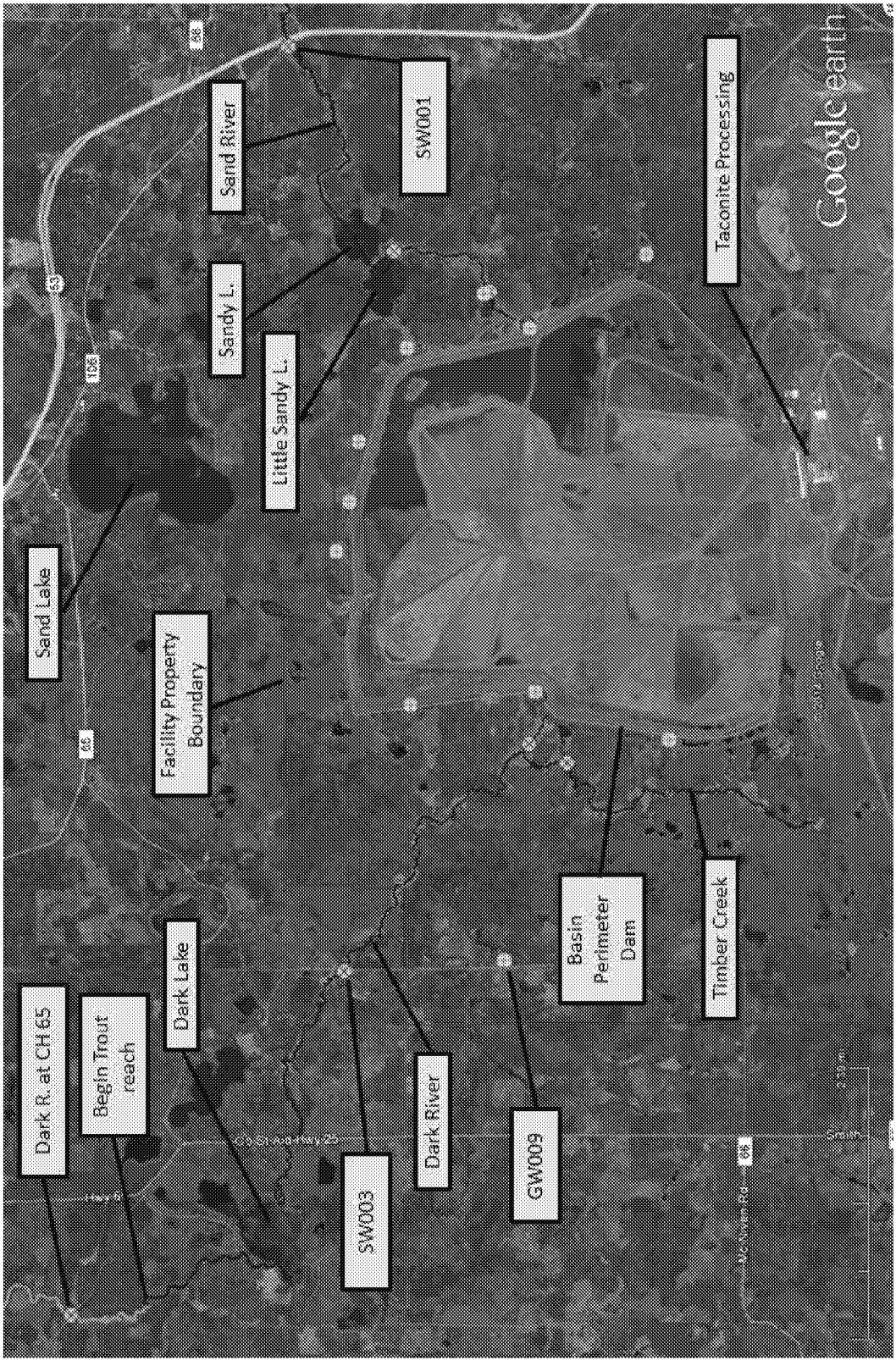
Minntac Tailings Basin Aerial Photo



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Ground Water Stations

Station	Type of Station	Local Name	PLS Location
GW003	Well, Downgradient	Monitoring Well 3	NE Quarter of the SE Quarter of Section 15, Township 59 North, Range 18 West
GW004	Well, Downgradient	Monitoring Well 4	NW Quarter of the SW Quarter of Section 4, Township 59 North, Range 18 West
GW006	Well, Downgradient	Monitoring Well 6	NE Quarter of the NW Quarter of Section 7, Township 59 North, Range 18 West
GW007	Well, Downgradient	Monitoring Well 7	NE Quarter of the NW Quarter of Section 18, Township 59 North, Range 18 West
GW008	Well, Downgradient	Monitoring Well 8	NW Quarter of the NW Quarter of Section 19, Township 59 North, Range 18 West
GW009	Well, Downgradient	Monitoring Well 9	SW Quarter of the NW Quarter of Section 10, Township 59 North, Range 19 West
GW010	Well, Upgradient	Monitoring Well 10	NW Quarter of the NW Quarter of Section 23, Township 59 North, Range 18 West
GW011	Well, Downgradient	Monitoring Well 11	SE Quarter of the SE Quarter of Section 10, Township 59 North, Range 18 West
GW012	Well, Downgradient	Monitoring Well 12	SE Quarter of the NE Quarter of the NW Quarter of Section 10, Township 59 North, Range 18 West
GW013	Well, Downgradient	Monitoring Well 13	SE Quarter of the NW Quarter of the SE Quarter of Section 04, Township 59 North, Range 18 West
GW014	Well, Downgradient	Monitoring Well 14	NE Quarter of the NW Quarter of the SE Quarter of Section 05, Township 59 North, Range 18 West

Surface Discharge Stations

Station	Type of Station	Local Name	PLS Location
SD001	Effluent To Surface Water	Seepage outfall 020	SE Quarter of the NE Quarter of the NW Quarter of Section 18, Township 59 North, Range 18 West

Surface Water Stations

Station	Type of Station	Local Name	PLS Location
SW001	Stream/River/Ditch, Other	Sandy River Station 701	NW Quarter of the NW Quarter of Section 6, Township 59 North, Range 17 West
SW003	Stream/River/Ditch, Downstream	Dark River at CR668	SE Quarter of the SE Quarter of the NE Quarter of Section 3, Township 59 North, Range 19 West
SW005	Lake/Reservoir	Little Sandy Lake Inlet	NW Quarter of the NE Quarter of the NW Quarter of Section 11, Township 59 North, Range 18 West
SW006	Stream/River/Ditch, Downstream	Timber Creek	SW Quarter of the SE Quarter of the NE Quarter of Section 13, Township 59 North, Range 19 West
SW007	Lake/Reservoir	Admiral Lake	SE Quarter of the SE Quarter of the SE Quarter of Section 10, Township 59 North, Range 18 West
SW008	Stream/River/Ditch, Downstream	Dark River near Basin	NE Quarter of the NE Quarter of the NE Quarter of Section 13, Township 59 North, Range 19 West

Waste Stream Stations

Station	Type of Station	Local Name	PLS Location
WS008	Internal Waste Stream	Domestic plant effluent to basin	SW Quarter of the NE Quarter of Section 28, Township 59 North, Range 18 West
WS009	Internal Waste Stream	Basin Water	SW Quarter of the NE Quarter of the SE Quarter of Section 15, Township 59 North, Range 18 West

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The Permittee shall comply with the limits and monitoring requirements as specified below.

Period: Limits Applicable in the Interim Period

GW 003, GW 004, GW 006, GW 007, GW 008, GW 009, GW 010, GW 011

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Bicarbonates (HCO3)	Monitor Only	mg/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
Chloride, Total	Monitor Only	mg/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
Elevation of GW Relative to Mean Sea Level	Monitor Only	feet	Calendar Month Maximum	Apr, Jul, Oct	Measurement, Instantaneous	1 x Month	8
Hardness, Calcium & Magnesium, Calculated (as CaCO3)	Monitor Only	mg/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
Iron, Dissolved (as Fe)	Monitor Only	mg/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
Manganese, Dissolved (as Mn)	Monitor Only	ug/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
pH, Field	Monitor Only	SU	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
pH, Field	Monitor Only	SU	Calendar Month Minimum	Apr, Jul, Oct	Grab	1 x Month	8
Solids, Total Dissolved (TDS)	Monitor Only	mg/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
Specific Conductance, Field	Monitor Only	umh/cm	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
Sulfate, Total (as SO4)	Monitor Only	mg/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
Temperature, Water (C)	Monitor Only	Deg C	Calendar Month Maximum of Daily Average	Apr, Jul, Oct	Grab	1 x Month	8

GW 012, GW 013

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Bicarbonates (HCO3)	Monitor Only	mg/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
Chloride, Total	Monitor Only	mg/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
Elevation of GW Relative to Mean Sea Level	Monitor Only	feet	Calendar Month Maximum	Apr, Jul, Oct	Measurement, Instantaneous	1 x Month	8
Hardness, Calcium & Magnesium, Calculated (as CaCO3)	Monitor Only	mg/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
Iron, Dissolved (as Fe)	Monitor Only	mg/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
Manganese, Dissolved (as Mn)	Monitor Only	ug/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
pH, Field	Monitor Only	SU	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
pH, Field	Monitor Only	SU	Calendar Month Minimum	Apr, Jul, Oct	Grab	1 x Month	8
Solids, Total Dissolved (TDS)	Monitor Only	mg/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
Specific Conductance, Field	Monitor Only	umh/cm	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
Sulfate, Total (as SO4)	Monitor Only	mg/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
Temperature, Water (C)	Monitor Only	Deg C	Calendar Month Maximum of Daily Average	Apr, Jul, Oct	Grab	1 x Month	8

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The Permittee shall comply with the limits and monitoring requirements as specified below.

Period: Limits Applicable in the Interim Period

GW 014

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Bicarbonates (HCO3)	Monitor Only	mg/L	Calendar Month Maximum	Oct	Grab	1 x Month	7
Chloride, Total	250	mg/L	Calendar Month Maximum	Oct	Grab	1 x Month	6
Elevation of GW Relative to Mean Sea Level	Monitor Only	feet	Calendar Month Maximum	Oct	Measurement, Instantaneous	1 x Month	6
Hardness, Calcium & Magnesium, Calculated (as CaCO3)	Monitor Only	mg/L	Calendar Month Maximum	Oct	Grab	1 x Month	6
Iron, Dissolved (as Fe)	Monitor Only	mg/L	Calendar Month Maximum	Oct	Grab	1 x Month	6
Manganese, Dissolved (as Mn)	Monitor Only	ug/L	Calendar Month Maximum	Oct	Grab	1 x Month	6
pH, Field	Monitor Only	SU	Calendar Month Maximum	Oct	Grab	1 x Month	6
pH, Field	Monitor Only	SU	Calendar Month Minimum	Oct	Grab	1 x Month	6
Solids, Total Dissolved (TDS)	500	mg/L	Calendar Month Maximum	Oct	Grab	1 x Month	6
Specific Conductance, Field	Monitor Only	umh/cm	Calendar Month Maximum	Oct	Grab	1 x Month	6
Sulfate, Total (as SO4)	250	mg/L	Calendar Month Maximum	Oct	Grab	1 x Month	6
Temperature, Water (C)	Monitor Only	Deg C	Calendar Month Maximum	Oct	Grab	1 x Month	6

SD 001

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Bicarbonates (HCO3)	Monitor Only	mg/L	Calendar Month Average	Jan-Dec	Grab	1 x Month	1
Chloride, Total	Monitor Only	mg/L	Calendar Month Average	Jan-Dec	Grab	1 x Month	
Flow	Monitor Only	mgd	Calendar Month Average	Jan-Dec	Measurement	2 x Month	
Flow	Monitor Only	MG	Calendar Month Total	Jan-Dec	Measurement	2 x Month	
Flow	Monitor Only	mgd	Daily Maximum	Jan-Dec	Measurement	2 x Month	
Hardness, Calcium & Magnesium, Calculated (as CaCO3)	Monitor Only	mg/L	Calendar Month Average	Jan-Dec	Grab	1 x Month	1
Iron, Dissolved (as Fe)	1.0	mg/L	Calendar Month Average	Jan-Dec	Grab	1 x Month	
Iron, Dissolved (as Fe)	2.0	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Manganese, Dissolved (as Mn)	Monitor Only	ug/L	Calendar Month Average	Jan-Dec	Grab	1 x Month	
Mercury, Dissolved (as Hg)	Monitor Only	ng/L	Calendar Quarter Maximum	Jan-Dec	Grab	1 x Quarter	
Mercury, Total (as Hg)	Monitor Only	ng/L	Calendar Quarter Maximum	Jan-Dec	Grab	1 x Quarter	
pH	9.0	SU	Instantaneous Maximum	Jan-Dec	Grab	1 x Month	
pH	6.0	SU	Instantaneous Minimum	Jan-Dec	Grab	1 x Month	

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The Permittee shall comply with the limits and monitoring requirements as specified below.

Period: Limits Applicable in the Interim Period

SD 001

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Potassium, Dissolved (as K)	Monitor Only	mg/L	Calendar Month Average	Jan-Dec	Grab	1 x Month	
Sodium, Total (as Na)	Monitor Only	mg/L	Calendar Month Average	Jan-Dec	Grab	1 x Month	
Solids, Total Dissolved (TDS)	Monitor Only	mg/L	Calendar Month Average	Jan-Dec	Grab	1 x Month	1
Solids, Total Suspended (TSS)	20	mg/L	Calendar Month Average	Jan-Dec	Grab	2 x Month	
Solids, Total Suspended (TSS)	30	mg/L	Daily Maximum	Jan-Dec	Grab	2 x Month	
Solids, Total Suspended (TSS), grab (Mercury)	Monitor Only	mg/L	Calendar Quarter Maximum	Jan-Dec	Grab	1 x Quarter	
Specific Conductance, Field	2430	umh/cm	Calendar Month Average	Jan-Dec	Measurement, Instantaneous	1 x Month	4
Sulfate, Total (as SO4)	1221	mg/L	Calendar Month Average	Jan-Dec	Grab	1 x Month	4
Temperature, Water (C)	Monitor Only	Deg C	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	

SW 001

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Bicarbonates (HCO3)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Chloride, Total	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Flow, Stream, Instantaneous	Monitor Only	cfs	Daily Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	
Hardness, Calcium & Magnesium, Calculated (as CaCO3)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
pH, Field	Monitor Only	SU	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	
pH, Field	Monitor Only	SU	Calendar Month Minimum	Jan-Dec	Measurement, Instantaneous	1 x Month	
Potassium, Dissolved (as K)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Sodium, Total (as Na)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Solids, Total Dissolved (TDS)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Specific Conductance, Field	Monitor Only	umh/cm	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	
Sulfate, Total (as SO4)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Temperature, Water (C)	Monitor Only	Deg C	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	

SW 003

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Bicarbonates (HCO3)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	

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The Permittee shall comply with the limits and monitoring requirements as specified below.

