



# Minnesota Pollution Control Agency

## Solid Waste Facility Draft Permit

SW-307

**Permittee:** NSP - Red Wing Ash Disposal Facility

**Facility name:** NSP - Red Wing Ash Disposal Facility  
1520 Bench Street  
Red Wing, Minnesota 55066  
Goodhue County

**Issuance date:** [       ]

**Modification date:** [       ]

**Expiration date:** [       ]

In accordance with Minn. Stat. chs. 115, 115A, and 116, and Minn. R. chs. 7000, 7001, and 7035, the Minnesota Pollution Control Agency (MPCA) hereby issues this permit and authorizes the Permittee listed on the following page to construct and operate the facility under the conditions set forth in this permit.

The determination to issue this permit is discretionary with the MPCA and was made subsequent to MPCA staff review of the permit application. The term commissioner, as used in this permit, refers to the MPCA Commissioner or MPCA personnel who have been delegated explicit authority by the commissioner. Other terms used in this permit are defined in Minnesota Statutes, the MPCA Solid Waste Management Rules, or specifically defined in this permit.

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

*Signature:*

***[Type e-Signature]***

*This document has been electronically signed.*

*for the Minnesota Pollution Control Agency*

Ainars Z. Silis  
Supervisor, Land Permits Unit  
Land & Air Compliance Section  
Industrial Division

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## 1. List of Permittees

The following Permittee(s) are authorized to construct and operate the NSP - Red Wing Ash Disposal Facility, SW-307, under the conditions set forth in this permit.

**Permittee activity owner:**

Northern States Power Co dba Xcel Energy  
414 Nicollet Mall, GO2  
Minneapolis, Minnesota 55401-1927

**Permittee land owner:**

Northern States Power Co dba Xcel Energy  
414 Nicollet Mall, GO2  
Minneapolis Minnesota 55401-1927

**Permittee operator:**

Northern States Power Co dba Xcel Energy  
414 Nicollet Mall, GO2  
Minneapolis Minnesota 55401-1927

## 2. Permitted facility description

The NSP - Red Wing Ash Disposal Facility (Facility) is located at:  
1520 Bench Street  
Red Wing, Minnesota 55066  
Goodhue County

This facility is classified as a mixed municipal solid waste combustor ash land disposal facility. The MPCA originally permitted this facility on July 28, 1987. Ash and ash contaminated wastes resulting from the combustion of refuse derived fuel at the NSP dba Xcel Energy Red Wing Steam Plant and the Xcel Energy French Island Plant, as well as ash from the city of Red Wing's incinerator are disposed of at this facility.

The original permit authorized the development of the first four phases in the seven-acre west cell. The permit was reissued on June 8, 1993, to allow continued development of Phases 4 and 5 of the west cell. The MPCA granted development of Phase 6 in correspondence dated May 2, 1996, and Phase 7 in correspondence dated June 19, 1997. The west cell had an airspace capacity of 592,000 cubic yards. The west cell was closed in stages with the last portion of the final cover construction approved by the MPCA in 2000.

On March 22, 1999, the MPCA authorized the construction and operation of a 629,200 cubic yard east cell. The permit was modified on May 10, 2012 to increase the total permitted capacity of the east cell to 861,330 cubic yards.

On May 10, 2012, the MPCA approved a major modification to expand the refuse derived fuel (RDF) ash disposal area. The Permittee proposed to continue operations in the east cell of the Facility and with the expansion fill in the gap (referred to as the center cell) between the east and west cells. The total capacity of the Facility for the combined east and west cells is 1,453,300 cubic yards. The expansion incorporating the center cell added approximately 981,500 cubic yards of capacity for a revised ultimate design capacity of 2,434,800 cubic yards.

The current permit application for reissuance does not propose any further expansions to the facility. The Permittee has proposed a plan for RDF ash reclamation. This plan involves removing ash from areas within the east cell as well as the center cell and transporting it to separate facility off-site where the ash will be processed for the recovery of ferrous and non-ferrous metals. After the ash has been processed, it will be returned to the disposal area from where it originated. Ash will not be reclaimed from the west cell as it has already obtained final cover. Upon issuance of this permit the Red Wing Ash Disposal Facility will be authorized to perform ash reclamation activities and continue disposal operations for a permit term of 10 years.

