



National Pollutant Discharge Elimination System/State Disposal System

MN0055948

Permittee: United States Steel Corporation
Facility name: United States Steel Corporation, Minnesota Ore Operations – Keetac Tailings Basin Area
Receiving water: Reservoir 2 (Class 2Bg, 3, 4A, 4B, 5, 6 water); Unnamed Creek (Class 2Bg, 3, 4A, 4B, 5, 6 water); Hay Creek (Class 2Bg, 3, 4A, 4B, 5, 6 water); Hay Lake (Class 2Bg, 3, 4A, 4B, 5, 6 water).
City or Township: Keewatin, **County:** St. Louis
Issuance date: TBD
Expiration date: TBD

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 the U.S. Clean Water Act, Minnesota statutes and rules, and federal laws and regulations.

This permit is effective on the issuance date identified above. This permit expires at midnight on the expiration date identified above.

Signature:

This document has been electronically signed.

for the Minnesota Pollution Control Agency

Theresa Haugen
Manager
Industrial Division

Resources

Submit electronic Discharge Monitoring Reports (eDMR) via the MPCA e-Services at: https://rsp.pca.state.mn.us/TEMPO_RSP/Orchestrate.do?initiate=true

Submit documents electronically to wq.submittals.mpca@state.mn.us. **Note:** The Water quality submittals form located at <https://www.pca.state.mn.us/sites/default/files/wq-wwprm7-71.docx> must be attached.

For eDMR and other permit reporting issues, use the directory listed at the bottom of the Discharge Monitoring Report page: <https://www.pca.state.mn.us/water/discharge-monitoring-reports>

For specific permit requirements, contact your compliance staff: <https://www.pca.state.mn.us/water/wastewater-compliance-and-enforcement-staff-contacts>

For wastewater permit program general questions, contact the MPCA at 651-282-6143 or 800-657-3938, or reference the permit user's manual at <https://www.pca.state.mn.us/sites/default/files/wq-wwtp7-09.pdf>.

Additional guidance and resources are located at: <https://www.pca.state.mn.us/water/wastewater>.

A printable summary of sampling requirements can be found at: <https://www.pca.state.mn.us/water/wastewater-permit-submittal-checklists>.

A printable checklist of submittals can be found at: <https://www.pca.state.mn.us/water/wastewater-permit-submittal-checklists>

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Appendix A: Approved Chemical Additives Table

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1. Permitted facility description

The Keewatin Taconite Operations - Tailings facility (facility) is located at 1 Mine Rd, Keewatin, Minnesota 55753, St. Louis County.

The principal activity at this facility is the disposal of taconite tailings and related wastewater from the Keewatin Taconite Plant (Plant). The facility consists of a tailings basin, drainage area contributing surface run-off to the basin, and all non-sewage wastewater disposal systems within the permitted area. The Plant currently has the capability to produce blast furnace (BF) grade pellets and will ultimately be capable of producing direct reduction (DR) grade pellets as well.

The plant consists of a series of crushers and screens, a concentrator, and an agglomerator. The concentrator consists of a series of mills, magnetic separators, hydroseparators, hydrocyclones, screens and thickeners. A flocculant is added to the concentrator tailings slurry before the thickening stage. When producing DR grade concentrate, a reverse flotation process is used for beneficiation of the BF grade concentrate. Chemical additives are used as part of the reverse flotation process. The agglomerator receives the concentrate, which is mixed with limestone then dewatered by disc filters. The filter cake is mixed with bentonite and formed into pellets in balling drums. Process water from the agglomerator, as well as recirculating non-contact cooling water, and floor drains, is recirculated as process water within the Plant. Make-up water for the Plant's recirculating non-contact cooling water system is softened and treated with various chemical additives. Chemical additives are also used in the wet scrubber and blowdown treatment system, vacuum seal water system and kiln.

Wastewater flow to the tailings basin consists only of tailings slurry (taconite tailings & associated concentrator process wastewater) and treated wet scrubber blowdown water for a total average flow rate of 20 million gallons per day (mgd). This wastewater is piped from the Keetac Plant across Hwy 169 and is spigotted into the tailings basin. The basin is divided into several parts, principally the older Stage 1 and the active Stage 2 basins. Much of the Stage 1 basin has undergone re-vegetation. Water is occasionally pumped from Reservoir 2 to Reservoir 6 to control water inventories at an average rate of 400 million gallons per year.

A barge system in the second stage interior tailings basin pumps basin wastewater to the second stage exterior pond for additional clarification. A stop-log decant tower structure discharges water from the second stage exterior pond to Reservoir 6 for reuse. Tailings basin water from Reservoir 6 is reclaimed and pumped back to the Plant for further ore processing. If the water levels in Reservoir 6 get high enough, discharge can occur through siphon outfall SD 001 (Siphon outfalls 011, 012 & 013) at a combined maximum rate of 9.4 mgd to Reservoir 2. Under normal circumstances, discharge from Reservoir 6 occurs on a periodic basis through outfall SD 005 to Reservoir 2 at an average flow of approximately 4.6 mgd.

This permit also authorizes the discharge of mine pit dewatering from the Sargent Pit to Reservoir 2 via outfall SD 009 at a maximum rate of 4.7 mgd. This outfall was approved in 2011 permit reissuance and will be located at the edge of the Sargent Pit at PLS coordinates T 57 N, R 22 W, Section 26. Outfall SD 009 has not been constructed at this time

Surface drainage from the tailings basin area, in the form of surface run-off from the exterior dikes, flows to the West Swan River, unnamed wetlands, Hay Creek to Swan Lake, Reservoir 2, Reservoir 2 North and Welcome Creek.

Surface water monitoring is conducted at the Reservoir 2 outlet, Hay Creek, Reservoir 2 to Hay Creek, Hay Lake, Hay Creek Headwaters, Unnamed Wetland, Hart Lake and an Unnamed Creek.

Internal monitoring for non-precipitation inputs is conducted at WS 001. Calculations for the allowable discharge are reported at WS 002. Water in the Stage 2 Interior Pond is monitored at WS 003. Water in the Stage 2 Exterior Pond is monitored at WS 004.

This permit does not authorize a functionally equivalent discharge from tailings basin seepage to surface water.

Changes to the facility may result in an increase in pollutant loading to surface waters or other causes of degradation to surface waters. If a change to the facility will result in a net increase in pollutant loading or other causes of degradation that exceed the maximum loading authorized through conditions specified in the existing permit, the changes to the facility are subject to antidegradation requirements found in Minn. R. 7050.0250 to 7050.0335.

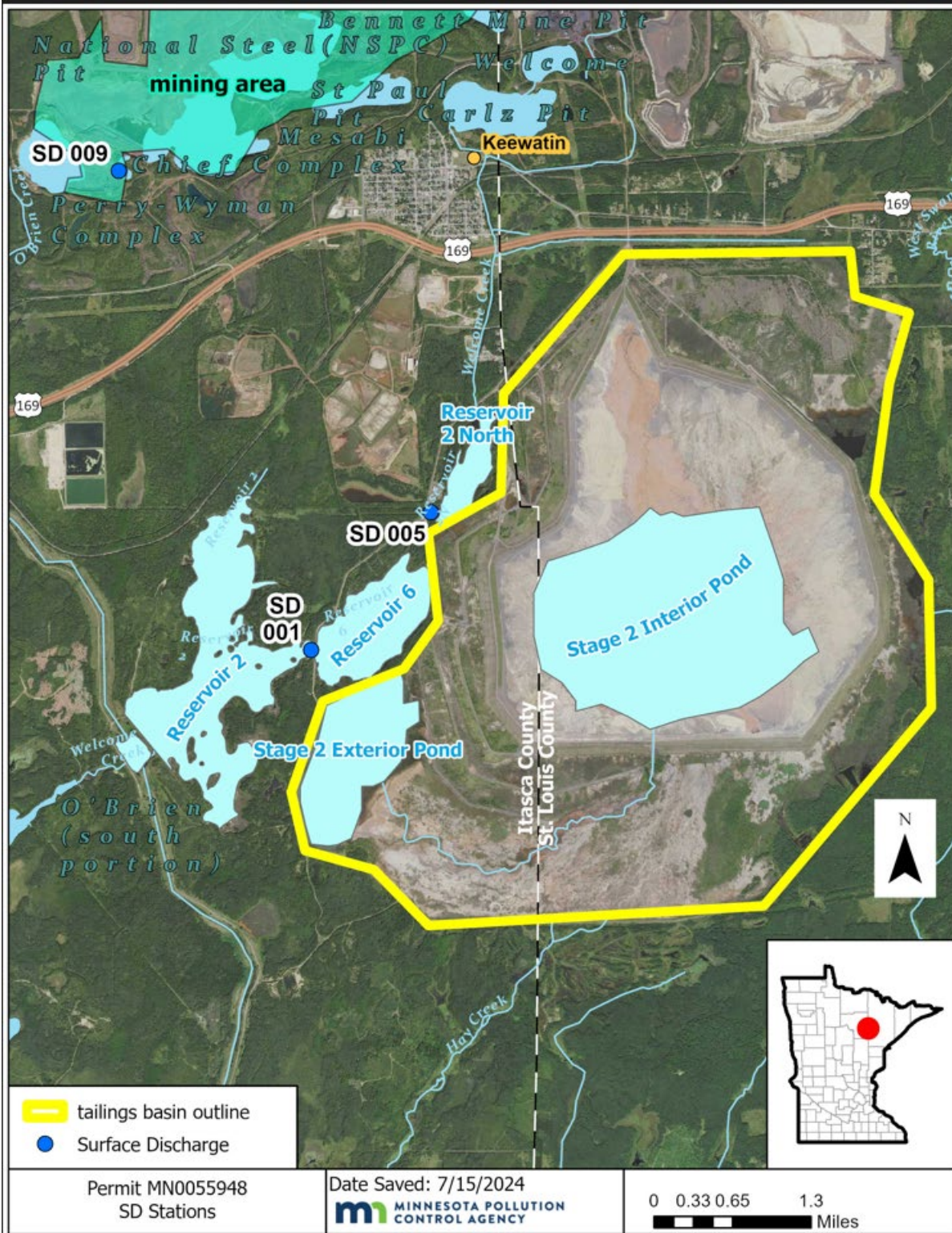
This Permit also complies with Minn. R. 7053.0275 regarding anti-backsliding.

Any point source discharger of sewage, industrial, or other wastes for which a National Pollutant Discharge Elimination System (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.

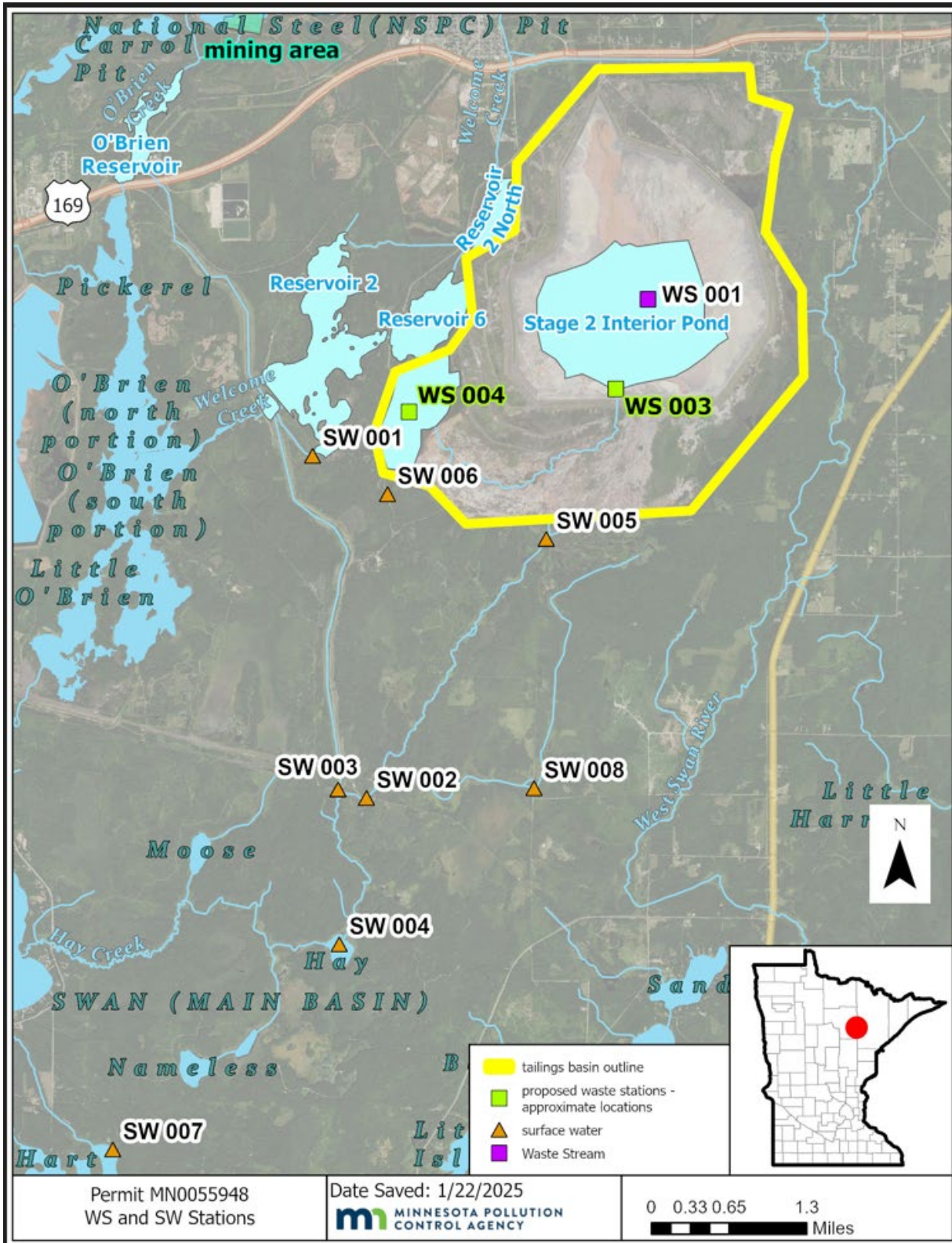
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2. Location map of permitted facility

*Location of SD 009 TBD



Maps of proposed surface water and internal waste stream monitoring locations



3. Flow diagram

Water Balance and Water Flow Diagram

Mine Area NPDES/SDS Permit (MN0031879)

Monitoring Stations

Permitted stations identified on figure:

- WS005 Waste Stream: Wastewater Treatment Plant
- SD001 Surface Discharge: Potable Water Treatment Process Backwash
- SD002 Surface Discharge: Process Wastewater and Runoff
- SD012 Surface Discharge: Mine Dewatering and Runoff
- SD003 Surface Discharge: Mine Dewatering and Runoff

Permitted stations NOT identified on figure:

- WS011 Internal waste stream: Plant water to scrubber system
- WS012 Internal waste stream: Scrubber blowdown after treatment

Tailings Basin NPDES/SDS Permit (MN0055948)

Monitoring Stations

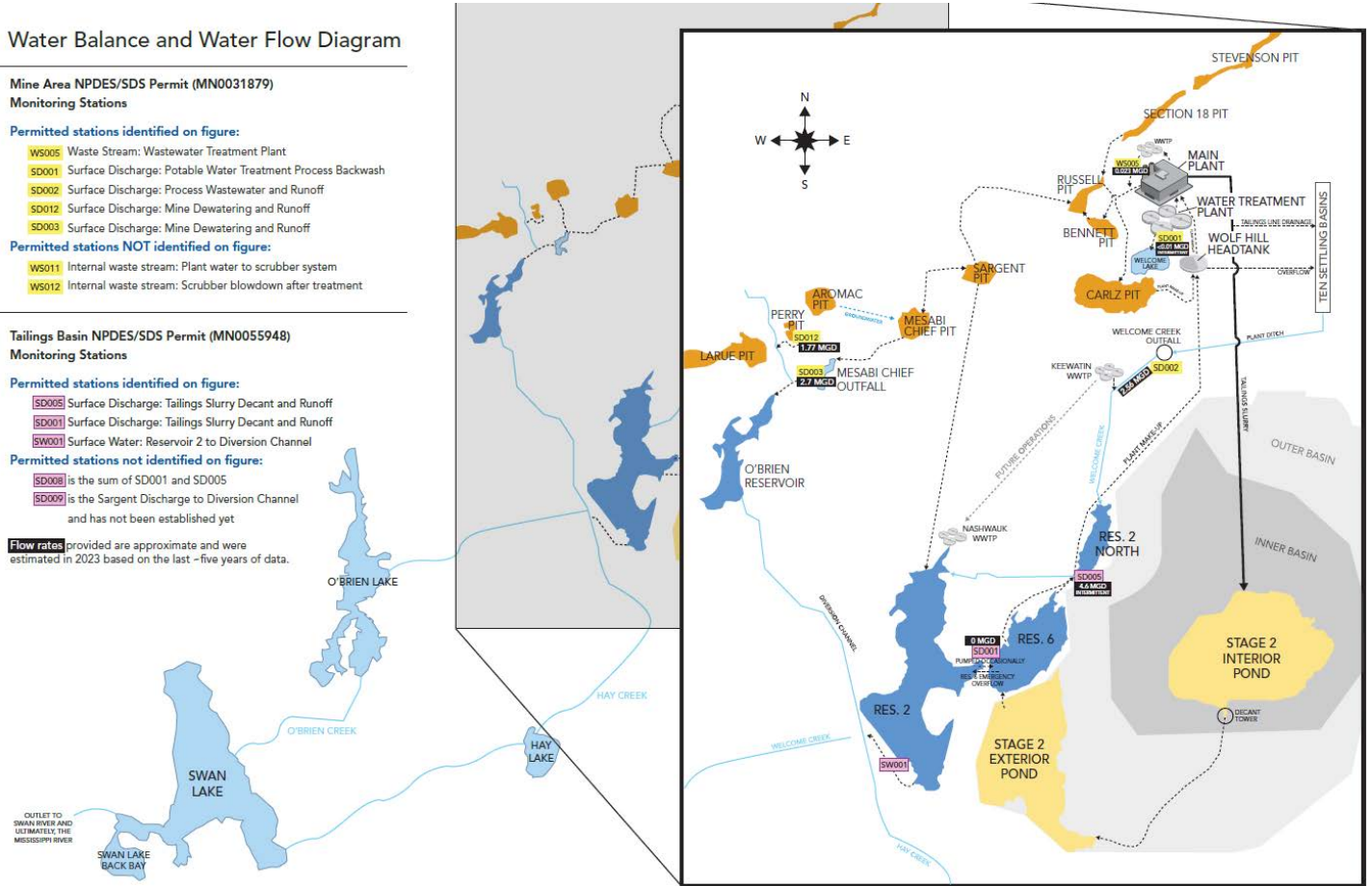
Permitted stations identified on figure:

- SD005 Surface Discharge: Tailings Slurry Decant and Runoff
- SD001 Surface Discharge: Tailings Slurry Decant and Runoff
- SW001 Surface Water: Reservoir 2 to Diversion Channel

Permitted stations not identified on figure:

- SD008 is the sum of SD001 and SD005
- SD009 is the Sargent Discharge to Diversion Channel and has not been established yet

Flow rates provided are approximate and were estimated in 2023 based on the last - five years of data.