Period: Limits Applicable in the Interim Period

SW 003

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Chloride, Total	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Flow, Stream, Instantaneous	Monitor Only	cfs	Daily Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	
Hardness, Calcium & Magnesium, Calculated (as CaCO3)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Manganese, Total (as Mn)	Monitor Only	ug/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
pH, Field	Monitor Only	SU	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	
pH, Field	Monitor Only	SU	Calendar Month Minimum	Jan-Dec	Measurement, Instantaneous	1 x Month	
Potassium, Dissolved (as K)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Sodium, Total (as Na)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Solids, Total Dissolved (TDS)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Specific Conductance, Field	Monitor Only	umh/cm	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	
Sulfate, Total (as SO4)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Temperature, Water (C)	Monitor Only	Deg C	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	

SW 005

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Bicarbonates (HCO3)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Chloride, Total	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Flow, Stream, Instantaneous	Monitor Only	cfs	Daily Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	
Hardness, Calcium & Magnesium, Calculated (as CaCO3)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
pH, Field	Monitor Only	SU	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	
pH, Field	Monitor Only	SU	Calendar Month Minimum	Jan-Dec	Measurement, Instantaneous	1 x Month	
Potassium, Dissolved (as K)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Sodium, Total (as Na)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Solids, Total Dissolved (TDS)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Specific Conductance, Field	Monitor Only	umh/cm	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	
Sulfate, Total (as SO4)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Temperature, Water (C)	Monitor Only	Deg C	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	

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The Permittee shall comply with the limits and monitoring requirements as specified below.

Period: Limits Applicable in the Interim Period

SW 006, SW 007, SW 008

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Bicarbonates (HCO3)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Chloride, Total	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Flow, Stream, Instantaneous	Monitor Only	cfs	Daily Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	
Hardness, Calcium & Magnesium, Calculated (as CaCO3)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
pH, Field	Monitor Only	SU	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	
pH, Field	Monitor Only	SU	Calendar Month Minimum	Jan-Dec	Measurement, Instantaneous	1 x Month	
Potassium, Dissolved (as K)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Sodium, Total (as Na)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Solids, Total Dissolved (TDS)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Specific Conductance, Field	Monitor Only	umh/cm	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	
Sulfate, Total (as SO4)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Temperature, Water (C)	Monitor Only	Deg C	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	

WS 008

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
BOD, Carbonaceous 05 Day (20 Deg C)	25	mg/L	Calendar Month Average	Jan-Dec	Grab	2 x Month	
BOD, Carbonaceous 05 Day (20 Deg C)	40	mg/L	Maximum Calendar Week Average	Jan-Dec	Grab	2 x Month	
Chlorine, Total Residual	Monitor Only	mg/L	Calendar Month Average	Apr-Oct	Grab	2 x Month	
Chlorine, Total Residual	Monitor Only	mg/L	Calendar Month Maximum	Apr-Oct	Grab	2 x Month	
Fecal Coliform, MPN or Membrane Filter 44.5C	200	#100ml	Calendar Month Geometric Mean	Apr-Oct	Grab	2 x Month	
Fecal Coliform, MPN or Membrane Filter 44.5C	400	#100ml	Daily Maximum	Apr-Oct	Grab	2 x Month	
Flow	Monitor Only	mgd	Calendar Month Average	Jan-Dec	Measurement, Continuous	1 x Day	
Flow	Monitor Only	mgd	Calendar Month Maximum	Jan-Dec	Measurement, Continuous	1 x Day	
Flow	Monitor Only	MG	Calendar Month Total	Jan-Dec	Measurement, Continuous	1 x Day	
pH, Field	9.0	SU	Instantaneous Maximum	Jan-Dec	Measurement, Instantaneous	2 x Month	
pH, Field	6.0	SU	Instantaneous Minimum	Jan-Dec	Measurement, Instantaneous	2 x Month	
Solids, Total Suspended (TSS)	30	mg/L	Calendar Month Average	Jan-Dec	Grab	2 x Month	
Solids, Total Suspended (TSS)	45	mg/L	Maximum Calendar Week Average	Jan-Dec	Grab	2 x Month	

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The Permittee shall comply with the limits and monitoring requirements as specified below.

Period: Limits Applicable in the Interim Period

WS 009

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Evaporation, Accumulated	Monitor Only	in	Calendar Month Total	Jan-Dec	Grab	1 x Month	
Hardness, Calcium & Magnesium, Calculated (as CaCO3)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Precipitation	Monitor Only	in	Calendar Month Total	Jan-Dec	Grab	1 x Month	
Specific Conductance, Field	Monitor Only	umh/cm	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Sulfate, Total (as SO4)	800	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	5

Period: Limits Applicable in the Final Period

GW 003, GW 004, GW 006, GW 007, GW 008, GW 009, GW 010, GW 011

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Bicarbonates (HCO3)	Monitor Only	mg/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
Chloride, Total	Monitor Only	mg/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
Elevation of GW Relative to Mean Sea Level	Monitor Only	feet	Calendar Month Maximum	Apr, Jul, Oct	Measurement, Instantaneous	1 x Month	8
Hardness, Calcium & Magnesium, Calculated (as CaCO3)	Monitor Only	mg/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
Iron, Dissolved (as Fe)	Monitor Only	mg/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
Manganese, Dissolved (as Mn)	Monitor Only	ug/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
pH, Field	Monitor Only	SU	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
pH, Field	Monitor Only	SU	Calendar Month Minimum	Apr, Jul, Oct	Grab	1 x Month	8
Solids, Total Dissolved (TDS)	Monitor Only	mg/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
Specific Conductance, Field	Monitor Only	umh/cm	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
Sulfate, Total (as SO4)	Monitor Only	mg/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
Temperature, Water (C)	Monitor Only	Deg C	Calendar Month Maximum of Daily Average	Apr, Jul, Oct	Grab	1 x Month	8

GW 012, GW 013

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Bicarbonates (HCO3)	Monitor Only	mg/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
Chloride, Total	250	mg/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	9
Elevation of GW Relative to Mean Sea Level	Monitor Only	feet	Calendar Month Maximum	Apr, Jul, Oct	Measurement, Instantaneous	1 x Month	8
Hardness, Calcium & Magnesium, Calculated (as CaCO3)	Monitor Only	mg/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
Iron, Dissolved (as Fe)	Monitor Only	mg/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8

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The Permittee shall comply with the limits and monitoring requirements as specified below.

Period: Limits Applicable in the Final Period

GW 012, GW 013

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Manganese, Dissolved (as Mn)	Monitor Only	ug/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
pH, Field	Monitor Only	SU	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
pH, Field	Monitor Only	SU	Calendar Month Minimum	Apr, Jul, Oct	Grab	1 x Month	8
Solids, Total Dissolved (TDS)	500	mg/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	9
Specific Conductance, Field	Monitor Only	umh/cm	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	8
Sulfate, Total (as SO4)	250	mg/L	Calendar Month Maximum	Apr, Jul, Oct	Grab	1 x Month	9
Temperature, Water (C)	Monitor Only	Deg C	Calendar Month Maximum of Daily Average	Apr, Jul, Oct	Grab	1 x Month	8

GW 014

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Bicarbonates (HCO3)	Monitor Only	mg/L	Calendar Month Maximum	Oct	Grab	1 x Month	7
Chloride, Total	250	mg/L	Calendar Month Maximum	Oct	Grab	1 x Month	6
Elevation of GW Relative to Mean Sea Level	Monitor Only	feet	Calendar Month Maximum	Oct	Measurement, Instantaneous	1 x Month	6
Hardness, Calcium & Magnesium, Calculated (as CaCO3)	Monitor Only	mg/L	Calendar Month Maximum	Oct	Grab	1 x Month	6
Iron, Dissolved (as Fe)	Monitor Only	mg/L	Calendar Month Maximum	Oct	Grab	1 x Month	6
Manganese, Dissolved (as Mn)	Monitor Only	ug/L	Calendar Month Maximum	Oct	Grab	1 x Month	6
pH, Field	Monitor Only	SU	Calendar Month Maximum	Oct	Grab	1 x Month	6
pH, Field	Monitor Only	SU	Calendar Month Minimum	Oct	Grab	1 x Month	6
Solids, Total Dissolved (TDS)	500	mg/L	Calendar Month Maximum	Oct	Grab	1 x Month	6
Specific Conductance, Field	Monitor Only	umh/cm	Calendar Month Maximum	Oct	Grab	1 x Month	6
Sulfate, Total (as SO4)	250	mg/L	Calendar Month Maximum	Oct	Grab	1 x Month	6
Temperature, Water (C)	Monitor Only	Deg C	Calendar Month Maximum	Oct	Grab	1 x Month	6

SD 001

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Bicarbonates (HCO3)	305	mg/L	Calendar Month Average	Jan-Dec	Grab	1 x Month	3
Chloride, Total	Monitor Only	mg/L	Calendar Month Average	Jan-Dec	Grab	1 x Month	
Flow	Monitor Only	mgd	Calendar Month Average	Jan-Dec	Measurement	2 x Month	

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The Permittee shall comply with the limits and monitoring requirements as specified below.

Period: Limits Applicable in the Final Period

SD 001

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Flow	Monitor Only	MG	Calendar Month Total	Jan-Dec	Measurement	2 x Month	
Flow	Monitor Only	mgd	Daily Maximum	Jan-Dec	Measurement	2 x Month	
Hardness, Calcium & Magnesium, Calculated (as CaCO3)	500	mg/L	Calendar Month Average	Jan-Dec	Grab	1 x Month	3
Iron, Dissolved (as Fe)	1.0	mg/L	Calendar Month Average	Jan-Dec	Grab	1 x Month	
Iron, Dissolved (as Fe)	2.0	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Manganese, Dissolved (as Mn)	Monitor Only	ug/L	Calendar Month Average	Jan-Dec	Grab	1 x Month	
Mercury, Dissolved (as Hg)	Monitor Only	ng/L	Calendar Quarter Maximum	Jan-Dec	Grab	1 x Quarter	
Mercury, Total (as Hg)	Monitor Only	ng/L	Calendar Quarter Maximum	Jan-Dec	Grab	1 x Quarter	
pH	9.0	SU	Instantaneous Maximum	Jan-Dec	Grab	1 x Month	
pH	6.0	SU	Instantaneous Minimum	Jan-Dec	Grab	1 x Month	
Potassium, Dissolved (as K)	Monitor Only	mg/L	Calendar Month Average	Jan-Dec	Grab	1 x Month	
Sodium, Total (as Na)	Monitor Only	mg/L	Calendar Month Average	Jan-Dec	Grab	1 x Month	
Solids, Total Dissolved (TDS)	700	mg/L	Calendar Month Average	Jan-Dec	Grab	1 x Month	3
Solids, Total Suspended (TSS)	20	mg/L	Calendar Month Average	Jan-Dec	Grab	2 x Month	
Solids, Total Suspended (TSS)	30	mg/L	Daily Maximum	Jan-Dec	Grab	2 x Month	
Solids, Total Suspended (TSS), grab (Mercury)	Monitor Only	mg/L	Calendar Quarter Maximum	Jan-Dec	Grab	1 x Quarter	
Specific Conductance, Field	1000	umh/cm	Calendar Month Average	Jan-Dec	Measurement, Instantaneous	1 x Month	3
Sulfate, Total (as SO4)	1000	mg/L	Calendar Month Average	Jan-Dec	Grab	1 x Month	3
Temperature, Water (C)	Monitor Only	Deg C	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	

SW 001

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Bicarbonates (HCO3)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Chloride, Total	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Flow, Stream, Instantaneous	Monitor Only	cfs	Daily Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	
Hardness, Calcium & Magnesium, Calculated (as CaCO3)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
pH, Field	Monitor Only	SU	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	
pH, Field	Monitor Only	SU	Calendar Month Minimum	Jan-Dec	Measurement, Instantaneous	1 x Month	

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The Permittee shall comply with the limits and monitoring requirements as specified below.

Period: Limits Applicable in the Final Period

SW 001

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Potassium, Dissolved (as K)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Sodium, Total (as Na)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Solids, Total Dissolved (TDS)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Specific Conductance, Field	Monitor Only	umh/cm	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	
Sulfate, Total (as SO4)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Temperature, Water (C)	Monitor Only	Deg C	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	

SW 003

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Bicarbonates (HCO3)	305	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Chloride, Total	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Flow, Stream, Instantaneous	Monitor Only	cfs	Daily Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	
Hardness, Calcium & Magnesium, Calculated (as CaCO3)	500	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Manganese, Total (as Mn)	Monitor Only	ug/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
pH, Field	Monitor Only	SU	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	
pH, Field	Monitor Only	SU	Calendar Month Minimum	Jan-Dec	Measurement, Instantaneous	1 x Month	
Potassium, Dissolved (as K)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Sodium, Total (as Na)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Solids, Total Dissolved (TDS)	700	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Specific Conductance, Field	1000	umh/cm	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	
Sulfate, Total (as SO4)	525	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Temperature, Water (C)	Monitor Only	Deg C	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	

SW 005

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Bicarbonates (HCO3)	305	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Chloride, Total	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Flow, Stream, Instantaneous	Monitor Only	cfs	Daily Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	

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The Permittee shall comply with the limits and monitoring requirements as specified below.