### 3. Permit requirements

SW-307	NSP - Red Wing Ash Disposal Facility
3.1.1	<b>General.</b>
3.1.2	"Airspace" means the volume for filling with waste, considering all solid waste, daily, intermediate, intermittent and final cover materials, and design restrictions. [Minn. R. 7001.0150, subp. 2]
3.1.3	"Commissioner" means the Commissioner of the Minnesota Pollution Control Agency (MPCA), or any individual who is authorized to review and approve submittals on behalf of the Commissioner. [Minn. R. 4410.0300, subp. 16]
3.1.4	"Design Capacity" means the maximum estimated potential airspace to be occupied by a land disposal facility, including all cover systems. "Design capacity" is used only for planning purposes and is distinct from permitted capacity. "Design capacity" is an estimate dependent on the existing landholdings of the Permittee, existing regulations that affect development and design (including required buffer areas, stormwater management requirements, and slopes), engineering designs, and site developmental plans. It includes all areas that have been completed, all active areas, and all proposed areas based on the largest design footprint shown on the plan sheets. It is the volume that, upon final closure of the facility, would be occupied by waste (along with all associated materials including cover) measured from the base of the fill to the top of the proposed final cover. [Minn. R. 7035.0300, subp. 32]
3.1.5	"Facility" has the meaning given in Minn. R. 7035.0300, subp. 37. [Minn. R. 7035.0330, subp. 37]
3.1.6	"Permitted Capacity" means the total amount or acceptance rate allowed for storage, composting, processing, transfer or disposal at the facility as found in the Waste Capacity Table of this Permit. For land disposal facilities, "permitted capacity" as stated in the Waste Capacity Table includes the volume already filled by previous disposal activities, and airspace volume authorized to be used during the ten-year term of the current permit, including cover systems. [Minn. R. 7001.0150, subp. 2]
3.1.7	"Permittee" means the landowner, facility owner(s), and facility operator(s). [Minn. R. 7001.3060]
3.1.8	"Waste Activity" means the storage, processing, transfer, utilization, treatment, or disposal of solid waste and waste by-products. [Minn. R. 7001.0150, subp. 2]
3.1.9	"Waste Activity Area" means the land, structures, monitoring devices, and other appurtenances and improvements on the land associated with a waste activity. [Minn. R. 7001.0150, subp. 2]
3.1.10	The facility waste activities authorized by this permit are limited to those activities described in the Waste Capacity Table of this permit. This includes the disposal of municipal solid waste (MSW) combustor ash and ash contaminated wastes indicated in the application such as gloves and filter bags and air quality control system residuals generated at the Northern States Power (NSP) dba Xcel Energy Red Wing Steam Plant. In addition, this facility is authorized to dispose of refuse derived fuel (RDF) ash generated at Xcel Energy's French Island Plant, as well as ash generated by the city of Red Wing's incinerator. The Permittee, with prior approval from the MPCA, may accept MSW combustor ash, ash contaminated wastes, and air quality control system residuals from other MSW incinerators. [Minn. R. 7001.0150, subp. 2]
3.1.11	<p>The issuance of this permit authorizes the Permittee to conduct ash excavation activities within the East Cell of the Facility. Ash excavated from the facility will be transported off-site to a separate facility for processing in order to reclaim ferrous and non-ferrous metals. After the ash has been processed it will be returned to the facility for final disposal in the East Cell.</p> <p>Ash excavation shall follow the phasing and plans laid out in the Facility's Operations Manual (dated May 2016) that is incorporated into this permit by reference. A four-foot separation distance shall be maintained between the surface of the liner and the base of the excavation at all times. The site operator shall use surveying as needed, daily if necessary, to ensure this separation distance is not compromised. [Minn. R. 7001.0150, subp. 2]</p>
3.1.12	The Permittee shall keep the status of the permit current and up-to-date. [Minn. R. 7001.0150, subp. 2]
3.1.13	The Permittee shall perform the actions or conduct the activity authorized by the permit in accordance with the plans and specifications approved by the Agency, in accordance with all state and federal statutes, rules and regulations, and in compliance with the conditions of the permit. [Minn. R. 7001.0150, subp. 2]
3.1.14	The facility authorized by this permit is located on an 80-acre parcel in the north half of Section 35, Township 113N, Range 15W, city of Red Wing, Goodhue County, Minnesota. The facility is on the west side of the city of Red Wing on Old Goodhue County Road 1, approximately 1.5 miles south of Highway 61.

