

Chapter 2. Surface Water Stations

4. Special Requirements

4.6

9. Xcel Energy shall provide a written summary of any thermal limitation exceedances pursuant to an electrical energy emergency within 30 days of termination of the energy emergency. The summary shall address at a minimum:

- a. The specific cause of the electrical energy emergency and information describing the conditions leading to the energy emergency which may include, but are not limited to, weather conditions and power demands.
- b. The system code that Xcel Energy was operating under and all steps that Xcel took to lower energy demand and/or increase energy output in order to prevent a thermal limitation exceedance. These steps include, but are not limited to, items such as operation of peaking and oil burning plants, internal load reduction measures, energy purchases, public appeals for voluntary energy reduction, implementation of curtailment of service to interruptible customers, power interruption to commercial customers, etc.
- c. A statement confirming that the electrical energy emergency leading to exceedances of thermal limitations was unintentional and that there was no known, viable engineering alternative for deviation from the plant's permitted thermal limitations. A similar statement confirming that the electrical energy emergency leading to exceedances of thermal limitations resulted from factors beyond Xcel Energy's control and did not result from operator error, improperly designed facilities, lack of preventative maintenance, or increases in production beyond the design capacity of the treatment facility (cooling equipment).

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- d. A written summary of the technical aspects of the facility that are involved with cooling and maintaining compliance with thermal limitations.
- e. Information on any alternatives to a thermal limitation exceedance and impacts that would likely have occurred if power generation was reduced in order to avoid a thermal limitation exceedance. Such impacts may include public health and safety, public security issues, damage to generating plants, disruption of commercial and industrial processes, and related potential impacts.
- f. If it is determined that the thermal limitation exceedance was the result of inadequate design, operations or maintenance, the actions Xcel Energy will take to avoid a future thermal limitation exceedance.

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4.8 This provision is meant to provide for limited and infrequent short-term exceedances of the permit thermal limitations solely under extreme and relatively unique circumstances (such as an unusual heat wave). This provision does not preclude the MPCA from subsequently requiring Xcel Energy to resolve any recurring thermal limitation exceedances through installation of additional cooling equipment, or other measures to remove excess heat, in the event that thermal exceedances become relatively frequent or are the result of inadequate design under normal (non-emergency) conditions.

This provision does not preclude the MPCA from taking any enforcement action pursuant to thermal limitation exceedances if the above conditions are not followed.

Chapter 3. Waste Stream Stations

1. Sampling Location

- 1.1 Samples for Station WS 001 and WS 002 shall be taken at each internal wastestream, units 1 and 2, cooling water discharge or at another point representative of the discharge prior to mixing with circulating water or any other waters.
- 1.2 The Permittee shall submit monitoring results for discharges in accordance with the limits and monitoring requirements for this station. If no discharge occurred during the reporting period, the Permittee shall check the "No Discharge" box on the Discharge Monitoring Report (DMR).
- 1.3 For parameters required to be monitored continuously, portions of the monitoring data will occasionally be lost when equipment is out of service for repairs or while performing routine instrument calibrations and maintenance. In such cases, loss of one hour or less of data in a calendar day need not be reported unless the Permittee has reason to believe that resulting values reported on the DMR are not representative of actual conditions.

2. Requirements for Specific Stations

- 2.1 WS 001: Submit a monthly DMR monthly by 21 days after the end of each calendar month following permit issuance.
- 2.2 WS 002: Submit a monthly DMR monthly by 21 days after the end of each calendar month following permit issuance.

3. Special Requirements

- 3.1 If the need arises to raise the halogen level above 2.0 mg/l for WS 001 and WS 002, units 1 and 2 plant cooling water, a calculation shall be performed using the actual condenser/circulating water and cooling water flow halogen demand determined at that time. This information shall be submitted with the other monitoring data required in the monthly DMR.
- 3.2 A calculation shall be performed using the actual cooling water flow rate, condenser/circulating water flow rate and the halogen demand of 0.5 mg/l. The calculation consists of the ratio of total cooling water flow rate to the condenser/circulating water flow rate multiplied by the highest measured cooling water halogen level, minus the condenser/circulating water demand (0.5 ppm). The value should be a negative value showing that all the halogen was used prior to discharge to the river.

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Chapter 4. Industrial Process Wastewater

1. Prohibited Discharges

- 1.1 The Permittee shall prevent the routing of pollutants from the facility to a municipal wastewater treatment system in any manner unless authorized by the pretreatment standards of the MPCA and the municipal authority.
- 1.2 The Permittee shall not transport pollutants to a municipal wastewater treatment system that will interfere with the operation of the treatment system or cause pass-through violations of effluent limits or water quality standards.
- 1.3 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 except as permitted in the NPDES permit, for site treatment systems.

2. Hydrotest Discharges

- 2.1 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, county, 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.
- 2.2 The above notification procedure does not apply to routine hydrostatic tests of plant equipment provided all of the following conditions are met:
 - a. The test is conducted using the equipment's normal process water.
 - b. The hydrostatic discharge is through the designated outfall for that equipment when in normal operation (as identified in this permit).
 - c. The water meets all applicable discharge criteria for that outfall, including volume and rate.
 - d. There are no residual chemicals or contaminants present of a type or at levels beyond those already reviewed and approved as acceptable by the MPCA staff for that outfall.

3. Polychlorinated Biphenyls (PCBs)

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

Chapter 4. Industrial Process Wastewater

4. Application for Permit Reissuance

- 4.1 The permit application shall include priority pollutant analytical data as part of the application for reissuance of this permit. These analyses shall be done on individual samples taken during the two year period before the reissuance application is submitted.

Chapter 5. Dredged Material Management

1. Authorization

- 1.1 This permit is intended to regulate the storage, disposal and/or reuse of dredged material.
- 1.2 This permit authorizes the Permittee to store, dispose, and/or reuse dredged material in accordance with the provisions of this permit.
- 1.3 This permit does not authorize or otherwise regulate dredging activity. However, dredging activity is subject to the water quality standards specified in Minnesota Rules chs. 7050 and 7060.

Initiation of dredge activities shall not commence until the Permittee has obtained all federal, state and/or local approvals that may be required for a particular project, including but not limited to state permits regulating activities in the bed of public waters as defined in Minn. Stat. sec. 105 from the Minnesota Department of Natural Resources (DNR), federal permits for dredged or fill material from the U.S. Army Corps of Engineers, and local permits from the appropriate Soil and Water Conservation District, county or local unit of government (LUG).

- 1.4 Compliance with the terms and conditions of this permit releases the Permittee from the requirement to obtain a separate permit for construction and/or industrial activities at the storage, disposal and/or reuse site that would otherwise require the Permittee to obtain a construction and/or industrial storm water permit in accordance with the Clean Water Act and Agency rules, except where the use or reuse of dredged material is occurring at a location separate from other activity covered by this permit.

2. Sampling and Analyses

- 2.1 Characterization of sediment from the proposed dredge site must be completed prior to the initiation of dredging activity. Results of sediment characterization must be compiled and submitted to the MPCA prior to the start of dredging. Characterization shall consist of at least a grain size analysis and, if applicable, baseline and additional sediment analysis per Tables 3 and 4 of Appendix 1.

2.2 Grain Size Analysis

The Permittee shall complete a sieve grain size analysis using ASTM Method C-136 for the gradation analysis and ASTM Method D-2487 for classification. The minimum number of samples required for the analysis shall be determined using table 1 in Appendix 1. If the sieve analysis obtained is greater than 95 percent sands then the material is acceptable for Tier 1 or 2 use and additional analytical sampling is not required.

2.3 Baseline Sediment Analysis

Dredged material not excluded from additional analysis (as determined by the grain size analysis), must be analyzed for the constituents listed in Table 2 of Appendix 1.

2.4 Additional Analysis

If it is established through a review of past activities at the site that there is a reasonable likelihood for a pollutant to be present in sediment at a dredge site, the dredged material must be analyzed for additional analyte(s) in accordance with Table 3 and Table 4 in Appendix 1.

Chapter 5. Dredged Material Management

3. Rehandling, Off-Loading and Transportation of Dredged Material

- 3.1 Dredged materials shall be managed in a manner so as to minimize the amount of material returned by spillage, erosion or other discharge to waters of the state during rehandling, off-loading and/or transportation activities.
- 3.2 Areas for the rehandling and/or off-loading of dredged material shall be sloped away from surface water or otherwise controlled.
- 3.3 Dredged material hauled on federal, state, or local highways, roads, or streets must be hauled in such a way as to prevent dredged material from leaking, spilling, or otherwise being deposited in the right-of-way. Dredged material deposited on a public roadway must be immediately removed and properly disposed.
- 3.4 Tracked soil and/or dredged material shall be removed from impervious surfaces that do not drain back to the dredged material storage, disposal and/or reuse facility within 24 hours of discovery, and placed in the storage, disposal and/or reuse facility site.

4. Storage, Disposal and/or Reuse of Dredged Material

- 4.1 Authorization. Prior to the use of a new (different from already disclosed) site for the storage, disposal, and/or reuse of dredged material, the Permittee shall obtain written MPCA approval for such use.
- 4.2 General. Any site used for the storage, disposal and/or reuse of a dredged material shall be operated and maintained by the Permittee to control runoff, including stormwater, from the facility to prevent the exceedance of water quality standards specified in Minnesota Rules, chs. 7050 and 7060.
- 4.3 The Permittee may dispose of dredged material at a permitted solid waste landfill, through on-site disposal, or through reuse for a beneficial purpose, as follows:
 - a. Temporary storage and/or treatment of dredged material at the dredge project site. Temporary storage of dredged material is subject to the requirements of part 3.4 of this chapter.
 - b. Disposal of dredged material at the dredge project site. Disposal of dredged material is subject to parts 3.5 through 3.36 of this chapter.
 - c. Reuse of dredged material for beneficial purposes. Reuse of dredged material is subject to parts 3.37 through 3.39 of this chapter.

A. Temporary Storage and/or Treatment of Dredged Material

- 4.4 All of the following requirements apply to the temporary storage and/or treatment of dredged material:
 - a. Temporary storage shall not exceed 1 year. Storage or accumulation of dredged material for more than 1 year constitutes disposal, and is subject to the disposal facility requirements of parts 3.5 through 3.36 of this chapter.
 - b. Dredged materials shall be managed in a manner so as to minimize the amount of material returned by spillage, erosion or other discharge to waters of the state. Best management practices for the management of dredged materials are outlined in the MPCA fact sheet, "Best Management Practices for the Management of Dredged Material".
 - c. If dikes, berms or silt fences have been constructed to contain temporary stockpiles of dredged material, they shall not be removed until all material has been removed from the stockpile.