Period: Limits Applicable in the Final Period

SW 005

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Hardness, Calcium & Magnesium, Calculated (as CaCO3)	500	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
pH, Field	Monitor Only	SU	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	
pH, Field	Monitor Only	SU	Calendar Month Minimum	Jan-Dec	Measurement, Instantaneous	1 x Month	
Potassium, Dissolved (as K)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Sodium, Total (as Na)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Solids, Total Dissolved (TDS)	700	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Specific Conductance, Field	1000	umh/cm	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	
Temperature, Water (C)	Monitor Only	Deg C	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	

SW 006, SW 007, SW 008

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Bicarbonates (HCO3)	305	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Chloride, Total	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Flow, Stream, Instantaneous	Monitor Only	cfs	Daily Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	
Hardness, Calcium & Magnesium, Calculated (as CaCO3)	500	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
pH, Field	Monitor Only	SU	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	
pH, Field	Monitor Only	SU	Calendar Month Minimum	Jan-Dec	Measurement, Instantaneous	1 x Month	
Potassium, Dissolved (as K)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Sodium, Total (as Na)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Solids, Total Dissolved (TDS)	700	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Specific Conductance, Field	1000	umh/cm	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	
Sulfate, Total (as SO4)	1000	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Temperature, Water (C)	Monitor Only	Deg C	Calendar Month Maximum	Jan-Dec	Measurement, Instantaneous	1 x Month	

WS 008

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
BOD, Carbonaceous 05 Day (20 Deg C)	25	mg/L	Calendar Month Average	Jan-Dec	Grab	2 x Month	
BOD, Carbonaceous 05 Day (20 Deg C)	40	mg/L	Maximum Calendar Week Average	Jan-Dec	Grab	2 x Month	

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The Permittee shall comply with the limits and monitoring requirements as specified below.

Period: Limits Applicable in the Final Period

WS 008

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Chlorine, Total Residual	Monitor Only	mg/L	Calendar Month Average	Apr-Oct	Grab	2 x Month	
Chlorine, Total Residual	Monitor Only	mg/L	Calendar Month Maximum	Apr-Oct	Grab	2 x Month	
Fecal Coliform, MPN or Membrane Filter 44.5C	200	#100ml	Calendar Month Geometric Mean	Apr-Oct	Grab	2 x Month	
Fecal Coliform, MPN or Membrane Filter 44.5C	400	#100ml	Daily Maximum	Apr-Oct	Grab	2 x Month	
Flow	Monitor Only	mgd	Calendar Month Average	Jan-Dec	Measurement, Continuous	1 x Day	
Flow	Monitor Only	mgd	Calendar Month Maximum	Jan-Dec	Measurement, Continuous	1 x Day	
Flow	Monitor Only	MG	Calendar Month Total	Jan-Dec	Measurement, Continuous	1 x Day	
pH, Field	9.0	SU	Instantaneous Maximum	Jan-Dec	Measurement, Instantaneous	2 x Month	
pH, Field	6.0	SU	Instantaneous Minimum	Jan-Dec	Measurement, Instantaneous	2 x Month	
Solids, Total Suspended (TSS)	30	mg/L	Calendar Month Average	Jan-Dec	Grab	2 x Month	
Solids, Total Suspended (TSS)	45	mg/L	Maximum Calendar Week Average	Jan-Dec	Grab	2 x Month	

WS 009

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
Evaporation, Accumulated	Monitor Only	in	Calendar Month Total	Jan-Dec	Grab	1 x Month	
Hardness, Calcium & Magnesium, Calculated (as CaCO3)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Precipitation	Monitor Only	in	Calendar Month Total	Jan-Dec	Grab	1 x Month	
Specific Conductance, Field	Monitor Only	umh/cm	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	
Sulfate, Total (as SO4)	357	mg/L	Calendar Month Maximum	Jan-Dec	Grab	1 x Month	2

Notes:
1 -- After one year of monitoring, reasonable potential will be assessed based on that data. If RP exists, interim limit will be calculated based on formula in permit and will take effect in the next monitoring period after its calculation.
2 -- Final limit shall be met by no later than 10 years after permit issuance.
3 -- Final limits take effect in January, 2018.
4 -- Interim limit is effective at permit issuance.
5 -- Interim limit takes effect 5 years after permit issuance.
6 -- Once annually: between October 1 and October 31.
7 -- Once annually: between October 1 and October31.
8 -- Three times annually: between March 28 and May 14; between July 1 and July 31; and between October 1 and October 31.
9 -- Three times annually: between March 28 and May 14; between July 1 and July 31; and between October 1 and October 31. Final limit takes effect 5 years after permit issuance.

Chapter 1. Compliance Schedule

1. Compliance Schedule

Background

1.1 For the tailings basin discharge (as defined in Minn. Stat. 115.01) to groundwater, the Permittee shall meet the terms of the SDS compliance schedule detailed below to mitigate impacts to waters of the state (surface and groundwater), and to attain compliance with permit limits described as follows:

a. Interim limits on sulfate concentration in the recirculated tailings basin pool water. This schedule establishes interim limits of 800 mg/L within five years of permit issuance, and 357 mg/L within ten years of permit issuance, or the shortest reasonable period of time in accordance with Minn. R. 7001.0150, subp. 2(A). Preliminary flow modeling indicates the 357 mg/L concentration would result in groundwater meeting the sulfate standard at the east property boundary. One goal of this compliance schedule is to determine what basin water sulfate concentration would protect applicable uses in downstream surface waters and in groundwater at all property boundary locations;

b. final compliance limits in surface waters impacted by deep seepage that are based on the water quality pollutant standards for applicable uses of the water body. This schedule requires compliance with final limits for these locations to be attained in the shortest reasonable period of time; and,

c. final compliance limits for groundwater at the property boundary to protect its use as a potential drinking water source. This schedule requires compliance with the 250 mg/L sulfate limit in groundwater in the shortest reasonable period of time.

1.2 Under all SDS Compliance Schedule requirements, the term "final compliance limits" shall refer to final limits for both surface water and groundwater.

1.3 The MPCA recognizes that basin-impacted groundwater is currently reaching surface waters and having an impact on those surface waters. In addition to requiring reductions in sulfate within the tailings basin, the SDS compliance schedule requires the permittee to specify by month 37, based on studies required under the permit, the dates by which final compliance limits will be met for all pollutants and how those limits will be met, which may be a combination of further lowering basin pollutants and remedial actions, such as permeable reactive barriers.

1.4 For as long as this compliance schedule is in effect, the Permittee shall take all actions necessary to make progress towards attainment of the final compliance limits until compliance is attained. The requirements in conditions 1.6 through 3.2 cease to apply if the Permittee achieves compliance with final compliance limits and receives written confirmation of compliance from MPCA

1.5 For the discharge to surface water from seepage along the tailings basin dam perimeter, the Permittee shall meet the terms of the NPDES compliance schedule (detailed below in 1.22-1.27) as soon as possible, and for all such seepage along the west and northwest dam boundary, no later than December 31, 2017.

SDS Schedule for Deep Seepage - Investigation Work Plan

1.6 Within 30 days after permit issuance, the Permittee must submit a plan (Investigation Work Plan) that describes how the Permittee proposes to investigate and evaluate site conditions critical to the selection and implementation of treatment, mitigation efforts and/or other activities that could be taken to meet final compliance limits for the identified parameters of concern, including bicarbonate, hardness, sulfate, specific conductance and total dissolved solids.

Chapter 1. Compliance Schedule

1.7 The Investigation Work Plan shall include a field data collection and analysis plan sufficient to accomplish the following:

a. identify the significant surface and subsurface flow paths from the tailings basin to surrounding surface waters and groundwater under existing and foreseeable hydrologic conditions at the tailings basin;
b. evaluate water quality with respect to all applicable uses likely to be impacted by the tailings basin along the identified flow paths;
c. determine potential aggregate acute and chronic toxic effects to aquatic organisms at compliance locations (identified in this permit) in the Sand River and Dark River watersheds;
d. develop an understanding of the fate and transport of tailings basin-derived chemical constituents at a level sufficient to assess the effectiveness of considered mitigation technologies and strategies, including calculated estimates of the recirculated tailings basin pool water sulfate concentration necessary to meet final compliance limits in surface water and groundwater;
e. determine sources and potential quantities of pollutants released from each source in the basin, including sources such as coarse tails, fine tails, recirculating process water, air emissions control contributions, and tailings lock-up water (pore water); and,
f. identify and quantify any other pollutants the Permittee could reasonably expect to be released from the tailings basin, taking into account contributions from tailings lock-up water and continued oxidation of emplaced tails, and estimate the timeframe over which the tailings basin will continue to release pollutants.

1.8 The Investigation Work Plan shall also include a field data collection and analysis plan sufficient to develop and validate a site conceptual model that describes sources, fate, and transport of tailings basin pollutants sufficiently for the purpose of predicting future hydrogeological and water quality conditions at the tailings basin and along the flowpaths identified for 1.7.1 during basin operation, and post closure, and which will allow the Permittee to evaluate the effectiveness of potential passive and/or active treatment technologies, mitigation alternatives or combinations of actions, with regard to final compliance limits. The conceptual model shall provide a system mass balance that accounts for the transport or transformation of parameters of concern to within plus or minus ten percent of the mass calculated to be emanating from the tailings basin, as well as estimates for pollutant travel times along identified flow paths.

1.9 The Investigation Work Plan shall also include a schedule demonstrating that all actions described in the Plan will be completed within 13 months of permit issuance.

1.10 Upon submittal of the Investigation Work Plan and schedule, the Permittee shall, within 14 days, initiate the plan of action identified in the Plan in accordance with the schedule contained therein and provide written notice to the MPCA that it has commenced work. The Investigation Work Plan and schedule are enforceable under this permit upon submittal.

1.11 A report documenting the findings of the fully implemented Investigation Work Plan shall be submitted within 13 months of permit issuance. The report shall include all of the information and analyses described in Parts 1.7 and 1.8. Failure to complete the Investigation Work Plan within 13 months of permit issuance will not extend the deadline for the Basin Treatment Methods Study Plan.

Chapter 1. Compliance Schedule

SDS Schedule for Deep Seepage - Basin Treatment Methods Study Plan

1.12 Within 13 months of permit issuance, the Permittee shall submit a Basin Treatment Methods Study Plan that identifies feasible technologies (including nano-filtration, reverse osmosis, ion exchange, and dry emissions controls), for non-mechanical or mechanical treatment\mitigation to reduce the concentration of sulfate (as the pollutant of greatest concern and as a surrogate for other dissolved solids) within the tailings basin to 800 mg/L within 5 years of permit issuance, and 357 mg/L within 10 years from permit issuance, or in the shortest reasonable period of time. An alternative to the 357 mg/L interim limit may be established if additional site investigation and modeling demonstrates that the alternative concentration will achieve compliance with all applicable groundwater and surface water quality standards, and MPCA has reviewed and approved this alternative concentration. This Plan shall identify how the Permittee will evaluate the treatment methods to determine which will reduce surface water and groundwater quality impacts from the tailings basin in the shortest reasonable period of time, considering the reliability of the treatment methods, the cost to install and to operate the treatment methods, compatibility with MDNR closure requirements, and the secondary environmental impacts of the treatment methods, if any.

1.13 The Basin Treatment Methods Study Plan must include:

a. a description of each possible treatment method that the Permittee has identified, an analysis of the technical feasibility of each method, and the estimated cost to install or implement each method;
b. an estimate of the length of time that each technology/treatment method would require to attain and maintain compliance with a basin sulfate concentration of 357 mg/L, or an alternative concentration approved by MPCA;
c. an estimate of operation and maintenance costs associated with each treatment method and the reliability of that method;
d. analysis of how each identified potential passive and/or active treatment method may impact site closure in accordance with MDNR requirements, which include a dry basin;
e. identification of secondary environmental impacts and costs for each method;
f. whether mitigation adjacent to the basin will be necessary, in addition to basin water treatment, to meet final compliance limits in the shortest reasonable period of time; and
g. a detailed schedule that includes adequate justification for the time period proposed to complete the technical feasibility analysis. All tasks described under the Treatment Methods Study Plan must be completed within 25 months of permit issuance as required below. The plan provides the basis for the Permittee to submit the Deep Seepage Final Compliance Plan described in Parts 1.16 and 1.17 below.

1.14 Upon submittal of the Basin Treatment Methods Study Plan and schedule, the Permittee shall initiate the plan of action identified in the Plan in accordance with the schedule contained therein, and provide written notice to the MPCA that it has done so within 14 days. The Basin Treatment Methods Study Plan and schedule are enforceable under this permit upon submittal.

Chapter 1. Compliance Schedule

SDS Schedule for Deep Seepage - Final Compliance Plan

1.15 Within 25 months of permit issuance, the Permittee shall submit a Final Compliance Plan. Failure to complete the Treatment Study Methods Plan within 25 months of permit issuance will not extend the deadline for the Deep Seepage Final Compliance Plan.

1.16 The Final Compliance Plan shall include the following:

a. the findings of the Treatment Methods Study, including an estimate of how quickly the identified potential passive and/or active treatment technologies, mitigation alternatives or combinations of actions will reduce the basin sulfate concentration to 800 mg/L and 357 mg/L, or an alternate concentration that has been approved by MPCA;
b. an explanation of why the technology/treatment method(s) selected represent the best means of meeting final compliance limits. To be considered the best, the technology/treatment method(s) must achieve the fastest reduction of sulfate concentrations in the basin to the specified limit, must be reliable and feasible, and must not conflict with the approved basin closure plan or create undue secondary environmental impacts;
c. an estimate of operation and maintenance costs associated with treatment/mitigation to maintain compliance with final compliance limits;
d. an estimate of the length of time that active treatment or maintenance of passive systems would be required to maintain compliance with final compliance limits (pre and post closure);
e. a calculated estimate of the tailings basin process water sulfate concentration necessary to meet final compliance limits at each compliance monitoring location; and
f. analysis of how the identified potential passive and/or active treatment technologies, mitigation alternatives or combinations of actions may impact site closure in accordance with MDNR requirements, which include a dry basin.

1.17 The Final Compliance Plan shall also include the following:

a. a detailed proposal identifying the specific treatment systems and/or mitigation that will be implemented to achieve compliance with permit limits, including basin sulfate concentration interim and final limits, in the shortest reasonable period of time;
b. the design, site plan, process schematic(s), preliminary design and specifications for major components of the specific treatment systems, and/or mitigation to be implemented;
c. a schedule that will incorporate any pilot testing, (which must be completed by month 37), if necessary, to finalize the design process; and
d. a schedule for attaining any necessary permits in the shortest reasonable period of time.