4. Summary of stations and station locations

Station	Type of station	Local name	PLS location
SD 001	Effluent To Surface Water	Siphon Outfalls 011, 012, 013	T56N, R22W, S02, SE Quarter
SD 005	Effluent To Surface Water	Culvert Outfall 015	T56N, R22W, S01, NW Quarter of the NW Quarter of the NE Quarter
SD 009	Effluent To Surface Water	Sargent Pit Dewatering to Unnamed Ditch	T57N, R22W, S26
SW 001	Lake/Reservoir	Reservoir 2 Outlet	T56N, R22W, S11, NW Quarter of the SW Quarter
SW 002	Stream/River/Ditch, Downstream	Hay Creek	T56N, R22W, S26, SE Quarter of the NW Quarter
SW 003	Stream/River/Ditch, Downstream	Reservoir 2 to Hay Creek	T56N, R22W, S26, NE Quarter of the SW Quarter
SW 004	Lake/Reservoir	Hay Lake	T56N, R22W, S35, NE Quarter of the SW Quarter
SW 005	Stream/River/Ditch, Downstream	Hay Creek Headwaters	T56N, R22W, S18, SW Quarter of the NW Quarter
SW 006	Wetland, Downstream	Unnamed Wetland	T56N, R22W, S11, SW Quarter of the SE Quarter
SW 007	Lake/Reservoir	Hart Lake	T55N, R22W, S09, SW Quarter of the NE Quarter
SW 008	Stream/River/Ditch, Downstream	Unnamed Creek - East of Hay Creek	T56N, R21W, S30, SW Quarter of the NW Quarter
WS 001	Water Intake	Non-precipitation water inputs to the facility	T56N, R22W, S02, SE Quarter
WS 002	Limits Calculation	Tailings Basin - precipitation & evaporation	N/A
WS 003	Internal Waste Stream	Tailings Basin pool water	T56N, R21W, S07, NW Quarter of the NE Quarter
WS 004	Internal Waste Stream	Stage 2 Exterior Pond	T56N, R22W, S11, NE Quarter of the NE Quarter

5. Permit requirements

SD 001	Effluent To Surface Water	
		Facility Specific Limit and Monitoring Requirements
	5.1.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
	5.1.2	Sampling Location. [Minn. R. 7001.0150, subp. 2(B)]
	5.1.3	Samples for Station SD 001 shall be taken at one of the three siphon outfall points (Siphon outfall 011, 012 or 013) which has the greatest flow at the time of sampling. [Minn. R. 7001.0150, subp. 2(B)]
		Chronic Toxicity Requirements
	5.2.4	Definitions. [Minn. R. 7001]
	5.2.5	"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% effluent concentration or 1.0 TUC. [State Definitions]
	5.2.6	"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 $[7Q_{10} \text{ flow (mgd)} + \text{effluent average dry weather flow (mgd)}] / [\text{effluent average dry weather flow (mgd)}]$. [State Definitions]
	5.2.7	"Test" refers to an individual species. [State Definitions]
	5.2.8	"Test Battery" consists of WET testing of each species with each specified chronic test. For chronic WET testing, all test species includes fathead minnows and Ceriodaphnia dubia. [State Definitions]
	5.2.9	General Requirements. [Minn. R. 7001]
	5.2.10	This permit does not include a chronic WET limit; however, the facility has a WET monitoring requirement and is required to conduct chronic toxicity tests from outfall Station SD 001. Results of chronic toxicity tests will be evaluated against a monitoring threshold value of 1.0 TUC. [Minn. R. 7052, Minn. R. 7053]
	5.2.11	The Permittee shall begin chronic toxicity testing quarterly during year three of the permit. After year three, the Permittee shall conduct annual chronic toxicity testing. The Permittee shall submit quarterly chronic toxicity test battery results: Due by three years after permit issuance thereafter. [Minn. R. 7001]
	5.2.12	Additional WET tests are required for each year that exceeds the five-year permit cycle if the permit is not immediately reissued after permit expiration. The WET testing results are due on the same date as the original requirement, annually, until the permit is reissued. [Minn. R. 7001]
	5.2.13	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. [Minn. R. 7001]
	5.2.14	Species and Procedural Requirements. [Minn. R. 7001]
	5.2.15	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 Chronic Manual. [Minn. R. 7001]
	5.2.16	Any test that begins with an effluent sample that is equal to or exceeds a total ammonia concentration of 5.0 mg/L may use the carbon dioxide-controlled atmosphere technique to control pH drift. [Minn. R. 7001]
	5.2.17	Test organisms for each test battery shall include the fathead minnow (Pimephales promelas)-Method 1000.0 and Ceriodaphnia dubia-Method 1002.0 or any updates to these methods. [Minn. R. 7001]
	5.2.18	Static renewal chronic serial dilution tests of the effluent shall consist of a control, 0%, 12.5%, 25%, 50%, and 100% effluent. [Minn. R. 7001]

5.2.19	The Permittee shall sample for total dissolved solids, specific conductance, sodium, magnesium, calcium, potassium, sulfate, chloride, alkalinity and nitrate during each WET test. [Minn. R. 7001]
5.2.20	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. Receiving water collected outside of the influence of discharge or synthetic water provided by the laboratory shall be used for dilution and controls. [Minn. R. 7001]
5.2.21	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. [Minn. R. 7001]
5.2.22	Quality Control (QC) and Report Submittals. [Minn. R. 7001]
5.2.23	Any test that does not meet quality control measures or results which the Permittee believes reflect an artifact of testing (i.e. poor control results) shall be repeated within two weeks of the notification from the lab regarding the test sample results. The chronic WET report and QC reports shall contain information consistent with the report preparation section of the Chronic Manual. The MPCA shall make the final determination regarding test validity. [Minn. R. 7001]
5.2.24	Positive Toxicity Result for WET. [Minn. R. 7001]
5.2.25	Should a test exceed 1.0 TUC for WET 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 45 days after completion of the positive test. These tests are used to determine if toxicity exceeding 1.0 TUC remains present for any test species. [Minn. R. 7001]
5.2.26	Repeat Testing Results. [Minn. R. 7001]
5.2.27	Negative Retests. If no toxicity is present above 1.0 TUC for any test species in both retests, the Permittee shall return to the test frequency specified by the permit. [Minn. R. 7001]
5.2.28	Positive Retests. If toxicity is present above 1.0 TUC for any test species in either retests, the Permittee shall submit a plan for conducting a Toxicity Reduction Evaluation (TRE) for MPCA review and approval. [Minn. R. 7001]
5.2.29	TRE Requirements. [Minn. R. 7001]
5.2.30	<p>The TRE shall be submitted within 60 days after the toxicity discovery date and include a Facility Performance Review. Upon approval of the TRE, the Permittee shall implement the TRE or subsequent amendments in its entirety. Any violations of the TRE are violations of this permit.</p> <p>In addition, quarterly reports starting from the date of the TRE submittal are required. The quarterly reports shall include, but are not limited to, a complete description of all progress made towards the identification of the source(s) of toxicity, and the Permittee's plans for the removal of the toxicity. The TRE shall be consistent with the Chronic Manual 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 shall remain in effect throughout the permit cycle.</p> <p>The Permittee must submit a request to discontinue the TRE for MPCA review upon conclusion of the TRE requirements. If the MPCA discontinues the TRE, the permit may be modified to set conditions to be met by the Permittee based on the TRE results. If the MPCA continues the TRE, the Permittee shall continue to implement the approved conditions of the TRE. [Minn. R. 7001]</p>
5.2.31	Following successful completion of the TRE, the Permittee shall conduct quarterly testing for one year or until the TRE is complete. [Minn. R. 7001]
5.2.32	WET Data and Test Acceptability Criteria (TAC) Submittal. [Minn. R. 7001]
5.2.33	<p>All WET test data and TAC must be submitted to the MPCA by the dates required by this section of the permit using both the MPCA Ceriodaphnia dubia Chronic Toxicity Test Report and the MPCA Fathead Minnow Chronic Toxicity Test Report found on the MPCA website at https://www.pca.state.mn.us/business-with-us/step-4-create-swppp-choose-bmps.</p> <p>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(s). These are legal forms and must be signed and dated by the Permittee. [Minn. R. 7001]</p>

	5.2.34	Potential Permit Modifications. [Minn. R. 7001]
	5.2.35	The permit may be modified during a permit cycle to include additional toxicity testing and/or a WET limit based on the WET testing results. [Minn. R. 7001]
SD 005	Effluent To Surface Water	
		Facility Specific Limit and Monitoring Requirements
	5.3.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
	5.3.2	Sampling Location. [Minn. R. 7001.0150, subp. 2(B)]
	5.3.3	Samples for Station SD 005 shall be taken at the culvert prior to combination with Reservoir 2 North waters, during a period of discharge from Reservoir 6. If a discharge from Reservoir 6 occurs at any time during the sampling month, a sample must be obtained for analysis. [Minn. R. 7001.0150, subp. 2(B)]
		Chronic Toxicity Requirements
	5.4.4	Definitions. [Minn. R. 7001]
	5.4.5	"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% effluent concentration or 1.0 TUC. [State Definitions]
	5.4.6	"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 $[\text{7Q10 flow (mgd)} + \text{effluent average dry weather flow (mgd)}] / [\text{effluent average dry weather flow (mgd)}]$. [State Definitions]
	5.4.7	"Test" refers to an individual species. [State Definitions]
	5.4.8	"Test Battery" consists of WET testing of each species with each specified chronic test. For chronic WET testing, all test species includes fathead minnows and Ceriodaphnia dubia. [State Definitions]
	5.4.9	General Requirements. [Minn. R. 7001]
	5.4.10	This permit does not include a chronic WET limit; however, the facility has a WET monitoring requirement and is required to conduct chronic toxicity tests from outfall Station SD 005. Results of chronic toxicity tests will be evaluated against a monitoring threshold value of 1.0 TUC. [Minn. R. 7052, Minn. R. 7053]
	5.4.11	The Permittee shall begin chronic toxicity testing quarterly during year three of the permit. After year three, the Permittee shall conduct annual chronic toxicity testing. The Permittee shall submit quarterly chronic toxicity test battery results: Due by three years after permit issuance thereafter. [Minn. R. 7001]
	5.4.12	Additional WET tests are required for each year that exceeds the five-year permit cycle if the permit is not immediately reissued after permit expiration. The WET testing results are due on the same date as the original requirement, annually, until the permit is reissued. [Minn. R. 7001]
	5.4.13	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. [Minn. R. 7001]
	5.4.14	Species and Procedural Requirements. [Minn. R. 7001]
	5.4.15	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 Chronic Manual. [Minn. R. 7001]

5.4.16	Any test that begins with an effluent sample that is equal to or exceeds a total ammonia concentration of 5.0 mg/L may use the carbon dioxide-controlled atmosphere technique to control pH drift. [Minn. R. 7001]
5.4.17	Test organisms for each test battery shall include the fathead minnow (<i>Pimephales promelas</i>)-Method 1000.0 and <i>Ceriodaphnia dubia</i> -Method 1002.0 or any updates to these methods. [Minn. R. 7001]
5.4.18	Static renewal chronic serial dilution tests of the effluent shall consist of a control, 0%, 12.5%, 25%, 50%, and 100% effluent. [Minn. R. 7001]
5.4.19	The Permittee shall sample for total dissolved solids, specific conductance, sodium, magnesium, calcium, potassium, sulfate, chloride, alkalinity and nitrate during each WET test. [Minn. R. 7001]
5.4.20	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. Receiving water collected outside of the influence of discharge or synthetic water provided by the laboratory shall be used for dilution and controls. [Minn. R. 7001]
5.4.21	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. [Minn. R. 7001]
5.4.22	Quality Control (QC) and Report Submittals. [Minn. R. 7001]
5.4.23	Any test that does not meet quality control measures or results which the Permittee believes reflect an artifact of testing (i.e. poor control results) shall be repeated within two weeks of the notification from the lab regarding the test sample results. The chronic WET report and QC reports shall contain information consistent with the report preparation section of the Chronic Manual. The MPCA shall make the final determination regarding test validity. [Minn. R. 7001]
5.4.24	Positive Toxicity Result for WET. [Minn. R. 7001]
5.4.25	Should a test exceed 1.0 TUc for WET 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 45 days after completion of the positive test. These tests are used to determine if toxicity exceeding 1.0 TUc remains present for any test species. [Minn. R. 7001]
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5.4.29	TRE Requirements. [Minn. R. 7001]
5.4.30	<p>The TRE shall be submitted within 60 days after the toxicity discovery date and include a Facility Performance Review. Upon approval of the TRE, the Permittee shall implement the TRE or subsequent amendments in its entirety. Any violations of the TRE are violations of this permit.</p> <p>In addition, quarterly reports starting from the date of the TRE submittal are required. The quarterly reports shall include, but are not limited to, a complete description of all progress made towards the identification of the source(s) of toxicity, and the Permittee's plans for the removal of the toxicity. The TRE shall be consistent with the Chronic Manual 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 shall remain in effect throughout the permit cycle.</p> <p>The Permittee must submit a request to discontinue the TRE for MPCA review upon conclusion of the TRE requirements. If the MPCA discontinues the TRE, the permit may be modified to set conditions to be met by the Permittee based on the TRE results. If the MPCA continues the TRE, the Permittee shall continue to implement the approved conditions of the TRE. [Minn. R. 7001]</p>
5.4.31	Following successful completion of the TRE, the Permittee shall conduct quarterly testing for one year or until the TRE is complete. [Minn. R. 7001]

	5.4.32	WET Data and Test Acceptability Criteria (TAC) Submittal. [Minn. R. 7001]
	5.4.33	All WET test data and TAC must be submitted to the MPCA by the dates required by this section of the permit using both the MPCA Ceriodaphnia dubia Chronic Toxicity Test Report and the MPCA Fathead Minnow Chronic Toxicity Test Report found on the MPCA website at https://www.pca.state.mn.us/business-with-us/step-4-create-swppp-choose-bmps . 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(s). These are legal forms and must be signed and dated by the Permittee. [Minn. R. 7001]
	5.4.34	Potential Permit Modifications. [Minn. R. 7001]
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SD 009	Effluent To Surface Water	
		Facility Specific Limit and Monitoring Requirements
	5.5.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
	5.5.2	Sampling Location. [Minn. R. 7001.0150, subp. 2(B)]
	5.5.3	Samples for Station SD 009 shall be taken at a point representative of the discharge of dewatering effluent from Sargent Pit to the unnamed ditch. [Minn. R. 7001.0150, subp. 2(B)]
		Chronic Toxicity Requirements
	5.6.4	Definitions. [Minn. R. 7001]
	5.6.5	"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% effluent concentration or 1.0 TUc. [State Definitions]
	5.6.6	"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 $[\text{7Q10 flow (mgd)} + \text{effluent average dry weather flow (mgd)}] / [\text{effluent average dry weather flow (mgd)}]$. [State Definitions]
	5.6.7	"Test" refers to an individual species. [State Definitions]
	5.6.8	"Test Battery" consists of WET testing of each species with each specified chronic test. For chronic WET testing, all test species includes fathead minnows and Ceriodaphnia dubia. [State Definitions]
	5.6.9	General Requirements. [Minn. R. 7001]
	5.6.10	This permit does not include a chronic WET limit; however, the facility has a WET monitoring requirement and is required to conduct chronic toxicity tests from outfall Station SD 009. Results of chronic toxicity tests will be evaluated against a monitoring threshold value of 1.0 TUc. [Minn. R. 7052, Minn. R. 7053]
	5.6.11	The Permittee shall begin chronic toxicity testing quarterly during year three of the permit. After year three, the Permittee shall conduct annual chronic toxicity testing. The Permittee shall submit quarterly chronic toxicity test battery results: Due by three years after permit issuance thereafter. [Minn. R. 7001]
	5.6.12	Additional WET tests are required for each year that exceeds the five-year permit cycle if the permit is not immediately reissued after permit expiration. The WET testing results are due on the same date as the original requirement, annually, until the permit is reissued. [Minn. R. 7001]
	5.6.13	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. [Minn. R. 7001]

5.6.14	Species and Procedural Requirements. [Minn. R. 7001]
5.6.15	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 Chronic Manual. [Minn. R. 7001]
5.6.16	Any test that begins with an effluent sample that is equal to or exceeds a total ammonia concentration of 5.0 mg/L may use the carbon dioxide-controlled atmosphere technique to control pH drift. [Minn. R. 7001]
5.6.17	Test organisms for each test battery shall include the fathead minnow (<i>Pimephales promelas</i>)-Method 1000.0 and <i>Ceriodaphnia dubia</i> -Method 1002.0 or any updates to these methods. [Minn. R. 7001]
5.6.18	Static renewal chronic serial dilution tests of the effluent shall consist of a control, 0%, 12.5%, 25%, 50%, and 100% effluent. [Minn. R. 7001]
5.6.19	The Permittee shall sample for total dissolved solids, specific conductance, sodium, magnesium, calcium, potassium, sulfate, chloride, alkalinity and nitrate during each WET test. [Minn. R. 7001]
5.6.20	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. Receiving water collected outside of the influence of discharge or synthetic water provided by the laboratory shall be used for dilution and controls. [Minn. R. 7001]
5.6.21	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. [Minn. R. 7001]
5.6.22	Quality Control (QC) and Report Submittals. [Minn. R. 7001]
5.6.23	Any test that does not meet quality control measures or results which the Permittee believes reflect an artifact of testing (i.e. poor control results) shall be repeated within two weeks of the notification from the lab regarding the test sample results. The chronic WET report and QC reports shall contain information consistent with the report preparation section of the Chronic Manual. The MPCA shall make the final determination regarding test validity. [Minn. R. 7001]
5.6.24	Positive Toxicity Result for WET. [Minn. R. 7001]
5.6.25	Should a test exceed 1.0 TUC for WET 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 45 days after completion of the positive test. These tests are used to determine if toxicity exceeding 1.0 TUC remains present for any test species. [Minn. R. 7001]
5.6.26	Repeat Testing Results. [Minn. R. 7001]
5.6.27	Negative Retests. If no toxicity is present above 1.0 TUC for any test species in both retests, the Permittee shall return to the test frequency specified by the permit. [Minn. R. 7001]
5.6.28	Positive Retests. If toxicity is present above 1.0 TUC for any test species in either retests, the Permittee shall submit a plan for conducting a Toxicity Reduction Evaluation (TRE) for MPCA review and approval. [Minn. R. 7001]
5.6.29	TRE Requirements. [Minn. R. 7001]
5.6.30	<p>The TRE shall be submitted within 60 days after the toxicity discovery date and include a Facility Performance Review. Upon approval of the TRE, the Permittee shall implement the TRE or subsequent amendments in its entirety. Any violations of the TRE are violations of this permit.</p> <p>In addition, quarterly reports starting from the date of the TRE submittal are required. The quarterly reports shall include, but are not limited to, a complete description of all progress made towards the identification of the source(s) of toxicity, and the Permittee's plans for the removal of the toxicity. The TRE shall be consistent with the Chronic Manual 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 shall remain in effect throughout the permit cycle.</p> <p>The Permittee must submit a request to discontinue the TRE for MPCA review upon conclusion of the TRE requirements. If the MPCA discontinues the TRE, the permit may be modified to set conditions to be met by the Permittee based on the TRE results. If the MPCA continues the TRE, the Permittee shall continue to implement the approved conditions of the TRE. [Minn. R. 7001]</p>