B. Disposal of Dredged Material

- 4.5 Notification. Notification of a new or existing dredge disposal facility shall be submitted for MPCA review and approval.
- 4.6 Disposal facilities shall be constructed/operated in accordance with local requirements, including the requirement to obtain a permit, license, or other governmental approval to initiate construction.

Chapter 5. Dredged Material Management

4. Storage, Disposal and/or Reuse of Dredged Material

4.7 Initial Site Plan. An initial site plan shall be prepared and submitted for MPCA review and approval. The initial site plan shall consist of volume calculations for the final permitted capacity and a map of the facility. The map of the facility shall include the permitted boundaries, dimensions, site contours (at contour intervals of two feet or less), soil boring locations with surface elevations and present and planned pertinent features, including but not limited to roads, screening, buffer zone, fencing, gate, shelter and equipment buildings, and surface water diversion and drainage. The initial site plan must be signed by a land surveyor registered in Minnesota or a professional engineer registered in Minnesota.

4.8 Delineation and Identification of Permitted Waste Boundary. The perimeter or outer limit of a dredged material disposal facility shall be indicated by permanent posts or signage. In addition, a permanent sign, identifying the operation and showing the permit number of the site, shall be posted at the dredged material disposal facility.

Site Selection and Use

4.9 Locational Prohibitions. All of the following locational standards apply to any facility for the disposal of dredged material:

- a. The disposal facility must be located entirely above the high water table.
- b. The disposal facility must not be located within a shoreland or wild and scenic river land use district governed by Minn. R. chapters 6105 and 6120.
- c. The disposal facility must not be located within a wetland, unless the Permittee has obtained all federal, state and/or local approvals that may be required for a particular project.
- d. The disposal area shall not be located in an area which is unsuitable because of topography, geology, hydrology, or soils.

4.10 Separation Distances. A minimum separation distance of 50 feet must be maintained between the boundaries of the disposal facility and the site property line.

Design Requirements

4.11 The following design standards apply to a facility used for the disposal of dredged materials:

- a. An earthen containment dike, or other MPCA approved embankment and/or other sediment control measure(s), shall be established around the perimeter of the dredged material disposal facility (permitted waste boundary).
- b. Site preparation shall allow for orderly development of the site. Initial site preparations shall include clearing and grubbing, topsoil stripping and stockpiling, fill excavation, if appropriate, drainage control structures, and other design features necessary to construct and operate the facility.
- c. Surface water runoff shall be diverted around dredged materials disposal facilities to prevent erosion, and protect the structural integrity of exterior embankments from failure.
- d. Slopes and drainageways shall be designed to prevent erosion. Slopes longer than 200 feet shall be interrupted with drainageways.
- e. Final slopes for the fill area shall be a minimum two percent and a maximum 20 percent, and shall be consistent with the planned ultimate use for the site.
- g. Final cover shall consist of at least 18 inches of soil with the top 12 inches capable of sustaining vegetative growth.
- h. For a system that will impound water (e.g. hydraulic dredging) with a constructed dike over 6 feet in height, or that impound more than 15 acre-feet of water, the system is subject to Minn. R. parts 6115.0300 through 6115.0520 [state Dam Safety Program]. Contact state Dam Safety Program staff at (651) 296-0521 for more information.

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4. Storage, Disposal and/or Reuse of Dredged Material

- 4.12 Site Stabilization. The Permittee shall stabilize the dredged material disposal facility before any disposal in the facility is allowed, as follows:
- The exterior slope of all permanent dikes or berms shall be no steeper than 3 to 1 (horizontal to vertical). The exterior slopes of all permanent dikes or berms must be seeded and a soil fixative (e.g. mulch, blanket) applied within 72 hours of the completion of any grading work on the slopes.
 - If grading work is completed too late in the growing season to seed or plant the desired species, then the Permittee must propagate an annual cover crop that can be dormant seeded or planted and must apply a soil fixative to the site. At the very minimum, the Permittee must apply a soil fixative to the exterior slopes of all permanent dikes or berms prior to the first snowfall.
 - Silt fences, if used, must be properly installed. The silt fences shall be tall enough and installed at a sufficient distance from the base of the permanent dikes/berms or temporary stockpiles to create a reasonable secondary containment area.
- 4.13 Operational Plan. An Operational Plan of the site and immediately adjacent area shall be developed and implemented, and shall show progressive development of trench and/or area fills and any phase construction. The scale of the development plan shall not be greater than 200 feet per inch.
- 4.14 Facilities for the disposal of dredged material shall be designed by a professional engineer registered in the state of Minnesota, and in accordance with the criteria in parts 3.13 and 3.14 of this chapter. The Permittee shall construct the facility in accordance with these design plans and specifications under the direct supervision of a professional engineer registered in the state of Minnesota.
- 4.15 Certification Required. Prior to use of a facility for the disposal of dredged material under this part, the Permittee shall obtain and submit written certification from an engineer licensed in Minnesota stating that the disposal facility meets the requirements of parts 3.13 and 3.14 of this chapter; and has been constructed in accordance with the design plans and specifications.

Site Management, Limitations, and Restrictions

- 4.16 New or Expanded Facilities. All of the following requirements apply to the construction of new or expanded facilities used for the disposal of dredged material:
- The Permittee shall plan for and implement construction practices that minimize erosion and maintain dike integrity.
 - Erosion control measures shall be established on all downgradient perimeters prior to the initiation of any upgradient land-disturbing construction activities.
 - Surface runoff must be directed around and away from the storage and/or disposal facility site, until the site is stabilized, usually by assuring that vegetative cover is well-established.
 - Sediment control practices shall be designed and implemented to minimize sediment from entering surface waters. The timing of the installation of sediment control practices may be adjusted to accommodate short-term activities such as equipment access. Any short-term activity must be completed as quickly as possible and the sediment control practices must be installed immediately after the activity is completed. However, sediment control practices must be installed before the next precipitation event even if the activity is not complete.
 - All erosion and sediment control measures shall remain in place until final stabilization has been established. Permanent cover or final stabilization methods are used to prevent erosion, such as the placement of rip rap, sodding, or permanent seeding or planting. Permanent seeding and planting must have a uniform perennial vegetation cover of at least 70 percent density to constitute final stabilization.

Chapter 5. Dredged Material Management

4. Storage, Disposal and/or Reuse of Dredged Material

- 4.17 Management of Disposal Facilities. The following standards apply to a facility used for the disposal of dredged material:
- Each fill phase shall be outlined with grade stakes, and staked for proper grading and filling.
 - All trenches or fill areas shall be staked with permanent markers.
 - A permanent benchmark shall be installed on-site and show its location on the facility as-built plan.
 - Run-on and run-off of stormwater shall be controlled. The owner or operator must implement management practices designed to control run-on and run-off of stormwater from the disposal facility.
 - Vegetative cover shall be established within 120 days of reaching the final permitted capacity of the dredged material disposal facility, or within 120 days of the inactivation or completion of a phase of the facility thereof.
 - If the disposal facility contains any particulate matter that may be subject to wind dispersion, the owner or operator shall cover or otherwise manage the dredged material to control wind dispersion.
 - Nuisance conditions resulting from the disposal of dredged material shall be controlled and managed by the facility owner or operator.
 - Cover slopes shall be surveyed and staked during placement.

Inspection and Maintenance

- 4.18 Periodic Site Inspections. The Permittee shall inspect the disposal facility to ensure integrity of the erosion control measures, system stability and dredged material containment. At a minimum, the facility shall be inspected:
- prior to the initial placement of any dredged material in the facility; and,
 - within 24 hours of each significant storm event and/or the subsidence of flood events; or,
 - at least once per month if a and/or b, above, are not occurring.
- Inspections may be less frequent once a project is complete assuming all material has been transported to an off-site permitted facility or reused in accordance with this permit and is vegetated.
- 4.19 Recordkeeping. The Permittee shall record the date of each inspection, any problem identified with the facility, and the action(s) taken to correct any identified problem. The Permittee shall keep these inspection records on site and available to MPCA staff upon request.
- 4.20 Nonfunctioning erosion and sediment control measures shall be repaired, replaced or supplemented with functioning erosion and/or sediment control measures within three days of discovery.
- 4.21 Dikes and berms constructed to contain hydraulically dredged material and the attendant liquid must be maintained free of all types of animal burrows. Animal burrows should be backfilled with compacted material within three days of discovery.
- 4.22 Where dredging and disposal have been suspended due to frozen ground conditions, the inspections and maintenance shall begin as soon as weather conditions warrant, or prior to resuming dredged material placement in the disposal facility, whichever occurs first.

Sediment Removal and Disposal

- 4.23 Dredged material shall be removed from disposal facilities in a manner so as to not damage the integrity and effectiveness of the containment structure or area.
- 4.24 Dredged material removed from a storage, disposal, and/or reuse facility shall be managed in accordance with this chapter.
- 4.25 Recordkeeping. The Permittee shall record the dates, the volume of dredged material removed from the disposal facility, and the method and location of the disposition (disposal or reuse) of such materials. This information shall be submitted with the annual 'Dredged Material Report', as specified in the 'Annual Report' part of this chapter.