1.18 Upon submittal of the Final Compliance Plan and schedule, the Permittee shall initiate the plan of action identified in the Plan in accordance with the schedule contained therein, and provide written notice to the MPCA that it has done so within 14 days. The Final Compliance Plan and schedule are enforceable under this permit upon submittal.

Chapter 1. Compliance Schedule

SDS Schedule for Deep Seepage - Final Plans and Specifications

1.19 Within 37 months of permit issuance, the Permittee shall submit to MPCA:

a. a final design package, which includes plans and specifications for treatment or mitigation system components, including specifications based on any pilot testing conducted that are sufficient to submit complete and accurate applications for any permits that may be required;

b. a monitoring plan that will allow quantifiable biannual assessment of the performance of the treatment system and/or mitigation relative to its ability to achieve compliance with interim and final limits by the specified date;

c. a predicted timeline, based on information collected under the Investigation Work Plan, for when the reduction of pollutant load to the watershed will be first observed at the monitoring stations;

d. a detailed schedule of milestones, occurring at intervals of annually or less, which include, at a minimum, start of construction, completion of construction, start-up, and initiation of operation, with adequate justification for the timeline described in the schedule meeting the shortest reasonable period of time requirement. Upon submittal, the milestone deadlines will become fully enforceable commitments of this compliance schedule, and failure to achieve these commitments will constitute a permit violation enforceable by MPCA; and

e. predictions of the dates final compliance limits will be met at each surface water monitoring station as a result of proposed mitigation efforts.

1.20 Failure to complete the Deep Seepage Final Compliance Plan within 37 months of permit issuance will not extend the deadline for the Deep Seepage System implementation or construction.

SDS Schedule for Deep Seepage - System Implementation or Construction

1.21 The Permittee shall initiate construction or begin implementation of the chosen treatment system and/or mitigation within the shortest reasonable period of time, but no later than 49 months after permit issuance,

NPDES Schedule - Dark River Seepage Collection and Return System (SCRS)

1.22 The Permittee shall submit, for MPCA review and approval, final SCRS Plans and Specifications within 10 days of permit issuance or within 10 days of receipt of US Corps of Engineers /Wetland Conservation Act permit authorization to construct the project, whichever occurs later. If MPCA approves Plans and Specifications during the period April 15 through September 30, then initiation of construction of the SCRS within 30 days is required, otherwise initiation of construction may be delayed until the next construction season. A construction season is defined as April 15 through December 15.

1.23 The Permittee shall notify the MPCA of SCRS construction commencement within 10 days of construction initiation.

1.24 The Permittee shall complete construction of the SCRS within eight consecutive construction-season months during one or more construction season(s).

1.25 The Permittee must initiate operation of the SCRS within 30 days of completion of the SCRS and notify the MPCA of SCRS initiation within 10 days of initiation.

1.26 The SCRS shall be constructed and operational as soon as possible and in no case later than December 31, 2017.

1.27 To assess possible changes in pollution attenuation in the Dark River, the Permittee must collect and analyze samples monthly from CR668 and CR65 for 12 consecutive months after the Dark River SCRS is operational. Samples shall be analyzed for the parameters specified in the limits and monitoring requirements section of this permit for station SW003. If results indicate that the mathematical relationship has changed by more than 5%, or if there is no longer a consistent correlation, the Permittee must submit an application for a permit modification within 90 days after the 12 month sampling period.

Chapter 1. Compliance Schedule

2. Compliance Schedule Special Requirements

Special Requirements (Applicable to NPDES and SDS Schedules of Compliance)

2.1 To ensure timely submittal of complete and accurate plans fulfilling all specified requirements, the Permittee shall meet with MPCA three months prior to each plan submittal deadline. At the meeting, the Permittee must present a progress report and draft plan that includes all the components of the plan as described in this permit and attains compliance with permit limits in the shortest reasonable period of time.

2.2 Compliance with permit limits at surface water, groundwater, and effluent discharge monitoring stations shall be deemed to have occurred when all monitoring results at that station are less than or equal to the stated limit for one year of monitoring, and remain at less than or equal to the limit thereafter.

2.3 Compliance with permit limits for the basin sulfate concentration shall be deemed to have occurred when all monitoring results for that station, or other representative basin sampling location, are less than or equal to the stated limit for 6 months of monitoring, and remain at less than or equal to the limit thereafter.

2.4 If any of the submitted Plan(s) described herein propose actions requiring permits and/or approvals, the Permittee shall submit complete and accurate applications in the shortest reasonable period of time and comply completely and accurately with any requests for additional information in the timeframes specified in the requests. Delays in permit issuance due to incomplete or inaccurate applications will not excuse failure to meet permit deadlines.

2.5 As new information becomes available during the course of the Compliance Schedule that results in material changes to a plan that has been submitted under the Compliance Schedule, the Permittee shall submit revisions to the affected plan consistent with the requirements for plan contents under the terms of this permit. Upon submittal, such revisions shall be incorporated as enforceable provisions into the respective plans, and are enforceable under this permit.

2.6 If rulemaking designates any water body downstream from the tailings basin as a water to which the wild rice beneficial use applies, the Permittee shall submit an application for permit modification to conduct a reasonable potential analysis and incorporate any necessary effluent limit(s) to protect wild rice within 90 days of the rule being filed with the Secretary of State.

3. Reporting

Reporting (Applicable to NPDES and SDS Schedules of Compliance)

3.1 Written notification shall be submitted to the MPCA within 14 days of the final compliance plan or of each portion of a multi-component compliance plan becoming operational.

3.2 After the chosen compliance plan or mitigation method(s) is operational, the Permittee shall submit to the MPCA Biannual Compliance Schedule Progress Reports. The Compliance Schedule Progress Reports shall include, but are not limited to:

a. a description of the improvements in water quality observed at the monitoring stations. If the observed reductions in pollutant load and concentration in the receiving waters and in the basin are less than anticipated the Permittee will include an explanation as to why the observations are not in line with expectations.
b. a description of the activities that have occurred in the previous 6 months to advance completion of the actions required in the approved Plans;
c. a summary of ongoing monitoring data and the progression toward attaining compliance with interim basin sulfate limits and final compliance limits; and
d. anticipated activities to be completed in the next 6 months relating to completion of the actions required in the approved Plans and relative to any adaptive management necessary to improve pollutant load reduction to meet interim basin sulfate limits and final compliance limits.

Chapter 2. Special Requirements

Alternate Sources of Make-up Water

1. Special Requirements

1.1 To enable possible further reductions in loading of sulfate and hardness to the basin, this permit authorizes USS to manage its intake water supply source(s), without modification to this permit, when the following conditions are met:

a. the proposed water source is of an equivalent or better water quality, with respect to concentrations of total sulfate, hardness (ca + mg), total dissolved solids and bicarbonate, than the water source (sole or composite) being utilized at the time of the requested change, and of any Mt. Iron Pit or Sump 6 water source that may be available but is not being utilized at that time;
b. the appropriation has received an applicable permit from MDNR, if required;
c. the appropriation has received other applicable permits (e.g., 401/404 permits) if required;
d. utilization of the water source complies with all applicable dam safety regulations;
e. the appropriation has completed the environmental review process if required;
f. the water has been analyzed in accordance with the guidelines described in Total Facility - General Requirements - Sampling subsection of the permit for the following primary parameters: alkalinity (bicarbonate as $CaCO_3$), total sulfate, hardness (Ca+Mg as $CaCO_3$), total dissolved solids; and secondary parameters: aluminum (total), ammonia, antimony (total), arsenic (total), barium (total), boron (total), cadmium, chloride, cobalt, (total), copper, fluoride, iron (total), lead, manganese (total), mercury, molybdenum, pH, phosphorous, salinity, selenium, silver, sodium, specific conductance, strontium MCLG, total dissolved solids, temperature, thallium, turbidity, TSS, and zinc; and,

1.2 If concentrations of any secondary parameters identified in subheading 6 in the proposed source water exceed that of the existing make up water, the Permittee must submit documentation (for MPCA approval) that utilization of the water source is not likely to cause or contribute to exceedances of applicable water quality standards in waters of the State downgradient and downstream of the Facility.

Chapter 3. Domestic Wastewater (non-POTW)

1. Operator Certification

1.1 The Permittee shall provide a Class C state certified operator who is in direct responsible charge of the operation, maintenance and testing functions required to ensure compliance with the terms and conditions of this permit.

1.2 If applicable, the Permittee shall provide the appropriate number of operators with a Type IV certification to be responsible for the land application of biosolids or semisolids from commercial or industrial operations.

1.3 If the Permittee chooses to meet operator certification requirements through a contractual agreement, the Permittee shall provide a copy of the contract to the MPCA, WQ Submittals Center. The contract shall include the certified operator's name, certificate number, company name if appropriate, the period covered by the contract and provisions for renewal; the duties and responsibilities of the certified operator; the duties and responsibilities of the permittee; and provisions for notifying the MPCA 30 days in advance of termination if the contract is terminated prior to the expiration date.

1.4 The Permittee shall notify the MPCA within 30 days of a change in operator certification or contract status.

2. Bypass Structures

2.1 All structures capable of bypassing the treatment system shall be manually controlled and kept locked at all times.

3. Sanitary Sewer Extension Permit

3.1 The Permittee may be required to obtain a Sanitary Sewer Extension Permit from the MPCA for any addition, extension or replacement to the sanitary sewer. If a sewer extension permit is required, construction may not begin until plans and specifications have been submitted and a written permit is granted except as allowed in Minn. Stat. 115.07, Subd. 3(b).

Chapter 3. Domestic Wastewater (non-POTW)

4. Solids Management

4.1 This permit authorizes the permittee to store and/or transfer only wastewater biosolids and/or septage to another permitted treatment facility for final treatment and disposal in accordance with the provision in this chapter and Minn. R. ch. 7041. For the purpose for this permit chapter, septage is referred to as biosolids. Land application of biosolids and/or septage is not authorized by this permit.

4.2 The permittee shall submit a Biosolids Annual Report by December 31 of each year for biosolids storage and/or transfer activities occurring during the cropping year previous to December 31. The report must indicate whether or not biosolids were transferred and/or stored. If biosolids were transferred, the report must describe how much was transferred, where it was transferred to, the name of the facility that accepted the transfer and the contact person at that facility. "Cropping year" means a year beginning on September 1 of the year prior to the growing season and ending August 31 the year the crop is harvested. For example, the 2012 cropping year began September 1, 2011, and ended August 31, 2012.

4.3 The Permittee shall submit the Biosolids Annual Report to:

Biosolids Coordinator
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Chapter 4. Industrial Process Wastewater

1. Prohibited Discharges

1.1 This permit does not authorize the discharge of sewage, wash water, scrubber water, spills, oil, hazardous substances, or equipment/vehicle cleaning and maintenance wastewaters to ditches, wetlands or other surface waters of the state.

1.2 The Permittee shall prevent the routing of pollutants from the facility to a municipal wastewater treatment system in any manner unless authorized by the pretreatment standards of the MPCA and the municipal authority.

1.3 The Permittee shall not transport pollutants to a municipal wastewater treatment system that will interfere with the operation of the treatment system or cause pass-through violations of effluent limits or water quality standards.

2. Toxic Substance Reporting

2.1 The Permittee shall notify the MPCA immediately of any knowledge or reason to believe that an activity has occurred that would result in the discharge of a toxic pollutant listed in Minnesota Rules, pt. 7001.1060, subp. 4 to 10 or listed below that is not limited in the permit, if the discharge of this toxic pollutant has exceeded or is expected to exceed the following levels:

a. for acrolein and acrylonitrile, 200 ug/L;
b. for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol, 500 ug/L;
c. for antimony, 1mg/L;
d. for any other toxic pollutant listed in Minnesota Rules, pt. 7001.1060, subp. 4 to 10, 100 ug/L; or
e. five times the maximum concentration value identified and reported for that pollutant in the permit application. (Minnesota Rules, pt. 7001.1090, subp. 2.A)

2.2 The Permittee shall notify the MPCA immediately if the Permittee has begun or expects to begin to use or manufacture as an intermediate or final by-product a toxic pollutant that was not reported in the permit application under Minnesota Rules, pt. 7001.1050, subp. 2.J. (Minnesota Rules, pt. 7001.1090, subp. 2.B)

3. Polychlorinated Biphenyls (PCBs)

3.1 PCBs, including but not limited to those used in electrical transformers and capacitors, shall not be discharged or released to the environment.

4. New Proposed Dewatering

4.1 The Permittee shall obtain a permit modification before discharging from a new dewatering outfall.

4.2 In addition to the requirements in the Permit Modifications section of this permit, the Permittee shall submit to the MPCA detailed plans and specifications for the proposed methods of achieving discharge limits for turbidity and total suspended solids, based in part upon representative water quality data for untreated wastewater and a detailed map and diagram description of the proposed design for the flow control structures, and route of the discharge to receiving waters.

5. Application for Permit Reissuance

5.1 The permit application shall include analytical data as part of the application for reissuance of this permit. These analyses shall be done on individual samples taken during the twelve-month period before the reissuance application is submitted.

Chapter 4. Industrial Process Wastewater

5. Application for Permit Reissuance

5.2 The permit application shall include analytical data for at least the following parameters at monitoring station SD001 or the nearest downstream monitoring location on the Dark River, and from a sampling point representative of the recirculated tailings basin pool water. Analysis of all parameters must comply with their specific 40 CFR Part 136 analytical methodologies or any updates to those methodologies. The reporting limits shall meet the minimum levels as defined by this permit and all state and federal regulations.

a. biochemical oxygen demand, chemical oxygen demand, total organic carbon, gasoline range organics, diesel range organics, fecal coliform, ammonia, temperature;
b. color, fluoride, nitrate-nitrite (as nitrogen), total organic nitrogen, oil and grease, total phosphorus, chloride, sulfate, sulfide (as sulfur), surfactants, bicarbonates, alkalinity, total salinity, total dissolved solids, specific conductance;
c. aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, calcium, chromium, cobalt, copper, iron, lead, magnesium, manganese, molybdenum, nickel, potassium, selenium, silver, sodium, thallium, tin, titanium, vanadium, zinc (all in total form) according to 40 CFR Sec. 136.3;
d. total mercury using EPA Method 1631;
e. gross alpha particles, radium-226, radium-228, radon-222, uranium;
f. PCB-1016, PCB-1221, PCB-1232, PCB-1242, PCB-1248, PCB-1254, PCB-1260; and
g. a scan of constituents using EPA Methods 624 and 625, in 40 CFR Part 136.