	5.6.31	Following successful completion of the TRE, the Permittee shall conduct quarterly testing for one year or until the TRE is complete. [Minn. R. 7001]
	5.6.32	WET Data and Test Acceptability Criteria (TAC) Submittal. [Minn. R. 7001]
	5.6.33	All WET test data and TAC must be submitted to the MPCA by the dates required by this section of the permit using both the MPCA Ceriodaphnia dubia Chronic Toxicity Test Report and the MPCA Fathead Minnow Chronic Toxicity Test Report found on the MPCA website at https://www.pca.state.mn.us/business-with-us/step-4-create-swppp-choose-bmps . 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(s). These are legal forms and must be signed and dated by the Permittee. [Minn. R. 7001]
	5.6.34	Potential Permit Modifications. [Minn. R. 7001]
	5.6.35	The permit may be modified during a permit cycle to include additional toxicity testing and/or a WET limit based on the WET testing results. [Minn. R. 7001]
SW 001	Lake/ Reservoir	
		Facility Specific Limit and Monitoring Requirements
	5.7.1	Sampling Location. [Minn. R. 7001.0150, subp. 2(B)]
	5.7.2	Samples for Station SW 001 shall be taken at the weir outlet on Reservoir 2. [Minn. R. 7001.0150, subp. 2(B)]
	5.7.3	The Permittee shall submit monitoring results in accordance with the limits and monitoring requirements for this station. If conditions are such that no sample can be acquired, the Permittee shall report "No Flow" or "No Discharge" on Discharge Monitoring Report (DMR) and shall add a Comments attachment to the DMR detailing why the sample was not collected. [Minn. R. 7001.0150, Subp. 2(B)]
		Facility Specific Requirements
	5.8.4	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
SW 002	Stream/ River/Ditch, Downstream	
		Facility Specific Requirements
	5.9.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
	5.9.2	Sampling Location. [Minn. R. 7001.0150, subp. 2(B)]
	5.9.3	Samples for Station SW 002 shall be taken at a point representative of the flow in Hay Creek, prior to Hay Creek reaching the Diversion Channel. [Minn. R. 7001.0150, subp. 2(B)]
SW 003	Stream/ River/Ditch, Downstream	
		Facility Specific Requirements
	5.10.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
	5.10.2	Sampling Location. [Minn. R. 7001.0150, subp. 2(B)]
	5.10.3	Samples for Station SW 003 shall be taken at a point representative of the flow in the Diversion Channel, prior to reaching Hay Creek. [Minn. R. 7001.0150, subp. 2(B)]

SW 004	Lake/ Reservoir	
		Facility Specific Requirements
	5.11.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
	5.11.2	Sampling Location. [Minn. R. 7001.0150, subp. 2(B)]
	5.11.3	Samples for Station SW 004 shall be taken in Hay Lake. [Minn. R. 7001.0150, subp. 2(B)]
SW 005	Stream/ River/Ditch, Downstream	
		Facility Specific Requirements
	5.12.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
	5.12.2	Sampling Location. [Minn. R. 7001.0150, subp. 2(B)]
	5.12.3	Samples for Station SW 005 shall be taken at a point representative of the flow at the headwaters of Hay Creek. [Minn. R. 7001.0150, subp. 2(B)]
SW 006	Wetland, Downstream	
		Facility Specific Requirements
	5.13.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
	5.13.2	Sampling Location. [Minn. R. 7001.0150, subp. 2(B)]
	5.13.3	Samples for Station SW 006 shall be taken at the unnamed wetland located to the southwest of the tailings basin. [Minn. R. 7001.0150, subp. 2(B)]
SW 007	Lake/ Reservoir	
		Facility Specific Limit and Monitoring Requirements
	5.14.1	Sampling Location. [Minn. R. 7001.0150, subp. 2(B)]
	5.14.2	Samples for Station SW 007 shall be taken at Hart Lake. [Minn. R. 7001.0150, subp. 2(B)]
	5.14.3	The Permittee shall submit monitoring results in accordance with the limits and monitoring requirements for this station. If conditions are such that no sample can be acquired, the Permittee shall report "No Flow" or "No Discharge" on Discharge Monitoring Report (DMR) and shall add a Comments attachment to the DMR detailing why the sample was not collected. [Minn. R. 7001.0150, Subp. 2(B)]
		Facility Specific Requirements
	5.15.4	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]

SW 008	Stream/ River/Ditch, Downstream	
Facility Specific Requirements		
	5.16.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
	5.16.2	Sampling Location. [Minn. R. 7001.0150, subp. 2(B)]
	5.16.3	Samples for Station SW 008 shall be taken at a point representative of the flow in Unnamed Creek prior to the confluence with Hay Creek. [Minn. R. 7001.0150, subp. 2(B)]
WS 001	Water Intake	
Facility Specific Limit and Monitoring Requirements		
	5.17.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
	5.17.2	Sampling Location. [Minn. R. 7001.0150, subp. 2(B)]
	5.17.3	Samples for Station WS 001 shall be representative of the non-precipitation inputs to the facility (for example, Reservoir 2 and/or Carlz Pit). [Minn. R. 7001.0150, subp. 2(B)]
WS 002	Limits Calculation	
Facility Specific Limit and Monitoring Requirements		
	5.18.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
	5.18.2	Sampling Location. [Minn. R. 7001.0150, subp. 2(B)]
	5.18.3	Station WS 002 is a limits calculation station. The sum of annual discharge from outfalls SD 001 and SD 005 (former outfalls 010, 011, 012, 013 and 015) shall not exceed the annual net precipitation at the facility as calculated in the "Allowable Discharge" section of this permit. [Minn. R. 7001.0150, subp. 2(B)]
WS 003	Internal Waste Stream	
Facility Specific Limit and Monitoring Requirements		
	5.19.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
	5.19.2	Sampling Location. [Minn. R. 7001.0150, subp. 2(B)]
	5.19.3	Samples for Station WS 003 shall be taken at a point representative of the Stage 2 interior pond. [Minn. R. 7001.0150, subp. 2(B)]
WS 004	Internal Waste Stream	
Facility Specific Requirements		
	5.20.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
	5.20.2	Sampling Location. [Minn. R. 7001.0150, subp. 2(B)]
	5.20.3	Samples for Station WS 004 shall be taken at a point representative of the Stage 2 exterior pond. [Minn. R. 7001.0150, subp. 2(B)]

MN0055948	Keetac Tailings Basin Area	
		Surface Discharge Station General Requirements
	5.21.3	Representative Samples. [Minn. R. 7001]
	5.21.4	Samples and measurements required by this permit shall be representative of the monitored activity. [Minn. R. 7001]
	5.21.5	Surface Discharge Prohibitions. [Minn. R. 7001]
	5.21.6	Floating solids or visible foam shall not be discharged in other than trace amounts. [Minn. R. 7001]
	5.21.7	Do not discharge oil or other substances in amounts that create a visible color film. [Minn. R. 7001]
	5.21.8	Install and maintain outlet protection measures at the discharge stations to prevent erosion. [Minn. R. 7001]
	5.21.9	Winter Sampling Conditions. [Minn. R. 7001]
	5.21.10	Sample flows at the designated monitoring stations, including when ice removal is required to sample the water. If there is a frozen station throughout a designated sampling month, check the " No Discharge" box on the Discharge Monitoring Report (DMR) and note the ice conditions in Comments on the DMR. [Minn. R. 7001]
	5.21.11	Mercury Limits and Monitoring Requirements. [Minn. R. 7001]
	5.21.12	Permittees are required to sample for total suspended solids (TSS) (grab sample) and total/dissolved mercury at the same time. Collect total mercury, dissolved mercury, and TSS (grab sample) samples via grab samples. Record all results on DMRs. [Minn. R. 7001]
	5.21.13	Analyze Total and Dissolved Mercury samples using the most current versions of EPA Method 1631 with clean techniques method 1669. If the EPA approves and an MPCA-recognized accreditation body certifies another mercury analytical method that has a reportable quantitation level of <0.5 ng/L that allows for low-level sample characterization, the method may be used in place of 1631/1669. [Minn. R. 7001]
	5.21.14	Nitrogen Limits and Monitoring Requirements. [Minn. R. 7001]
	5.21.15	Report Total Nitrogen as the summation of the Total Kjeldahl Nitrogen and Total Nitrite plus Nitrate Nitrogen values. [Minn. R. 7001]
	5.21.16	The analysis for Ammonia-nitrogen shall use an EPA approved method (under 40 CFR part 136), with a reporting limit of 0.1 mg/L or less. [Minn. R. 7001]
	5.21.23	Analysis Requirements. [Minn. R. 7001]
	5.21.24	Specific conductance and pH analyses shall be conducted within 15 minutes of sample collection. [Minn. R. 7001]
	5.21.25	The Permittee shall submit monitoring results in accordance with the limits and monitoring requirements for this station. If conditions are such that no sample can be acquired, the Permittee shall report "No Flow" or "No Discharge" on Discharge Monitoring Report (DMR) and shall add a Comments attachment to the DMR detailing why the sample was not collected. [Minn. R. 7001.0150, Subp 2(B)]
		Surface Water Station General Requirements
	5.22.28	Representative Samples. [Minn. R. 7001]
	5.22.29	Samples and measurements required by this permit shall be representative of the monitored activity. [Minn. R. 7001]
	5.22.30	Surface Discharge Prohibitions. [Minn. R. 7001]
	5.22.31	Floating solids or visible foam shall not be discharged in other than trace amounts. [Minn. R. 7001]
	5.22.32	Do not discharge oil or other substances in amounts that create a visible color film. [Minn. R. 7001]

5.22.33	Install and maintain outlet protection measures at the discharge stations to prevent erosion. [Minn. R. 7001]
5.22.34	Winter Sampling Conditions. [Minn. R. 7001]
5.22.35	Sample flows at the designated monitoring stations, including when ice removal is required to sample the water. If there is a frozen station throughout a designated sampling month, check the " No Discharge" box on the Discharge Monitoring Report (DMR) and note the ice conditions in Comments on the DMR. [Minn. R. 7001]
5.22.36	Sampling Protocol. [Minn. R. 7001]
5.22.37	Take samples at mid-stream, mid-depth. Record location, date, time, and results for each sample on the supplemental Discharge Monitoring Report form. [Minn. R. 7001]
5.22.38	To ensure accuracy, maintain and calibrate all instruments used for field measurements. [Minn. R. 7001]
5.22.39	Preserve sample water according to lab instructions and deliver to a certified lab within the maximum holding times. [Minn. R. 7001]
5.22.42	Biological Sampling. [Minn. R. 7001]
5.22.43	<p>The company is required to sample fish and macroinvertebrates at the locations listed below once every five years for the life of the permit. The purpose of this sampling is to monitor the potential impact of the US Steel Keewatin Taconite mining facility on aquatic life within the Hay Creek watershed (HUC 12 070101030401) upstream of Hay Lake (WID/AUID 31-0037-00). The exact location of these samples shall be determined by US Steel in consultation with MPCA staff and in accordance with MPCA biological monitoring site selection protocols.</p> <p>Site 1: Hay Creek (WID/AUID 07010103-545) downstream of its confluence with Unnamed Creek (WID/AUID 07010103-706) and upstream of Hay Lake (WID/AUID 31-0037-00).</p> <p>Site 2: Hay Creek (WID/AUID 07010103-545) upstream of its confluence with Unnamed Creek (WID/AUID 07010103-706).</p> <p>Site 3: Unnamed Creek (WID/AUID 07010103-706) upstream of its confluence with Hay Creek (WID/AUID 07010103-545) and downstream of Reservoir 2 (WID/AUID 31-1039-00). [Minn. R. 7001]</p>
5.22.44	<p>Sampling shall be completed following the MPCA Macroinvertebrate Data Collection Protocols and MPCA Fish Data Collection Protocols respectively and must include a MPCA Stream Habitat Assessment at each of the sites at the time of sampling. Links to the MPCA protocols are below: MPCA Macroinvertebrate Data Collection Protocols for Lotic Waters in Minnesota: https://www.pca.state.mn.us/sites/default/files/wq-bsm3-12a.pdf</p> <p>MPCA Fish Data Collection Protocols for Lotic Waters in Minnesota: https://www.pca.state.mn.us/sites/default/files/wq-bsm3-12b.pdf</p> <p>MPCA Stream Habitat Assessment (MSHA) Protocol for Stream Monitoring Sites: https://www.pca.state.mn.us/sites/default/files/wq-bsm3-02.pdf. [Minn. R. 7001]</p>
5.22.45	The company shall notify the supervisor of the MPCA North Biological Monitoring Unit (Biological.Monitoring.Info.MPCA@state.mn.us) a minimum of six-months prior to sampling, and communicate plans for sampling, including crew member names and crew qualifications. The US Steel sampling staff must be approved to collect biological monitoring data by the MPCA North Biological Monitoring Unit External Data Coordinator, prior to sampling. [Minn. R. 7001]
5.22.46	US Steel sampling staff must receive training on MPCA fish and macroinvertebrate data collection protocols prior to sampling. Proper training and certification of US Steel personnel or their contractors will ensure that the data meet the MPCA data quality standards and allow for use in future water quality assessment(s). [Minn. R. 7001]

5.22.47	US Steel must submit the results of the survey data to the MPCA Biological Monitoring External Data Coordinator by November 15th of the year the data was collected, using a data submission form provided by the MPCA. MPCA North Biological Monitoring Unit staff will provide US Steel sampling staff with data collection forms that must be used. [Minn. R. 7001]
5.22.48	US Steel must voucher fish specimens in accordance with MPCA fish data collection protocols. Fish voucher specimens must be sent to the MPCA for taxonomic verification. US Steel must send the macroinvertebrate samples to a lab that will process the sample(s) following the MPCA Macroinvertebrate Sample Processing and Quality Assurance/Control Procedures. Once all required information is provided by US Steel, the MPCA North Biological Monitoring Unit will calculate Index of Biological Integrity scores for each sample and communicate the results of sampling to US Steel. [Minn. R. 7001]
5.22.50	Analysis Requirements. [Minn. R. 7001]
5.22.51	Specific conductance and pH analyses shall be conducted within 15 minutes of sample collection. [Minn. R. 7001]
	Waste Stream Station General Requirements
5.23.56	Representative Samples. [Minn. R. 7001]
5.23.57	Collect grab and composite samples at a point representative of total influent flow to the system. [Minn. R. 7001]
5.23.59	Analysis Requirements. [Minn. R. 7001]
5.23.60	Temperature, pH, and Specific Conductance analyses shall be conducted within 15 minutes of sample collection. [Minn. R. 7001]
5.23.61	The Permittee shall submit monitoring results in accordance with the limits and monitoring requirements for this station. If conditions are such that no sample can be acquired, the Permittee shall report "No Flow" or "No Discharge" on Discharge Monitoring Report (DMR) and shall add a Comments attachment to the DMR detailing why the sample was not collected. [Minn. R. 7001.0150, Subp 2(B)]
	Compliance Schedule
5.24.62	Compliance Schedule for Sulfate. [Minn. R. 7001]
5.24.63	This permit includes proposed water quality-based final effluent limits for sulfate of 14 mg/L (monthly average) and 24 mg/L (monthly maximum), applicable at outfalls SD 001, SD 005 and SD 009. These limits are derived from the Class 4A water quality standard that is protective of waters used for the production of wild rice. The facility is not currently designed to treat effluent from these outfalls for sulfate. The Permittee must attain compliance with the final effluent limits as soon as possible, but no later than April 30, 2030. [Minn. R. 7001]
5.24.64	The Permittee is required to meet the interim effluent limits for total sulfate at SD 001 and SD 005 (identified as Phase 1 in the Limits & Monitoring Section of this permit) upon permit issuance. [Minn. R. 7001]
5.24.65	The Permittee shall meet the terms of the compliance schedule detailed below and final effluent limits (identified as Phase 2 in the Limits & Monitoring Section of this permit) as soon as possible, but no later than April 30, 2030. [Minn. R. 7001]
5.24.66	Sulfate Treatment/Mitigation Alternatives Evaluation Plan. [Minn. R. 7001]
5.24.67	The Permittee shall submit a Sulfate Treatment/Mitigation Alternatives Evaluation Plan by March 1, 2026. submit a sulfate plan: Due 03/01/2026. [Minn. R. 7001]
5.24.68	The Sulfate Treatment/Mitigation Alternatives Evaluation Plan must identify how the Permittee will evaluate the treatment/mitigation methods identified for potential treatment/mitigation of Keetac discharges to determine which method would be most appropriate for the Keetac facility to achieve applicable sulfate limits in the shortest reasonable period of time, considering the reliability of the treatment/mitigation methods, the relative costs to install and operate the treatment/mitigation

		methods, and the secondary environmental impacts of the treatment/mitigation methods, if any. [Minn. R. 7001]
5.24.69		The Sulfate Treatment/Mitigation Alternatives Evaluation Plan must include at a minimum: A. Detailed engineering cost evaluations of selected alternatives, including capital and operation and maintenance costs. B. An evaluation of where removed sulfate salts will be disposed of and their ultimate fate at that disposal site. C. A process that selects the most prudent and feasible treatment/mitigation alternative. [Minn. R. 7001]
5.24.70		A final report documenting the findings of the Sulfate Treatment/Mitigation Alternatives Evaluation Plan shall be submitted by September 1, 2026. submit a sulfate plan: Due 09/01/2026. [Minn. R. 7001]
5.24.71		Final Compliance Plan. [Minn. R. 7001]
5.24.72		The Permittee shall submit a Final Sulfate Compliance Plan by December 1, 2026. Submit a Sulfate Compliance Plan: Due 12/01/2026. [Minn. R. 7001]
5.24.73		If it is determined through the Final Sulfate Compliance Plan that a wastewater treatment system is required to be constructed, and an Environmental Assessment Worksheet (EAW) is required under Minn. R. 4410 to construct a treatment system, the Permittee shall submit to the Agency, an EAW application and a permit application to incorporate the proposed Final Sulfate Compliance Plan. This submittal shall include references to other permitting and/or approvals required, and timelines associated with the permitting activities and approvals. The EAW application and the NPDES/SDS permit application for a major permit modification shall be submitted at the same time as the Final Sulfate Compliance Plan (December 1, 2026). No construction of a project which requires an EAW shall begin until the MPCA issues a negative declaration and the Permittee receives or implements all approvals required by the MPCA. submit EAW (environmental assessment worksheet): Due 12/01/2026. [Minn. R. 7001]
5.24.74		The Final Compliance Plan shall include the following: A. Findings of the Sulfate Treatment/Mitigation Alternatives Evaluation Plan. B. An explanation of why the technology/treatment and/or mitigation method(s) selected represent the best means of meeting final effluent limits. C. An estimate of the costs to implement the selected method(s) and operation and maintenance costs associated with the treatment/mitigation to support the designated downstream surface water uses. D. An evaluation of energy use and greenhouse gas emissions from the selected technology. E. An evaluation of final disposal options of removed sulfate salts. F. An economic analysis of the selected sulfate treatment/mitigation method using the profitability, liquidity, solvency and leverage tests as found in the 1995 Interim Economic Guidance for Water Quality Standards (EPA doc 823-B-95-002). G. A detailed proposal identifying the specific treatment systems and/or mitigation techniques that will be implemented to achieve compliance with final permit limits and applicable water quality standards in the shortest reasonable amount of time. H. Preliminary site plan(s), process schematic(s), design and specifications for major components of the specific treatment systems and/or mitigation to be implemented. [Minn. R. 7001]
5.24.75		Final Plans and Specifications. [Minn. R. 7001]
5.24.76		The Permittee shall submit to the MPCA the Final Plans and Specifications by April 1, 2027. Submit plans and specifications: Due 04/01/2027. [Minn. R. 7001]
5.24.77		Final Plans and Specifications shall include the following: A. A 90% design package, which includes plans and specifications for treatment or mitigation system components based on any pilot testing conducted that is sufficient to submit complete and accurate