Closure and Post-Closure Requirements

Chapter 5. Dredged Material Management

4. Storage, Disposal and/or Reuse of Dredged Material

- 4.26 The Permittee must cease to dispose of dredged materials and immediately close the dredged material disposal facility when:
- a. the Permittee declares the dredged material disposal facility closed;
 - b. all fill areas reach final permitted capacity;
 - c. an agency permit held by the facility expires, and renewal of the permit is not applied for, or is applied for and denied;
 - d. an agency permit for the facility is revoked; and/or,
 - e. an agency order to cease operations is issued.
- 4.27 **Closure Plan.** The Permittee shall prepare and submit a 'Closure Plan' for the final closure of a dredged material disposal facility for MPCA review and approval.
- 4.28 The 'Closure Plan' shall identify the steps needed to close the entire site at the end of its operating life. The closure plan shall include the following elements:
- a. A description of how and when the entire facility will be closed. The description shall include the estimated year of closure and a schedule for completing each fill phase.
 - b. An estimate of the maximum quantity of dredged material in storage at any time during the life of the facility.
 - c. A cost estimate including an itemized breakdown for closure of each fill phase and the total cost associated with closure activities at dredged material disposal facilities.
- 4.29 A copy of the approved 'Closure Plan' and all revisions to the plan shall be kept at the facility until closure is completed and certified. At the time of closure, the agency will issue a closure document in accordance with Minn. R. part 7001.3055.
- 4.30 **Amendment of Plan.** The Permittee may amend the 'Closure Plan' (plan) any time during the life of the facility. The Permittee shall amend the plan whenever changes in the operating plan or facility design affect the closure procedures needed, and whenever the expected year of closure changes. Required amendments shall be completed within 60 days of any change or event that affects the closure plan.
- 4.31 **Notification of Final Facility Closure.** The Permittee shall notify the commissioner at least 90 days before final facility closure activities are to begin, except if the permit for the facility has been revoked.
- 4.32 **Closure Performance Standard.** The Permittee must close the dredged material disposal facility in a manner that eliminates, minimizes, or controls the escape of pollutants to ground water or surface waters, to soils, or to the atmosphere during the postclosure period.
- 4.33 **Completion of Closure Activities.** Within 30 days after receiving the last shipment of dredged material for disposal, the Permittee must begin the final closure activities outlined in the approved 'Closure Plan' for the dredged material disposal facility. Closure activities must be completed according to the approved 'Closure Plan'. The commissioner may approve a longer period if the owner or operator demonstrates that the closure activities will take longer due to adverse weather or other factors not in the control of the Permittee.
- 4.34 **Closure Procedures.**
- a. Complete the appropriate activities outlined in the approved 'Closure Plan'.
 - b. Complete final closure activities consisting of submitting to the county recorder and the commissioner a detailed description of the waste types accepted at the facility and what the facility was used for, together with a survey plat of the site. The plat must be prepared and certified by a land surveyor registered in Minnesota. The landowner must record a notation on the deed to the property or on some other instrument normally examined during a title search, that will in perpetuity notify any potential purchaser of the property of any special conditions or limitations for use of the site, as set out in the 'Closure Plan' and closure document.

Chapter 5. Dredged Material Management

4. Storage, Disposal and/or Reuse of Dredged Material

- 4.35 Certification of Closure. When final facility closure is completed, the Permittee shall submit to the commissioner certification by the Permittee and an engineer registered in Minnesota that the facility has been closed in accordance with this chapter.

The certification shall contain the following elements:

- a. a completed and signed 'Site Closure Record';
 - b. documentation of closure, such as pictures, showing the construction techniques used during closure; and,
 - c. a copy of the notation carrying the recorder's seal which has been filed with the county recorder.
- 4.36 Post-Closure Care. After final closure, the Permittee shall comply with the following requirements:
- a. restrict access to the facility by use of gates, fencing, or other means to prevent further disposal at the site, unless the site's final use allows access;
 - b. maintain the integrity and effectiveness of the final cover, including making repairs to the final cover system as necessary to correct the effects of settling, subsidence, gas and leachate migration, erosion, root penetration, burrowing animals, or other events;
 - c. prevent run-on and run-off from eroding or otherwise damaging the final cover;
 - d. protect and maintain surveyed benchmarks

C. Beneficial Use or Re-Use of Dredged Material

- 4.37 Prior to the use or reuse of a dredged material, the Permittee shall determine the appropriate "suitable reuse category" of the dredged material to be used or reused, as described below.
- 4.38 Suitable Reuse Categories. The suitable reuse category of a dredged material is based on the analyzed characteristics of the dredged material (sampled prior to dredging or in a spoil pile after dredging) and appropriately applied Soil Reference Values (SRVs), which are listed in Table 2 of Appendix 1 to this permit.

For the purposes of this permit, dredged material intended for the beneficial use or reuse is categorized into three tiers: Tier 1, Tier 2, and Tier 3. If the sieve analysis obtained by a #200 sieve is greater than 95 percent sands then the material is acceptable for Tier 1 or 2 use and additional analytical sampling is not required.

- a. Tier 1 material is authorized to be used or reused at/on sites with a residential property use category. Tier 1 material is characterized by a contaminant level that is at or below all respective analyte concentrations listed in the Tier 1 SRV column for any contaminant that can be reasonably expected to be present in the dredged material.
 - b. Tier 2 material is authorized to be used or reused on/at sites with an industrial or recreational use category. Tier 2 material is characterized by a contaminant level that is at or below all respective analyte concentrations listed in the Tier 2 SRV column for any contaminant that can be reasonably expected to be present in the dredged material.
 - c. Tier 3 material is NOT authorized to be used or reused under this permit. Tier 3 material is characterized by a contaminant level that is greater than any respective analyte concentrations listed in the Tier 2 SRV column for any contaminant that can be reasonably expected to be present in the dredged material.
- 4.39 Storage Prior to Reuse. Storage of dredged material prior to reuse or use is subject to the temporary storage requirements of this chapter, or the disposal requirements of this chapter, as applicable.

Chapter 5. Dredged Material Management

5. Annual Report

- 5.1 The annual 'Dredged Material Report' shall be on a form provided by the Commissioner, or another MPCA approved form, and shall include the following elements:
- Dates of dredging;
 - Volume of material placed into storage or disposal facility;
 - Any incidents, such as spills, unauthorized discharge and/or other permit violations which may have occurred;
 - Water level records for the disposal facilities of hydraulic dredging projects;
 - Such information as the MPCA may reasonably require of the Permittee pursuant to Minn. R. 7001 and Minn. Stat. chap. 115 and 116 as amended;
 - For disposal facilities, the dates of 'Periodic Site Inspections' required by this chapter, and the status of erosion control measures at the disposal facility;
 - For disposal facilities, the dates, the volume of dredged material removed from the disposal facility, and the method and location of the disposition (disposal or reuse) of such materials.
 - For facilities that used or reused dredged material during the previous calendar year, the following information shall also be provided:
 - A written description of the use or reuse of the dredged material;
 - A written determination of the use category and appropriate Soil Reference Values (SRVs); and,
 - The results of an evaluation of the level of contaminants in the dredged material proposed for reuse for the respective SRVs.

6. Definitions

- 6.1 "Beach Nourishment" means the disposal of dredged material on the beaches or in the water waterward starting at or above the Ordinary High Water Level (OHWL) for the purpose of adding to, replenishing, or preventing the erosion of, beach material.
- 6.2 "Beneficial Re-use" means the re-use of dredged material, after the material has been dewatered, in projects such as, but not limited to: road base, building base or pad, etc.
- 6.3 "Carriage, or Conveyance, Water" means the water portion of a slurry of water and dredged material.
- 6.4 "Carriage Water Return Flow" means the carriage water which is returned to a receiving water after separation of the dredged material from the carriage water in a disposal, rehandling or treatment facility.
- 6.5 "Design capacity" means the total volume of compacted dredged materials, along with any topsoil, intermittent intermediate, and/or final cover, as calculated from final contour and cross-sectional plan sheets that define the areal and vertical extent of the fill area.
- 6.6 "Discharges of Dredged Material" means any addition of dredged material into waters of the state and includes discharges of water from dredged material disposal operations including beach nourishment, upland, or confined disposal which return to waters of state. Material resuspended during normal dredging operations is considered "de minimis" and is not a dredged material discharge.
- 6.7 "Disposal Facility" means a structure, site or area for the disposal of dredged material.
- 6.8 "Dredged Material" means any material removed from the bed of any waterway by dredging.
- 6.9 "Dredging" means any part of the process of the removal of material from the beds of waterways; transport of the material to a disposal, rehandling or treatment facility; treatment of the material; discharge of carriage or interstitial water; and disposal of the material.
- 6.10 "Erosion Control" means methods employed to prevent erosion. Examples include: soil stabilization practices, horizontal slope grading, temporary or permanent cover, and construction phasing. (look for SW definition)
- 6.11 "Final Stabilization" means that all soil disturbing activities at the site have been completed, and that a uniform perennial vegetative cover (a density of 70 percent cover for unpaved areas and areas not covered by permanent structures) has been established or equivalent permanent stabilization measures have been employed. Examples of vegetative cover practices can be found in Supplemental Specifications to the 1988 Standard Specifications for Construction (Minnesota Department of Transportation, 1991).

Chapter 5. Dredged Material Management

6. Definitions

- 6.12 "Flood Event" means that the surface elevation of a waterbody has risen to a level that causes the inundation or submersion of areas normally above the Ordinary High Water Level.
- 6.13 "Impoundment" means a natural or artificial body of water or sludge confined by a dam, dike, floodgate, or other barrier.
- 6.14 "Interstitial, or Pore, Water" means water contained in the interstices or voids of soil or rock in the dredged material.
- 6.15 "Ordinary High-Water Level (OHWL)" means the boundary of waterbasins, watercourses, public waters, and public waters wetlands, and shall be an elevation delineating the highest water level which has been maintained for a sufficient period of time to leave evidence upon the landscape, commonly that point where the natural vegetation Cs from predominantly aquatic to predominantly terrestrial. For watercourses, the ordinary high water level is the elevation of the top of the bank of the channel. For reservoirs and flowages, the ordinary high water level is the operating elevation of the normal summer pool. (Minn. Stat. chap. 103G.005 Subd. 14 and MN Rule 6120.2500 Subp. 11.)
- 6.16 "Rehandling Facility" means a temporary storage site or facility used during the transportation of dredged material to a treatment or disposal facility.
- 6.17 "Significant Storm Event" means a storm event that is greater than 1.0 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 1.0 inch rainfall) storm event. The 72-hour storm event interval may be waived where:
- a. the preceding measurable storm event did not result in a measurable discharge from the facility; or,
 - b. the Permittee documents that less than a 72-hour interval is representative for local storm events during the season when sampling is being conducted.
- 6.18 "Stabilized" means staked sod, riprap, wood fiber blanket, or other material that prevents erosion from occurring has covered the exposed ground surface. Grass seed is not stabilization.
- 6.19 "Storage Facility" means a structure, site or area for the holding of dredged material for more than 48 hours in quantities equal to or greater than ten cubic yards. Storage for more than 1 year constitutes disposal.
- 6.20 "Unconfined Disposal" means the deposition of dredged material, in water, on the bed of a waterway.
- 6.21 "Upland Disposal" means the disposal of dredged materials landward from the ordinary high-water level of a waterway or waterbody.

Chapter 6. Steam Electric

1. Authorization

- 1.1 The Permittee is authorized to discharge condenser/circulating water and noncontact cooling water in accordance with and in compliance with the effluent limitations, restrictions, and conditions contained elsewhere in this permit.
- 1.2 The Permittee holds a Minnesota Department of Natural Resources Permit 80-5081, which requires the facility to maintain the wetland (duck pond) adjacent to the discharge canal.
- 1.3 The Permittee is not prohibited from a discharge of condenser/circulating water and cooling water for use as a de-icing agent at the intake structure should the need arise.