	<p>The physical address for the facility is:          1520 Bench Street          Red Wing, Minnesota 55066</p> <p>The mailing address for the facility is:          414 Nicollet Mall, GO2          Minneapolis, Minnesota 55401 [Minn. R. 7001.0150, subp. 2]</p>
3.1.15	<p>In accordance with Minn. R. 4410.4300, subp. 17, Northern States Power Company (now doing business as Xcel Energy) submitted an application for reissuance of Solid Waste Permit Number SW-307 and triggered Environmental Assessment Worksheets in 1992, 1998 (major modification with horizontal expansion), 2003 (major modification with horizontal expansion), 2012 (major modification for center cell) and 2016 (major modification for ash reclamation). The 1992 application was for the west cell with the issuance of a negative declaration for an Environmental Impact Statement (EIS). The 1998 application was for construction of the east cell with a negative declaration for an EIS. A later expansion occurred for the east cell with the issuance of a negative declaration on the need for an EIS. The 2012 application was for construction of the center cell with issuance of a negative declaration on the need for an EIS. To date, this permit, including this major modification, upon issuance, authorizes a total design and permitted capacity of 2,434,800 cy. [Minn. R. 4410.4300, subp. 17]</p>
3.1.16	<p>The Permittee has previously been granted several variances from Minnesota Rules for this facility. The variances are included in the following list. No new variances were proposed in the current permit application. Approval for the use of 3H:1V slopes for the final cover of the facility in accordance with MPCA Solid Waste Guidance. A variance that allows a setback of 66 feet along the North side of the Facility. Portions of this property boundary are adjacent to a land disposal facility operated by the City of Red Wing. Approval of an alternative liner design that allows for the use of a Geosynthetic Clay Liner (GCL) in lieu of two feet of clay from the liner requirements. Approval of the use of drainage terraces every 40 vertical feet rather than drainage swales every 200 feet for surface water management. Approval for the substitution of geocomposite instead of sand for the granular drainage layer in the final cover design. A variance pertaining to the certified landfill operator requirements. Details of the operator requirements are included in the Operations and Maintenance Criteria section of this permit. A Variance to the standard MSW combustor ash sampling protocols. [Minn. R. 7035.0600]</p>
3.1.17	<p>The Permittee shall notify the MPCA before transferring ownership or operation of a solid waste management facility during its operating life or during postclosure care period in accordance with Minn. R. 7035.2535, subp. 2. [Minn. R. 7035.2535, subp. 2]</p>
3.1.18	<p><b>Permit Documents.</b></p>
3.1.19	<p>The approved plans and engineering documents are incorporated into this permit. In addition, once approved by the Commissioner, the Permittee shall comply with all submittals that are submitted in accordance with the terms of this permit. In all cases where the permit and the plans or submittals differ, the requirements of the permit shall govern over a condition in the plan or submittal. The approval by the Commissioner of the plans and specifications shall not release the Permittee from any present or subsequent requirements of statutes, rules, regulations, or ordinances. [Minn. R. 7001.0150, subp. 3(E), Minn. R. 7035.2610]</p>
3.1.20	<p>The permit application approved by this permit is signed and dated June 1, 2016. [Minn. R. 7001.0010]</p>
3.1.21	<p>The engineering documents approved by this permit include, but are not limited to:</p> <p>Permit Reapplication prepared by Wenck Associates, Inc. (Wenck) titled Application for Permit Renewal and Major Modification MPCA Permit No. SW-307, dated June 1, 2016, which includes:</p> <ol style="list-style-type: none"> <li>1. Design Report, dated May 2016</li> <li>2. Operations Manual, dated May 2016</li> <li>3. Contingency Action Plan, dated May 2016</li> <li>4. Closure/Postclosure Plan, dated May 2016</li> <li>5. Cost Estimates, dated May 2016</li> <li>6. Leachate Management Plan, dated May 2016</li> <li>7. Sampling and Analysis Plan, dated May 2016</li> <li>8. Technical Specifications</li> <li>9. Construction Quality Assurance/Quality Control Plan, dated May 2016</li> <li>10. Engineering Plans/Drawings (Sheets 1 through17), dated May 2016. [Minn. R. 7001.0150, subp. 3(H)]</li> </ol>