	<p>applications for any permits that may be needed.</p> <p>B. 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.</p> <p>C. Predictions of the dates applicable water quality standards and designated uses will be met at applicable downstream surface water monitoring stations as a result of the proposed treatment/mitigation techniques. [Minn. R. 7001]</p>
5.24.78	MPCA will approve or disapprove the Final Plans and Specifications in writing or via email. If disapproved, within 30 days of receiving MPCA comments, the Permittee shall provide the MPCA with revised Final Plans and Specifications by no later than May 30, 2027. [Minn. R. 7001]
5.24.79	Construction Schedule. [Minn. R. 7001]
5.24.80	The Permittee shall notify MPCA upon initiation of construction. Construction of the selected treatment/mitigation alternative(s) must start no later than 6-months after MPCA approval of the Final Plans and Specifications or by May 1, 2028, whichever is sooner. notify MPCA of construction start: Due May 1, 2028. [Minn. R. 7001]
5.24.81	The Permittee shall complete construction of the selected alternative as soon as possible, but no later than April 1, 2029. The Permittee is responsible for obtaining all necessary approvals/permits to implement the selected treatment alternative by submitting timely and complete applications. The MPCA will not grant any extensions to this deadline if the Permittee fails to submit timely and complete applications for necessary approvals. The Permittee shall provide copies to the MPCA of all applications filed and correspondence submitted to other agencies, which must approve construction of the selected alternative. complete construction: Due April 1, 2029. [Minn. R. 7001]
5.24.82	The Permittee shall initiate operation on or before September 1, 2029. In addition, the Permittee must notify the MPCA in writing at least 14-days before the planned initiation of operation dates so an inspection may be completed. Following MPCA staff concurrence the facility is adequately prepared, the MPCA staff will notify the Permittee it may initiate operation of the new treatment facility. initiate operation: Due September 1, 2029. [Minn. R. 7001]
5.24.83	Regardless of the status and timing of MPCA's review and action on plans submitted by the Permittee in accordance with this Compliance Schedule for Sulfate, the Permittee shall attain compliance with final effluent limits for total sulfate at SD 001, SD 005 and SD 009 as soon as possible, but no later than April 30, 2030. The final total sulfate effluent limits consist of calendar month average concentration limit of 14 mg/L and a monthly maximum concentration of 24 mg/L. The Permittee shall notify MPCA in writing within 14 days of attaining the final effluent limits for sulfate at SD 001, SD 005 and SD 009. attain compliance with final effluent limits: Due April 30, 2030. [Minn. R. 7001]
	Industrial Process Wastewater
5.25.99	Prohibited Discharges. [Minn. R. 7001]
5.25.100	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. [Minn. R. 7001.1090, subp. 1(A)]
5.25.101	Toxic Substance Reporting. [Minn. R. 7001]
5.25.102	<p>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:</p> <p>A. For acrolein and acrylonitrile, 200 ug/L;</p> <p>B. For 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol, 500 ug/L;</p> <p>C. For antimony, 1 mg/L;</p> <p>D. For any other toxic pollutant listed in Minnesota rules, pt. 7001.1060, subp. 4 to 10,000 ug/L; or,</p>

		E. Five times the maximum concentration value identified and reported for that pollutant in the permit application. [Minn. R. 7001.1090, subp. 2]
	5.25.103	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. [Minn. R. 7001.1050, subp. 2(J)]
	5.25.104	Hydrotest Discharges. [Minn. R. 7001]
	5.25.105	The Permittee shall notify the MPCA prior to discharging hydrostatic test waters. The Permittee shall provide information necessary to evaluate the potential impact of this discharge and to ensure compliance with this permit. This information shall include: A. The proposed discharge dates; B. The name and location of receiving waters, including city or township, country, and township/range location; C. An evaluation of the impact of the discharge on the receiving waters in relation to the water quality standards; D. A map identifying discharge location(s) and monitoring point(s); E. The estimated average and maximum discharge rates; F. The estimated total flow volume of discharge; G. The water supply for the test water, with a copy of the appropriate Minnesota Department of Natural Resources (DNR) water appropriation permit; H. Water quality data for the water supply; I. Proposed treatment method(s) before discharge; and, J. Methods to be used to prevent scouring and erosion due to the discharge. [Minn. R. 7001.1090, subp. 1(A)]
	5.25.106	This permit does not authorize the construction or installation of pipeline facilities. [Minn. R. 7001.0150, subp. 2]
	5.25.107	Polychlorinated Biphenyls (PCBs). [Minn. R. 7001]
	5.25.108	PCBs, including but not limited to those used in electrical transformers and capacitors, shall not be discharged or released to the environment. [Minn. R. 7001.0150, subp. 2]
	5.25.109	New Proposed Dewatering. [Minn. R. 7001]
	5.25.110	The Permittee shall obtain a permit modification before discharging from a new dewatering outfall. [Minn. R. 7001.170]
	5.25.111	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 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. [Minn. R. 7001.170]
	5.25.112	Application for Permit Reissuance. [Minn. R. 7001]
	5.25.113	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. [Minn. R. 7001.50]
	5.25.114	The permit application shall include analytical data for the parameters required on EPA Form 2C at monitoring station SD 005. Analysis of all parameters shall comply with their specific 40 CFR Part 136 analytical methodologies or updates to those methodologies. The reporting limits shall meet the minimum levels as defined by this permit and all state and federal regulations. [Minn. R. 7001.50]
	5.25.115	The Permittee shall include, as part of the application for reissuance of this permit: A. a current map of any basins or ponds, showing the cells, and current topographic and water level elevations in the basin; B. an updated water balance for the facility; and C. updated operating plan for the tailings basin for the next five (5) years. [Minn. R. 7001.50]

	Metallic Mining
5.26.122	Mine Tailings Basin Annual Report. [Minn. R. 7001]
5.26.124	<p>To summarize the status of the tailings basin, the Permittee shall submit a Tailings Basin Annual Report by January 31 of each year following permit reissuance. The Tailings Basin Annual Report shall include the following:</p> <ul style="list-style-type: none"> A. A current map of the tailings basin area that details the dikes, berms, dams roads and cells B. Current topographic and water level elevations C. Annual net precipitation determined from the previous calendar year and the annual flow volume discharged via outfalls SD 001 and SD 005 D. Results of the Dike Seepage Field Survey (as described below). submit a tailings basin report: Due annually, by the 31st of January. [Minn. R. 7001]
5.26.125	Dike Seepage Survey. [Minn. R. 7001]
5.26.126	The Permittee shall conduct a detailed field survey of seepage zones from the perimeter dikes of the tailings basin during October of each year. The results of the field survey shall be included in the Dike Seepage Survey Report. [Minn. R. 7001]
5.26.127	<p>The Permittee shall include a Dike Seepage Survey Report as part of the Tailings Basin Annual Report. The Dike Seepage Survey Report shall summarize the field survey and include the following information:</p> <ul style="list-style-type: none"> 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. [Minn. R. 7001]
5.26.128	The Permittee shall summarize the results of the Dike Seepage Survey in a Dike Seepage Survey Report. [Minn. R. 7001]
5.26.129	Mobile and Rail Equipment Service Areas. [Minn. R. 7001]
5.26.130	<p>Mobile equipment and rail equipment service areas in the facility shall be operated in compliance with the following:</p> <ul style="list-style-type: none"> a. The Permittee shall collect and dispose of locomotive traction sand, degreasing wastes, motor oil, oil filters, oil sorbent pads and booms, transmission fluids, power steering fluids, brake fluids, coolant/antifreeze, radiator flush wastewater and spent solvents in accordance with applicable solid and hazardous waste management rules. These materials shall not be discharged to surface or ground waters of the state. b. The steam-cleaning of mobile equipment and rail equipment, except for limited outdoor cleaning of large drills and shovels, shall be conducted in wash bays that drain to wastewater treatment systems that include the removal of suspended solids and flammable liquids. The only washing of mobile equipment done in outside areas shall be to remove mud and dirt that has accumulated during outside work. c. The Permittee shall not use solvent-based cleaners, such as those available for brake cleaning and degreasing, to wash mobile and rail equipment unless the cleaning fluids are completely contained and not allowed to flow to surface or ground waters of the state. Soaps and detergents used in washing shall be biodegradable. d. Mobile and rail equipment maintenance and repairs shall not be conducted in wash bays. e. Hazardous materials shall not be stored or handled in wash bays. f. The Permittee shall inspect wastewater containment systems regularly, and repair any leaks that are detected immediately. g. If the Permittee discovers that recoverable amounts of petroleum products have entered wastewater containment systems, they shall be recovered immediately and reported to the MPCA. h. Spill cleanup procedures shall be posted in mobile and rail equipment maintenance and repair areas. [Minn. R. 7001]

		Special Requirements - Mining
	5.27.131	Functional Equivalent. [Minn. R. 7001]
	5.27.132	This permit does not authorize a discharge to groundwater that would be considered the functional equivalent to a NPDES direct discharge from tailings basin see page. [Minn. R. 7001]
	5.27.133	To better understand the potential effects of seepage from the tailings basin and aid in the functional equivalency determination, the permittee is required to conduct additional internal water monitoring at the tailings basin and surface water monitoring during the term of this permit. [Minn. R. 7001]
	5.27.134	<p>The Permittee shall conduct an evaluation of whether there is a functionally equivalent discharge of seepage from the tailings basin to nearby surface waters. The evaluation shall include an analysis of monitoring data collected for a minimum of two years from the surface water stations (SW 001 - SW 008), internal waste stream stations (WS 003 and WS 004), and surface discharge stations (SD 001, SD 005 and SD 009 (if discharging)).</p> <p>The data shall be summarized, and an evaluation shall determine whether or not the seepage discharge from the tailings basin is the functionally equivalent of a direct discharge to waters of the state. In this analysis, the assumption must be made that the tailings basin seepage is a point source discharge. The functional equivalent evaluation shall consider the following factors:</p> <ol style="list-style-type: none"> 1. Transit time; 2. Distance traveled; 3. Nature of the material through which the pollutants monitored at WS 003 and WS 004 travels; 4. Extent to which the pollutant is diluted or chemically changed as it travels; 5. Amount of pollutant entering waters of the state relative to the amount of pollutant that leaves the point source; 6. The manner by or area which the pollutant enters the waters of the state; 7. The degree to which the pollutant (at the point of entering the water of the state) has maintained its specific identity; and 8. Whether or not the tailings basin seepage has the potential to cause or contribute to any applicable state surface water quality standard applicable in all downstream receiving waters. <p>The Functional Equivalent Evaluation is due 180 days prior to permit expiration and may be included with the application for permit reissuance. submit a functional equivalent evaluation: Due by 180 days prior to permit expiration. [Minn. R. 7001]</p>
	5.27.135	<p>The Permittee may request a minor permit modification for the reduction of internal waste stream monitoring stations or removal of station WS 003 after two years of monitoring for the internal waste stream stations WS 003 and WS 004.</p> <p>Reduced monitoring shall be allowed only if pollutant levels in the monitoring locations are of the same water quality and/or the Permittee justifies the reasons for a reduction. A reduction in monitoring frequency or elimination of WS 003 is not effective until approved by the MPCA. The Permittee shall be notified in writing if a reduction in monitoring has been authorized. [Minn. R. 7001]</p>
	5.27.136	Allowable Discharge. [Minn. R. 7001]
	5.27.137	<p>The Permittee shall discharge through outfalls SD 001 and SD 005 no more than the annual net precipitation from the tailings basin during each calendar year. The annual net precipitation shall be determined as follows:</p> $Y = (A_f * P) - (A_t * E)$ <p>where:</p> <p>Y = annual net precipitation A_f = area of the tailings basin plus the drainage area contributing surface runoff to the tailings basin</p>

	<p>P = total annual precipitation At = open water area of the tailings basin plus Reservoir 6, and; E = annual lake evaporation</p> <p>The total annual precipitation and the annual lake evaporation shall be based on the sum of the data reported through station WS 002. [40 CFR 440, Minn. R. 7001]</p>
5.27.138	<p>If the Permittee does not discharge through outfalls SD 001 and SD 005 the volume equivalent to the annual net precipitation in a given year, then the Permittee may carry over the difference between the annual net precipitation and the actual volume discharged as a credit to the annual net precipitation for the following calendar year. Such credit may be carried over only to that calendar year immediately following the year which not all of the allowable discharge volume was utilized. [Minn. R. 7001]</p>
5.27.139	<p>Tailings Basin. [Minn. R. 7001]</p>
5.27.140	<p>The Permittee shall notify the Commissioner in writing at least 180 days in advance of any expansion of the area covered by mine tailings beyond the area enclosed by the perimeter dams on the date of issuance of this permit. [Minn. R. 7001]</p>
5.27.141	<p>The Permittee shall notify the Commissioner in writing at least 30 days prior to the addition or modification of hydraulic relief features, such as granular blanket and filter drains, relief wells and relief trenches, other than those described in the Facility Description or Fact Sheet for this permit. [Minn. R. 7001]</p>
5.27.142	<p>The Permittee shall make every effort to prevent and contain any breaks in or spills from the tailings pipeline which runs from the Keewatin Taconite plant to the tailings basin. In particular, the Permittee shall comply with the requirements of Noncompliance, Upset Defense and Duty to Notify and Avoid Pollution requirements in the Total Facility section of the permit, as well as the Tailings Spill Response Plan should a pipeline break or spill occur. [Minn. R. 7001]</p>
5.27.146	<p>Per- and Polyfluoroalkyl Substances (PFAS) Inventory. [Minn. R. 7001]</p>
5.27.147	<p>The Permittee shall submit the results of the per- and polyfluoroalkyl substances (PFAS) inventory within 18 months of permit issuance. The intent of the inventory is to establish if PFAS containing materials are used at the facility and if they are being discharged to the environment. The PFAS Inventory shall include:</p> <ul style="list-style-type: none"> A. Identify all current PFAS containing or potentially PFAS containing materials used at the facility. For each material, describe the material used, location(s) used, time frame used, and identify which PFAS compounds were present or were potentially present. B. List all chemical additives currently used, indicate if they do or do not contain PFAS, identify the PFAS compound(s) in each chemical additive. C. Identify potential pathways for PFAS to enter the environment from the Permittee's current activities at the facility. D. Based on past or current uses of PFAS, identify areas of concern where PFAS may be present at the facility. E. List historic activities that may have contributed PFAS to the environment and include where these activities may have occurred; and F. Describe work completed by the Permittee prior to permit issuance to identify and reduce PFAS usage at the facility and the findings of the work. <p>The MPCA reserves the right to modify the permit to include monitoring for PFAS. [Minn. R. 7001]</p>
5.27.152	<p>Annual Meeting. [Minn. R. 7001]</p>
5.27.153	<p>The Permittee shall conduct a meeting annually to disclose factual information to the community regarding facility operations, changes made or planned to reduce pollutants in its mining related discharge and compliance with environmental permits and regulations. The Permittee shall provide the time, date, location, format, and agenda of the meeting to the public 60 days before the meeting. hold a meeting: Due annually, by the 31st of December. Submit a written notification following each meeting. [Minn. R. 7001.0150, subp. 2, Minn. Stat. ch. 115.03, subp. 1(2), Minn. Stat. ch. 115.03, subp. 1(8)]</p>

		Industrial Stormwater Sector G: Metal Mining (Ore Mining and Dressing)
5.28.278		Authorization. [Minn. R. 7000]
5.28.279		This chapter authorizes the Permittee to discharge stormwater associated with industrial activity from industrial activities associated with SIC code 1011 in accordance with the terms and conditions of this chapter. [Minn. R. 7090]
5.28.280		Discharges of stormwater runoff from the following areas are authorized for active facilities, temporarily inactive facilities, and metallic mining sites undergoing reclamation: A. Discharges from waste rock and overburden piles if the composition is entirely of stormwater and the discharge does not combine with mine drainage; B. Topsoil piles; C. Off-site haul and access roads; D. On-site haul and access roads constructed of waste rock, overburden, or spent ore if discharge composition is entirely stormwater and does not combine with mine drainage; E. On-site haul and access roads not constructed of waste rock, overburden, or spent ore except if the Permittee uses mine drainage for dust control; F. Runoff from tailings dams or dikes not constructed of waste rock or tailings, if composed entirely of stormwater and no process fluids are present; G. Runoff from tailings dams or dikes when constructed of waste rock or tailings if composed entirely of stormwater, no process fluids are present, and if the discharge does not combine with mine drainage; H. Concentration building if composed only of stormwater and there is no contact with material piles; I. Mill site and pellet plant if composed only of stormwater and there is no contact with material piles; J. Office or administrative building and housing if mixed with stormwater from industrial area; K. Chemical storage area; L. Docking facility if no excessive contact with waste product that would otherwise constitute mine drainage; M. Explosive storage; N. Fuel storage areas (oil tanks, coal piles); O. Vehicle and equipment maintenance area and building. P. Power plant; Q. Truck wash areas if no excessive contact with waste product that would otherwise constitute mine drainage; R. Unreclaimed or disturbed areas outside of active mining area; S. Partially or inadequately reclaimed areas or areas not released from reclamation requirements; and T. Parking areas where there is parking of vehicles/equipment other than an employee or visitor type parking area. [Minn. R. 7090]
5.28.281		Prohibited Discharges. [Minn. R. 7000]
5.28.282		This chapter does not authorize the discharge of stormwater to prohibited waters as defined in Minn. R. 7050.0335. [Minn. R. 7090]
5.28.283		Water Quality Standards. [Minn. R. 7000]
5.28.284		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. [Minn. R. 7050, Minn. R. 7060]
5.28.285		The Permittee shall limit and control the use of materials at the facility that may cause exceedances of groundwater 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. [Minn. R. 7060]
5.28.286		Stormwater Pollution Prevention Plan. [Minn. R. 7000]
5.28.287		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

	<p>discharged from the site. Guidance for preparing the SWPPP can be found on the web at: http://www.pca.state.mn.us. [Minn. R. 7090]</p>
5.28.288	<p>At a minimum, the SWPPP must include:</p> <ul style="list-style-type: none">A. A description of the industrial activities conducted at the facility;B. A drainage map (USGS or equivalent) showing:<ul style="list-style-type: none">i. Location of all impervious surfaces;ii. Arrows indicating directions of stormwater flow; andiii. Location of all structural and non-structural BMPs.C. An assessment and inventory of all activities or exposed materials that can potentially be sources of pollutants to stormwater discharges;D. A description of all structural and non-structural BMPs the Permittee designs or implements at the facility;E. A list of personnel receiving training to conduct facility inspections;F. Records of all details relating to the monthly visual inspections;G. Information pertaining to maintenance in accordance with Maintenance Requirements section of this permit;H. A spill prevention and response procedure; andI. A Mercury Minimization Plan if the Permittee discovers mercury sources as a result of compliance with the Stormwater Control Measures section of this permit. [Minn. R. 7090]
5.28.289	<p>In addition to the requirements in the Stormwater Pollution Prevention Plan section of this permit, the Permittee shall also comply with the following:</p> <p>A. Facility Map. The Permittee shall document in the SWPPP the locations of the following (as appropriate):</p> <ul style="list-style-type: none">i. Mining or milling site boundaries;ii. Access and haul roads;iii. Outline of the drainage areas of each monitoring location within the facility with indications of the types of discharges from the drainage areas;iv. Location(s) of all permitted discharges covered under an individual NPDES/SDS permit, outdoor equipment storage, fueling, and maintenance areas;v. Materials handling areas;vi. Outdoor manufacturing, outdoor storage, and material disposal areas;vii. Outdoor chemicals and explosives storage areas;viii. Overburden, materials, soils, or waste storage areas;ix. Tailings piles and ponds (including those proposed);x. Heap leach pads;xi. Off-site points of discharge for mine drainage and process water;xii. Surface waters;xiii. Boundary of tributary areas that are subject to effluent limitations guidelines; andxiv. Location(s) of sites undergoing reclamation and reclaimed areas. <p>B. Inventory of Exposed Materials. The Permittee shall document in the SWPPP the mining and associated activities that can potentially affect stormwater, including a general description of the location of the site relative to major transportation routes and communities.</p> <p>C. Potential Pollutant Sources. For each area of the mine or mill site where industrial stormwater discharges 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:</p> <ul style="list-style-type: none">i. The mineralogy of the ore and waste rock (e.g. acid forming);ii. Toxicity and quantity of chemicals the Permittee uses, produces, or discharges;iii. The likelihood of contact with stormwater;iv. Vegetation of site (if any); andv. History of significant leaks or spills of toxic or hazardous pollutants. Also include a summary of any