2. Applicable Effluent Limitations - Thermal Limitation

- 2.1 The thermal waste streams shall not impact the safety and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on the Mississippi River.

Chapter 6. Steam Electric

2. Applicable Effluent Limitations - Thermal Limitation

- 2.2 In accordance with the Federal Water Pollution Control Act, this permit may be re-opened to insert a more restrictive thermal limit or the requirement to conduct a 316(a) study if it has been shown that the thermal component(s) of the surface water discharges affect the safety and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on the Mississippi River.
- 2.3 For the purposes of this permit, the fall trigger point is defined as the point at which the daily average upstream ambient river temperature falls below 43 degrees F for five consecutive days.

During the period April 1 through the fall thermal point the Permittee shall operate the cooling towers and associated equipment, to the extent necessary, in such a way that the cooling water discharge satisfies the following conditions:

- 1) Does not raise the temperature of the receiving water immediately below Lock and Dam No. 3 by more than 5 degrees F above ambient based on upstream monitoring data and the monthly averages of maximum daily temperatures at the three monitoring probes located on the piers dividing the four gated sections of the dam.
 - 2) In no case shall it exceed a daily average temperature of 86 degrees F.
 - 3) If the daily average ambient river temperature reaches 78 degrees F for two consecutive days, the Permittee shall operate all cooling towers to the maximum extent practicable. For single unit operations, this requirement is satisfied by operation of two of the four cooling towers.
- 2.4 During the effective period (beginning on the fall trigger point and ending March 31), or earlier as described below, plant thermal discharges shall be limited by ambient river temperature as follows:

Once the daily average ambient river temperature falls below 43 degrees F for five consecutive days, the Permittee shall not raise the temperature of the receiving water immediately below Lock and Dam No. 3 (SW 001) above 43 degree F for an extended period of time. While operating under this restriction, if the daily average temperature in the receiving water measured at SW 001 (measured using three probes on the piers dividing the four gated sections of the dam) equals or exceeds 43 degrees F for two consecutive days, the Permittee shall notify the Commissioner and the Minnesota Department of Natural Resources. Following such notification the Commission may require the Permittee to operate the cooling towers or take alternative action as necessary until such time that the 43 degree F criteria can be consistently met.

- 2.5 The spring trigger point is defined as the point in time that the daily average ambient river temperature increases to 43 degrees F or above for five consecutive days, or April 1, whichever occurs first.

The Permittee shall operate in the above manner (Section 2.4) throughout the winter and into spring until the spring trigger point. Once the spring 43 degree F daily average ambient river temperature trigger or the April 1 date trigger has been reached, plant thermal limits default back to the requirements of Section 2.3 until the following fall thermal trigger point. If the temperature trigger results in a partial month of operation under Section 2.3 conditions/requirements, compliance with the Delta T of 5 degrees F shall be based on the monthly average of the maximum daily ambient temperatures on days after the trigger is reached.

From April 1, or earlier as described above, through the fall thermal trigger point the requirements of Section 2.3 apply.

- 2.6 Abrupt temperature changes in the discharge due to changes in cooling tower operational modes or generator unit tripouts shall be minimized to the maximum extent practical to reduce the potential for thermal shock in the receiving water (Mississippi River). The Permittee shall be responsible for fish kills in the receiving water (Mississippi River) and the recirculating water system due to thermal shock and chemical treatments.
- 2.7 The ambient river water temperature shall be defined as the temperature of the river at a point unaffected by the plant or any other thermal discharge and shall be representative of the main river channel temperature and Sturgeon Lake outlet temperature.

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Chapter 6. Steam Electric

2. Applicable Effluent Limitations - Thermal Limitation

- 2.8 The Permittee shall monitor the temperature of the receiving water immediately below Lock and Dam No. 3 continuously (using three probes on the piers dividing the four gated sections of the gates), and this data shall be reported along with the monthly discharge monitoring reports. The Permittee shall maintain the site temperature monitoring system for outfall SD 001.
- 2.9 The Permittee shall conduct temperature monitoring for stations including the combined effluent from the condenser/circulating water system and cooling water system (SD001), upstream locations Sturgeon Lake 1, Sturgeon Lake 2, Diamond Bluff (main channel), the screenhouse inlet temperature (intake channel), and the three separate temperature probes located at Lock and Dam No. 3 (on the piers dividing the four gated sections of the dam). The minimum, maximum, and average temperatures shall be recorded daily at these stations and reported with the monthly discharge monitoring reports.

The Permittee shall maintain the site temperature monitoring system encompassing ambient river temperature, Lock and Dam No. 3, intake, and outfall SD 001. Eliminations or reductions in portions of the system may be allowed as the information is compiled. The Permittee may evaluate the reliability and/or representativeness of the monitoring system and its various stations. Any relocations in the system, and reductions or eliminations of monitoring requirements are subject to MPCA review and approval.

- 2.10 If monitoring equipment for Sturgeon Lake 1, Sturgeon Lake 2, or Diamond Bluff (main channel) is out of service, then intake temperature monitoring may be utilized as the back up for ambient river water temperature determination. If either Sturgeon Lake 1 or Sturgeon Lake 2 is out of service, the remaining station(s) may be utilized as the backup for Sturgeon Lake temperature inputs to determine ambient river water temperature. The Sturgeon Lake 1 and Sturgeon Lake 2 temperature monitoring equipment may be removed from service in the fall after the daily average ambient river temperature is below 43 degrees F for two consecutive days. The Sturgeon Lake 1 and Sturgeon Lake 2 temperature monitoring equipment shall be reinstalled in the spring, once the potential for damage from ice and floating debris is minimal. It shall be installed prior to, or as soon after April 1 as practical.

3. Chlorination

- 3.1 Chlorine/bromine may be used only in the cooling water system, except chlorine or bromine may be used in the condenser/circulating cooling water system periodically to treat for parasitic amoeba or zebra mussels provided the circulating cooling water is dechlorinated prior to discharge.

The Permittee shall monitor the amount and time of bromine/chlorine application and shall report it monthly on the DMRs

- 3.2 During intermittent bromination the discharge of total residual oxidant (bromine/chlorine used) at SD 001, shall be limited to a total of 2 hours per 24 hour period and to an instantaneous maximum concentration of 0.05 mg/l. During continuous chlorination the discharge of total residual oxidant shall be limited to an instantaneous maximum concentration of 0.2 mg/l. The Permittee shall also monitor the amount and time of chlorine and or bromine application and shall report it monthly along with the other monitoring reports.

At times, plant configuration can result in shutdown of a unit's cooling water pump (WS 001 or WS 002) for a short period of time with continuous chlorine/bromine injection in progress. During this time, chlorine/bromine injection would continue via the normal injection path but could back flow through the idle cooling water pump suction and be drawn into the condenser/circulating water system. Any chlorine/bromine would be subsequently discharged to SD 001, the normal discharge for both the cooling water and condenser/circulating water systems. In this off-normal plant configuration, chlorine/bromine injection may continue at the normal rate provided SD 001 discharge limits are not exceeded. Any plant operation in this off-normal configuration shall be documented on the monthly DMR.

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Chapter 6. Steam Electric

3. Chlorination

- 3.3 The discharge of total residual oxidants at SD001, bromine/chlorine used, shall be limited during intermittent bromination/chlorination to a total of two hours per 24-hour period from the facility. The Permittee shall also monitor the amount and time of chlorine and/or bromine application and shall report it monthly along with the other monitoring reports.

4. Intake Screens

- 4.1 The Permittee may operate with up to 3/8 inch mesh screens during the period September 1 through March 31. During the April 1 through August 31 period, the Permittee shall use the 0.5 mm fine mesh screens, or alternate minimum larger sized screens upon approval by the MPCA.
- 4.2 The intake screening system shall be maintained to provide for continuous fine mesh screen operation during the sensitive period April 1 through August 31 in order to minimize mortality of fish and other organisms. Operation shall include maintaining design screen wash pressures and operation of all intake screens to minimize fish impingement/entrainment and mortality. Maintenance of the intake screen system shall be scheduled and completed during the less sensitive impingement/entrainment period of September 1 through March 31. This restriction applies only to routine planned maintenance that 1) requires the intake screening system (or a portion of the system) to be taken out of service, and that 2) could reasonably be scheduled and completed outside of the time period of concern (March 31-September 1) without adversely affecting personnel safety or equipment reliability.

The Permittee shall minimize the amount of time that intake screenhouse emergency bypass gates are open. The emergency bypass gates may be opened when necessary to meet Nuclear Regulatory Commission reactor safety and testing requirements or to allow for urgently required maintenance or repairs. If the bypass gates are open for more than 24 hours in a calendar month the dates and circumstances shall be reported in the next DMR.

- 4.3 Water used to rinse the intake screens shall be free of chlorine and chemical additives.
- 4.4 Large debris collected at the trash racks shall be disposed of so as to prevent it from entering waters of the state.
- 4.5 The Permittee shall be responsible for fish kills in the receiving water and the recirculating water system due to thermal shock and chemical treatments.
- 4.6 The permit may be reopened and modified based on ecological monitoring and studies by the Minnesota Department of Natural Resources, the Wisconsin Department of Natural Resources, Northern States Power, and the MPCA.
- 4.7 The Permittee shall submit a monitoring plan to maintain ecological monitoring consistent with the Annual Environmental reports to the Commissioner for approval within 45 days of the effective date of this permit. The monitoring plan shall include the impingement study discussed in part 4.6 above. The Commissioner shall consult with the Minnesota Department of Natural Resources in review and approval of the ecological monitoring plan.
- 4.8 The Permittee shall submit an Annual Environmental report to the Commissioner by July 1 of each year summarizing the previous years' data collection.
- 4.9 The Commissioner shall consult with the Minnesota Department of Natural Resources in review and approval of the ecological monitoring submittals described in section 4.7 and 4.8 of this chapter.

Chapter 7. Stormwater

1. Authorization

- 1.1 This chapter authorizes the Permittee to discharge storm water associated with industrial activity in accordance with the terms and conditions of this chapter.

Chapter 7. Stormwater

2. Stormwater Pollution Prevention Plan

- 2.1 The Permittee shall submit a copy of the Storm Water Pollution Prevention Plan (SWPPP) to the MPCA 180 days after the permit is issued. Subsequent revisions to the SWPPP during the permit terms can be retained at the facility.
- 2.2 The Stormwater Pollution Prevention Plan shall include a description of appropriate Best Management Practices for protection of surface and ground water quality at the facility, and a schedule for implementing the practices. The Plan shall also include the procedures to be followed by designated staff employed by the Permittee to implement the plan.
- 2.3 The Permittee shall comply with its Stormwater Pollution Prevention Plan.
- 2.4 The Permittee shall develop and implement a Storm Water Pollution Prevention Plan to address the specific conditions at the industrial facility. The goal of the Plan is to eliminate or minimize contact of storm water with significant materials that should be treated before it is discharged.