3.1.22	<p>The hydrogeologic evaluation documents approved by this permit include, but are not limited to:</p> <ol style="list-style-type: none"><li>1. Phase I Report and Phase II Work Plan for the Hydrogeologic Investigation of the Proposed NSP Red Wing RDF Ash Disposal Facility Expansion, dated February 2011</li><li>2. Phase II Report and Phase III Work Plan for the Hydrogeologic Investigation of the Proposed NSP Red Wing RDF Ash Disposal Facility Expansion, dated November 2011</li><li>3. Phase IV Monitoring Work Plan for the Red Wing Disposal Facility, Northern States Power Company, dated November 2000</li><li>4. Phase IV Monitoring Report for the Red Wing Disposal Facility, Northern States Power, dated 2001</li><li>5. Phase IV Sampling Plan for the Red Wing Ash Disposal Facility, Northern States power, dated May 2016.</li></ol> <p>[Minn. R. 7001.0150, subp. 3(H), Minn. R. 7001.3275]</p>
3.1.23	<p>Any revised plans shall be submitted for approval by the Commissioner. The Permittee shall obtain approval from the Commissioner on all revised engineering plans prior to construction of the affected portion of the facility.</p> <p>[Minn. R. 7001.0150, subp. 3(M), Minn. R. 7035.2610]</p>
3.1.24	<b>Design And Construction Criteria.</b>
3.1.25	<p>The Permittee may not locate, establish, or construct a solid waste management facility in areas designated in Minn. R. 7035.2555. [Minn. R. 7035.2555]</p>
3.1.26	<p>The Permittee shall construct the facility to prevent pollution of groundwater and surface water, minimize the contamination of soils from solid waste, and maintain the facility in conformance with MPCA air pollution control rules in accordance with Minn. R. 7035.2565. The Permittee shall design any proposed future expansions of the facility in accordance with this rule. [Minn. R. 7035.2565]</p>
3.1.27	<p>The Permittee shall construct the stormwater management system for the facility with Best Management Practices to manage stormwater discharge in accordance with the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Permit for the discharge of stormwater associated with an industrial activity and/or a construction activity. The issuance of this permit does not release the Permittee from the obligation to obtain an NPDES/SDS permit.</p> <p>The Permittee must design a run-on control system to prevent flow onto the waste activity areas and a run-off control system to collect and control flow from the waste activity areas resulting from a 24-hour, 25-year storm. [Minn. R. 7001.1090]</p>
3.1.28	<p>The Permittee shall submit a construction plan to the Commissioner for approval prior to construction if the construction plan proposes any major revisions to the approved design.</p> <p>[Minn. R. 7001.0150, subp. H, Minn. R. 7035.2610]</p>
3.1.29	<p>The Permittee shall notify appropriate MPCA staff at least ten (10) working days in advance of the construction of the facility or any component thereof unless the Commissioner orders otherwise. [Minn. R. 7001.0150, subp. M]</p>
3.1.30	<p>The Permittee shall submit a construction certification for approval by the Commissioner in accordance with Minn. R. 7035.2610. A facility waste activity or any new design feature shall not be placed into operation until the construction certification has been approved by the Commissioner. [Minn. R. 7035.2610]</p>
3.1.31	<p>The Permittee shall not make any major alterations or additions to the facility that would materially alter the manner in which waste is managed without first obtaining the written consent of the Commissioner.</p> <p>[Minn. R. 7001.0150, subp. M]</p>
3.1.32	<b>Operation And Maintenance Criteria.</b>
3.1.33	<p>The Permittee shall ensure that the required number of operators, trained or certified under Minn. R. 7035.2545 and Minn. R. 7048.0100 to 7048.1300, are present and on duty at all times that the facility is open for the purpose of receiving waste.</p> <p>The Permittee was granted a variance on October 24, 1997, which allowed the Permittee to accept ash on a 24-hour basis. In addition, this variance allowed the Permittee to accept ash at this facility over long holiday weekends without a certified operator being present. All ash stockpiled pursuant to this variance, must be spread and compacted in lifts no greater than one foot in depth as soon as practicable by the certified operator on the next regular business day at the facility. All operations must conform to state and federal regulations.</p> <p>[Minn. R. 7035.2545, Minn. R. 7048.0100-1300]</p>
3.1.34	<p>The Permittee shall prevent unauthorized entry onto the facility in accordance with Minn. R. 7035.2535, subp. 3. In addition, the Permittee shall post a sign at the entrance of the facility and each waste activity area showing the facility name, MPCA permit number, hours of operation, the acceptable waste, and any other relevant information. [Minn. R. 7035.2535, subp. 3 ]</p>