	<p>existing ore or waste rock or overburden characterization data and test results for potential generation of acid rock. If the Permittee acquires any new data due to changes in type of ore the Permittee mines, the Permittee shall update the SWPPP with this information.</p> <p>D. Description of Stormwater Controls. The Permittee shall document all control measures the Permittee implements. If the Permittee implements or plans control measures that are not listed above, the Permittee shall include descriptions of these controls in the SWPPP. [Minn. R. 7090]. [Minn. R. 7090]</p>
5.28.290	The SWPPP shall be developed and implemented within 180 days after permit issuance and shall be available to the MPCA upon request. [Minn. R. 7090]
5.28.291	Stormwater Control Measures. [Minn. R. 7000]
5.28.292	Permittee shall design and implement all stormwater control measures, including BMPs, to reduce or eliminate contact or exposure of pollutants to stormwater, to prevent erosion, control sediment and manage runoff, or remove pollutants from stormwater prior to discharge from the facility. [Minn. R. 7090]
5.28.293	Good Housekeeping. [Minn. R. 7000]
5.28.294	<p>The Permittee shall employ good housekeeping practices to:</p> <ul style="list-style-type: none"> A. Keep exposed areas that may contribute pollutants to stormwater sufficiently clean to reduce or eliminate contaminated stormwater runoff; and B. Remove and properly dispose of significant materials that have been tracked off-site within 72 hours of discovery <p>In addition, the Permittee shall identify and manage all on-site sources of dust to minimize stormwater contamination from the deposition of dust on areas exposed to precipitation. [Minn. R. 7090]</p>
5.28.295	Salt Storage, Use, and Management at the Facility. [Minn. R. 7000]
5.28.296	<p>The Permittees should implement the following BMPs if salt piles are present at the facility:</p> <ul style="list-style-type: none"> A. Cover salt piles or store the salt piles indoors; B. Minimize the use of salt or other de-icing materials by using the proper equipment, material, and application rates; C. Implement practices to reduce exposure resulting from adding or removing material from the salt piles (e.g., sweeping, diversions, containment); and D. Document within the SWPPP the location of any storage piles containing salt stored outside. <p>[Minn. R. 7090]</p>
5.28.297	Erosion Prevention & Sediment Control. [Minn. R. 7000]
5.28.298	The Permittee shall identify areas at the facility that, due to topography, land disturbance (e.g. construction, grading, landscaping), or other factors, have potential for soil erosion. In those areas, the Permittee shall implement structural, vegetative, and/or stabilization BMPs to prevent or control on-site erosion and reduce sediment loads in stormwater discharges. [Minn. R. 7090]
5.28.299	Chemical Additive Use. [Minn. R. 7000]
5.28.300	<p>If the Permittee intends to use polymers, flocculants, or other sedimentation treatment chemicals at the facility, the Permittee shall comply with the following minimum requirements:</p> <ul style="list-style-type: none"> A. The Permittees must use conventional erosion and sediment controls prior to chemical addition to ensure effective treatment; B. Chemicals may only be applied where treated stormwater flows to a sediment control system that allows for filtration or settlement of the floc prior to discharge; C. Chemicals must be selected that are appropriately suited to the types of soils likely to be exposed to stormwater runoff at the facility, and to the expected turbidity, pH, and flow rate of stormwater flowing into the chemical treatment system; and D. Use chemicals in accordance with standard engineering practices, and with dosing specifications and sediment removal design specifications of the manufacturer or chemical supplier. [Minn. R. 7090]

5.28.301	Management of Runoff. [Minn. R. 7000]
5.28.302	If treatment of stormwater (e.g. chemical or physical systems, oil and water separators, artificial wetlands) is necessary to protect water quality, the Permittee shall describe the type and location of treatment the Permittee uses. Where practical, the Permittee shall use passive and/or active treatment of stormwater runoff. The Permittee may discharge treated runoff as a stormwater source regulated under this permit provided the discharge does not combine with discharges subject to effluent limitation guidelines for the Ore Mining and Dressing Point Source Category (40 CFR pt. 440). [Minn. R. 7000]
5.28.303	Facility Inspection Requirements. [Minn. R. 7000]
5.28.304	The Permittee shall 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 of these inspections must be conducted during a rain or snowmelt runoff event. [Minn. R. 7090]
5.28.305	All facility inspections must include the following: A. An evaluation of the facility to determine that the SWPPP accurately reflects site conditions. At a minimum, the Permittee shall inspect storage tank areas, waste disposal areas, maintenance areas, loading/unloading areas, and raw material, intermediate product, by-product and final product storage areas; B. An evaluation of all structural and non-structural BMPs to determine effectiveness and proper function; C. An evaluation of the facility to determine whether there are new exposed significant materials or activities at the site since completion of the SWPPP; and D. During an inspection conducted during a runoff event, an evaluation of the stormwater runoff to determine discoloration or if other contaminants are visible in the runoff (e.g. oil & grease). [Minn. R. 7090]
5.28.306	The Permittee shall document all inspections, and the following information must be stored with the SWPPP: A. Inspection date (i.e. mm/dd/yyyy), time, and weather conditions; B. Inspector name; C. Inspection findings; and D. A description of any necessary corrective actions and a schedule for corrective action completion. [Minn. R. 7090]
5.28.307	The Permittee shall conduct site inspections in accordance with the Stormwater Control Measures section of this permit. If the facility is inactive and unstaffed, temporarily inactive and unstaffed as defined above, or is a site undergoing reclamation, the Permittee does not have to do monthly facility inspections. The Permittee shall inspect the site when the Permittee has reason to believe that severe weather or natural disasters may damage stormwater control measures or increase discharges. 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 the Stormwater Control Measures section of this permit must begin immediately. The MPCA retains the authority to revoke this exception where it is determined that the discharge causes, has a reasonable potential to cause, or contributes to an instream excursion above an applicable water quality standard, including designated uses. [Minn. R. 7090]
5.28.308	If conditions are observed at the site that require changes in the SWPPP, such changes shall be made to the SWPPP prior to submission of the annual report for that calendar year. [Minn. R. 7090]
5.28.309	If the findings of a site inspection indicate that BMPs are not meeting the objectives as identified above, corrective actions shall be initiated within thirty days and the BMP restored to full operation as soon as conditions allow. [Minn. R. 7090]
5.28.310	Maintenance Requirements. [Minn. R. 7000]
5.28.311	BMP Maintenance. [Minn. R. 7000]
5.28.312	The Permittee shall maintain all stormwater BMPs at the facility, to ensure BMP effectiveness. A. The Permittee shall develop a schedule for preventive maintenance of all stormwater BMPs, and

	<p>store the schedule with the SWPPP;</p> <p>B. If the Permittee identifies BMPs that are not functioning properly, the Permittee shall replace, maintain, or repair the BMPs within 7 calendar days of discovery. If the Permittee cannot complete BMP replacement, maintenance, or repair within 7 calendar days, the Permittee shall implement effective backup BMPs within 48 hours of discovery, and maintain the backup BMPs until the Permittee restores the effectiveness of the original BMPs. The Permittee shall document the justification for an extended replacement, maintenance, or repair schedule of the failed BMPs, and store it with the SWPPP; and</p> <p>C. The Permittee shall record dates of maintenance and repairs. The Permittee shall store these records with the SWPPP. [Minn. R. 7090]</p>
5.28.313	Equipment Preventive Maintenance. [Minn. R. 7000]
5.28.314	The Permittee shall develop and implement a preventive maintenance program and store the information with the SWPPP. The program must require regular inspection, maintenance, and repair of industrial equipment and systems. The inspections must identify conditions that could cause breakdowns or failures, which may result in leaks, spills, and other releases (e.g. hydraulic leaks, torn bag-house filters, etc.), and the discharge of pollutants to stormwater. The preventive maintenance program may incorporate, by reference, a separate Operation and Maintenance Manual (or equivalent), as long as it addresses the items the preventive maintenance program requires above. [Minn. R. 7090]
5.28.315	Spill Prevention and Response Requirements. [Minn. R. 7000]
5.28.316	The Permittee shall develop and implement a spill prevention and response procedure. If the facility already has a separate plan (e.g. Prevention and Response Plan as required by Minn. Stat. ch. 115E, or Spill Prevention Control and Countermeasure (SPCC) Plan as required by Federal Law), that Permittee can incorporate the plan by reference into the SWPPP. [Minn. R. 7090]
5.28.317	The Permittee shall ensure the use of infiltration is not part of a spill containment plan. This includes spill plans required under Federal Spill Prevention Containment and Control (SPCC) requirements or Minn. Stat. ch. 115E "The Spill Bill.". [Minn. R. 7090]
5.28.318	The Permittee shall ensure the use of a pond is not part of a spill containment plan, including spill plans required under Federal Spill Prevention Containment and Control (SPCC requirements or Minn. Stat. ch. 115E), unless appropriate controls are in place to contain the spill. If the Permittee uses a pond as part of a spill containment plan, the pond must have a chemically compatible liner for chemical spills that the Permittee expects to enter the pond and must have outlet controls to contain a spill. A plan must also be in place to clean up a spill so that the pond will not continue to be a source of spilled pollutants. The Permittee shall document evaluations with the SWPPP. [Minn. R. 7090]
5.28.319	Employee Training Program. [Minn. R. 7000]
5.28.320	<p>The Permittee shall develop and implement a training program for employees. Training must cover stormwater control measures, components and goals of the SWPPP, monitoring procedures, and other applicable requirements of the permit.</p> <p>The program must include a training schedule that includes training at least annually. Training must correlate with the job function of the employee. At a minimum, the Permittee shall ensure that the following individuals receive training:</p> <p>A. Employee(s) responsible for writing, revising, and implementing the SWPPP;</p> <p>B. Employee(s) responsible for installing, inspecting, maintaining, and repairing BMPs;</p> <p>C. Employee(s) whose work involves the regulated industrial activity, including but not limited to loading/unloading areas, processing areas, waste and fluid management areas, fueling areas, and vehicle maintenance areas; and</p> <p>D. Employee(s) who conduct stormwater discharge monitoring. [Minn. R. 7090]</p>
5.28.321	<p>The Permittee shall maintain training records including:</p> <p>A. The trainer's name and trainer's organization (internal or external);</p> <p>B. The names (printed first and last) of the employee(s) and date(s) the employee(s) received training; and</p> <p>C. A detailed description of the training provided to each employee. [Minn. R. 7090]</p>

5.28.322	The Permittee shall maintain the training records either in the SWPPP, or in a separate record stored with the SWPPP, for at least three years. [Minn. R. 7090]
5.28.323	The Permittee shall conduct training at active and temporarily inactive sites. The Permittee shall document all training regardless of site type in the facility's SWPPP. [Minn. R. 7090]
5.28.324	Other Industry Specific Control Measures. [Minn. R. 7000]
5.28.325	When capping is necessary to minimize pollutant discharges in stormwater, Permittees shall identify and documents in the SWPPP the source needing capping and the cap construction material. [Minn. R. 7090]
5.28.326	Records. [Minn. R. 7000]
5.28.327	The SWPPP shall be retained for the duration of the permit. A copy of the SWPPP shall remain on the permitted site whenever Permittee staff is on the site and be available upon request. The Permittee shall 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. [Minn. R. 7090]
5.28.328	Reporting. [Minn. R. 7000]
5.28.329	The Permittee shall submit a stormwater annual report: Due annually, by the 31st of March of each year following permit issuance. The Permittee shall submit the Annual Report online through the electronic submittal system e-Services. [Minn. R. 7090]
5.28.330	The Annual Report must cover those portions of the previous calendar year the Permittee had authorization to discharge industrial stormwater. The Annual Report must include, at a minimum, the following information: A. A summary of inspection dates, findings, and any BMP maintenance the Permittee conducted during the course of the reporting year; B. The results of any inspection requirements involving oil and grease, as described in the Sector-Specific Requirements section of this permit, if applicable; C. A confirmation that the SWPPP accurately reflects facility conditions; D. A confirmation that newly-exposed significant materials (if any) are identified and that the Permittee modifies the SWPPP to address them; E. A confirmation that the Permittee conducts a review of impaired waters and that the Permittee modifies the SWPPP to address applicable permit requirements of the Stormwater Pollution Prevention Plan and Benchmark Monitoring Requirements sections of this permit, if necessary; F. A confirmation that the Permittee meets the review requirements of USEPA-approved TMDLs that may apply to the facility; G. A description of any SWPPP modification the Permittee makes in accordance with the Stormwater Pollution Prevention Plan section of this permit, including any information supporting the use of a monitoring waiver outlined in the Benchmark Monitoring Requirements Section of this permit; H. A list of all spills and leaks (as pursuant to Minn. Stat. 115.061) occurring at the facility during the reporting year; and I. If applicable, a summary of all facility mobile industrial activities. At a minimum, the summary must include a description (including SIC code and/or narrative activity), locations of the mobile industrial activity (including latitude and longitude coordinates), and length of time of the mobile industrial activity occurrence(s). [Minn. R. 7090]
5.28.331	Industrial Stormwater Ponds and Infiltration Systems. [Minn. R. 7000]
5.28.332	Notification. [Minn. R. 7000]
5.28.333	If the Permittee has an industrial stormwater discharge and directly discharges into a regulated Municipal Separate Storm Sewer System (MS4), the Permittee shall notify the MS4 operator that they are discharging industrial stormwater into their storm sewer system. [Minn. R. 7090]
5.28.334	No Exposure. [Minn. R. 7000]
5.28.335	Sector G industrial facilities may use designed infiltration systems or industrial stormwater ponds for stormwater management. Stormwater ponds/sedimentation basins shall be designed by a registered

	<p>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 shall follow the guidance located on the website at: http://www.pca.state.mn.us/r4ard68. [Minn. R. 7090]</p>
5.28.336	<p>"No exposure" means that all industrial materials or activities are protected by a storm resistant shelter to prevent exposure to rain, snow, snowmelt, or runoff. Industrial materials or activities include, but are not limited to, material handling equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products, or waste products. Material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, or waste product. [Minn. R. 7090.80, 9]</p>
5.28.337	<p>A facility that meets the eligibility requirements for the No Exposure Exclusion requirements outlined below must submit an application through e-Services for No Exposure to the MPCA in accordance with Minn. R. 7090.3060. Directions to acquire a No Exposure Exclusion can be found on the MPCA website at https://www.pca.state.mn.us/water/industrial-stormwater. [Minn. R. 7090.3060]</p>
5.28.338	<p>This exclusion is for facilities where all industrial materials or activities are protected by a storm-resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. A facility must meet the following conditions to qualify for this exclusion:</p> <ul style="list-style-type: none"> A. Eliminate or obtain permit coverage for all prohibited non-stormwater discharges; B. As appropriate, inspect and eliminate all areas of past exposure (e.g., stains or debris resulting from previous runoff and exposure of stormwater to significant materials); C. Eliminate exposure of authorized non-stormwater discharges and all significant materials related to industrial activity (including but not limited to waste materials, dumpsters that are not empty/lidded or at loading docks); D. Eliminate exposure of all industrial activities or authorized non-stormwater discharges coming in contact with stormwater. Ensure that industrial equipment is properly maintained and free of leaks; and E. Eliminate exposure of significant materials through any direct or indirect pathway, such as from industrial activities that generate dust and particulates. [40 CFR 122.26(g), Minn. R. 7090.3060, Minn. R. 7090.3080]
5.28.339	<p>If a Permittee plans a change that will result in failure to maintain a condition of No Exposure at a facility, the Owner/Operator of a facility shall apply for a permit modification and receive permit authorization for the discharge of industrial stormwater before commencing the change or the facility may apply for coverage under the Industrial Stormwater General Permit. [Minn. R. 7090.3060, Minn. R. 7090.3060, 5]</p>
5.28.340	<p>Sector Specific Definitions. [Minn. R. 7000]</p>
5.28.341	<p>The following definitions do not supersede the definitions of active and inactive mining facilities established by 40 CFR 122.26(b)(14)(iii): [Minn. R. 7090]</p> <p>"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. [Minn. R. 7090]</p> <p>"Active metal mining facility" means a place where the Permittee conducts work or other activity related to the extraction, removal, or recovery of metal ore. 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 440.132(a). [Minn. R. 7090]</p> <p>"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 applicable State or Federal agency. An inactive metal mining facility has an identifiable Owner/Operator. [Minn. R. 7090]</p>