3. Temporary Protection and Permanent Cover

- 3.1 The Permittee shall provide and maintain temporary protection or permanent cover for the exposed areas at the facility.
- 3.2 Temporary protection methods are used to prevent erosion on a short-term basis, such as the placement of mulching straw, wood fiber blankets, wood chips, erosion control netting, or temporary seeding.
- 3.3 Permanent cover or final stabilization methods are used to prevent erosion, such as the placement of riprap, sodding, or permanent seeding or planting. Permanent seeding and planting must have a uniform perennial vegetation cover of at least 70 percent density to constitute final stabilization.

4. Inspection and Maintenance

- 4.1 The Permittee shall ensure that temporary protection and permanent cover for the exposed areas at the site are maintained.
- 4.2 Site inspections shall be conducted at least once every two months during non-frozen conditions. Inspections shall be conducted by appropriately trained personnel at the facility site per the facility's Storm Water Pollution Prevention Plan (SWPPP). The purpose of inspections is to 1) determine whether structural and non-structural BMPs require maintenance or changes, and 2) evaluate the completeness and accuracy of the SWPPP. At least one inspection during a reporting period shall be conducted while storm water is discharging from the facility.
- 4.3 Inspections shall be documented and a copy of all documentation shall remain on the permitted site and be available upon request. Indicate the date and time of the inspection as well as the name of the inspector on the inspection form.
- 4.4 The following compliance items will be inspected, and documented where appropriate:
 - a. evaluate the facility to determine that the SWPPP accurately reflects site conditions;
 - b. evaluate the facility to determine whether new exposed materials have been added to the site since completion of the SWPPP, and document any new significant materials;
 - c. during the inspection conducted during the runoff event, observe the runoff to determine if it is discolored or otherwise visibly contaminated, and document observations; and,
 - d. determine if the non-structural and structural BMPs as indicated in the SWPPP are installed and functioning properly.
- 4.5 If the findings of a site inspection indicate that BMPs are not meeting the objectives of the SWPPP corrective actions must be initiated within 30 days and the BMPs restored to full operation as soon as field conditions allow.

Chapter 7. Stormwater

4. Inspection and Maintenance

- 4.6 The Permittee shall minimize vehicle tracking of gravel, soil or mud.

5. Sedimentation Basin Design and Construction

- 5.1 Inlet(s) and outlet(s) shall be designed to prevent short circuiting and the discharge of floating debris.
- 5.2 The inlet(s) shall be placed at an elevation at least above one-half of the basin design hydraulic storage volume.
- 5.3 The outlet(s) shall consist of a perforated riser pipe wrapped with filter fabric and covered with crushed gravel. The perforated riser pipe shall be designed to allow complete drawdown of the basin(s).
- 5.4 Permanent erosion control, such as riprap, splash pads or gabions shall be installed at the outlet(s) to prevent downstream erosion.
- 5.5 The basins shall be designed to allow for regular removal of accumulated sediment by a backhoe or other suitable equipment.
- 5.6 New sedimentation basins shall be designed by a registered professional engineer, and installed under the direct supervision of a registered professional engineer.
- 5.7 Basins shall provide at least 1800 cubic feet, per acre drained, of hydraulic storage volume below the top of the outlet riser pipe.

6. Application of Chemical Dust Suppressants

- 6.1 If a material applied is mixed with water or another solvent before application, the chemical analysis shall be done on the aqueous or other mixture that is representative of the solution applied. This analysis shall be conducted during the same calendar year of application. This analysis shall include the parameters that may be determined by U.S. Environmental Protection Agency (EPA) Methods 624 and 625 which are described in 40 CFR Part 136.
- 6.2 The Chemical Dust Suppressant Annual Report shall include:
 - a. a record of the dates, methods, locations and amounts by volume of application at the facility;
 - b. whether the product was applied in the preceding year; and
 - c. the results of a chemical analysis of the materials applied each year.
- 6.3 In areas that runoff to the surface receiving water identified on Page 1 of this permit (Mississippi River), chemical dust suppressants, if used, shall not be applied within 100 feet of the Mississippi River. These materials also shall not be applied within 100 feet of ditches that conduct surface flow to the Mississippi River.
- 6.4 If chemical dust suppressants are applied, the Permittee shall submit a Chemical Dust Suppressant Annual Report due March 31 of each calendar year following the application of a chemical dust suppressant.

Chapter 8. Chemical Additives

1. General Requirements

- 1.1 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. "Chemical additive" includes processing reagents, water treatment products, cooling water additives, freeze conditioning agents, chemical dust suppressants, detergents and solvent cleaners used for equipment and maintenance cleaning, among other materials.
- 1.2 The Permittee shall request approval for an increased or new use of a chemical additive 60 days before the proposed increased or new use.

Chapter 8. Chemical Additives

1. General Requirements

- 1.3 This written request shall include the following information for the proposed additive:
- Material Safety Data Sheet.
 - A complete product use and instruction label.
 - The commercial and chemical names of all ingredients.
 - Aquatic toxicity and human health or mammalian toxicity data including a carcinogenic, mutagen, teratogenic concern or rating.
 - Environmental fate information including, but not limited to, persistence, half-life, intermediate breakdown products, and bioaccumulation data.
 - The proposed method, concentration, and average and maximum rates of use.
 - If applicable, the number of cycles before wastewater bleedoff
 - If applicable, the ratio of makeup flow to discharge flow.
- 1.4 This permit may be modified to restrict the use or discharge of a chemical additive.

Chapter 9. Total Facility Requirements

1. General Permit Requirements

Definitions

- 1.1 "Calendar Month Average" is calculated by adding all daily values measured during a calendar month and dividing by the number of daily values measured during that month. The "Calendar Month Average" limit is an upper limit.
- 1.2 "Calendar Month Maximum" is the highest value of single samples taken throughout the month. The "Calendar Month Maximum" is an upper limit.
- 1.3 "Calendar Month Minimum" is the lowest value of single samples taken throughout the month. The "Calendar Month Minimum" is a lower limit.
- 1.4 "Calendar Month Total" is calculated by adding all daily values measured during a calendar month. It is usually expressed in mass or volume units. The "Calendar Month Total" is an upper limit.
- 1.5 "Daily Maximum" means the maximum allowable discharge of pollutant during a calendar day. Where daily maximum limitations are expressed in units of mass, the daily discharge is the total mass discharged over the course of the day. Where daily maximum limitations are expressed in terms of a concentration, the daily discharge is the arithmetic average measurement of the pollutant concentration derived from all measurements taken that day. The "Daily Maximum" is an upper limit.
- 1.6 "Grab" sample type is an individual sample collected from one location at one point in time.
- 1.7 "Instantaneous Maximum" is the highest value recorded when continuous monitoring is used or when the reporting frequency is not specifically defined. The "Instantaneous Maximum" limit is an upper limit. The highest value recorded is reported.
- 1.8 "Single Value" in the context of this permit is in reference to temperature limitations described under thermal limitations, where applicable, or to a temperature monitoring requirement.

Chapter 9. Total Facility Requirements

1. General Permit Requirements

- 1.9 "Stormwater" means stormwater runoff, snow melt runoff, and surface runoff and drainage.

General Conditions

- 1.10 Incorporation by Reference. The following applicable federal and state laws are incorporated by reference in this permit, are applicable to the Permittee, and are enforceable parts of this permit: 40 CFR pts. 122.41, 122.42, 136, 403 and 503; Minn. R. pts. 7001, 7041, 7045, 7050, 7060, and 7080; and Minn. Stat. Sec. 115 and 116.
- 1.11 Permittee Responsibility. The Permittee shall perform the actions or conduct the activity authorized by the permit in compliance with the conditions of the permit and, if required, in accordance with the plans and specifications approved by the Agency. (Minn. R. 7001.0150, subp. 3, item E)
- 1.12 Toxic Discharges Prohibited. Whether or not this permit includes effluent limitations for toxic pollutants, the Permittee shall not discharge a toxic pollutant except according to Code of Federal Regulations, Title 40, sections 400 to 460 and Minnesota Rules, parts 7050.0100 to 7050.0220 and 7052.0010 to 7052.0110 (applicable to toxic pollutants in the Lake Superior Basin) and any other applicable MPCA rules. (Minn. R. 7001.1090, subp.1, item A)
- 1.13 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, acutely toxic conditions to aquatic life, or other adverse impact on the receiving water. (Minn. R. 7050.0210 subp. 2)
- 1.14 Property Rights. This permit does not convey a property right or an exclusive privilege. (Minn. R. 7001.0150, subp. 3, item C)
- 1.15 Liability Exemption. In issuing this permit, the state and the MPCA assume no responsibility for damage to persons, property, or the environment caused by the activities of the Permittee in the conduct of its actions, including those activities authorized, directed, or undertaken under this permit. To the extent the state and the MPCA may be liable for the activities of its employees, that liability is explicitly limited to that provided in the Tort Claims Act. (Minn. R. 7001.0150, subp. 3, item O)
- 1.16 The MPCA's issuance of this permit does not obligate the MPCA to enforce local laws, rules, or plans beyond what is authorized by Minnesota Statutes. (Minn. R. 7001.0150, subp.3, item D)
- 1.17 Liabilities. The MPCA's issuance of this permit does not release the Permittee from any liability, penalty or duty imposed by Minnesota or federal statutes or rules or local ordinances, except the obligation to obtain the permit. (Minn. R. 7001.0150, subp.3, item A)
- 1.18 The issuance of this permit does not prevent the future adoption by the MPCA of pollution control rules, standards, or orders more stringent than those now in existence and does not prevent the enforcement of these rules, standards, or orders against the Permittee. (Minn. R. 7001.0150, subp.3, item B)
- 1.19 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, is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.
- 1.20 Compliance with Other Rules and Statutes. The Permittee shall comply with all applicable air quality, solid waste, and hazardous waste statutes and rules in the operation and maintenance of the facility.
- 1.21 Inspection and Entry. When authorized by Minn. Stat. Sec. 115.04; 115B.17, subd. 4; and 116.091, and upon presentation of proper credentials, the agency, or an authorized employee or agent of the agency, shall be allowed by the Permittee to enter at reasonable times upon the property of the Permittee to 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, item I)