The Permittee shall identify, in addition to those pollutants noted in Methods 624 and 625 (Appendix D, Table II), the concentrations of at least ten of the most abundant constituents of the acid and base/neutral organic fractions shown to be present by peaks on the total ion plots (reconstructed gas chromatograms) within ten percent of the nearest internal standard. Identification shall be through the use of U.S. EPA/NIH computerized library of mass spectra, with visual confirmation and potential quantification.

5.3 The Permittee shall include, as part of the application for reissuance of this permit:

a. a current map of the tailings basin, showing the dikes, dams, cells, and current topographic and water level elevations in the basin;
b. an updated water balance for the facility; and
c. an updated Operating Plan for the tailings basin for the next five (5) years.

Chapter 5. Metallic Mining

1. Mine Tailings Basin

1.1 The Permittee shall conduct a detailed field survey of seepage zones from the perimeter dams of the tailings basin during October of each year.

1.2 Individual seeps or seepage zones that are discharging at greater than 5 gallons per minute during the October survey shall be monitored monthly for flow, specific conductance, pH, and temperature and those results shall be reported in a supplement to the monthly DMR.

1.3 The Permittee shall submit a Dam Seepage Survey Report on January 31 of each calendar year following permit issuance. The annual Dam Seepage Survey Report shall include a current map of the Tailings Basin area that details the dikes, berms, dams, roads, and cells; as well as the current topographic and water level elevations.

1.4 The Dam Seepage Survey Report shall include the following information:
a. a clearly labeled map indicating the locations of the visible seepage zones;
b. the estimated flow rates for the seepage zones;
c. the specific conductance, pH and temperature values for the seepage zones;
d. a brief description of the changes in the nature of the seepage from previous observations; and
e. photographs as needed to document items a. - d.

1.5 The Permittee shall summarize the results of the Dam Seepage Survey in a Dam Seepage Survey Report.

Chapter 6. Mercury Minimization Plan

1. Mercury Pollutant Minimization Plan

1.1 The Permittee is required to complete and submit a Mercury Pollutant Minimization Plan (MMP) to the MPCA as detailed in this section. If the Permittee has previously submitted a MMP, it must update its MMP and submit the updated MMP to the MPCA. The purpose of the MMP is to evaluate collection and treatment systems to determine possible sources of mercury as well as potential mercury reduction options. Guidelines for developing a MMP are detailed in this section.

1.2 The specific mercury monitoring requirements are detailed in the limits and monitoring section of this permit. Information gained through the MMP process can be used to reduce mercury concentrations. As part of its mercury control strategy, the Permittee should consider selecting activities based on the potential of those activities to reduce mercury loadings to the tailings basin.

1.3 The Permittee shall submit a Mercury Minimization Plan by 180 days after permit issuance. At a minimum, the MMP must include the following:

a. A summary of mercury influent and effluent concentrations using the most recent five years of monitoring data, if available.
b. Identification of existing and potential sources of mercury concentrations and/or loading to the facility, as appropriate for your facility. The plan must consider influent mercury sources, such as stormwater inputs, makeup water inputs, fuels, stockpiles, and waste streams to the facility.
c. An evaluation of past and present treatment operations, if applicable, to determine those operating procedures that maximize mercury removal.
d. A summary of any mercury reduction activities implemented during the last five years.
e. A plan to implement mercury management and reduction measures during the next five years.

Chapter 7. Whole Effluent Toxicity (WET) Testing - Chronic

1. General Requirements

1.1 This permit does not include a chronic whole effluent toxicity limit; however, the facility is required to conduct chronic toxicity tests for the Sand and Dark Rivers. Results of chronic toxicity tests will be evaluated against a monitoring threshold value of 1.0 TUc.

1.2 The Permittee shall conduct quarterly chronic toxicity test batteries on Outfall SD001 (or the next active downstream monitoring location if there is insufficient flow at SD001) and at the SW005 sampling station beginning with the first full calendar year quarter following the issuance date of the permit. The first quarter results are due the last day of the first full calendar quarter following permit issuance. (For example, if the permit is issued April 28, the first quarterly results are due by September 30.) The monitoring requirement is quarterly for one full calendar year, beginning with the start of the first full calendar quarter following the issuance date of the permit, and is annual thereafter.

1.3 Annual chronic test batteries shall be conducted in each succeeding year for the remainder of the permit. The first annual results are due one year from the due date of the final quarter results and annually thereafter.

1.4 The Permittee shall conduct annual chronic toxicity test batteries on Outfall SD001 (or the next active downstream monitoring location if there is insufficient flow at SD001) and at the SW005 sampling station, beginning with the issuance date of the permit. The first set of annual results are due the last day of the first full calendar quarter following permit issuance and annually thereafter. (For example, if the permit is issued April 28, the test results are due on or before September 30 of each year.)

1.5 Any test that exceeds 1.0 TUc shall be re-tested according to the Positive Toxicity Results requirement(s) that follow to determine if toxicity is still present above 1.0 TUc.

2. Species and Procedural Requirements

2.1 Any test that is begun with an effluent sample that exceeds a total ammonia concentration of 5 mg/l shall use the carbon dioxide-controlled atmosphere technique to control pH drift.

2.2 Test organisms for each test battery shall include the fathead minnow (Pimephales promelas)-Method 1000.0 and Ceriodaphnia dubia-Method 1002.0.

2.3 Static renewal chronic serial dilution tests of the effluent shall consist of a control,12.5, 25, 50, 75 and 100% effluent.

2.4 All effluent samples shall be grab samples. Test solutions shall be renewed daily. Testing of the effluent shall begin within 36 hours of sample collection. Chronic toxicity tests shall be conducted in accordance with procedures outlined in EPA-821-R-02-013 "Short-term Methods for Measuring the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms" - Fourth Edition (Chronic Manual) and any revisions to the Manual.

2.5 Any other circumstances not addressed in the previous requirements or that require deviation from that specified in the previous requirements shall first be approved by the MPCA.

3. Quality Control and Report Submittals

3.1 Any test that does not meet quality control measures, or results which the Permittee believes reflect an artifact of testing shall be repeated within two (2) weeks. These reports shall contain information consistent with the report preparation section of the Chronic Manual. The MPCA shall make the final determination regarding test validity.

Chapter 7. Whole Effluent Toxicity (WET) Testing - Chronic

4. Positive Toxicity Result for WET

4.1 Should a test exceed 1.0 TUc for whole effluent toxicity based on results from the most sensitive test species, the Permittee shall conduct two repeat test batteries on all species. The repeat tests are to be completed within forty-five (45) days after completion of the positive test. These tests will be used to determine if toxicity exceeding 1.0 TUc remains present for any test species. For both retests, if no toxicity is present above 1.0 TUc for any test species, the Permittee shall return to the test frequency specified by the permit. If either of the repeat test batteries indicate toxicity above 1.0TUc for any test species, the Permittee shall submit for MPCA review a plan for conducting a Toxicity Reduction Evaluation (TRE), including the Facility Performance Review (to be submitted to the MPCA WQ Submittals Center within 60 days after toxicity discovery date) and, at a minimum, provide quarterly reports starting from the date of TRE submittal, regarding progress towards the identity, source, and any plans for the removal of the toxicity. The TRE shall be consistent with EPA guidance or subsequent procedures approved by the MPCA in attempting to identify and remove the source of the toxicity. Routinely scheduled chronic toxicity test batteries required in this permit section shall be suspended for the duration of the TRE.

4.2 Following successful completion of the TRE the Permittee shall conduct one year of quarterly testing, with the results of the first quarterly test due the first full calendar quarter following TRE completion (For example, if the TRE is completed on April 28, the first quarterly results are due on or before September 30.) Following completion of one year of quarterly testing the return to routine annual acute toxicity testing is subject to the discretion of the MPCA. Amendments to the initial TRE shall be approved by MPCA staff and the schedules identified therein.

5. WET Data and Test Acceptability Criteria (TAC) Submittal

5.1 All WET test data and TAC must be submitted to the MPCA by the dates required by this section of the permit using the Minnesota Pollution Control Agency Ceriodaphnia dubia Chronic Toxicity Test Report and/or Minnesota Pollution Control Agency Fathead Minnow Chronic Toxicity Test Report and associated instruction forms. Data not submitted on the correct form(s), or submitted incomplete, will be returned to the permittee and deemed incomplete until adequately submitted on the designated form (identified above). Data should be submitted to:

MPCA
Attn: WQ Submittals Center
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

6. Permit Re-opening for WET

6.1 Based on the results of the testing, the permit may be modified to include additional toxicity testing and a whole effluent toxicity limit.

7. Whole Effluent Toxicity Requirement Definitions

7.1 "Chronic Whole Effluent Toxicity (WET) Test is a static renewal test conducted on an exponentially diluted series of effluent. The purpose is to calculate appropriate biological effect endpoints (NOEC or IC25), specified in the referenced chronic manual. A statistical effect level less than the Receiving Water Concentration (RWC) constitutes a positive test for chronic toxicity. The RWC equals the 100% percent effluent concentration or 1.0 TUc.

7.2 "Chronic toxic unit (TUc)" is the reciprocal of the effluent dilution that causes no unacceptable effect on the test organisms by the end of the chronic exposure period. For example, a TUc equals [7Q10flow (mgd) + effluent average dry weather flow (mgd)]/[effluent average dry weather flow (mgd)].

7.3 "Test" refers to an individual species.

Chapter 7. Whole Effluent Toxicity (WET) Testing - Chronic

7. Whole Effluent Toxicity Requirement Definitions

7.4 "Test Battery" consists of WET testing of all test species for the specified test. For chronic WET testing, all test species includes Fathead minnows and ceriodaphnia dubia.

Chapter 8. Industrial Stormwater -- Sector G: Metal Mining (ore mining & dressing)

1. Authorization

1.1 This chapter authorizes the Permittee to discharge stormwater associated with industrial activity from industrial activity associated with SIC code(s) 1011 in accordance with the terms and conditions of this chapter.

1.2 This permit, unless specifically authorized by another chapter, does not authorize the discharge of sewage, wash water, scrubber water, floor drains from process areas, spills, oils, hazardous substances, or equipment/vehicle cleaning and maintenance wastewaters to ditches, wetlands, or other surface waters of the state.

2. Water Quality Standards

2.1 The Permittee shall operate and maintain the facility and shall control runoff, including stormwater, from the facility to prevent the exceedance of water quality standards specified in Minnesota Rules, chs. 7050 and 7060.

2.2 The Permittee shall limit and control the use of materials at the facility that may cause exceedances of ground water standards specified in Minnesota Rules, ch. 7060. These materials include, but are not limited to, detergents and cleaning agents, solvents, chemical dust suppressants, lubricants, fuels, drilling fluids, oils, fertilizers, explosives and blasting agents.

3. Stormwater Pollution Prevention Plan

3.1 The Permittee shall develop and implement a Stormwater Pollution Prevention Plan (SWPPP) to address the specific conditions at the facility. The goal of the SWPPP is to eliminate or minimize contact of stormwater with significant materials that may result in pollution of the runoff. If contact cannot be eliminated or reduced, stormwater that has contacted significant material should be treated before it is discharged from the site.

Guidance for preparing the SWPPP can be found on the internet at: http://www.pca.state.mn.us/r4ard68.

3.2 At a minimum, the SWPPP must include:
a. a description of appropriate Best Management Practices (BMPs) (including structural and non-structural) for protection of surface and groundwater quality at the facility and a schedule for implementing the practices;
b. a drainage map for the entire facility;
c. an inventory of exposed significant materials;
d. an evaluation of the facility areas with exposure of significant materials to stormwater;
e. an evaluation of all discharge conveyances from the site; a preventative maintenance program;
f. a spill prevention and response procedure;
g. procedures to be followed by designated staff employed by the Permittee to implement the SWPPP; and
h. a description of stormwater controls.

Chapter 8. Industrial Stormwater -- Sector G: Metal Mining (ore mining & dressing)

3. Stormwater Pollution Prevention Plan

3.3 In addition, the SWPPP must include the following:
a. Facility Map. Identify where any of the following may be exposed to stormwater: mining or milling site boundaries; access and haul roads; outline of drainage areas of each monitoring location within the facility with indications of the types of discharges from the drainage areas; location of all permitted discharge points, outdoor equipment storage, fueling and maintenance areas; materials handling areas; outdoor manufacturing, outdoor storage and material disposal areas; outdoor chemicals and explosives storage areas; overburden, materials, soils or waste storage areas; location of mine drainage or other process water; tailings piles and ponds; heap leach pads; offsite points of discharge for mine drainage and process water; surface waters; boundary of tributary areas that are subject to effluent limits; location(s) of sites undergoing reclamation and reclaimed areas.

b. Potential Pollutant Sources. For each area of the mine or mill site where stormwater discharges associated with industrial activities occur, the Permittee shall identify the types of pollutants (e.g., heavy metals, sediment) likely to be present in significant amounts. The Permittee shall consider the following factors: the mineralogy of the ore and waste rock (e.g., acid forming); toxicity and quantity of chemicals used, produced or discharged; the likelihood of contact with stormwater; vegetation of site (if any); history of significant leaks or spills of toxic or hazardous pollutants, including a summary of any existing ore or waste rock or overburden characterization data and test results for potential generation of acid rock. If any new data is acquired due to changes in ore type being mined, the Permittee shall update the SWPPP with this information.

3.4 The SWPPP shall be developed and implemented within 180 days after permit issuance and shall be available for inspection.

4. Employee Training Program

4.1 The Permittee shall conduct training at active and temporarily inactive sites. All training regardless of site type shall be documented in the facility's SWPPP.

4.2 The Permittee must develop and implement an employee training program to inform appropriate personnel of the components and goals of the SWPPP. At a minimum, training must address:
a. spill/leak prevention and response;
b. good housekeeping;
c. petroleum product management;
d. process chemical management;
e. fueling procedures;
f. proper procedures for using fertilizer, herbicides, and pesticides;
g. erosion and sedimentation controls;
h. inspections;
i. preventative maintenance;
j. runoff management; and
k. materials management practices.

The SWPPP must identify periodic dates for such training as well as personnel responsible for managing and implementing the SWPPP and those responsible for the reporting requirements of this permit. This must include the facility contact person as indicated on the permit application. Identified personnel must be available at reasonable times of operation.