	"Temporarily inactive metal mining facility" means a site or portion of a site where metal mining and/or milling occurred in the past but currently the Permittee is not actively undertaking, and the facility is covered by an active mining permit issued by the applicable State or Federal agency. [Minn. R. 7090]
	Total Facility Requirements (NPDES/SDS)
5.29.342	Definitions. Refer to the Permit User's Manual found on the MPCA's website at https://www.pca.state.mn.us/sites/default/files/wq-wwtp7-09.pdf for standard definitions. [Minn. R. 7001]
5.29.343	Incorporation by Reference. This permit incorporates the following applicable federal and state laws applicable to the Permittee and enforceable parts of this permit: 40 CFR pts. 122.41, 122.42, 136, 403 and 503; Minn. R. chs. 7001, 7041, 7045, 7050, 7052, 7053, 7060, and 7080; and Minn. Stat. chs. 115 and 116. [Minn. R. 7001]
5.29.344	Permittee Responsibility. The Permittee shall perform the actions or conduct the activity authorized by this permit in compliance with the conditions of the permit and, if required, in accordance with the plans and specifications approved by the MPCA. [Minn. R. 7001.0150, subp. 3(E)]
5.29.345	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 40 CFR pts. 400 to 460 and Minn. R. chs. 7050, 7052, 7053 and any other applicable MPCA rules. [Minn. R. 7001.1090, subp. 1(A)]
5.29.346	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]
5.29.347	Property Rights. This permit does not convey a property right or an exclusive privilege. [Minn. R. 7001.0150, subp. 3(C)]
5.29.348	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(O)]
5.29.349	The MPCA's issuance of this permit does not obligate the MPCA to enforce local laws, rules, or plans beyond what Minnesota statutes authorize. [Minn. R. 7001.0150, subp. 3(D)]
5.29.350	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(A)]
5.29.351	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(B)]
5.29.352	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. [Minn. R. 7001]
5.29.353	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. [Minn. R. 7001]
5.29.354	Inspection and Entry. When authorized by Minn. Stat. ch. 115.04, 115B.17, subd. 4, and 116.091, and upon presentation of proper credentials, the Permittee shall allow the MPCA, or an authorized employee or agent of the MPCA, to enter at reasonable times upon the property of the Permittee to examine 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 investigations, 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(I)]
5.29.355	Control Users. The Permittee shall regulate the users of its facility 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. [Minn. R. 7001.0150, subp. 3(F)]
5.29.356	Sampling. [Minn. R. 7001]
5.29.357	Representative Sampling. The Permittee shall conduct samples and measurements required by this permit as specified in this permit and shall be representative of the discharge or monitored activity. [Minn. R. 7001.0150, subp. 2(B)]
5.29.358	Additional Sampling. If the Permittee monitors more frequently than required, they shall report the results and the frequency of monitoring on their eDMR for that reporting period. [Minn. R. 7001.1090, subp. 1(E)]
5.29.359	Certified/Accredited Laboratory. A laboratory accredited by the Minnesota Department of Health [Minn. R. 4740.2010 through Minn. R. 4740.2120] and/or certified by the MPCA [Minn. R. 7001.4310 through Minn. R. 7001.4390] shall conduct analyses required by this permit, unless approved in writing by the MPCA. A certified/accredited laboratory does not need to complete analyses of dissolved oxygen, pH, temperature, specific conductance, and total residual oxidants (chlorine, bromine). Those analyses shall comply with 40 CFR pt. 136. Dissolved oxygen, pH, and total residual oxidants must be performed on-site. Follow the manufacturer's specifications for equipment maintenance and use. [Minn. R. 4740.2010-4740.2120, Minn. R. 7001.4310-7001.4390]
5.29.360	Sample Preservation and Procedure. Sample preservation and test procedures for the analysis of pollutants shall conform to 40 CFR pt. 136 and Minn. R. 7041.3200. [Minn. R. 7001.0150, subp. 2(B), Minn. R. 7041.3200]
5.29.361	Equipment Calibration. The Permittee shall check and/or calibrate flow meters, pumps, flumes, lift stations, or other flow monitoring equipment used for purposes of determining compliance (within plus or minus ten percent of the true flow values) with permit requirements at least twice annually. [Minn. R. 7001.0150, subp. 2(B & C)]
5.29.362	Maintain Records. The Permittee shall keep the records required by this permit for at least three years, including any calculations, original recordings from automatic monitoring instruments, and laboratory sheets. 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 shall include the following information: A. The exact place, date, and time of the sample or measurement; B. The date and time of analysis; C. The name of the person who performed the sample collection, measurement, analysis, or calculation; D. The analytical techniques, procedures, and methods used; and E. The results of the analysis. [Minn. R. 7001.0150, subp. 2(C)]
5.29.363	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 Permittee shall record the information in the specified areas on those forms and in the units specified. Required forms may include a Sample Values Form. If required, the Permittee shall record individual values for each sample and measurement on the Sample Values Form provided by the MPCA. The Permittee shall submit Sample Values Form with the appropriate eDMRs. The Permittee may design and use their own Sample Values Form; however, the Permittee shall not use their form until the MPCA reviews and approves the form. Note: The Permittee shall also record required summary information on their eDMR. Permittee submitted summary information contained only on the Sample Values Form does not comply with reporting requirements. [Minn. R. 7001.0150, subp. 2(B), Minn. R. 7001.1090, subp. 1(D)]

5.29.364	<p>Submitting Reports. The Permittee shall submit eDMRs, Sample Values Forms, and other supplemental attachment forms via MPCA e-Services after the MPCA approves their authorization request.</p> <p>The Permittee shall electronically submit eDMRs, Sample Values Forms, and other supplemental attachment forms by the 21st day of the month following the sampling period or otherwise as specified in this permit. The Permittee shall complete eDMR submittal on or before 11:59 p.m. of the 21st day of the month following the sampling period or as otherwise specified in this permit. The Permittee shall submit an eDMR for each required station even if no discharge occurred during the reporting period.</p> <p>The Permittee shall submit other reports required by this permit electronically. The Permittee shall submit reports by the date specified in this permit. The Permittee shall submit on or before 11:59 p.m. on the date specified in this permit.</p> <p>Electronically: wq.submittals.mpca@state.mn.us Include Water quality submittals form: www.pca.state.mn.us/sites/default/files/wq-wwprm7-71.docx. [Minn. R. 7001.0150, subp. 2(B), Minn. R. 7001.0150, subp. 3(H)]</p>
5.29.365	<p>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 a comment on the eDMR explaining the circumstances of the incomplete or incorrect report. If it is impossible to amend the report or eDMR electronically, the Permittee shall immediately notify the MPCA and the MPCA will provide direction for the amendment submittals. [Minn. R. 7001.0150, subp. 3(G)]</p>
5.29.366	<p>Required Signatures. The Permittee or the duly authorized representative of the Permittee shall sign all eDMRs, forms, reports, and other documents submitted to the MPCA per Minn. R. 7001.0150, subp. 2(D). The person or persons who sign the eDMRs, forms, reports, or other documents shall certify that he or she understands and complies with the certification requirements of Minn. R. chs. 7001.0070 and 7001.0540, including the penalties for submitting false information. A registered professional engineer shall certify technical documents, such as design drawings and specifications, and engineering studies submitted as part of a permit application or by permit conditions. [Minn. R. 7001.0540]</p>
5.29.367	<p>Reporting Limit (RL). The Permittee shall report monitoring results below the 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 Permittee shall report the concentration as "< 0.1 mg/L." The Permittee shall not use "non-detected," "undetected," "below detection limit," or "zero" when reporting results. The MPCA considers these terms as permit reporting violations.</p> <p>Where sample values are less than the RL and the permit requires reporting of an average, the Permittee shall calculate the average as follows:</p> <ul style="list-style-type: none"> A. If some values are less than (<) the RL, substitute zero for all non-detectable values to use in the average calculation; B. If all values are less than (<) the RL, calculate the average and report as < the RL average concentration; and C. To calculate a mass loading with a less than (<) the RL concentration, use the RL value in the calculation and then add the "<" to the product of the concentration and the volume. <p>[Minn. R. 7001.0150, subp. 2(B)]</p>
5.29.368	<p>Records. The Permittee shall, when requested by the MPCA, 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(H)]</p>
5.29.369	<p>Confidential Information. Except for data determined to be confidential according to Minn. Stat. ch. 116.075, subd. 2, all reports required by this permit are available for public inspection. The MPCA does not consider effluent data confidential. To request the MPCA maintain data as confidential, the</p>

	Permittee shall follow Minn. R. 7000.1300. [Minn. R. 7000.1300]
5.29.370	Noncompliance and Enforcement. [Minn. R. 7001]
5.29.371	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. ch. 115.071 and 116.072, including monetary penalties, imprisonment, or both. [Minn. R. 7001.1090, subp. 1(B)]
5.29.372	Criminal Activity. The Permittee shall not knowingly make a false statement, representation, or certification in a record or other document submitted to the MPCA. A person who falsifies a report or document submitted to the MPCA, or tampers with, or knowingly renders inaccurate a monitoring device or method that requires maintenance under this permit is subject to criminal and civil penalties provided by federal and state law. [Minn. R. 7001.0150, subp. 3(G), Minn. R. 7001.1090, subp. 1(G & H), Minn. Stat. ch. 609.671, subd. 1]
5.29.373	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)]
5.29.374	<p>Effluent Violations. If sampling by the Permittee indicates a violation of any discharge limitation specified in this permit, the Permittee shall immediately make every effort to verify the violation by collecting additional samples, if appropriate, investigate the cause of the violation, and take action to prevent future violations.</p> <p>If the Permittee discovers that noncompliance with a condition of the permit occurred and that the noncompliance 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 five days of the discovery.</p> <p>If the Permittee discovers other noncompliance that does not explicitly endanger human health, public drinking water supplies, or the environment, the Permittee shall report the description of noncompliance within 30 days of the discovery. If no eDMR is required within 30 days, the Permittee shall submit a written report including the description of noncompliance within 30 days of the discovery of the noncompliance. This description shall include the following information:</p> <ul style="list-style-type: none"> 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. 3(K)]
5.29.375	<p>Upset Defense. In the event of temporary noncompliance with applicable effluent limitation(s) 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 MPCA as a result of the noncompliance if the Permittee demonstrates by a preponderance of competent evidence:</p> <ul style="list-style-type: none"> 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(I); and F. That the Permittee implemented the remedial measures required by Minn. R. 7001.0150, subp. 3(J). [Minn. R. 7001.1090]
5.29.376	Release. [Minn. R. 7001]
5.29.377	Unauthorized Releases of Wastewater Prohibited. This permit prohibits overflows, discharges, spills, or other releases of wastewater or materials to the environment, whether intentional or not, except

	for discharges from outfalls specifically authorized by this permit. 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, Minn. Stat. ch. 115.061]
5.29.378	<p>Discovery of a Release. Upon discovery of a release, the Permittee shall:</p> <p>A. Take all reasonable steps to immediately end the release;</p> <p>B. Notify the Minnesota Department of Public Safety Duty Officer at 800-422-0798 or 651-649-5451 (metro area) immediately upon discovery of the release. The Permittee may contact the MPCA during business hours at 800-657-3864 or 651-296-6300 (metro area); and</p> <p>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 Permittee cannot immediately or completely recover the released materials or substances, 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. [Minn. R. 7001.1090]</p>
5.29.379	<p>Sampling of a Release. Upon discovery of a release, the Permittee shall:</p> <p>A. Collect representative samples of the release. The Permittee shall sample the release for permitted effluent parameters and other 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, the Permittee shall collect fecal coliform bacteria samples where the Permittee determines that the release contains or may contain sewage. If the Permittee cannot immediately stop the release, the Permittee shall consult with the MPCA regarding additional sampling requirements. The Permittee shall collect samples at least, but not limited to, two times per week for as long as the release continues; and</p> <p>B. Submit the sampling results on the Release Report located on the MPCA's website at https://www.pca.state.mn.us/business-with-us/discharge-monitoring-reports.</p> <p>The Permittee shall submit the Release Report to the MPCA with the next eDMR or within 30 days, whichever is sooner. [Minn. R. 7001.1090]</p>
5.29.380	Bypass. [Minn. R. 7001]
5.29.381	<p>Anticipated Bypass. The Permittee may allow any bypass to occur that does not cause effluent limitation exceedances, but only if the bypass is for essential maintenance to assure efficient operation of the facility. The Permittee shall submit prior notice to the MPCA at least ten days before the date of the bypass, if possible. The notice of the need for an anticipated bypass shall include the following information:</p> <p>A. The proposed date and estimated duration of the bypass;</p> <p>B. The alternatives to bypassing; and</p> <p>C. A proposal for effluent sampling during the bypass. Any bypass wastewater shall enter waters of the state from outfalls specifically authorized by this permit. Therefore, the Permittee shall collect samples 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. [40 CFR 122.41(m)(2 & 3), Minn. R. 7001.1090, subp. 1(J)]</p>
5.29.382	<p>This permit prohibits all other bypasses. The MPCA may take enforcement action against the Permittee for a bypass, unless the specific conditions described in Minn. R. 7001.1090 subp. 1(K) and 40 CFR 122.41(m)(4)(i) are met.</p> <p>In the event of an unanticipated bypass, the Permittee shall:</p> <p>A. Take all reasonable steps to immediately end the bypass;</p> <p>B. Notify the Minnesota Department of Public Safety Duty Officer at 800-422-0798 or 651-649-5451 (metro area) immediately upon commencement of the bypass. The Permittee may contact the MPCA during business hours at 800-657-3864 or 651-296-6300 (metro area);</p> <p>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</p>

	<p>shall consult with other local, state, or federal agencies for implementation of abatement, clean up, or remediation activities; and</p> <p>D. Only allow bypass wastewater as specified in this section to enter waters of the state from outfalls specifically authorized by this permit. The Permittee shall collect samples 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. [40 CFR 122.41(m)(4)j, Minn. R. 7001.1090, subp. 1(K), Minn. Stat. ch. 115.061]</p>
5.29.383	Operation and Maintenance. [Minn. R. 7001]
5.29.384	<p>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.</p> <p>[Minn. R. 7001.0150, subp. 3(F)]</p>
5.29.385	<p>In the event of a reduction or loss of effective treatment of wastewater at the facility, the Permittee shall control production or curtail 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 they restore facility treatment processes or until the Permittee provides an alternative method of treatment. [Minn. R. 7001.1090, subp. 1(C)]</p>
5.29.386	Solids Management. The Permittee shall properly store, transport, and manage biosolids, septage, sediments, residual solids, filter backwash, screenings, oil, grease, and other substances so that pollutants do not enter surface waters or groundwaters of the state. The Permittee shall manage solids in accordance with local, state, and federal requirements. [40 CFR 503, Minn. R. 7041]
5.29.387	Scheduled Maintenance. The Permittee shall schedule maintenance of the treatment works during non-critical water quality periods to prevent water quality degradation, except where the facility requires emergency maintenance to prevent a condition that would be detrimental to water quality or human health. [Minn. R. 7001.0150, subp. 2(B), Minn. R. 7001.0150, subp. 3(F)]
5.29.388	Control Tests. The Permittee shall conduct in-plant control tests at a frequency adequate to ensure compliance with the conditions of this permit. [Minn. R. 7001.0150, subp. 2(B), Minn. R. 7001.0150, subp. 3(F)]
5.29.389	Changes to the Facility or Permit. [Minn. R. 7001]
5.29.390	<p>Permit Modifications. Except as provided under Minn. Stat. ch. 115.07, subd. 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 MPCA issues a written permit for the facility or activity.</p> <p>Permittees that propose to make changes to the facility or discharge that requires permit modification shall follow Minn. R. 7001.0190. If the Permittee cannot determine whether the proposed changes require a permit modification, the Permittee shall contact the MPCA prior to any action. The MPCA recommends that Permittees submit the application for permit modification to the MPCA at least 180 days prior to the planned change. [Minn. R. 7001.0030]</p>
5.29.391	<p>This permit does not require plans, specifications, and MPCA approval when maintenance dictates the need for installation of new equipment, provided the equipment is the same design size and has the same design intent. For instance, Permittees can replace a broken pipe, lift station pump, aerator, or blower with the same design-sized equipment without MPCA approval.</p> <p>If this permit does not expressly authorize the Permittee proposed construction, the MPCA may require a permit modification. If the proposed construction project requires an Environmental Assessment Worksheet under Minn. R. 4410, no construction shall begin until the MPCA issues a negative declaration and the Permittee receives or implements all approvals. [Minn. R. 7001.0030]</p>

5.29.392	<p>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(M)]</p>
5.29.393	<p>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.</p> <p>The Permittee shall request approval for an increase or new use of a chemical additive at least 60 days, or as soon as possible, before the proposed increase or new use. The Permittee shall include at least the following information for the proposed additive as instructed in the chemical additive approvals section on the MPCA's website at https://www.pca.state.mn.us/business-with-us/wastewater-permit-additional-guidance-and-information:</p> <p>A. The process for which the additive will be used; B. Safety Data Sheet (SDS) 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 SDS 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.</p> <p>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. [Minn. R. 7001.0170]</p>
5.29.394	<p>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 of this permit pursuant to Minn. R. 7001.0180. [Minn. R. 7001.0170, Minn. R. 7001.0180]</p>
5.29.395	<p>Total Maximum Daily Load (TMDL) Impacts. The MPCA may require facilities that discharge to an impaired surface water, watershed, or drainage basin to comply with additional permits or permit requirements. These requirements can include additional restriction or relaxation of limits and monitoring as authorized by the CWA 303(d)(4)(A) and 40 CFR ch. 122.44(l)(2)(i), necessary to ensure consistency with the assumptions and requirements of any applicable EPA approved wasteload allocations resulting from TMDL studies. [40 CFR 122.44(l)(2)(i)]</p>
5.29.396	<p>Permit Transfer. This permit is not transferable to any person without the express written approval of the MPCA after compliance with the requirements of Minn. R. 7001.0190. A person who receives permit transference shall comply with the conditions of this permit. [Minn. R. 7001.0150, subp. 3(N)]</p>
5.29.397	<p>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 a Facility Closure Plan to the MPCA for approval.</p> <p>The MPCA may require a permit modification or reissuance for facility closure that could result in a</p>

	<p>potential long-term water quality concern, such as the ongoing discharge of wastewater to surface or groundwater.</p> <p>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 the MPCA requires financial assurance, the MPCA shall approve the amount and type of financial assurance, and proposed modifications to previously MPCA-approved financial assurance. [Minn. Stat. ch. 116.07, subd. 4]</p>
5.29.398	<p>Permit Reissuance. If the Permittee desires to continue permit coverage beyond the date of permit expiration, the Permittee shall submit an application for permit reissuance: Due by 180 days prior to permit expiration. [Minn. R. 7001.0040]</p>
5.29.399	<p>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:</p> <ul style="list-style-type: none">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; orC. 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. <p>[Minn. R. 7001.0040, Minn. R. 7001.0160]</p>

6. Submittal action summary

SD 001	Effluent To Surface Water	
		Facility Specific Limit and Monitoring Requirements
	6.1.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
		Chronic Toxicity Requirements
	6.2.2	The Permittee shall begin chronic toxicity testing quarterly during year three of the permit. After year three, the Permittee shall conduct annual chronic toxicity testing. The Permittee shall submit quarterly chronic toxicity test battery results: Due by three years after permit issuance thereafter. [Minn. R. 7001]
SD 005	Effluent To Surface Water	
		Facility Specific Limit and Monitoring Requirements
	6.3.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
		Chronic Toxicity Requirements
	6.4.2	The Permittee shall begin chronic toxicity testing quarterly during year three of the permit. After year three, the Permittee shall conduct annual chronic toxicity testing. The Permittee shall submit quarterly chronic toxicity test battery results: Due by three years after permit issuance thereafter. [Minn. R. 7001]
SD 009	Effluent To Surface Water	
		Facility Specific Limit and Monitoring Requirements
	6.5.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
		Chronic Toxicity Requirements
	6.6.2	The Permittee shall begin chronic toxicity testing quarterly during year three of the permit. After year three, the Permittee shall conduct annual chronic toxicity testing. The Permittee shall submit quarterly chronic toxicity test battery results: Due by three years after permit issuance thereafter. [Minn. R. 7001]
SW 001	Lake/ Reservoir	
		Facility Specific Requirements
	6.7.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]

SW 002	Stream/ River/Ditch, Downstream	
		Facility Specific Requirements
	6.8.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
SW 003	Stream/ River/Ditch, Downstream	
		Facility Specific Requirements
	6.9.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
SW 004	Lake/ Reservoir	
		Facility Specific Requirements
	6.10.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
SW 005	Stream/ River/Ditch, Downstream	
		Facility Specific Requirements
	6.11.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
SW 006	Wetland, Downstream	
		Facility Specific Requirements
	6.12.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
SW 007	Lake/ Reservoir	
		Facility Specific Requirements
	6.13.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
SW 008	Stream/ River/Ditch, Downstream	
		Facility Specific Requirements
	6.14.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]

WS 001	Water Intake	
		Facility Specific Limit and Monitoring Requirements
	6.15.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
WS 002	Limits Calculation	
		Facility Specific Limit and Monitoring Requirements
	6.16.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
WS 003	Internal Waste Stream	
		Facility Specific Limit and Monitoring Requirements
	6.17.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
WS 004	Internal Waste Stream	
		Facility Specific Requirements
	6.18.1	The Permittee shall submit a monthly DMR: Due by 21 days after the end of each calendar month following permit issuance. [Minn. R. 7001.0150, Subp. 2(B)]
MN0055948	Keewatin Taconite Operations - Tailings	
		Compliance Schedule
	6.19.1	The Permittee shall submit a Sulfate Treatment/Mitigation Alternatives Evaluation Plan by March 1, 2026. submit a sulfate plan: Due March 1, 2026. [Minn. R. 7001]
	6.19.2	A final report documenting the findings of the Sulfate Treatment/Mitigation Alternatives Evaluation Plan shall be submitted by September 1, 2026. submit a sulfate plan: Due September 1, 2026. [Minn. R. 7001]
	6.19.3	The Permittee shall submit a Final Sulfate Compliance Plan by December 1, 2026. submit a Sulfate Compliance Plan: Due December 1, 2026. [Minn. R. 7001]
	6.19.4	If it is determined through the Final Sulfate Compliance Plan that a wastewater treatment system is required to be constructed, and an Environmental Assessment Worksheet (EAW) is required under Minn. R. 4410 to construct a treatment system, the Permittee shall submit to the Agency, an EAW application and a permit application to incorporate the proposed Final Sulfate Compliance Plan. This submittal shall include references to other permitting and/or approvals required, and timelines associated with the permitting activities and approvals. The EAW application and the NPDES/SDS permit application for a major permit modification shall be submitted at the same time as the Final Sulfate Compliance Plan (December 1, 2026).