Chapter 9. Total Facility Requirements

1. General Permit Requirements

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

Sampling

- 1.23 Representative Sampling. Samples and measurements required by this permit shall be conducted as specified in this permit and representative of the discharge or monitored activity. (40 CFR 122.41 (j)(1))
- 1.24 Additional Sampling. If the Permittee monitors more frequently than required, the results and the frequency of monitoring shall be reported on the Discharge Monitoring Report (DMR) or another MPCA-approved form for that reporting period. (Minn. R. 7001.1090, subp. 1, item E)
- 1.25 Certified Laboratory. A laboratory certified by the Minnesota Department of Health shall conduct analyses required by this permit. Analyses of dissolved oxygen, pH, temperature and total residual oxidants (chlorine, bromine) do not need to be completed by a certified laboratory but shall comply with manufacturers specifications for equipment calibration and use. (Minn. Stat. Sec. 144.97 through 144.98 and Minn. R. 4740.2010 through 4740.2040)
- 1.26 Sample Preservation and Procedure. Sample preservation and test procedures for the analysis of pollutants shall conform to 40 CFR Part 136 and Minn. R. 7041.3200.
- 1.27 Equipment Calibration. All monitoring and analytical instruments used to monitor as required by this permit shall be calibrated and maintained at a frequency necessary to ensure accuracy. Flow monitoring equipment should be calibrated at least twice annually. For facilities with lift stations/pumps, calibration shall be completed at least twice annually. The Permittee shall maintain written records of all calibrations and maintenance for at least three years. (Minn. R. 7001.0150, subp. 2, items B and C)
- 1.28 Unless otherwise approved, instruments used to measure metered flows shall be accurate within plus or minus 10 percent of the true flow values. Flow for non-metered systems (e.g., screenwash return) shall be estimated using methods such as pump discharge curves and run times. SD 001 discharge flow shall be determined by comparing discharge canal sluice gate position and canal water elevation to the applicable engineering flow curves.
- 1.29 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 (Minn. R. 7001.0150, subp. 2, item C):
- The exact place, date, and time of the sample or measurement;
 - The date of analysis;
 - The name of the person who performed the sample collection, measurement, analysis, or calculation; and
 - The analytical techniques, procedures and methods used; and
 - the results of the analysis. (Minn. R. 7001.0150, subp. 2, item C)

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Chapter 9. Total Facility Requirements

1. General Permit Requirements

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

Required forms may include:

Discharge Monitoring Reports (DMRs)

The results of the monitoring and sampling required in this permit shall be recorded on the (grey and white) DMRs which, if required, will be provided by the MPCA. If no discharge occurred during the reporting period, the Permittee shall check the "No Discharge" box on the DMR. Note: Every open, white box must be filled-in on the DMR, unless no discharge occurred during the reporting period.

Supplemental Report Form (SRFs)

Individual values for each sample and measurement must be recorded on the SRF which, if required, will be provided by the MPCA. SRFs shall be submitted with the appropriate DMRs. You may design and use your own SRF, however it must be approved by the MPCA. Note: Required Summary information MUST also be recorded on the DMR. Summary information that is submitted ONLY on the SRF does not comply with the reporting requirements.

Other Reports and Forms

Other reports and information required by this permit shall be recorded on a form supplied or approved by the MPCA and submitted by the date specified in the permit. (Minn. R. 7001.1090, subp. 1, item D and Minn. R. 7001.0150, subp. 2, item B)

- 1.31 Submitting Reports. DMRs and SRFs shall be submitted to:

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

DMRs and SRFs shall be submitted or postmarked by the 21st day of the month following the sampling period or as otherwise specified in this permit. A DMR shall be submitted for each required station even if no discharge occurred during the reporting period. (Minn. R. 7001.0150, subs. 2.B and 3.H)

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

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

- 1.32 Incomplete or Incorrect Reports. The Permittee shall immediately submit an amended report or DMR to the MPCA upon discovery by the Permittee or notification by the MPCA that it has submitted an incomplete or incorrect report or DMR. The amended report or DMR shall contain the missing or corrected data along with a cover letter explaining the circumstances of the incomplete or incorrect report. (Minn. R. 7001.0150 subp. 3, item G)

Chapter 9. Total Facility Requirements

1. General Permit Requirements

- 1.33 **Required Signatures.** All DMRs, forms, reports, and other documents submitted to the MPCA shall be signed by the Permittee or the duly authorized representative of the Permittee. Minn. R. 7001.0150, subp. 2, item D. The person or persons that sign the DMRs, forms, reports or other documents must certify that he or she understands and complies with the certification requirements of Minn. R. 7001.0070 and 7001.0540, including the penalties for submitting false information. Technical documents, such as design drawings and specifications and engineering studies required to be submitted as part of a permit application or by permit conditions, must be certified by a registered professional engineer. (Minn. R. 7001.0540)
- 1.34 **Detection Level.** The Permittee shall report monitoring results below the reporting limit (RL) of a particular instrument as "<" the value of the RL. For example, if an instrument has a RL of 0.1 mg/L and a parameter is not detected at a value of 0.1 mg/L or greater, the concentration shall be reported as "<0.1 mg/L". "Non-detected", "undetected", "below detection limit", and "zero" are unacceptable reporting results, and are permit reporting violations. (Minn. R. 7001.0150, subp. 2, item B)
- 1.35 **Records.** The Permittee shall, when requested by the Agency, submit within a reasonable time the information and reports that are relevant to the control of pollution regarding the construction, modification, or operation of the facility covered by the permit or regarding the conduct of the activity covered by the permit. (Minn. R. 7001.0150, subp. 3, item H)
- 1.36 **Confidential Information.** Except for data determined to be confidential according to Minn. Stat. Sec. 116.075, subd. 2, all reports required by this permit shall be available for public inspection. Effluent data shall not be considered confidential. To request the Agency maintain data as confidential, the Permittee must follow Minn. R. 7000.1300.

Noncompliance and Enforcement

- 1.37 **Subject to Enforcement Action and Penalties.** Noncompliance with a term or condition of this permit subjects the Permittee to penalties provided by federal and state law set forth in section 309 of the Clean Water Act; United States Code, title 33, section 1319, as amended; and in Minn. Stat. Sec. 115.071 and 116.072, including monetary penalties, imprisonment, or both. (Minn. R. 7001.1090, subp. 1, item B)
- 1.38 **Criminal Activity.** The Permittee may not knowingly make a false statement, representation, or certification in a record or other document submitted to the Agency. A person who falsifies a report or document submitted to the Agency, or tampers with, or knowingly renders inaccurate a monitoring device or method required to be maintained under this permit is subject to criminal and civil penalties provided by federal and state law. (Minn. R. 7001.0150, subp.3, item G., 7001.1090, subps. 1, items G and H and Minn. Stat. Sec. 609.671)
- 1.39 **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))
- 1.40 **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. Violations that are determined to pose a threat to human health or a drinking water supply, or represent a significant risk to the environment shall be immediately reported to the Minnesota Department of Public Safety Duty Officer at 1(800)422-0798 (toll free) or (651)649-5451 (metro area). In addition, you may also contact the MPCA during business hours. Otherwise the violations and the results of any additional sampling shall be recorded on the next appropriate DMR or report.
- 1.41 **Unauthorized Releases of Wastewater Prohibited.** Except for conditions specifically described in Minn. R. 7001.1090, subp. 1, items J and K, all unauthorized bypasses, overflows, discharges, spills, or other releases of wastewater or materials to the environment, whether intentional or not, are prohibited. However, the MPCA will consider the Permittee's compliance with permit requirements, frequency of release, quantity, type, location, and other relevant factors when determining appropriate action. (40 CFR 122.41 and Minn. Stat. Sec 115.061)

Chapter 9. Total Facility Requirements

1. General Permit Requirements

- 1.42 **Upset Defense.** In the event of temporary noncompliance by the Permittee with an applicable effluent limitation resulting from an upset at the Permittee's facility due to factors beyond the control of the Permittee, the Permittee has an affirmative defense to an enforcement action brought by the Agency as a result of the noncompliance if the Permittee demonstrates by a preponderance of competent evidence:
- The specific cause of the upset;
 - That the upset was unintentional;
 - 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;
 - That at the time of the upset the facility was being properly operated;
 - That the Permittee properly notified the Commissioner of the upset in accordance with Minn. R. 7001.1090, subp. 1, item I; and
 - That the Permittee implemented the remedial measures required by Minn. R. 7001.0150, subp. 3, item J.

Operation and Maintenance

- 1.43 The Permittee shall at all times properly operate and maintain the facilities and systems of treatment and control, and the appurtenances related to them which are installed or used by the Permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. The Permittee shall install and maintain appropriate backup or auxiliary facilities if they are necessary to achieve compliance with the conditions of the permit and, for all permits other than hazardous waste facility permits, if these backup or auxiliary facilities are technically and economically feasible Minn. R. 7001.0150, subp. 3, item F.
- 1.44 In the event of a reduction or loss of effective treatment of wastewater at the facility, the Permittee shall control production or curtail its discharges to the extent necessary to maintain compliance with the terms and conditions of this permit. The Permittee shall continue this control or curtailment until the wastewater treatment facility has been restored or until an alternative method of treatment is provided. (Minn. R. 7001.1090, subp. 1, item C)
- 1.45 **Solids Management.** The Permittee shall properly store, transport, and dispose of biosolids, septage, sediments, residual solids, filter backwash, screenings, oil, grease, and other substances so that pollutants do not enter surface waters or ground waters of the state. Solids should be disposed of in accordance with local, state and federal requirements. (40 CFR 503 and Minn. R. 7041 and applicable federal and state solid waste rules)
- 1.46 Intake traveling screen rinse water and contents will be returned to the river uninterrupted for the protection of fish and other aquatic organisms.
- 1.47 **Scheduled Maintenance.** The Permittee shall schedule maintenance of the treatment works during non-critical water quality periods to prevent degradation of water quality, except where emergency maintenance is required to prevent a condition that would be detrimental to water quality or human health. (Minn. R. 7001.0150, subp. 3, item F and Minn. R. 7001.0150, subp. 2, item B)
- 1.48 **Control Tests.** In-plant control tests shall be conducted at a frequency adequate to ensure compliance with the conditions of this permit. (Minn. R. 7001.0150, subp. 3, item F and Minn. R. 7001.0150, subp. 2, item B)

Changes to the Facility or Permit

Permit Modified: June 30, 2006
Permit Expires: August 31, 2010

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Chapter 9. Total Facility Requirements

1. General Permit Requirements

- 1.49 Permit Modifications. No person required by statute or rule to obtain a permit may construct, install, modify, or operate the facility to be permitted, nor shall a person commence an activity for which a permit is required by statute or rule until the Agency has issued a written permit for the facility or activity. (Minn. R. 7001.0030)

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

- 1.50 Report Changes. The Permittee shall immediately report to the MPCA (Minn. R. 7001.0150, subp. 3, item M.):

- a. Any substantial changes in operational procedures;
- b. Activities which alter the nature or frequency of the discharge; and
- c. Material factors affecting compliance with the conditions of this permit. (Minn. R. 7001.0150, subp. 3, item M.)