3.1.35	The Permittee shall establish and maintain a personnel training program consisting of classroom instruction and on-the-job training. The program shall address the requirements identified in Minn. R. 7035.2545, subp. 3, and shall include the specific training necessary to perform the tasks associated with each solid waste management area within the facility. The Permittee shall maintain a record of all personnel training and submit the dates of training in the annual report. [Minn. R. 7035.2545, subp. 3]
3.1.36	The Permittee shall prepare and maintain an operations and maintenance manual for the facility. The manual shall include operations and maintenance criteria that are specific to each solid waste management area within the facility. [Minn. R. 7001.3300, subp. P]
3.1.37	The Permittee shall construct and maintain all-weather approach and access roads to all waste activity areas within the facility. [Minn. R. 7001.0150, subp. 3(E)]
3.1.38	<b>Storage Of Solid Waste.</b>
3.1.39	The Permittee shall provide satisfactory storage for all solid waste accumulated at the facility in accordance with Minn. R. 7035.0700 and Minn. R. 7035.2855. [Minn. R. 7035.0700, Minn. R. 7035.2855]
3.1.40	The Permittee shall manage the facility to be in compliance with Minn. R. 7011.0150 to prevent particulate matter from becoming airborne. [Minn. R. 7011.0150]
3.1.41	The Permittee shall manage all free liquids that have come in contact with solid waste so that the liquids are not discharged as stormwater. [Minn. R. 7001.0150, subp. 2]
3.1.42	The Permittee shall provide effective measures to control flies, rodents and other insects or vermin as necessary. [Minn. R. 7001.0150, subp. 2]
3.1.43	The Permittee shall provide for the proper collection and transportation of solid waste in accordance with Minn. R. 7035.0800. [Minn. R. 7035.0800]
3.1.44	The Permittee shall not accept the wastes identified in Minn. R. 7035.2535, subp. 1 for treatment, storage, processing, or disposal. [Minn. R. 7035.2535, subp. 1]
3.1.45	The Permittee shall manage industrial solid waste for each waste activity as specified in the approved plan in accordance with Minn. R. 7035.2535, subp. 5. The Permittee shall include the information required by Minn. R. 7035.2575, subp. 2, items B and C in the annual report for each industrial waste accepted at the facility. [Minn. R. 7035.2535, subp. 5]
3.1.46	<p>The Permittee shall operate and maintain the stormwater management system for the facility with Best Management Practices to manage stormwater discharges in accordance with the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Permit for the discharge of stormwater associated with an industrial activity and/or a construction activity.</p> <p>The Permittee must maintain a run-on control system to prevent flow onto the waste activity areas and a run-off control system to collect and control flow from the waste activity areas resulting from a 24-hour, 25-year storm. [Minn. R. 7001.1090]</p>
3.1.47	The Permittee shall operate and maintain the facility to prevent pollution of groundwater and surface water, minimize the contamination of soils from solid waste, and maintain the facility in conformance with MPCA air pollution control rules in accordance with Minn. R. 7035.2565. [Minn. R. 7035.2565]
3.1.48	The Permittee shall provide and maintain adequate emergency equipment at the facility to control accidental fires, and make arrangements with the local fire protection agency to immediately acquire their services when needed. The Permittee shall also provide adequate communications equipment for emergency purposes. [Minn. R. 7035.2595, subp. 2&4]
3.1.49	The Permittee shall keep a written operating record at the facility in accordance with Minn. R. 7035.2575. [Minn. R. 7035.2575, subp. 2]
3.1.50	The Permittee shall inspect the facility in accordance with the schedule and items approved by the Commissioner as defined by Minn. R. 7035.2535, subp. 4. The Permittee shall record inspections in an inspection log or summary and shall keep these records for at least five years. [Minn. R. 7035.2535, subp. 4]
3.1.51	The Permittee shall maintain a copy of the approved emergency procedures manual at the facility for facility personnel to use in time of emergency. [Minn. R. 7035.2595, subp. 5]
3.1.52	The Permittee shall maintain a copy of the approved contingency action plan at the facility. [Minn. R. 7035.2615]
3.1.53	The Permittee shall maintain a copy of the approved facility closure plan, and all revisions to the plan, at the facility until closure is completed and certified in accordance with Minn. R. 7035.2635, subp. 3. [Minn. R. 7035.2625, subp. 3]