Guidance regarding employee training programs is available on the web at:
http://www.pca.state.mn.us/r4ard68.

Chapter 8. Industrial Stormwater -- Sector G: Metal Mining (ore mining & dressing)

5. Inspection and Maintenance

5.1 The Permittee must develop and implement an inspection schedule that includes a minimum of one facility inspection per calendar month during non-frozen conditions. A minimum of one inspection per calendar year must be conducted during a runoff event. Inspections must be conducted by appropriately trained personnel at the facility. The purpose of inspections is to:

a. determine whether structural and non-structural BMPs require maintenance or changes, and
b. evaluate the completeness and accuracy of the SWPPP.

Inspection results and documentation must remain on-site whenever Permittee staff are on the site and must be available upon request. The inspection form is located on the MPCA's website at: http://www.pca.state.mn.us/r4ard68.

5.2 Inspections must be documented. Documentation must include the following information:
a. inspection date and time;
b. weather conditions;
c. inspector name;
d. findings; and
e. a description of any necessary corrective actions and a schedule for corrective action completion.

A copy of all inspection documentation must be stored with the SWPPP.

5.3 If the facility is inactive and unstaffed, temporarily inactive and unstaffed, or is a site undergoing reclamation, the Permittee is waived from the requirement to conduct monthly facility inspections and shall conduct semiannual inspections. If circumstances change, and the facility becomes active, and/or staffed, this exception no longer applies and compliance with the monthly inspection requirements in accordance with requirement 5.1 shall begin immediately.

5.4 The Permittee shall inspect the site when the Permittee has reason to believe that severe weather or natural disasters may have damaged stormwater control measures or increased discharges.

5.5 If conditions are observed at the site that require changes in the SWPPP, such changes must be made to the SWPPP prior to submission of the annual report for that calendar year.

5.6 If the findings of a site inspection indicate that BMPs are not meeting the objectives as identified above, corrective actions must be initiated within thirty days and the BMP restored to full operation as soon as conditions allow.

6. Sedimentation Basin Design and Construction

6.1 The Permittee is authorized to use designed infiltration devices or industrial stormwater ponds/sedimentation basins for stormwater management. Stormwater ponds/sedimentation basins must be designed by a registered professional engineer and installed under the direct supervision of a registered professional engineer. If a new stormwater pond/sedimentation basin will be constructed, the Permittee must follow the guidance located on the website at: http://www.pca.state.mn.us/r4ard68.

7. Industry Specific Stormwater Controls

7.1 When capping is necessary to minimize pollutant discharges in stormwater, identify the source being capped and the material used to construct the cap.

Chapter 8. Industrial Stormwater -- Sector G: Metal Mining (ore mining & dressing)

8. Reporting

8.1 Submit a Stormwater Annual Report by February 28 of each year following permit issuance. A copy of the Stormwater Annual Report Form is located on the MPCA's website at: http://www.pca.state.mn.us/r4ard68.

8.2 The Permittee shall, upon request of the Agency, submit within a reasonable time the information and reports that are relevant to compliance with this Chapter, including the Plan, inspection reports, annual reports, original laboratory sheets from analyses conducted on the waste stream, and BMP plans and specifications.

Application of Chemical Dust Suppressants

8.3 If chemical dust suppressants are applied, the Permittee shall submit a chemical Dust Suppressant Annual Report due 31 days after the end of each calendar year following the application of a chemical dust suppressant.

8.4 The Chemical Dust Suppressant Annual Report shall include:
a. a record of the dates, methods, locations and amounts by volume of chemical application at the facility;
b. whether the product was applied in the preceding year; and,
c. the results of a chemical analysis of the materials applied each year.

8.5 If a material applied is mixed with water or another solvent before application, the chemical analysis shall be done on the aqueous or other mixture that is representative of the solution applied. This analysis shall be conducted during the same calendar year of application. This analysis shall include the parameters that may be determined by U.S. Environmental Protection Agency (EPA) Methods 624 and 625 which are described in 40 CFR Part 136.

8.6 Chemical dust suppressants, if used, shall not be applied within 100 feet of offsite surface waters or offsite ditches that conduct surface flow to surface waters.

9. Records

9.1 The SWPPP must be retained for the duration of the permit. A copy of the SWPPP must remain on the permitted site whenever Permittee staff is on the site and be available upon request. The Permittee must maintain the following records for the period of permit coverage:
a. dates and findings of inspections;
b. completed corrective actions;
c. documentation of all changes to the SWPPP; and
d. a copy of all annual reports.

10. Notification

10.1 If the Permittee discharges stormwater into a regulated Municipal Separate Storm Sewer System (MS4), the Permittee must notify the operator of the first MS4 of the existence of this permit within 30 days of its issuance.

11. No Exposure

11.1 If the Permittee meets the eligibility criteria for No Exposure and is eligible for the conditional exclusion for No Exposure, as regulated by 40 CFR sec. 122.26(b)(14)(i) through (ix) and (xi), it may submit:
a. a No Exposure certification to the MPCA in accordance with Minn. R. 7090.3060; and
b. a permit application for a modification of the NPDES/SDS Permit.

11.2 The Permittee must apply to the MPCA for the No Exposure certification once every five years.

11.3 The No Exposure exclusion is conditional. The facility must maintain a condition of No Exposure at the facility in order for the No Exposure exclusion to remain applicable. In the event of any change or circumstance that causes exposure of industrial activities or materials to stormwater, the facility must comply with the stormwater requirements of this chapter.

Chapter 8. Industrial Stormwater -- Sector G: Metal Mining (ore mining & dressing)

11.4 The no exposure certification is non-transferrable in accordance with Minn. R. 7090.3060, subp. 5(D). In the event that the facility operator changes, then the new operator must submit written notification of the change to the MPCA, Attn: WQ Submittal Center, 520 Lafayette Road North, St Paul, Minnesota 55155-4194.

11.5 The MPCA retains the authority to require the facility operator to comply with the requirements of this chapter, even when an industrial operator certifies no exposure, if the MPCA has determined that the discharge is contributing to the violation of, or interfering with the attainment or maintenance of water quality standards, including designated uses.

12. Definitions

12.1 "Active Metal Mining Facility" means a place where work or other activity related to the extraction, removal or recovery of metal ore is being conducted. For surface mines, this definition does not include any land where grading has returned the earth to a desired contour and reclamation has begun. This definition is derived from the definition of "active mining area" found at 40 CFR sec. 440.132(a).

12.2 "Best Management Practices" or "BMPs" means practices to prevent or reduce the pollution of waters of the state, including schedules of activities, prohibitions of practices, other management practices, and also includes treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge, waste disposal or drainage from raw material storage.

12.3 "Inactive metal mining facility" means a site or portion of a site where metal mining and/or milling occurred in the past but is not an active facility as defined above, and where the inactive portion is not covered by an active mining permit issued by the State.

12.4 "No Exposure" means all industrial materials and activities are protected by a storm resistant shelter to prevent exposure to rain, snow, snow melt, and/or runoff. Industrial activities or materials include, but are not limited to, material handling equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products, or waste products.

12.5 "Non-Stormwater Discharge" means any discharge not comprised entirely of stormwater discharges authorized by a NPDES permit.

12.6 "Reclamation" means activities undertaken, in compliance with applicable mined land reclamation requirements, following cessation of the activities associated with extraction through production of a salable product, intended to return the land to an appropriate post-mining land use in order to meet applicable Federal and State reclamation requirements.

12.7 "Runoff" means any liquid that drains over land from any part of a facility.

12.8 "Temporary inactive metal mining facility" means a site or portion of a site where metal mining and/or milling occurred in the past but currently are not being actively undertaken, and the facility is covered by an active mining permit issued by the State or Federal agency.

Chapter 9. Ground Water Stations

1. Monitoring Wells

1.1 The Permittee shall install, maintain and abandon groundwater monitoring wells according to the Minnesota Water Well Construction Code, Minnesota Rules, ch. 4725. Damaged or improperly constructed monitoring wells shall be repaired or properly abandoned and replaced. Information on licensed water well contractors is available from the Minnesota Department of Health.

1.2 The Permittee shall submit a detailed monitoring well log for each monitoring well at the facility and a detailed US Geological Survey topographical map identifying the location of each well.

1.3 Each monitoring well shall be clearly numbered on the outside of the well with either indelible paint or an inscribed number.

1.4 The monitoring wells shall be sampled in accordance with "Minnesota Pollution Control Agency, Water Quality Division: Sampling Procedures for Ground Water Monitoring Wells, July 1997, Reviewed and re-approved September 2006." A copy of this publication is available on the MPCA website at: http://www.pca.state.mn.us.

1.5 Grab samples must be collected at all ground water monitoring points (lysimeters or wells) after stabilization tests are conducted.

1.6 Prior to well purging and sampling, depths to groundwater shall be measured to the nearest 0.01 foot below the top of the well casing, and groundwater elevations shall be reported to the nearest 0.01 foot above mean sea level.

1.7 Temperature, specific conductance and pH shall be reported as the final field measurements from well stabilization.

2. Requirements for Specific Stations

2.1 GW 003, GW 004, GW 006, GW 007, GW 008, GW 009, GW 010, GW 012, GW 013, GW 014: Submit a monthly DMR monthly by 21 days after the end of each calendar month following permit issuance.

2.2 GW 011: The Permittee shall install one downgradient monitoring well cluster (GW011-S, I, and D) near the property boundary by the Admiral Lake outlet, within the bedrock trench underlying the Sand River within 180 days of permit issuance. The cluster shall consist of shallow, intermediate and deep wells. The shallow well shall be screened just beneath the observed water table or in the uppermost mineral soil unit, whichever is deeper. The intermediate well shall be screened in a permeable unit near the middle depth of the trench, based on the observed depth to bedrock in the deep boring. The deep well shall be screened just above the bedrock surface.
Well screens should be 10 feet in length.

2.3 GW 011: Submit a monthly DMR monthly by 21 days after the end of each calendar month following submittal of sampling results.

2.4 GW 011: The Permittee shall submit a Ground Water Monitoring Well Installation Report within 30 days of installation of GW 011 well cluster. The Installation Report shall include at a minimum:
a. detailed monitoring well log
b. unique well number identifying the well
c. surveyed top of casing elevations for the well
d. USGS topographic map of location of well in relation to the Minntac tailings basin and property boundaries

2.5 GW 011: The Permittee shall take a minimum of three samples from each monitoring well GW011 prior to initiating quarterly DMR sampling. Samples shall be taken at a frequency of no less than 2 weeks apart, and shall be analyzed for the parameters required for GW011 in the Limits and Monitoring section of this permit. The results of the monitoring shall be submitted in a Baseline Groundwater Monitoring Report within 120 days of installation of the well cluster at GW011. The report will specify which well depth has the greatest concentration of sulfate, and this well will be used to fulfill quarterly DMR sampling requirements.

Chapter 10. Surface Discharge Stations

1. Requirements for Specific Stations

1.1 SD 001: Submit a monthly DMR monthly by 21 days after the end of each calendar month following permit issuance.

2. Sampling Location

2.1 Samples for Station SD 001 shall be taken at the weir outfall for the impounded seep.

2.2 Samples and measurements required by this permit shall be representative of the monitored activity.

3. Surface Discharges

3.1 Floating solids or visible foam shall not be discharged in other than trace amounts.

3.2 Oil or other substances shall not be discharged in amounts that create a visible color film.

3.3 The Permittee shall install and maintain outlet protection measures at the discharge stations to prevent erosion.

3.4 Upon completion of construction of the Dark River Seepage Collection and Return System and commencement of its operation, all water formerly reporting to SD001 will be captured and pumped back into the tailings basin clear pool, effectively eliminating the discharge through the currently permitted outfall.

4. Winter Sampling Conditions

4.1 The Permittee shall sample flows at the designated monitoring stations including when this requires removing ice to sample the water. If the station is completely frozen throughout a designated sampling month, the Permittee shall check the "No Discharge" box on the Discharge Monitoring Report (DMR) and note the ice conditions in Comments on the DMR.

5. Mercury Limits and Monitoring Requirements

5.1 Permittees are required to sample for TSS (grab sample) at the same time that Total/Dissolved Mercury samples are taken. Total Mercury, Dissolved Mercury, and TSS (grab sample) samples must be collected via grab samples. All results must be recorded on DMRs.

5.2 Total and Dissolved Mercury samples must be analyzed using the most current versions of EPA Method 1631 with clean techniques method 1669. Should another mercury analytical method that has a reportable quantitation level of <0.5 ng/L that allows for low-level sample characterization be approved by the EPA and certified by an MPCA recognized accreditation body, the method may be used in place of 1631/1669.

6. Discharge Monitoring Reports

6.1 The Permittee shall submit monitoring results for discharges in accordance with the limits and monitoring requirements for this station. If no discharge occurred during the reporting period, the Permittee shall check the "No Discharge" box on the Discharge Monitoring Report (DMR).

Chapter 11. Surface Water Stations

1. Requirements for Specific Stations

1.1 SW 001, SW 003, SW 005, SW 006, SW 007, SW 008: Submit a monthly DMR monthly by 21 days after the end of each calendar month following permit issuance.

2. Special Requirements

Final Limits for Class 3 and 4A Parameters

1.2 To protect the class 3 (industrial consumption) and class 4a (agriculture) designated uses of surface water bodies, monthly monitoring results must be below the state water quality ambient standard for an applicable pollutant greater than 90 percent of the time. Therefore, the Permittee will be in violation of permit conditions during a given monitoring period when the following occurs:

a. The monitoring result for that month exceeds the permit limit; and
b. The compliance limit has been exceeded for that monitoring location greater than 10 percent of the time over the preceding 12 months in which monitoring was completed, ending during the most recent reporting month.

3. Discharge Monitoring Reports

3.1 The Permittee shall submit monitoring results in accordance with the limits and monitoring requirements for this station. If flow conditions are such that no sample could be acquired, the Permittee shall check the "No Flow" box and note the conditions on the Discharge Monitoring Report (DMR).

4. Sampling Location

4.1 Samples for Station SW001 shall be taken at the culvert inlet where the Sand River crosses Reid Road, just west of Highway 53, which is located in the NW 1/4 of the NW 1/4 of Section 6, Township 59 N, Range 17 W.