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

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

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

If the Permittee has submitted a timely application for permit reissuance, the Permittee may continue to conduct the activities authorized by this permit, in compliance with the requirements of this permit, until the MPCA takes final action on the application, unless the MPCA determines any of the following (Minn. R. 7001.0040 and 7001.0160):

- a. The Permittee is not in substantial compliance with the requirements of this permit, or with a stipulation agreement or compliance schedule designed to bring the Permittee into compliance with this permit;
- b. The MPCA, as a result of an action or failure to act by the Permittee, has been unable to take final action on the application on or before the expiration date of the permit;
- c. The Permittee has submitted an application with major deficiencies or has failed to properly supplement the application in a timely manner after being informed of deficiencies. (Minn. R. 7001.0040 and 7001.0160)

Appendix 1:

Table 1. Minimum number of samples for sediment evaluation

VOLUME PLANNED FOR REMOVAL in CUBIC YARDS	NUMBER OF CORE SAMPLE SITES
0-30,000	3
30,000-100,000	5
100,000-500,000	6
500,000-1,000,000	8
>1,000,000	>8

Table 2. Baseline Sediment Parameter List

Parameter	Analytical Method	Method Detection Limit <i>(mg/kg, dry weight unless noted)</i>	Tier 1 Soil Reference Value (SRV) <i>(mg/kg, dry weight unless noted)</i>	Tier 2 Soil Reference Value (SRV) <i>(mg/kg, dry weight unless noted)</i>
Inorganics – Metals				
Arsenic	SW-846 3050B/6010B EPA 6010 or 7060	0.42	5	20
Cadmium	SW-846 3050B/6010B EPA 7131	0.02	25	160
Chromium III	SW-846 3050B/6010B EPA 6010 or 7191	0.058	44,000	100,000
Chromium VI	SW-846 3050B/6010B EPA 6010 or 7191	0.058	87	650
Copper	SW-846 3050B/6010B EPA 6010 or 7211	0.1	11	9,000
Lead	SW-846 3050B/6010B EPA 6010 or 7421	0.22	300	700
Mercury	SW-846 7471A EPA 7471	0.02	0.5	1.5
Nickel	SW-846 3050B/6010B EPA 6010	0.36	560	2,500
Selenium	SW-846 3050B/6010B	0.43	160	1,250
Zinc	SW-846 3050B/6010B EPA 6010 or 7951	0.35	8,700	70,000
Inorganics – Nutrients				
Total Phosphorus	EPA 365.2/365.3	50		
Nitrate + Nitrite				
Ammonia-Nitrogen				
Total Kjeldahl Nitrogen				
Organics				
PCBs (Total)	SW-846 8081 EPA 8081, 3540B, 3541	0.02	1.2	8
Total Organic Carbon	SW 846 8081 SW846-EPA 9060	0.2%		
Physical Tests				
Sieve and Hydrometer Analysis	ASTM D-422			
Moisture Content	ASTM D-2216			

Table 3. Additional Sediment Parameter List

Parameter	Analytical Method	Method Detection Limit (mg/kg, dry weight unless noted)	Tier 1 Soil Reference Value (SRV) (mg/kg, dry weight unless noted)	Tier 2 Soil Reference Value (SRV) (mg/kg, dry weight unless noted)
Inorganics – Metals				
Barium	SW-846 3050B/6010B	0.049	1,200	11,000
Cyanide	SW-846 9012A	0.5	62	5,000
Manganese	SW-846 3050B/6010B	0.39	3,600	8,100
Inorganics – Nutrients				
Oil & Grease	SW-846 9070			
Organics				
Aldrin	SW-846 8081 EPA 8081, 354440B, 3541	0.00044	1	2
Chlordane	SW-846 8081 EPA 8081, 354440B, 3541	0.01	13	74
Endrin	SW-846 8081 EPA 8081, 354440B, 3541	0.00073	8	56
Dieldrin	SW-846 8081 EPA 8081, 354440B, 3541	0.00091	0.8	2
Heptachlor	SW-846 8081 EPA 8081, 354440B, 3541	0.00077	2	3.5
Lindane (Gamma BHC)	SW-846 8081 EPA 8081, 354440B, 3541	0.00029	9	15
DDT	SW-846 8081 EPA 8081, 354440B, 3541	0.00063	15	88
DDD	SW-846 8081 EPA 8081, 354440B, 3541	0.0002	56	125
DDE	SW-846 8081 EPA 8081, 354440B, 3541	0.0002	40	90
Toxaphene	SW-846 8081	0.003	13	28
2,3,7,8-dioxin, 2,3,7,8-furan and 15 2,3,7,8-substituted dioxin and furan congeners	EPA 8290	1-10 pg/g	0.00002	0.00003
Polycyclic Aromatic Hydrocarbons (PAHs)				
Naphthalene	EPA 8310	176 ug/kg	10	28
Pyrene	EPA 8310	195 ug/kg	890	5,800
Fluorene	EPA 8310	77.4 ug/kg	850	4,120
Acenaphthene	EPA 8310	6.7 ug/kg	1,200	5,200
Anthracene	EPA 8310	57.2 ug/kg	7,880	45,400
Fluoranthene	EPA 8310	423 ug/kg	1,080	6,800
Benzo (a) pyrene (BAP)/BAP equivalent	EPA 8310	150 ug/kg	2	4
Benzo (a) anthracene	EPA 8310	108 ug/kg	The results for these analytes should be added together and treated as the BAP equivalent, which is compared against the soil reference value for Benzo (a) pyrene, above.	
Benzo (e) pyrene	EPA 8310	150 ug/kg		
Benzo (b) fluoranthene	EPA 8310	240 ug/kg		
Benzo (ghi) perylene	EPA 8310	170 ug/kg		
Benzo (k) fluoranthene	EPA 8310	240 ug/kg		

Chrysene	EPA 8310	.166 ug/kg		
Dibenzo(ah)anthracene	EPA 8310	33 ug/kg		
Indeno (1,2,3-cd) pyrene	EPA 8310	200 ug/kg		
Physical Tests				
Atterburg Limits (Liquid Limit and Plastic Limit)	ASTM D4318			
Specific Gravity	ASTM D-854			

Table 4. Contaminants and Source Industries. Adapted from Inland Testing Manual (EPA/Corps, 1998)

	Aceaphthene	Aldrin	Ammonia	Aniline	Arsenic	Benzo(a)anthracene	Benzo(a)pyrene	Cadmium	Chlordane	Chromium	Copper	Cyanide	DDT	Dieldrin	Endrin	Ethyl Parathion	Fluoranthene	Heptachlor	Hexachlorobenzene	Hexachlorocyclopentadiene	Lead	Mercury	2-Methylnaphthalene	Nickel	Oil and Grease	Organotin / Tin	PCB	Phenanthrene	Phosphorus	Pyrene	Selenium	Tetrachlorodibenzo(dioxin) (TCDD)	Tetrachlorodibenzofuran (TCDF)	Toxaphene	Zinc		
Aluminum Die-casting																																					
Ammunitions																																					
Anti-fouling Paints																																					
Automotive																																					
Batteries																																					
Boat Manufacturing / Boat Repair																																					
Boat Refueling																																					
Chemical Manufacturing																																					
Coal Gasification (MGP)																																					
Commercial Laundry																																					
Corrosion Metallurgy																																					
Dairy																																					
Detergents / Surfactants																																					
Dye																																					
Electrical																																					
Electric																																					
Fish and Wildlife Consumption Advisory																																					
Fruit and Vegetables																																					
Leather / Tanning																																					
Leather Products																																					
Metal Finishing / Refining																																					
Metallurgical Processes																																					
Nitric Acid Manufacturing																																					
Oxide Manufacturing																																					
Pesticides / Fertilizers																																					
Petroleum Refining																																					
Phosphate Mining																																					
Pharmaceutical																																					
Pigments / Inks																																					
Plastics																																					
Printing Plates																																					
Pulp and Paper Mills																																					
Rubber																																					
Steam Power																																					
Steel / Iron																																					
Sulfuric Acid																																					
Textiles																																					
Utilities																																					
Valuable Mineral Mining																																					
Waste Water Treatment Plants																																					

**Prairie Island Nuclear Generating Plant
License Renewal Application
Appendix E – Environmental Report**

**NPDES LIMITS
11/1/04**

EMERGENCY INTAKE TREATMENT		
PARAMETER	LIMIT	RESTRICTIONS
Biocide	Per request/approval letters	Restrictions per approval letters.
Intake Pipe Back-Flushing	NA	Back-flush intake piping periodically to remove accumulated river sediment. Displaced sediment from the pipe would not be removed from the river, only shifted some distance away from intake pipe suction.
Hydro Lasing Emergency Intake Gates	NA	Periodic cleaning of emergency intake gates. The water and river silt is discharged into the plant intake canal.
COOLING WATER & CONDENSER CIRCULATING WATER (DISCHARGE SD001)		
PARAMETER	LIMIT	RESTRICTIONS
Total Residual Oxidant, Bromine Used	Intermittent 0.05 ppm (Instantaneous Max) Continuous = 0.001 ppm	Intermittent by daily grab sample. Continuous by daily calculation.
Total Residual Oxidant, Chlorine Used	Intermittent = 0.2 ppm (Instantaneous Max) Continuous = 0.04 ppm	Intermittent by daily grab sample. Continuous by daily calculation, but may be done by analysis.
pH	6.0 - 9.0	Shall be monitored by weekly grab samples. Limits are not subject to averaging and shall be met at all times.
Oil or Other Substances	No visible color film on surface of receiving waters.	NA
Floating Solids or Visible Foam	Trace Amounts	NA
Biocide	Per request/approval letters	Used for Zebra mussel control, with restrictions per approval letters.
CHILLED WATER, CONTAINMENT, AND ZX SYSTEM (SD001)		
PARAMETER	LIMIT	RESTRICTIONS
Nitrite Based Inhibitor with Additives	0 - 900 ppm	Corrosion inhibitor in the chilled water system. 700 to 900 ppm normal operating range.
Microbiocide	0 - 200 ppm	Used for microbiological attack in closed loop systems. Has been used in the containment chillers.
Molybdate Based Corrosion Inhibitor	0 - 70 ppm	Used in the containment chillers.