3.1.54	The Permittee shall maintain a copy of the approved postclosure care plan, and all subsequent amendments, until the postclosure care period begins. During the postclosure care period, the plan shall be kept by the contact person identified in Minn. R. 7035.2645, subp. 2, item C. [Minn. R. 7035.2645, subp. 2]
3.1.55	<b>Monitoring Criteria.</b>
3.1.56	The Permittee shall design, construct, operate, and maintain the disposal area to achieve compliance with the analytical limits set forth in the Sampling and Monitoring Requirements of this permit. These limits are based upon the Minnesota Department of Health, Health Risk Limits (HRL), Health-Based Values (HBV), Risk Assessment Advice (RAA), and Maximum Contaminate Level (MCL) and replace the standards listed in Minn. R. 7035.2815, subp. 4, item F, as provided for in Minn. R. 7035.2815, subp. 4, item H. [Minn. R. 7001.0150, subp. 2, Minn. R. 7035.2815, subp. 4(F & H)]
3.1.57	The Permittee shall establish compliance boundaries as specified in the approved plans and specifications, and in accordance with Minn. R. 7035.2815, subp. 4, items A through E. [Minn. R. 7001.0150, subp. 2, Minn. R. 7035.2815, subp. 4(A-E)]
3.1.58	The Permittee shall maintain the adequacy of the water monitoring system to reliably detect pollution and to comply with this permit. [Minn. R. 7035.2815, subp. 10]
3.1.59	The Permittee shall determine the initial water quality in new monitoring points and monitoring systems, and perform background monitoring in accordance with Minn. R. 7035.2815, subp. 14, item E. [Minn. R. 7001.0150, subp. 2, Minn. R. 7035.2815, subp. 14(E)]
3.1.60	The Permittee shall develop and keep current a written monitoring protocol for the disposal area according to Minn. R. 7035.2815, subp. 14, item G and shall ensure the protocol is followed during sampling and sample analysis. [Minn. R. 7001.0150, subp. 2, Minn. R. 7035.2815, subp. 14(G)]
3.1.61	The Permittee shall conduct groundwater quality sampling and analysis as specified in the approved plans and specifications, and in accordance with Minn. R. 7035.2815 subp. 14, and shall include the monitoring stations identified in this Permit. The Permittee shall conduct the sampling according to the schedule shown in the Sampling and Monitoring Requirements of this Permit. [Minn. R. 7001.0150, subp. 2, Minn. R. 7035.2815, subp. 10]
3.1.62	The analytical reporting limit must be less than or equal to the intervention limit for each parameter. [Minn. R. 7001.0150, subp. 2, Minn. R. 7035.2815, subp. 14]
3.1.63	The sampling window for the Spring Quarter, denoted as "Apr" on the Sampling and Monitoring Requirement Table, is between March 14 and May 14 of each calendar year. [Minn. R. 7001.0150, subp. 2, Minn. R. 7035.2815, subp. 10]
3.1.64	The sampling window for the Summer Quarter, denoted as "Jul" on the Sampling and Monitoring Requirement Table, is between June 21 and August 7 of each calendar year. [Minn. R. 7001.0150, subp. 2, Minn. R. 7035.2815, subp. 10]
3.1.65	The sampling window for the Fall Quarter, denoted as "Oct" on the Sampling and Monitoring Requirement Table, is between October 1 and November 21 of each calendar year. [Minn. R. 7001.0150, subp. 2, Minn. R. 7035.2815, subp. 10]
3.1.66	The Permittee shall take the actions listed in Minn. R. 7035.2815, subp. 4, item G. if an intervention limit established in this permit is exceeded. [Minn. R. 7001.0150, subp. 2, Minn. R. 7035.2815, subp. 4(G)]
3.1.67	The Permittee shall conduct leachate quality sampling and analysis as specified in the approved plans and specifications, and in accordance with Minn. R. 7035.2885 subp. 16 and shall include the monitoring stations identified in this permit. The Permittee shall conduct the sampling in accordance with the schedule shown in the limits table of this permit. In addition, sampling must be conducted according to the schedule outlined in the Red Wing WWTF permit and the MCEs permit. The Permittee shall provide a copy of all leachate test results to the MPCA. [Minn. R. 7001.0150, subp. 2, Minn. R. 7035.2885, subp. 16]
3.1.68	The Permittee shall conduct analysis of the extended leachate parameter list included in the facility's Leachate Management Plan once every five years during the summer sampling event. [Minn. R. 7035.2885, subp. 16]
3.1.69	<b>Reporting Criteria.</b>
3.1.70	The Permittee shall submit an annual facility report for the preceding calendar year in accordance with Minn. R. 7035.2585 in a format prescribed by the MPCA. The annual facility report shall include waste types, volumes, management methods, and final destinations. When required of a waste activity, the report shall include summary evaluation reports and specific annual reporting requirements and monitoring results. The Permittee shall submit the report to the Commissioner according to the schedule in the Submittal/Action requirements section of this Permit. [Minn. R. 7035.2585]