		No construction of a project which requires an EAW shall begin until the MPCA issues a negative declaration and the Permittee receives or implements all approvals required by the MPCA. submit EAW (environmental assessment worksheet): Due December 1, 2026. [Minn. R. 7001]
	6.19.5	The Permittee shall submit to the MPCA the Final Plans and Specifications by April 1, 2027. submit plans and specifications: Due April 1, 2027. [Minn. R. 7001]
	6.19.6	The Permittee shall notify MPCA upon initiation of construction. Construction of the selected treatment/mitigation alternative(s) must start no later than 6-months after MPCA approval of the Final Plans and Specifications or by May 1, 2028, whichever is sooner. notify MPCA of construction start: Due May 1, 2028. [Minn. R. 7001]
	6.19.7	The Permittee shall complete construction of the selected alternative as soon as possible, but no later than April 1, 2029. The Permittee is responsible for obtaining all necessary approvals/permits to implement the selected treatment alternative by submitting timely and complete applications. The MPCA will not grant any extensions to this deadline if the Permittee fails to submit timely and complete applications for necessary approvals. The Permittee shall provide copies to the MPCA of all applications filed and correspondence submitted to other agencies, which must approve construction of the selected alternative. complete construction: Due April 1, 2029. [Minn. R. 7001]
	6.19.8	The Permittee shall initiate operation on or before September 1, 2029. In addition, the Permittee must notify the MPCA in writing at least 14-days before the planned initiation of operation dates so an inspection may be completed. Following MPCA staff concurrence the facility is adequately prepared, the MPCA staff will notify the Permittee it may initiate operation of the new treatment facility. initiate operation: Due September 1, 2029. [Minn. R. 7001]
	6.19.9	Regardless of the status and timing of MPCA's review and action on plans submitted by the Permittee in accordance with this Compliance Schedule for Sulfate, the Permittee shall attain compliance with final effluent limits for total sulfate at SD 001, SD 005 and SD 009 as soon as possible, but no later than April 30, 2030. The final total sulfate effluent limits consist of calendar month average concentration limit of 14 mg/L and a monthly maximum concentration of 24 mg/L. The Permittee shall notify MPCA in writing within 14 days of attaining the final effluent limits for sulfate at SD 001, SD 005 and SD 009. attain compliance with final effluent limits: Due April 30, 2030. [Minn. R. 7001]
		Metallic Mining
	6.20.10	To summarize the status of the tailings basin, the Permittee shall submit a Tailings Basin Annual Report by January 31 of each year following permit reissuance. The Tailings Basin Annual Report shall include the following: A. A current map of the tailings basin area that details the dikes, berms, dams roads and cells B. Current topographic and water level elevations C. Annual net precipitation determined from the previous calendar year and the annual flow volume discharged via outfalls SD 001 and SD 005 D. Results of the Dike Seepage Field Survey (as described below). submit a tailings basin report: Due annually, by the 31st of January. [Minn. R. 7001]
		Special Requirements - Mining
	6.21.11	The Permittee shall conduct an evaluation of whether there is a functionally equivalent discharge of seepage from the tailings basin to nearby surface waters. The evaluation shall include an analysis of monitoring data collected for a minimum of two years from the surface water stations (SW 001 - SW 008), internal waste stream stations (WS 003 and WS 004), and surface discharge stations (SD 001, SD 005 and SD 009 (if discharging)). The data shall be summarized and an evaluation shall determine whether or not the seepage discharge from the tailings basin is the functionally equivalent of a direct discharge to waters of the

	<p>state. In this analysis, the assumption must be made that the tailings basin seepage is a point source discharge. The functional equivalent evaluation shall consider the following factors:</p> <ol style="list-style-type: none"> 1. Transit time; 2. Distance traveled; 3. Nature of the material through which the pollutants monitored at WS 003 and WS 004 travels; 4. Extent to which the pollutant is diluted or chemically changed as it travels; 5. Amount of pollutant entering waters of the state relative to the amount of pollutant that leaves the point source; 6. The manner by or area which the pollutant enters the waters of the state; 7. The degree to which the pollutant (at the point of entering the water of the state) has maintained its specific identity; and 8. Whether or not the tailings basin seepage has the potential to cause or contribute to any applicable state surface water quality standard applicable in all downstream receiving waters. <p>The Functional Equivalent Evaluation is due 180 days prior to permit expiration and may be included with the application for permit reissuance. submit a functional equivalent evaluation: Due by 180 days prior to permit expiration. [Minn. R. 7001]</p>
6.21.12	<p>The Permittee shall conduct a meeting annually to disclose factual information to the community regarding facility operations, changes made or planned to reduce pollutants in its mining related discharge and compliance with environmental permits and regulations. The Permittee shall provide the time, date, location, format, and agenda of the meeting to the public 60 days before the meeting. hold a meeting : Due annually, by the 31st of December. Submit a written notification following each meeting. [Minn. R. 7001.0150, subp. 2, Minn. Stat. ch. 115.03, subp. 1(2), Minn. Stat. ch. 115.03, subp. 1(8)]</p>
	<p>Industrial Stormwater Sector G: Metal Mining (Ore Mining and Dressing)</p>
6.22.13	<p>The Permittee shall submit a stormwater annual report: Due annually, by the 31st of March of each year following permit issuance. The Permittee shall submit the Annual Report online through the electronic submittal system e-Services. [Minn. R. 7090]</p>
	<p>Total Facility Requirements (NPDES/SDS)</p>
6.23.14	<p>Permit Reissuance. If the Permittee desires to continue permit coverage beyond the date of permit expiration, the Permittee shall submit an application for permit reissuance: Due by 180 days prior to permit expiration. [Minn. R. 7001.0040]</p>

7. Limits and monitoring

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

Subject item	Parameter	Discharge limitations					Monitoring requirements					Notes
		Quantity /Loading avg.	Quantity /Loading max.	Quantity /Loading units	Quality /Conc. min.	Quality /Conc. avg.	Quality /Conc. max.	Quality/ Conc. units	Frequency	Sample type	Effective period	
SD 001 Siphon Outfalls 011, 012, 013	Alkalinity, Total						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SD 001 Siphon Outfalls 011, 012, 013	Calcium, Total (as Ca)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SD 001 Siphon Outfalls 011, 012, 013	Chloride, Total						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SD 001 Siphon Outfalls 011, 012, 013	Flow		Monitor only. calendar month total	million gallons		Monitor only. calendar month average	Monitor only. calendar month maximum	million gallons per day	once per month	Estimate	Jan-Dec	
SD 001 Siphon Outfalls 011, 012, 013	Fluoride, Total (as F)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SD 001 Siphon Outfalls 011, 012, 013	Iron, Dissolved (as Fe)					1.0 calendar month average	2.0 daily maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SD 001 Siphon Outfalls 011, 012, 013	Iron, Total (as Fe)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SD 001 Siphon Outfalls 011, 012, 013	Magnesium, Total (as Mg)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SD 001 Siphon Outfalls 011, 012, 013	Manganese, Total (as Mn)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SD 001 Siphon	Mercury,						Monitor only.	nanograms	once per	Grab	Mar, Jun,	

Subject item	Parameter	Discharge limitations			Monitoring requirements							Notes
		Quantity /Loading avg.	Quantity /Loading max.	Quantity /Loading units	Quality /Conc. min.	Quality /Conc. avg.	Quality /Conc. max.	Quality/ Conc. units	Frequency	Sample type	Effective period	
Outfalls 011, 012, 013	Dissolved (as Hg)						calendar quarter maximum	per liter	quarter		Sep, Dec	
SD 001 Siphon Outfalls 011, 012, 013	Mercury, Total (as Hg)						Monitor only. calendar quarter maximum	nanograms per liter	once per quarter	Grab	Mar, Jun, Sep, Dec	
SD 001 Siphon Outfalls 011, 012, 013	Nitrite Plus Nitrate, Total (as N)						Monitor only. calendar year maximum	milligrams per liter	once per year	Grab	Dec	
SD 001 Siphon Outfalls 011, 012, 013	Nitrogen, Kjeldahl, Total						Monitor only. calendar year maximum	milligrams per liter	once per year	Grab	Dec	
SD 001 Siphon Outfalls 011, 012, 013	Nitrogen, Total (as N)						Monitor only. calendar year maximum	milligrams per liter	once per year	Calculation	Dec	
SD 001 Siphon Outfalls 011, 012, 013	pH				6.0 instantaneous minimum		9.0 instantaneous maximum	standard units	once per month	Grab	Jan-Dec	
SD 001 Siphon Outfalls 011, 012, 013	Phosphorus, Total (as P)						Monitor only. calendar year maximum	milligrams per liter	once per year	Grab	Dec	
SD 001 Siphon Outfalls 011, 012, 013	Potassium, Total (as K)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SD 001 Siphon Outfalls 011, 012, 013	Redox (oxidation reduction potential)						Monitor only. calendar month maximum	millivolts	once per month	Grab	Jan-Dec	
SD 001 Siphon Outfalls 011, 012, 013	Sodium, Total (as Na)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SD 001 Siphon Outfalls 011, 012, 013	Solids, Total Dissolved (TDS)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SD 001 Siphon	Solids, Total					20 calendar	30 daily maximum	milligrams	once per	Grab	Jan-Dec	

Subject item	Parameter	Discharge limitations			Monitoring requirements							Notes
		Quantity /Loading avg.	Quantity /Loading max.	Quantity /Loading units	Quality /Conc. min.	Quality /Conc. avg.	Quality /Conc. max.	Quality/ Conc. units	Frequency	Sample type	Effective period	
Outfalls 011, 012, 013	Suspended (TSS)					month average		per liter	month			
SD 001 Siphon Outfalls 011, 012, 013	Solids, Total Suspended (TSS), grab (Mercury)						Monitor only. calendar quarter maximum	milligrams per liter	once per quarter	Grab	Mar, Jun, Sep, Dec	
SD 001 Siphon Outfalls 011, 012, 013	Specific Conductance					Monitor only. calendar month average	Monitor only. calendar month maximum	micromhos per cm	once per month	Grab	Jan-Dec	
SD 001 Siphon Outfalls 011, 012, 013 Phase 1	Sulfate, Total (as SO4)					Monitor only. calendar month average	135.3 calendar month maximum	milligrams per liter	twice per month	Grab	Jan-Dec	
SD 001 Siphon Outfalls 011, 012, 013 Phase 2	Sulfate, Total (as SO4)					14 calendar month average	24 calendar month maximum	milligrams per liter	twice per month	Grab	Jan-Dec	
SD 005 Culvert Outfall 015	Alkalinity, Total						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SD 005 Culvert Outfall 015	Calcium, Total (as Ca)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SD 005 Culvert Outfall 015	Chloride, Total						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SD 005 Culvert Outfall 015	Flow		Monitor only. calendar month total	million gallons		Monitor only. calendar month average	Monitor only. calendar month maximum	million gallons per day	once per month	Estimate	Jan-Dec	
SD 005 Culvert Outfall 015	Fluoride, Total (as F)						Monitor only. calendar month	milligrams per liter	once per month	Grab	Jan-Dec	

Permit issued: TBD
 Permit expires: TBD

Subject item	Parameter	Discharge limitations			Monitoring requirements							Notes
		Quantity /Loading avg.	Quantity /Loading max.	Quantity /Loading units	Quality /Conc. min.	Quality /Conc. avg.	Quality /Conc. max.	Quality/ Conc. units	Frequency	Sample type	Effective period	
SD 005 Culvert Outfall 015	Iron, Dissolved (as Fe)					1.0 calendar month average	2.0 daily maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SD 005 Culvert Outfall 015	Iron, Total (as Fe)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SD 005 Culvert Outfall 015	Magnesium, Total (as Mg)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SD 005 Culvert Outfall 015	Manganese, Total (as Mn)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SD 005 Culvert Outfall 015	Mercury, Dissolved (as Hg)						Monitor only. calendar quarter maximum	nanograms per liter	once per quarter	Grab	Mar, Jun, Sep, Dec	
SD 005 Culvert Outfall 015	Mercury, Total (as Hg)						Monitor only. calendar quarter maximum	nanograms per liter	once per quarter	Grab	Mar, Jun, Sep, Dec	
SD 005 Culvert Outfall 015	Nitrite Plus Nitrate, Total (as N)						Monitor only. calendar year maximum	milligrams per liter	once per year	Grab	Dec	
SD 005 Culvert Outfall 015	Nitrogen, Kjeldahl, Total						Monitor only. calendar year maximum	milligrams per liter	once per year	Grab	Dec	
SD 005 Culvert Outfall 015	Nitrogen, Total (as N)						Monitor only. calendar year maximum	milligrams per liter	once per year	Calculation	Dec	
SD 005 Culvert Outfall 015	pH				6.0 instantaneous minimum		9.0 instantaneous maximum	standard units	once per month	Grab	Jan-Dec	
SD 005 Culvert Outfall 015	Phosphorus, Total (as P)						Monitor only. calendar year maximum	milligrams per liter	once per year	Grab	Dec	

Subject item	Parameter	Discharge limitations			Monitoring requirements							Notes
		Quantity /Loading avg.	Quantity /Loading max.	Quantity /Loading units	Quality /Conc. min.	Quality /Conc. avg.	Quality /Conc. max.	Quality/ Conc. units	Frequency	Sample type	Effective period	
SD 005 Culvert Outfall 015	Potassium, Total (as K)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SD 005 Culvert Outfall 015	Redox (oxidation reduction potential)						Monitor only. calendar month maximum	millivolts	once per month	Grab	Jan-Dec	
SD 005 Culvert Outfall 015	Sodium, Total (as Na)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SD 005 Culvert Outfall 015	Solids, Total Dissolved (TDS)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SD 005 Culvert Outfall 015	Solids, Total Suspended (TSS)					20 calendar month average	30 daily maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SD 005 Culvert Outfall 015	Solids, Total Suspended (TSS), grab (Mercury)						Monitor only. calendar quarter maximum	milligrams per liter	once per quarter	Grab	Mar, Jun, Sep, Dec	
SD 005 Culvert Outfall 015	Specific Conductance					Monitor only. calendar month average	Monitor only. calendar month maximum	micromhos per cm	once per month	Grab	Jan-Dec	
SD 005 Culvert Outfall 015 Phase 1	Sulfate, Total (as SO4)					Monitor only. calendar month average	135.3 calendar month maximum	milligrams per liter	twice per month	Grab	Jan-Dec	
SD 005 Culvert Outfall 015 Phase 2	Sulfate, Total (as SO4)					14 calendar month average	24 calendar month maximum	milligrams per liter	twice per month	Grab	Jan-Dec	
SD 009 Sargent Pit Dewatering to Unnamed Ditch	Chloride, Total						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	

Subject item	Parameter	Discharge limitations			Monitoring requirements							Notes
		Quantity /Loading avg.	Quantity /Loading max.	Quantity /Loading units	Quality /Conc. min.	Quality /Conc. avg.	Quality /Conc. max.	Quality/ Conc. units	Frequency	Sample type	Effective period	
SD 009 Sargent Pit Dewatering to Unnamed Ditch	Flow		Monitor only. calendar month total	million gallons		Monitor only. calendar month average	Monitor only. calendar month maximum	million gallons per day	once per week	Estimate	Jan-Dec	
SD 009 Sargent Pit Dewatering to Unnamed Ditch	Iron, Dissolved (as Fe)					1.0 calendar month average	2.0 daily maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SD 009 Sargent Pit Dewatering to Unnamed Ditch	Mercury, Dissolved (as Hg)						Monitor only. calendar quarter maximum	nanograms per liter	once per quarter	Grab	Mar, Jun, Sep, Dec	
SD 009 Sargent Pit Dewatering to Unnamed Ditch	Mercury, Total (as Hg)						Monitor only. calendar quarter maximum	nanograms per liter	once per quarter	Grab	Mar, Jun, Sep, Dec	
SD 009 Sargent Pit Dewatering to Unnamed Ditch	Nitrite Plus Nitrate, Total (as N)						Monitor only. calendar year maximum	milligrams per liter	once per year	Grab	Dec	
SD 009 Sargent Pit Dewatering to Unnamed Ditch	Nitrogen, Kjeldahl, Total						Monitor only. calendar year maximum	milligrams per liter	once per year	Grab	Dec	
SD 009 Sargent Pit Dewatering to Unnamed Ditch	Nitrogen, Total (as N)						Monitor only. calendar year maximum	milligrams per liter	once per year	Calculation	Dec	
SD 009 Sargent Pit Dewatering to Unnamed Ditch	pH				6.0 instantaneous minimum		9.0 instantaneous maximum	standard units	once per month	Grab	Jan-Dec	
SD 009 Sargent Pit Dewatering to Unnamed Ditch	Phosphorus, Total (as P)						Monitor only. calendar year maximum	milligrams per liter	once per year	Grab	Dec	
SD 009 Sargent Pit Dewatering to Unnamed Ditch	Solids, Total Dissolved (TDS)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SD 009 Sargent Pit	Solids, Total					20 calendar	30 daily maximum	milligrams	once per	Grab	Jan-Dec	

Subject item	Parameter	Discharge limitations			Monitoring requirements							Notes
		Quantity /Loading avg.	Quantity /Loading max.	Quantity /Loading units	Quality /Conc. min.	Quality /Conc. avg.	Quality /Conc. max.	Quality/ Conc. units	Frequency	Sample type	Effective period	
Dewatering to Unnamed Ditch	Suspended (TSS)					month average		per liter	month			
SD 009 Sargent Pit Dewatering to Unnamed Ditch	Solids, Total Suspended (TSS), grab (Mercury)						Monitor only. calendar quarter maximum	milligrams per liter	once per quarter	Grab	Mar, Jun, Sep, Dec	
SD 009 Sargent Pit Dewatering to Unnamed Ditch	Specific Conductance						Monitor only. calendar month maximum	micromhos per cm	once per month	Grab	Jan-Dec	
SD 009 Sargent Pit Dewatering to Unnamed Ditch Phase 1	Sulfate, Total (as SO4)					Monitor only. calendar month average	Monitor only. calendar month maximum	milligrams per liter	twice per month	Grab	Jan-Dec	
SD 009 Sargent Pit Dewatering to Unnamed Ditch Phase 2	Sulfate, Total (as SO4)					14 calendar month average	24 calendar month maximum	milligrams per liter	twice per month	Grab	Jan-Dec	
SW 001 Reservoir 2 Outlet	Alkalinity, Total						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 001 Reservoir 2 Outlet	Calcium, Total (as Ca)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 001 Reservoir 2 Outlet	Chloride, Total						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 001 Reservoir 2 Outlet	Flow		Monitor only. calendar month total	million gallons		Monitor only. calendar month average		million gallons per day	once per month	Estimate	Jan-Dec	
SW 001 Reservoir 2 Outlet	Fluoride, Total (as F)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	