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STEAM GENERATOR BLOWDOWN (DISCHARGE SD002)		
PARAMETER	LIMIT	RESTRICTIONS
Boric Acid	0 - 5000 ppm	0 - 10 ppm is routine range. Boron is added in higher concentrations for S/G crevice flushing.
Hydrazine	0 - 150 ppm	Normal operating range 0 - 125 ppb in the feedwater. Wet lay-up range 50 - 100 ppm.
Carbohydrazide	0 - 150 ppm	Carbohydrazide may be used in conjunction with or in place of hydrazine. Used during S/G wet lay up.
Ammonium Hydroxide	NA	Used for steam generator pH adjustment during wet lay up.
Morpholine	0 - 150 ppm	Normal operating range is 0-25 ppm. During outages, wet lay-up range is 50 - 100 ppm.
Aqueous Alkylamine (DAE)	0 - 150 ppm	Normal operating range is between 0 - 25 ppm. During outages, wet lay-up range is 50 - 100 ppm.
Methoxypropylamine (MPA)	0 - 150 ppm	Normal operating range is between 0 - 25 ppm. During outages, wet lay-up range is 50 - 100 ppm.
Hydrogen Peroxide	3000 ppm	Biological decontamination.
Floating Solids or Visible Foam	Trace Amounts	NA
Total Suspended Solids	Monthly Avg = 30 ppm Daily Max = 100 ppm	Request permission to delete this requirement
Oil or Other Substances	No visible color film on surface of receiving waters.	NA
RADWASTE TREATMENT SYSTEM EFFLUENT (SD003)		
PARAMETER	LIMIT	RESTRICTIONS
Polyquaternary Amine Coagulant	NA	500 grams added to 5000 gallons in Waste Hold-Up Tank. Used to precipitate large particles for increased filtration efficiency.
Floating Solids or Visible Foam	Trace Amounts	NA
Total Suspended Solids	Monthly Avg = 30 ppm Daily Max = 100 ppm	Request permission to delete this requirement
Oil or Other Substances	No visible color film on surface of receiving waters	NA

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RADWASTE TREATMENT SYSTEM EFFLUENT (SD003) [continued]		
PARAMETER	LIMIT	RESTRICTIONS
Hot Lab Sink Effluent	NA	Miscellaneous indicators, reagents, samples and expired laboratory standards. Essentially removed by ion exchangers prior to discharge.
Sodium Hydroxide	NA	Minor system leakage from routine operations as well as small amounts from drainage for maintenance of system components.
TSP Free Detergent	NA	Used for laundering, protective clothing, towels, rags, and as a cleaning preparation prior to painting.
Chlorine Bleach	NA	Used for laundering radioactively contaminated protective clothing, towels, and rags.
Radiac Wash	Miscellaneous Amounts	Used for radioactive decontamination wetting agent.
Hydrogen Peroxide	Miscellaneous Amounts	Addition to decrease biological oxygen demand levels. Used in laundry and as a cleaning preparation prior to painting. Also used for personnel and equipment decontamination.
Boron	NA	Concentration not to exceed .5-ppm ambient value at the sluice gates.
Nitrite based corrosion inhibitor with additives and biocide	NA	Minor system leakage from routine operations. Essentially removed by ion exchangers prior to discharge.
Ethylene Glycol	NA	Minor system leakage from routine operations.
Potassium Chromate Potassium Dichromate Potassium hydroxide	NA	Minor system leakage from routine operations and maintenance. Laundering of reusable towels and rags contaminated with potassium chromate. Analyze the next two ADT Monitor tanks following a potassium chromate release of >20 gallons.
Special Respirator Cleaner Plus	NA	Used for cleaning and decontamination in the Radiation Controlled Area.

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REVERSE OSMOSIS EFFLUENT (DISCHARGE SD004)		
PARAMETER	LIMIT	RESTRICTIONS
Clean in Place Skid (CIP) Total Suspended Solids	Batch release <= 30 ppm	Sample each batch before release. Batches may be discharged to the turbine building sump, landlock or SD004, depending on the suspended solids results. Report results in the Discharge Monitoring Report.
Clean in Place Skid (CDI) PH	>2.0 – <12.0	Sample each batch before release. Batches may be pH adjusted and discharged to the Turbine Building Sump, landlock, or SD004. Report results in the Discharge Monitoring Report.
Total Reverse Osmosis Effluent Flow		Total effluent from all processes must be summed monthly and reported in the Discharge Monitoring Report.
RO and Continuous de-ionizing Units (CDI) cleaning includes: hydrochloric acid, sodium hydroxide, sodium chloride, sodium percarbonate, sodium laurel sulfate		Periodic cleaning
Hydrogen Peroxide	3000 ppm	Used for biological decontamination. Discharge to landlock, TBS, or SD004.
Floating Solids or Visible Foam	Trace Amounts	NA
Oil or Other Substances	No visible color film on surface of receiving waters	NA
TURBINE BUILDING SUMP OR LAND APPLICATION (UNIT 1 = DISCHARGE SD005; UNIT 2 = DISCHARGE SD006)		
PARAMETER	LIMIT	RESTRICTIONS
Cold Lab Effluent	75 gallons per year	Miscellaneous indicators, reagents samples and expired laboratory standards. Sinks and floor drains may collect small amounts of various cleaning solutions.
Floating Solids or Visible Foam	Trace Amounts	NA
Total Suspended Solids	Monthly Avg = 30 ppm Daily Max = 100 ppm	Where the background level of the natural origin is reasonably definable and normally is higher than the specified limits, the natural level may be used as the limit. May be directed to "landlock" when > limit, provided no runoff reaches surface waters.
Oil and Grease	Monthly Avg = 10 ppm Daily Max = 15 ppm	If contaminated with oil, the sump may be directed to landlock to facilitate cleanup.
Oil or Other Substances	No visible color film on surface of receiving waters	If contaminated with oil, the sump may be directed to landlock to facilitate cleanup.

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TURBINE BUILDING SUMP OR LAND APPLICATION (UNIT 1 = DISCHARGE SD005; UNIT 2 = DISCHARGE SD006) [Continued]		
PARAMETER	LIMIT	RESTRICTIONS
Corrosion Inhibitor with additives and biocide	NA	Minor pump leakage and triple rinsing empty drums.
Ethylene Glycol	NA	Minor pump leakage and triple rinsing empty drums
Hydrazine, Boric Acid, Morpholine, Carbohydrazide, Ammonium Hydroxide, Methoxypropylamine, Aqueous Alkylamine	Miscellaneous amounts from Steam Generator carry over, Heating Boiler and condenser draining for maintenance	Drain chemical feed tanks and triple rinse chemical drums for safety reasons to the TBS. Drain chemical feed tanks for maintenance and outages.
Formula 65	Infrequent Use	Used for condenser tube leak testing.
Neutralizer	NA	Needed for neutralizing hydrazine, acid, and caustic spills in the turbine building sump. If safe to do so, neutralization may be done at the spill location and then flushed to the turbine building sump system.
Radiac wash	NA	Wetting agent used for steam cleaning.
Hydrogen Peroxide	NA	Used for biological decontamination. Discharge to SD001 or landlock
"FIRE PROTECTION SYST" - LAND APPLICATION OR TBS (UNIT 1 DISCHARGE SD005; UNIT 2 DISCHARGE SD006)		
PARAMETER	LIMIT	RESTRICTIONS
Biocide	Per request/approval letters	Used for Zebra mussel control, with restrictions per approval letters.
MISCELLANEOUS PLANT BUILDING FLOOR DRAINS (DISCHARGE SD010)		
PARAMETER	LIMIT	RESTRICTIONS
Floating Solids or Visible Foam	Trace Amounts	NA
Flow	0.004 MGD	NA
Oil and Grease	Monthly Avg = 10 ppm Daily Max = 15 ppm	NA
Total Suspended Solids	Monthly Avg = 30 ppm Daily Max = 100 ppm	Where the background level of the natural origin is reasonably definable and normally is higher than the specified limits, the natural level may be used as the limit.
Oil or Other Substances	No visible color film on surface of receiving waters	NA
Sodium Sulfite	NA	Used on as needed basis for chlorine/bromine neutralization.
Hydrogen Peroxide	3000 ppm	Used for biological decontamination.

NPDES LIMITS

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UNIT 1 AND 2 PLANT COOLING WATER OUTFALL (UNIT 1-WS001; UNIT 2-WS002)		
PARAMETER	LIMIT	RESTRICTIONS
Total Residual Oxidants, Bromine/Chlorine	2.0 ppm	Sample daily, may be obtained from Generator Hydrogen Coolers or from Cooling Water Pump Discharge if cooling water outfall lines are plugged or any point representative of system discharge. These additional sample points would be more conservative.
SCREEN BACKWASH & FISH RETURN EFFLUENT (DISCHARGE 012)		
PARAMETER	LIMIT	RESTRICTIONS
Flow	2.0 MGD	Monthly estimate.
Floating Solids or Visible Foam	Trace Amounts	NA
Screen Size	3/8" 9/1-4/1:0.5 mm (or minimum larger sized screens) 4/1-8/31	Commissioner approval is required to conduct a study to review the placement of 0.5 mm mesh screens or the minimum larger sized screens or other methods for the period April 1 - 15.
Oil or Other Substances	No visible color film on surface of receiving waters	NA
Debris	NA	Large debris collected at the trash racks shall be disposed of on dry land so as to prevent it from entering waters of the state.
MISCELLANEOUS USE/DISPOSAL REQUESTS AND LAND APPLICATION		
PARAMETER	LIMIT	RESTRICTIONS
Cinders and corn	NA	Use for controlling leakage through stop logs while dewatering bays. Approval given for P.I. as well as other NSP facilities.
Chlorine	NA	Land apply for Total Coliform disinfection.
Soda Blast Water	NA	Land application used for transformer cleaning and other miscellaneous components.
Titanic C or Zyme	NA	Diluted in 300 gallons of water and used to clean intake screen panels. The screens are rinsed in the yard and the tank solution is discharged to the area of "landlock" from the turbine building.
Screen Rinsing	NA	Clean water ONLY for rinsing/cleaning of screens with discharge to surface waters. Green Klean is approved diluted at 5 gal to 250/300 gal water with discharge to the area of "landlock" discharge once or twice/year.
Bio Action Biological Drain Opener	NA	To treat outside transformer pits for stagnant rainwater.
Diagnostic Trasar	0-5 ppm 0-6 times per year Intermittent 24 hour tests	To detect and correct possible chemical leakage in various plant systems.