4.2 Samples for Station SW003 shall be taken at the bridge where the Dark River crosses County Road 668, which is located in the SE 1/4 of the SE 1/4 of the NE 1/4 of Section 3, Township 59 N, Range 19 W.

4.3 Samples for Station SW004 shall be taken at the bridge where the Dark River crosses County Road 65, which is located in the NE 1/4 of Section 30, Township 60 N, Range 19 W.

4.4 Samples for Station SW005 shall be taken at the Sand River inflow to Little Sandy Lake, which is located in the NW 1/4 of the NE 1/4 of the NW 1/4 of Section 11, Township 59 N, Range 18 W.

4.5 Samples for Station SW006 shall be taken in Timber Creek in the vicinity of the abandoned road, which is located in the SW 1/4 of the SE 1/4 of the NE 1/4 of Section 13, Township 59 N, Range 19 W.

4.6 Samples for Station SW007 shall be taken in a location as yet to be determined in Admiral Lake, which is located in the SE 1/4 of the SE 1/4 of Section 10, Township 59 N, Range 18 W.

4.7 Samples for Station SW008 shall be taken in the Dark River in the vicinity of the abandoned road, which is located in the NE 1/4 of the NE 1/4 of the NE 1/4 of Section 13, Township 59 N, Range 19 W.

4.8 Samples shall be taken at mid-stream, mid-depth. Record location, date, time and results for each sample on the supplemental Discharge Monitoring Report form.

5. Sampling Protocol

5.1 All instruments used for field measurements shall be maintained and calibrated to insure accuracy of measurements.

5.2 Sample water shall be preserved according to lab instructions and delivered to a certified lab within the maximum holding times.

5.3 The Permittee shall sample flows at the designated monitoring stations including when this requires removing ice to sample the water. If the station is completely frozen throughout a designated sampling month, the Permittee shall check the "No Flow" box on the Discharge Monitoring Report (DMR) and note the ice conditions in Comments on the DMR.

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Chapter 12. Waste Stream Stations

1. Requirements for Specific Stations

1.1 WS 008, WS 009: Submit a monthly DMR monthly by 21 days after the end of each calendar month following permit issuance.

2. Sampling Location

2.1 Samples for Stations WS008 and WS009 shall be representative of the monitored activity.

Chapter 13. Total Facility Requirements

1. General Requirements

General Requirements

1.1 Definitions. Refer to the 'Permit User's Manual' found on the MPCA website (www.pca.state.mn.us) for standard definitions.

1.2 Incorporation by Reference. The following applicable federal and state laws are incorporated by reference in this permit, are applicable to the Permittee, and are enforceable parts of this permit: 40 CFR pts. 122.41, 122.42, 136, 403 and 503; Minn. R. pts. 7001, 7041, 7045, 7050, 7052, 7053, 7060, and 7080; and Minn. Stat. Sec. 115 and 116.

1.3 Permittee Responsibility. The Permittee shall perform the actions or conduct the activity authorized by the permit in compliance with the conditions of the permit and, if required, in accordance with the plans and specifications and/or operations and maintenance manuals approved by the Agency. (Minn. R. 7001.0150, subp. 3, item E)

1.4 Toxic Discharges Prohibited. Whether or not this permit includes effluent limitations for toxic pollutants, the Permittee shall not discharge a toxic pollutant except according to Code of Federal Regulations, Title 40, sections 400 to 460 and Minnesota Rules 7050, 7052, 7053 and any other applicable MPCA rules. (Minn. R. 7001.1090, subp.1, item A)

1.5 Nuisance Conditions Prohibited. The Permittee's discharge shall not cause any nuisance conditions including, but not limited to: floating solids, scum and visible oil film, excessive suspended solids, material discoloration, obnoxious odors, gas ebullition, deleterious sludge deposits, undesirable slimes or fungus growths, aquatic habitat degradation, excessive growths of aquatic plants, acutely toxic conditions to aquatic life, or other adverse impact on the receiving water. (Minn. R. 7050.0210 subp. 2)

1.6 Property Rights. This permit does not convey a property right or an exclusive privilege. (Minn. R. 7001.0150, subp. 3, item C)

1.7 Liability Exemption. In issuing this permit, the state and the MPCA assume no responsibility for damage to persons, property, or the environment caused by the activities of the Permittee in the conduct of its actions, including those activities authorized, directed, or undertaken under this permit. To the extent the state and the MPCA may be liable for the activities of its employees, that liability is explicitly limited to that provided in the Tort Claims Act. (Minn. R. 7001.0150, subp. 3, item O)

1.8 The MPCA's issuance of this permit does not obligate the MPCA to enforce local laws, rules, or plans beyond what is authorized by Minnesota Statutes. (Minn. R. 7001.0150, subp.3, item D)

1.9 Liabilities. The MPCA's issuance of this permit does not release the Permittee from any liability, penalty or duty imposed by Minnesota or federal statutes or rules or local ordinances, except the obligation to obtain the permit. (Minn. R. 7001.0150, subp.3, item A)

1.10 The issuance of this permit does not prevent the future adoption by the MPCA of pollution control rules, standards, or orders more stringent than those now in existence and does not prevent the enforcement of these rules, standards, or orders against the Permittee. (Minn. R. 7001.0150, subp.3, item B)

Chapter 13. Total Facility Requirements

1.11 Severability. The provisions of this permit are severable and, if any provisions of this permit or the application of any provision of this permit to any circumstance are held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

1.12 Compliance with Other Rules and Statutes. The Permittee shall comply with all applicable air quality, solid waste, and hazardous waste statutes and rules in the operation and maintenance of the facility.

1.13 Inspection and Entry. When authorized by Minn. Stat. Sec. 115.04; 115B.17, subd. 4; and 116.091, and upon presentation of proper credentials, the agency, or an authorized employee or agent of the agency, shall be allowed by the Permittee to enter at reasonable times upon the property of the Permittee to inspect and copy books, papers, records, or memoranda pertaining to the construction, modification, or operation of the facility covered by the permit or pertaining to the activity covered by the permit; and to conduct surveys and inspections, including sampling or monitoring, pertaining to the construction, modification, or operation of the facility covered by the permit or pertaining to the activity covered by the permit. (Minn. R. 7001.0150, subp.3, item I)

1.14 Control Users. The Permittee shall regulate the users of its wastewater treatment facility so as to prevent the introduction of pollutants or materials that may result in the inhibition or disruption of the conveyance system, treatment facility or processes, or disposal system that would contribute to the violation of the conditions of this permit or any federal, state or local law or regulation.

Sampling

1.15 Representative Sampling. Samples and measurements required by this permit shall be conducted as specified in this permit and shall be representative of the discharge or monitored activity. (40 CFR 122.41 (j)(1))

1.16 Additional Sampling. If the Permittee monitors more frequently than required, the results and the frequency of monitoring shall be reported on the Discharge Monitoring Report (DMR) or another MPCA-approved form for that reporting period. (Minn. R. 7001.1090, subp. 1, item E)

1.17 Certified Laboratory. A laboratory certified by the Minnesota Department of Health and/or registered by the MPCA shall conduct analyses required by this permit. Analyses of dissolved oxygen, pH, temperature, specific conductance, and total residual oxidants (chlorine, bromine) do not need to be completed by a certified laboratory but shall be completed by equipment that is verified for accuracy before use. (Minn. Stat. Sec. 144.97 through 144.98 and Minn. R. 4740.2010 and 4740.2050 through 4740.2120) (Minn. R. 4740.2010 and 4740.2050 through 2120)

1.18 Sample Preservation and Procedure. Sample preservation and test procedures for the analysis of pollutants shall conform to 40 CFR Part 136 and Minn. R. 7041.3200.

1.19 Equipment Calibration: Flow meters, pumps, flumes, lift stations or other flow monitoring equipment used for purposes of determining compliance with the permit shall be verified and/or calibrated for accuracy at least twice annually. (Minn. R. 7001.0150, subp. 2, items B and C)

1.20 Maintain Records. The Permittee shall keep the records required by this permit for at least three years, including DMRs, inspections, calibration and accuracy verifications, maintenance records, any calculations, original recordings from field or automatic monitoring instruments, laboratory sheets, chain of custody forms, copies of all reports required by the permit, and all data used to complete the permit application. The Permittee shall extend these record retention periods upon request of the MPCA.

The Permittee shall maintain records for each sample and measurement. The records of all monitoring and testing which is related to compliance with the terms and conditions of the permit shall include the following information (Minn. R. 7001.0150, subp. 2, item C):

a. The exact place, date, and time of the sample or measurement;
b. The date of analysis;
c. The name of the person(s) who performed the sample collection and/or measurement;
d. The name of the person(s) who performed the analysis and/or calculation;
e. The analytical techniques, procedures and methods used; and
f. The results of the analysis.

Chapter 13. Total Facility Requirements

1.21 Completing Reports. The Permittee shall submit the results of the required sampling and monitoring activities on the forms provided, specified, or approved by the MPCA. The information shall be recorded in the specified areas on those forms and in the units specified. (Minn. R. 7001.1090, subp. 1, item D; Minn. R. 7001.0150, subp. 2, item B)

Required forms may include:

DMR Sample Values and/or Operational Spreadsheets or DMR Supplemental Form:
If required, individual values for each sample and measurement must be recorded on the DMR Sample Values and/or Operational Spreadsheets provided by the MPCA. DMR Sample Values and/or Operational Spreadsheets or DMR Supplemental Forms shall be submitted with the appropriate eDMRs. Note: Required summary information MUST be recorded on the electronic Discharge Monitoring Report. Summary information that is submitted ONLY on the DMR Sample Values and/or Operational Spreadsheets or DMR Supplemental Form does not comply with the reporting requirements.

1.22 Submitting Reports. Electronic Discharge Monitoring Reports (eDMRs), DMR Sample Values and/or Operational Spreadsheets or DMR Supplemental Forms, and related attachments shall be submitted electronically via the MPCA Online Services Portal after authorization is approved. Authorization must be applied for and approved prior to submittal via the Online Services Portal.

eDMRs and DMR Sample Values and/or Operational Spreadsheets or DMR Supplemental Forms shall be electronically submitted by the 21st day of the month following the monitoring period end or as otherwise specified in this permit. Electronic DMR submittal must be complete on or before 11:59 PM of the 21st day of the month following the end of the monitoring period or as otherwise specified in this permit. A DMR shall be submitted for each required station even if no discharge occurred during the monitoring period. (Minn. R. 7001.0150, subps. 2.B and 3.H)

If electronic submittal is not possible, the Permittee must apply for an exception to electronic submittal. Exceptions requests for extreme conditions (no computer on-site is not an extreme condition) must at a minimum contain the extreme reason for the exception, actions to be taken, and date the facility will submit eDMR. All exception requests, and paper DMRs, DMR supplemental forms, and related attachments must be submitted by the 21st day of the month following the monitoring period end to:

MPCA
Attn: Discharge Monitoring Reports
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Other reports required by this permit shall be submitted on or before the due date specified in the permit to:

MPCA
Attn: WQ Submittals Center
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

1.23 Incomplete or Incorrect Reports. The Permittee shall immediately submit an electronically amended report or eDMR to the MPCA upon discovery by the Permittee or notification by the MPCA that it has submitted an incomplete or incorrect report or eDMR. The amended report or eDMR shall contain the missing or corrected data along with an explination of the circumstances of the incomplete or incorrect report. The explination must be added to the eDMR comments field or must be an attachment to the eDMR. If it is impossible to electronically amend the report or eDMR, the Permittee shall immediately notify the MPCA and the MPCA will provide direction for the amendment submittals. (Minn. R. 7001.0150 subp. 3, item G)

Chapter 13. Total Facility Requirements

1.24 Required Signatures. All DMRs, forms, reports, and other documents submitted to the MPCA shall be signed by the Permittee or the duly authorized representative of the Permittee. Minn. R. 7001.0150, subp. 2, item D. The person or persons that sign the DMRs, forms, reports or other documents must certify that he or she understands and complies with the certification requirements of Minn. R. 7001.0070 and 7001.0540, including the penalties for submitting false information. Technical documents, such as design drawings and specifications and engineering studies required to be submitted as part of a permit application or by permit conditions, must be certified by a registered professional engineer. (Minn. R. 7001.0540)

1.25 Detection Level. The Permittee shall report monitoring results below the reporting limit (RL) of a particular instrument as "<" the value of the RL. For example, if an instrument has a RL of 0.1 mg/L and a parameter is not detected at a value of 0.1 mg/L or greater, the concentration shall be reported as "<0.1 mg/L." "Non-detected," "undetected," "below detection limit," and "zero" are unacceptable reporting results, and are permit reporting violations. (Minn. R. 7001.0150, subp. 2, item B)

Where sample values are less than the level of detection and the permit requires reporting of an average, the Permittee shall calculate the average as follows:

a. If one or more values are greater than the level of detection, substitute zero for all nondetectable values to use in the average calculation.
b. If all values are below the level of detection, report the averages as "<" the corresponding level of detection.
c. Where one or more sample values are less than the level of detection, and the permit requires reporting of a mass, usually expressed as kg/day, the Permittee shall substitute zero for all nondetectable values. (Minn. R. 7001.0150, subp. 2, item B)

1.26 Records. The Permittee shall, when requested by the Agency, submit within a reasonable time the information and reports that are relevant to the control of pollution regarding the construction, modification, or operation of the facility covered by the permit or regarding the conduct of the activity covered by the permit. (Minn. R. 7001.0150, subp. 3, item H)

1.27 Confidential Information. Except for data determined to be confidential according to Minn. Stat. Sec. 116.075, subd. 2, all reports required by this permit shall be available for public inspection. Effluent data shall not be considered confidential. To request the Agency maintain data as confidential, the Permittee must follow Minn. R. 7000.1300.