Subject item	Parameter	Discharge limitations			Monitoring requirements							Notes
		Quantity /Loading avg.	Quantity /Loading max.	Quantity /Loading units	Quality /Conc. min.	Quality /Conc. avg.	Quality /Conc. max.	Quality/ Conc. units	Frequency	Sample type	Effective period	
SW 001 Reservoir 2 Outlet	Iron, Total (as Fe)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 001 Reservoir 2 Outlet	Magnesium, Total (as Mg)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 001 Reservoir 2 Outlet	Manganese, Total (as Mn)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 001 Reservoir 2 Outlet	Nitrite Plus Nitrate, Total (as N)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 001 Reservoir 2 Outlet	pH				Monitor only. calendar month minimum		Monitor only. calendar month maximum	standard units	once per month	Grab	Jan-Dec	
SW 001 Reservoir 2 Outlet	Potassium, Total (as K)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 001 Reservoir 2 Outlet	Redox (oxidation reduction potential)						Monitor only. calendar month maximum	millivolts	once per month	Grab	Jan-Dec	
SW 001 Reservoir 2 Outlet	Sodium, Total (as Na)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 001 Reservoir 2 Outlet	Solids, Total Dissolved (TDS)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 001 Reservoir 2 Outlet	Specific Conductance						Monitor only. calendar month maximum	micromhos per cm	once per month	Grab	Jan-Dec	
SW 001 Reservoir 2 Outlet	Sulfate, Total (as SO4)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	

Subject item	Parameter	Discharge limitations			Monitoring requirements							Notes
		Quantity /Loading avg.	Quantity /Loading max.	Quantity /Loading units	Quality /Conc. min.	Quality /Conc. avg.	Quality /Conc. max.	Quality/ Conc. units	Frequency	Sample type	Effective period	
SW 002 Hay Creek	Alkalinity, Total						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 002 Hay Creek	Calcium, Total (as Ca)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 002 Hay Creek	Chloride, Total						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 002 Hay Creek	Fluoride, Total (as F)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 002 Hay Creek	Iron, Total (as Fe)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 002 Hay Creek	Magnesium, Total (as Mg)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 002 Hay Creek	Manganese, Total (as Mn)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 002 Hay Creek	Nitrite Plus Nitrate, Total (as N)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 002 Hay Creek	pH				Monitor only. calendar month minimum		Monitor only. calendar month maximum	standard units	once per month	Grab	Jan-Dec	
SW 002 Hay Creek	Potassium, Total (as K)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 002 Hay Creek	Redox (oxidation reduction potential)						Monitor only. calendar month maximum	millivolts	once per month	Grab	Jan-Dec	

Subject item	Parameter	Discharge limitations			Monitoring requirements							Notes
		Quantity /Loading avg.	Quantity /Loading max.	Quantity /Loading units	Quality /Conc. min.	Quality /Conc. avg.	Quality /Conc. max.	Quality/ Conc. units	Frequency	Sample type	Effective period	
SW 002 Hay Creek	Sodium, Total (as Na)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 002 Hay Creek	Solids, Total Dissolved (TDS)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 002 Hay Creek	Specific Conductance						Monitor only. calendar month maximum	micromhos per cm	once per month	Grab	Jan-Dec	
SW 002 Hay Creek	Sulfate, Total (as SO4)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 003 Reservoir 2 to Hay Creek	Alkalinity, Total						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 003 Reservoir 2 to Hay Creek	Calcium, Total (as Ca)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 003 Reservoir 2 to Hay Creek	Chloride, Total						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 003 Reservoir 2 to Hay Creek	Fluoride, Total (as F)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 003 Reservoir 2 to Hay Creek	Iron, Total (as Fe)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 003 Reservoir 2 to Hay Creek	Magnesium, Total (as Mg)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 003 Reservoir 2 to Hay Creek	Manganese, Total (as Mn)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	

Subject item	Parameter	Discharge limitations					Monitoring requirements					Notes
		Quantity /Loading avg.	Quantity /Loading max.	Quantity /Loading units	Quality /Conc. min.	Quality /Conc. avg.	Quality /Conc. max.	Quality/ Conc. units	Frequency	Sample type	Effective period	
SW 003 Reservoir 2 to Hay Creek	Nitrite Plus Nitrate, Total (as N)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 003 Reservoir 2 to Hay Creek	pH				Monitor only. calendar month minimum		Monitor only. calendar month maximum	standard units	once per month	Grab	Jan-Dec	
SW 003 Reservoir 2 to Hay Creek	Potassium, Total (as K)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 003 Reservoir 2 to Hay Creek	Redox (oxidation reduction potential)						Monitor only. calendar month maximum	millivolts	once per month	Grab	Jan-Dec	
SW 003 Reservoir 2 to Hay Creek	Sodium, Total (as Na)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 003 Reservoir 2 to Hay Creek	Solids, Total Dissolved (TDS)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 003 Reservoir 2 to Hay Creek	Specific Conductance						Monitor only. calendar month maximum	micromhos per cm	once per month	Grab	Jan-Dec	
SW 003 Reservoir 2 to Hay Creek	Sulfate, Total (as SO4)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 004 Hay Lake	Alkalinity, Total						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 004 Hay Lake	Calcium, Total (as Ca)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 004 Hay Lake	Chloride, Total						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	

Subject item	Parameter	Discharge limitations					Monitoring requirements					Notes
		Quantity /Loading avg.	Quantity /Loading max.	Quantity /Loading units	Quality /Conc. min.	Quality /Conc. avg.	Quality /Conc. max.	Quality/ Conc. units	Frequency	Sample type	Effective period	
SW 004 Hay Lake	Fluoride, Total (as F)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 004 Hay Lake	Iron, Total (as Fe)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 004 Hay Lake	Magnesium, Total (as Mg)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 004 Hay Lake	Manganese, Total (as Mn)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 004 Hay Lake	Nitrite Plus Nitrate, Total (as N)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 004 Hay Lake	pH				Monitor only. calendar month minimum		Monitor only. calendar month maximum	standard units	once per month	Grab	Jan-Dec	
SW 004 Hay Lake	Potassium, Total (as K)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 004 Hay Lake	Redox (oxidation reduction potential)						Monitor only. calendar month maximum	millivolts	once per month	Grab	Jan-Dec	
SW 004 Hay Lake	Sodium, Total (as Na)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 004 Hay Lake	Solids, Total Dissolved (TDS)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 004 Hay Lake	Specific Conductance						Monitor only. calendar month maximum	micromhos per cm	once per month	Grab	Jan-Dec	

Subject item	Parameter	Discharge limitations			Monitoring requirements							Notes
		Quantity /Loading avg.	Quantity /Loading max.	Quantity /Loading units	Quality /Conc. min.	Quality /Conc. avg.	Quality /Conc. max.	Quality/ Conc. units	Frequency	Sample type	Effective period	
SW 004 Hay Lake	Sulfate, Total (as SO4)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 005 Hay Creek Headwaters	Alkalinity, Total						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 005 Hay Creek Headwaters	Calcium, Total (as Ca)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 005 Hay Creek Headwaters	Chloride, Total						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 005 Hay Creek Headwaters	Fluoride, Total (as F)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 005 Hay Creek Headwaters	Iron, Total (as Fe)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 005 Hay Creek Headwaters	Magnesium, Total (as Mg)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 005 Hay Creek Headwaters	Manganese, Total (as Mn)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 005 Hay Creek Headwaters	Nitrite Plus Nitrate, Total (as N)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 005 Hay Creek Headwaters	pH				Monitor only. calendar month minimum		Monitor only. calendar month maximum	standard units	once per month	Grab	Jan-Dec	
SW 005 Hay Creek Headwaters	Potassium, Total (as K)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	

Subject item	Parameter	Discharge limitations			Monitoring requirements							Notes
		Quantity /Loading avg.	Quantity /Loading max.	Quantity /Loading units	Quality /Conc. min.	Quality /Conc. avg.	Quality /Conc. max.	Quality/ Conc. units	Frequency	Sample type	Effective period	
SW 005 Hay Creek Headwaters	Redox (oxidation reduction potential)						Monitor only. calendar month maximum	millivolts	once per month	Grab	Jan-Dec	
SW 005 Hay Creek Headwaters	Sodium, Total (as Na)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 005 Hay Creek Headwaters	Solids, Total Dissolved (TDS)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 005 Hay Creek Headwaters	Specific Conductance						Monitor only. calendar month maximum	micromhos per cm	once per month	Grab	Jan-Dec	
SW 005 Hay Creek Headwaters	Sulfate, Total (as SO4)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 006 Unnamed Wetland	Alkalinity, Total						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 006 Unnamed Wetland	Calcium, Total (as Ca)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 006 Unnamed Wetland	Chloride, Total						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 006 Unnamed Wetland	Fluoride, Total (as F)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 006 Unnamed Wetland	Iron, Total (as Fe)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 006 Unnamed Wetland	Magnesium, Total (as Mg)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	

Subject item	Parameter	Discharge limitations					Monitoring requirements					Notes
		Quantity /Loading avg.	Quantity /Loading max.	Quantity /Loading units	Quality /Conc. min.	Quality /Conc. avg.	Quality /Conc. max.	Quality/ Conc. units	Frequency	Sample type	Effective period	
SW 006 Unnamed Wetland	Manganese, Total (as Mn)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 006 Unnamed Wetland	Nitrite Plus Nitrate, Total (as N)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 006 Unnamed Wetland	pH				Monitor only. calendar month minimum		Monitor only. calendar month maximum	standard units	once per month	Grab	Jan-Dec	
SW 006 Unnamed Wetland	Potassium, Total (as K)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 006 Unnamed Wetland	Redox (oxidation reduction potential)						Monitor only. calendar month maximum	millivolts	once per month	Grab	Jan-Dec	
SW 006 Unnamed Wetland	Sodium, Total (as Na)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 006 Unnamed Wetland	Solids, Total Dissolved (TDS)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 006 Unnamed Wetland	Specific Conductance						Monitor only. calendar month maximum	micromhos per cm	once per month	Grab	Jan-Dec	
SW 006 Unnamed Wetland	Sulfate, Total (as SO4)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 007 Hart Lake	Alkalinity, Total						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 007 Hart Lake	Calcium, Total (as Ca)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	

Subject item	Parameter	Discharge limitations			Monitoring requirements							Notes
		Quantity /Loading avg.	Quantity /Loading max.	Quantity /Loading units	Quality /Conc. min.	Quality /Conc. avg.	Quality /Conc. max.	Quality/ Conc. units	Frequency	Sample type	Effective period	
SW 007 Hart Lake	Chloride, Total						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 007 Hart Lake	Fluoride, Total (as F)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 007 Hart Lake	Iron, Total (as Fe)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 007 Hart Lake	Magnesium, Total (as Mg)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 007 Hart Lake	Manganese, Total (as Mn)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 007 Hart Lake	Nitrite Plus Nitrate, Total (as N)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 007 Hart Lake	pH				Monitor only. calendar month minimum		Monitor only. calendar month maximum	standard units	once per month	Grab	Jan-Dec	
SW 007 Hart Lake	Potassium, Total (as K)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 007 Hart Lake	Redox (oxidation reduction potential)						Monitor only. calendar month maximum	millivolts	once per month	Grab	Jan-Dec	
SW 007 Hart Lake	Sodium, Total (as Na)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 007 Hart Lake	Solids, Total Dissolved (TDS)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	

Subject item	Parameter	Discharge limitations			Monitoring requirements							Notes
		Quantity /Loading avg.	Quantity /Loading max.	Quantity /Loading units	Quality /Conc. min.	Quality /Conc. avg.	Quality /Conc. max.	Quality/ Conc. units	Frequency	Sample type	Effective period	
SW 007 Hart Lake	Specific Conductance						Monitor only. calendar month maximum	micromhos per cm	once per month	Grab	Jan-Dec	
SW 007 Hart Lake	Sulfate, Total (as SO4)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 008 Unnamed Creek - East of Hay Creek	Alkalinity, Total						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 008 Unnamed Creek - East of Hay Creek	Calcium, Total (as Ca)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 008 Unnamed Creek - East of Hay Creek	Chloride, Total						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 008 Unnamed Creek - East of Hay Creek	Fluoride, Total (as F)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 008 Unnamed Creek - East of Hay Creek	Iron, Total (as Fe)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 008 Unnamed Creek - East of Hay Creek	Magnesium, Total (as Mg)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 008 Unnamed Creek - East of Hay Creek	Manganese, Total (as Mn)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 008 Unnamed Creek - East of Hay Creek	Nitrite Plus Nitrate, Total (as N)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 008 Unnamed Creek - East of Hay Creek	pH				Monitor only. calendar month minimum		Monitor only. calendar month maximum	standard units	once per month	Grab	Jan-Dec	

Subject item	Parameter	Discharge limitations			Monitoring requirements							Notes
		Quantity /Loading avg.	Quantity /Loading max.	Quantity /Loading units	Quality /Conc. min.	Quality /Conc. avg.	Quality /Conc. max.	Quality/ Conc. units	Frequency	Sample type	Effective period	
SW 008 Unnamed Creek - East of Hay Creek	Potassium, Total (as K)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 008 Unnamed Creek - East of Hay Creek	Redox (oxidation reduction potential)						Monitor only. calendar month maximum	millivolts	once per month	Grab	Jan-Dec	
SW 008 Unnamed Creek - East of Hay Creek	Sodium, Total (as Na)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 008 Unnamed Creek - East of Hay Creek	Solids, Total Dissolved (TDS)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
SW 008 Unnamed Creek - East of Hay Creek	Specific Conductance						Monitor only. calendar month maximum	micromhos per cm	once per month	Grab	Jan-Dec	
SW 008 Unnamed Creek - East of Hay Creek	Sulfate, Total (as SO4)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
WS 001 Non-precipitation water inputs to the facility	Flow		Monitor only. calendar month total	million gallons					once per month	Grab	Jan-Dec	
WS 002 Tailings Basin - precipitation & evaporation	Evaporation, Accumulated		Monitor only. calendar month total	inches					once per month	Calculation	Jan-Dec	
WS 002 Tailings Basin - precipitation & evaporation	Flow		Monitor only. calendar month total	million gallons					once per month	Calculation	Jan-Dec	
WS 002 Tailings Basin - precipitation & evaporation	Precipitation		Monitor only. calendar month total	inches					once per month	Measurement, Continuous	Jan-Dec	

Subject item	Parameter	Discharge limitations					Monitoring requirements					Notes
		Quantity /Loading avg.	Quantity /Loading max.	Quantity /Loading units	Quality /Conc. min.	Quality /Conc. avg.	Quality /Conc. max.	Quality/ Conc. units	Frequency	Sample type	Effective period	
WS 003 Tailings Basin pool water	Alkalinity, Total						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
WS 003 Tailings Basin pool water	Calcium, Total (as Ca)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
WS 003 Tailings Basin pool water	Chloride, Total						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
WS 003 Tailings Basin pool water	Fluoride, Total (as F)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
WS 003 Tailings Basin pool water	Iron, Total (as Fe)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
WS 003 Tailings Basin pool water	Magnesium, Total (as Mg)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
WS 003 Tailings Basin pool water	Manganese, Total (as Mn)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
WS 003 Tailings Basin pool water	Nitrite Plus Nitrate, Total (as N)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
WS 003 Tailings Basin pool water	pH				Monitor only. calendar month minimum		Monitor only. calendar month maximum	standard units	once per month	Grab	Jan-Dec	
WS 003 Tailings Basin pool water	Potassium, Total (as K)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
WS 003 Tailings Basin pool water	Redox (oxidation reduction potential)						Monitor only. calendar month maximum	millivolts	once per month	Grab	Jan-Dec	

Subject item	Parameter	Discharge limitations					Monitoring requirements					Notes
		Quantity /Loading avg.	Quantity /Loading max.	Quantity /Loading units	Quality /Conc. min.	Quality /Conc. avg.	Quality /Conc. max.	Quality/ Conc. units	Frequency	Sample type	Effective period	
WS 003 Tailings Basin pool water	Sodium, Total (as Na)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
WS 003 Tailings Basin pool water	Solids, Total Dissolved (TDS)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
WS 003 Tailings Basin pool water	Specific Conductance						Monitor only. calendar month maximum	micromhos per cm	once per month	Grab	Jan-Dec	
WS 003 Tailings Basin pool water	Sulfate, Total (as SO4)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
WS 004 Stage 2 Exterior Pond	Alkalinity, Total						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
WS 004 Stage 2 Exterior Pond	Calcium, Total (as Ca)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
WS 004 Stage 2 Exterior Pond	Chloride, Total						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
WS 004 Stage 2 Exterior Pond	Fluoride, Total (as F)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
WS 004 Stage 2 Exterior Pond	Iron, Total (as Fe)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
WS 004 Stage 2 Exterior Pond	Magnesium, Total (as Mg)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
WS 004 Stage 2 Exterior Pond	Manganese, Total (as Mn)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	

Subject item	Parameter	Discharge limitations					Monitoring requirements					Notes
		Quantity /Loading avg.	Quantity /Loading max.	Quantity /Loading units	Quality /Conc. min.	Quality /Conc. avg.	Quality /Conc. max.	Quality/ Conc. units	Frequency	Sample type	Effective period	
WS 004 Stage 2 Exterior Pond	Nitrite Plus Nitrate, Total (as N)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
WS 004 Stage 2 Exterior Pond	pH				Monitor only. calendar month minimum		Monitor only. calendar month maximum	standard units	once per month	Grab	Jan-Dec	
WS 004 Stage 2 Exterior Pond	Potassium, Total (as K)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
WS 004 Stage 2 Exterior Pond	Redox (oxidation reduction potential)						Monitor only. calendar month maximum	millivolts	once per month	Grab	Jan-Dec	
WS 004 Stage 2 Exterior Pond	Sodium, Total (as Na)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
WS 004 Stage 2 Exterior Pond	Solids, Total Dissolved (TDS)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	
WS 004 Stage 2 Exterior Pond	Specific Conductance						Monitor only. calendar month maximum	micromhos per cm	once per month	Grab	Jan-Dec	
WS 004 Stage 2 Exterior Pond	Sulfate, Total (as SO4)						Monitor only. calendar month maximum	milligrams per liter	once per month	Grab	Jan-Dec	

Permit issued: TBD
Permit expires: TBD

Appendix A

Chemical Additives

Chemical additives are used according to the chemical manufacturer's recommendations. This approval shall not justify any exceedances of permit limits or water quality standards.

Chemical additives currently approved for use at this Facility consist of the following:

Name	Dosage frequency	Location	Maximum addition rate
Zetag 7130	Continuous	Concentrator thickener	1,506.8 lbs/day
CL-2840	Continuous	Closed loop water system	33.2 lbs/day
CL-4074	Continuous	Vacuum pump	30.2 lbs/day
CL-2150	Continuous	Closed loop water system	5.6 lbs/day
Hydrated lime	Continuous	Scrubber water system	6,575.3 lbs/day
P-817-E	Continuous	Scrubber water system	32.9 lbs/day
CL-16	As needed	Closed loop water softener	0.05 gal/day
Diluted HCl	As needed	Various	0.05 gal/day
Rydlime	As needed	Various	0.79 gal/day
Super gold	As needed	Various	0.05 gal/day
Magnesium chloride or calcium chloride solution	As needed	Tailings basin roads	21.9 lbs/day
Tomamine M100-7	Continuous	Reverse flotation process	2,810 lbs/day
NS 9521	Continuous	Reverse flotation process	280 lbs/day
NS-9548	Continuous	Reverse flotation process	27 lbs/day
ChemTreat FBD1105	Continuous	Scrubber	70 gal/day