Noncompliance and Enforcement

1.28 Subject to Enforcement Action and Penalties. Noncompliance with a term or condition of this permit subjects the Permittee to penalties provided by federal and state law set forth in section 309 of the Clean Water Act; United States Code, title 33, section 1319, as amended; and in Minn. Stat. Sec. 115.071 and 116.072, including monetary penalties, imprisonment, or both. (Minn. R. 7001.1090, subp. 1, item B)

1.29 Criminal Activity. The Permittee may not knowingly make a false statement, representation, or certification in a record or other document submitted to the Agency. A person who falsifies a report or document submitted to the Agency, or tampers with, or knowingly renders inaccurate a monitoring device or method required to be maintained under this permit is subject to criminal and civil penalties provided by federal and state law. (Minn. R. 7001.0150, subp.3, item G., 7001.1090, subps. 1, items G and H and Minn. Stat. Sec. 609.671)

1.30 Noncompliance Defense. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (40 CFR 122.41(c))

Chapter 13. Total Facility Requirements

1.31 Effluent Violations. If sampling by the Permittee indicates a violation of any discharge limitation specified in this permit, the Permittee shall immediately investigate the cause of the violation, which may include but is not limited to, collecting additional samples and/or other investigative actions. The Permittee shall also take appropriate action to prevent future violations. If the permittee discovers that noncompliance with a condition of the permit has occurred which could endanger human health, public drinking water supplies, or the environment, the Permittee shall within 24 hours of the discovery of the noncompliance, orally notify the commissioner and submit a written description of the noncompliance within 5 days of the discovery. The written description shall include items a. through e., as listed below. If the Permittee discovers other non-compliance that does not explicitly endanger human health, public drinking water supplies, or the environment, the non-compliance shall be reported during the next reporting period to the MPCA with its Discharge Monitoring Report (DMR). If no DMR is required within 30 days, the Permittee shall submit a written report within 30 days of the discovery of the noncompliance. This description shall include the following information:
a. a description of the event including volume, duration, monitoring results and receiving waters;
b. the cause of the event;
c. the steps taken to reduce, eliminate and prevent reoccurrence of the event;
d. the exact dates and times of the event; and
e. steps taken to reduce any adverse impact resulting from the event.
(Minn. R. 7001.0150, subp. 3k)

1.32 Upset Defense. In the event of temporary noncompliance by the Permittee with an applicable effluent limitation resulting from an upset at the Permittee's facility due to factors beyond the control of the Permittee, the Permittee has an affirmative defense to an enforcement action brought by the Agency as a result of the noncompliance if the Permittee demonstrates by a preponderance of competent evidence:
a. The specific cause of the upset;
b. That the upset was unintentional;
c. That the upset resulted from factors beyond the reasonable control of the Permittee and did not result from operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or increases in production which are beyond the design capability of the treatment facilities;
d. That at the time of the upset the facility was being properly operated;
e. That the Permittee properly notified the Commissioner of the upset in accordance with Minn. R. 7001.1090, subp. 1, item I; and
f. That the Permittee implemented the remedial measures required by Minn. R. 7001.0150, subp. 3, item J.

Release

1.33 Unauthorized Releases of Wastewater Prohibited. Except for discharges from outfalls specifically authorized by this permit, overflows, discharges, spills, or other releases of wastewater or materials to the environment, whether intentional or not, are prohibited. However, the MPCA will consider the Permittee's compliance with permit requirements, frequency of release, quantity, type, location, and other relevant factors when determining appropriate action. (40 CFR 122.41 and Minn. Stat. Sec 115.061)

Chapter 13. Total Facility Requirements

1.34 Discovery of a release. Upon discovery of a release, the Permittee shall:
a. Take all reasonable steps to immediately end the release.
b. Notify the Minnesota Department of Public Safety Duty Officer at 1(800)422-0798 or (651)649-5451 (metro area) immediately upon discovery of the release. You may contact the MPCA during business hours at 1(800)657-3864 or (651)296-6300 (metro area).
c. Recover as rapidly and as thoroughly as possible all substances and materials released or immediately take other action as may be reasonably possible to minimize or abate pollution to waters of the state or potential impacts to human health caused thereby. If the released materials or substances cannot be immediately or completely recovered, the Permittee shall contact the MPCA. If directed by the MPCA, the Permittee shall consult with other local, state or federal agencies (such as the Minnesota Department of Natural Resources and/or the Wetland Conservation Act authority) for implementation of additional clean-up or remediation activities in wetland or other sensitive areas.

1.35 Sampling of a release. Upon discovery of a release, the Permittee shall:
a. Collect representative samples of the release. The Permittee shall sample the release for parameters of concern immediately following discovery of the release. The Permittee may contact the MPCA during business hours to discuss the sampling parameters and protocol. In addition, Fecal Coliform Bacteria samples shall be collected where it is determined by the Permittee that the release contains or may contain sewage. If the release cannot be immediately stopped, the Permittee shall consult with MPCA regarding additional sampling requirements. Samples shall be collected at least, but not limited to, two times per week for as long as the release continues.
b. Submit the sampling results on the Release Sampling Form (http://www.pca.state.mn.us/index.php/view-document.html?gid=18867). The Release Sampling Form shall be submitted to the MPCA with the next DMR or within 30 days whichever is sooner.

Bypass

1.36 Anticipated bypass. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if the bypass is for essential maintenance to assure efficient operation of the facility. The permittee shall submit prior notice, if possible at least ten days before the date of the bypass to the MPCA (40 CFR 122.41(m)(2) and 122.41(m)(3) and Minn. R. Ch. 7001.1090, subp. 1, J).

The notice of the need for an anticipated bypass shall include the following information:
a. The proposed date and estimated duration of the bypass;
b. The alternatives to bypassing; and
c. A proposal for effluent sampling during the bypass. Any bypass wastewater must enter waters of the state from outfalls specifically authorized by this permit. Therefore, samples shall be collected at the frequency and location identified in this permit or two times per week for as long as the bypass continues, whichever is more frequent.

1.37 All other bypasses are prohibited. The MPCA may take enforcement action against the Permittee for a bypass, unless the specific conditions described in Minn. R. Ch. 7001.1090 subp. 1, K and 122.41(m)(4)(i) are met.
In the event of an unanticipated bypass, the permittee shall:
a. Take all reasonable steps to immediately end the bypass.
b. Notify the Minnesota Department of Public Safety Duty Officer at 1(800)422-0798 or (651)649-5451 (metro area) immediately upon commencement of the bypass. You may contact the MPCA during business hours at 1(800)657-3864 or (651)296-6300 (metro area). (Minn. Stat. Sec 115.061)
c. Immediately take action as may be reasonably possible to minimize or abate pollution to waters of the state or potential impacts to human health caused thereby. If directed by the MPCA, the Permittee shall consult with other local, state or federal agencies for implementation of abatement, clean-up, or remediation activities.
d. Only allow bypass wastewater as specified in this section to enter waters of the state from outfalls specifically authorized by this permit. Samples shall be collected at the frequency and location identified in this permit or two times per week for as long as the bypass continues, whichever is more frequent. The permittee shall also follow the reporting requirements for effluent violations as specified in this permit.

Chapter 13. Total Facility Requirements

Operation and Maintenance

1.38 The Permittee shall at all times properly operate and maintain the facilities and systems of treatment and control, and the appurtenances related to them which are installed or used by the Permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. The Permittee shall install and maintain appropriate backup or auxiliary facilities if they are necessary to achieve compliance with the conditions of the permit and, for all permits other than hazardous waste facility permits, if these backup or auxiliary facilities are technically and economically feasible Minn. R. 7001.0150. subp. 3, item F.

1.39 In the event of a reduction or loss of effective treatment of wastewater at the facility, the Permittee shall control production or curtail its discharges to the extent necessary to maintain compliance with the terms and conditions of this permit. The Permittee shall continue this control or curtailment until the wastewater treatment facility has been restored or until an alternative method of treatment is provided. (Minn. R. 7001.1090, subp. 1, item C)

1.40 Solids Management. The Permittee shall properly store, transport, and dispose of biosolids, septage, sediments, residual solids, filter backwash, lime waste, screenings, oil, grease, and other substances so that pollutants do not enter surface waters or ground waters of the state. Solids should be disposed of in accordance with local, state and federal requirements. (40 CFR 503 and Minn. R. 7041 and applicable federal and state solid waste rules)

1.41 Scheduled Maintenance. The Permittee shall schedule maintenance of the treatment works during non-critical water quality periods to prevent degradation of water quality, except where emergency maintenance is required to prevent a condition that would be detrimental to water quality or human health. (Minn. R. 7001.0150. subp. 3, item F and Minn. R. 7001.0150. subp. 2, item B)

1.42 Control Tests. In-plant control tests shall be conducted at a frequency adequate to ensure compliance with the conditions of this permit. (Minn. R. 7001.0150. subp. 3, item F and Minn. R. 7001.0150. subp. 2, item B)

Changes to the Facility or Permit

1.43 Except as provided under Minnesota Statutes, section 115.07, subdivisions 1 and 3, no person required by statute or rule to obtain a permit may construct, install, modify, or operate the facility to be permitted, nor shall a person commence an activity for which a permit is required by statute or rule until the agency has issued a written permit for the facility or activity. (Minn. R. 7001.0030)

Permittees that propose to make a change to a facility or discharge that requires a permit modification must follow Minn. R. 7001.0190. If the Permittee cannot determine whether a permit modification is needed, the Permittee must contact the MPCA prior to any action. It is recommended that the application for permit modification be submitted to the MPCA at least 180 days prior to the planned change.

1.44 Submittal of plans and specifications for MPCA approval is not required for routine maintenance work. Routine maintenance work means installation of new equipment to replace worn out or broken items, provided the new equipment is the same design size and has the same design intent. For instance, a broken sewer pipe, a worn out lift station pump, or a malfunctioning aerator or blower can be replaced with the same design-sized equipment (or pipe) without MPCA approval.

If the proposed construction is not expressly authorized by this permit, it may require a permit modification. If the construction project requires an Environmental Assessment Worksheet under Minn. R. 4410, no construction shall begin until a negative declaration is issued and all approvals are received or implemented.

1.45 Report Changes. The Permittee shall give advance notice as soon as possible to the MPCA of any substantial changes in operational procedures, activities that may alter the nature or frequency of the discharge, and/or material factors that may affect compliance with the conditions of this permit. (Minn. R. 7001.0150, subp. 3, item M)

Chapter 13. Total Facility Requirements

1.46 Chemical Additives. The Permittee shall receive prior written approval from the MPCA before increasing the use of a chemical additive authorized by this permit, or using a chemical additive not authorized by this permit, in quantities or concentrations that have the potential to change the characteristics, nature and/or quality of the discharge.

The Permittee shall request approval for an increased or new use of a chemical additive at least 60 days, or as soon as possible, before the proposed increased or new use.

This written request shall include at least the following information for the proposed additive:
a. The process for which the additive will be used;
b. Material Safety Data Sheet (MSDS) which shall include aquatic toxicity, human health, and environmental fate information for the proposed additive. The aquatic toxicity information shall include at minimum the results of: a) a 48-hour LC50 or EC50 acute study for a North American freshwater planktonic crustacean (either Ceriodaphnia or Daphnia sp.) and b) a 96-hour LC50 acute study for rainbow trout, bluegill or fathead minnow or another North American freshwater aquatic species other than a planktonic crustacean;
c. A complete product use and instruction label;
d. The commercial and chemical names and Chemical Abstract Survey (CAS) number for all ingredients in the additive (If the MSDS does not include information on chemical composition, including percentages for each ingredient totaling to 100%, the Permittee shall contact the supplier to have this information provided); and
e. The proposed method of application, application frequency, concentration, and daily average and maximum rates of use. (Minn. R. 7001.0170)

1.47 Upon review of the information submitted regarding the proposed chemical additive, the MPCA may require additional information be submitted for consideration. This permit may be modified to restrict the use or discharge of a chemical additive and include additional influent and effluent monitoring requirements.

Approval for the use of an additive shall not justify the exceedance of any effluent limitation nor shall it be used as a defense against pollutant levels in the discharge causing or contributing to the violation of a water quality standard.

1.48 MPCA Initiated Permit Modification, Suspension, or Revocation. The MPCA may modify or revoke and reissue this permit pursuant to Minn. R. 7001.0170. The MPCA may revoke without reissuance this permit pursuant to Minn. R. 7001.0180.

1.49 TMDL Impacts. Facilities that discharge to an impaired surface water, watershed or drainage basin may be required to comply with additional permits or permit requirements, including additional restriction or relaxation of limits and monitoring as authorized by the CWA 303(d)(4)(A) and 40 CFR 122.44.l.2.i., necessary to ensure consistency with the assumptions and requirements of any applicable US EPA approved wasteload allocations resulting from Total Maximum Daily Load (TMDL) studies.

1.50 Permit Transfer. The permit is not transferable to any person without the express written approval of the Agency after compliance with the requirements of Minn. R. 7001.0190. A person to whom the permit has been transferred shall comply with the conditions of the permit. (Minn. R., 7001.0150, subp. 3, item N)

1.51 Facility Closure. The Permittee is responsible for closure and post-closure care of the facility. The Permittee shall notify the MPCA of a significant reduction or cessation of the activities described in this permit at least 180 days before the reduction or cessation. The MPCA may require the Permittee to provide to the MPCA a facility Closure Plan for approval.

Facility closure that could result in a potential long-term water quality concern, such as the ongoing discharge of wastewater to surface or ground water, may require a permit modification or reissuance.

The MPCA may require the Permittee to establish and maintain financial assurance to ensure performance of certain obligations under this permit, including closure, post-closure care and remedial action at the facility. If financial assurance is required, the amount and type of financial assurance, and proposed modifications to previously MPCA-approved financial assurance, shall be approved by the MPCA. Minn. Stat. §. 116.07, subd. 4

Chapter 13. Total Facility Requirements

1.52 Permit Reissuance. If the Permittee desires to continue permit coverage beyond the date of permit expiration, the Permittee shall submit an application for reissuance at least 180 days before permit expiration. If the Permittee does not intend to continue the activities authorized by this permit after the expiration date of this permit, the Permittee shall notify the MPCA in writing at least 180 days before permit expiration.

If the Permittee has submitted a timely application for permit reissuance, the Permittee may continue to conduct the activities authorized by this permit, in compliance with the requirements of this permit, until the MPCA takes final action on the application, unless the MPCA determines any of the following (Minn. R. 7001.0040 and 7001.0160):
a. The Permittee is not in substantial compliance with the requirements of this permit, or with a stipulation agreement or compliance schedule designed to bring the Permittee into compliance with this permit;
b. The MPCA, as a result of an action or failure to act by the Permittee, has been unable to take final action on the application on or before the expiration date of the permit;
c. The Permittee has submitted an application with major deficiencies or has failed to properly supplement the application in a timely manner after being informed of deficiencies.