3.1.71	The Permittee shall submit an electronic copy of all monitoring data including groundwater, leachate, and field data for each monitoring event. Electronic data shall be submitted in the format specified by the MPCA. The schedule for submitting electronic monitoring data shall follow the schedule outlined in the Submittal/Action Requirements section of this permit. [Minn. R. 7001.0150]
3.1.72	The Permittee shall submit a complete copy of all monitoring results via email in PDF format to <a href="mailto:solidwastereports.pca@state.mn.us">solidwastereports.pca@state.mn.us</a> . The facility name and permit number must be in the subject line of the email. The monitoring results must be accompanied by information sufficient to establish the reliability, precision, and accuracy of the reported values, including but is not limited to the analytical report, chain of custody forms, filed notes, data analysis, and recommendation for monitoring adjustments. [Minn. R. 7001.0150]
3.1.73	The Permittee shall collect location and elevation data for all monitoring points. Location data shall be submitted in an approved coordinates system. Elevation data for monitoring wells shall include the elevation of the riser pipe and ground surface. The depth of wells from the riser pipe shall also be identified. If existing data is being reported the surveying method and datum used to collect this information shall be identified. [Minn. R. 7001.0150]
3.1.74	The Permittee shall submit an annual water and leachate monitoring summary and evaluation report in accordance with Minn. R. 7035.2585 and 7035.2815, subp. 14, item Q. The Permittee shall submit the report to the Commissioner, as part of the annual facility report, according to the schedule in this Permit. [Minn. R. 7001.0150, subp. 2, Minn. R. 7035.2815, subp. 14(Q)]
3.1.75	<b>Contingency Action Criteria.</b>
3.1.76	The Permittee shall address all facility waste activities as specified in the approved plans and specifications, and in accordance with Minn. R. 7035.2615. [Minn. R. 7035.2615]
3.1.77	If a fire occurs in the waste deposit area, the Permittee shall immediately implement its contingency action plan to extinguish the fire. [Minn. R. 7001.0150, subp. 3(E)]
3.1.78	Within 24 hours of discovery of the fire, the Permittee shall provide notice to the MPCA that a fire has occurred and that the contingency action plan has been implemented. If the Permittee has not extinguished the fire within two weeks of notice, the Permittee shall again notify the MPCA and shall provide the name of the professional engineer that their Permittee has hire to develop a revised plan for further firefighting efforts. The Permittee shall submit the revised plan to the MPCA for review and approval within 15 days of the notice to the MPCA that a revised plan is being prepared. To be approved, their revised plan shall identify the action that will be taken to extinguish that fire, including sources for materials and equipment and a timeline for implementation, and shall be signed by a registered professional engineer. The Permittee shall implement the revised plan upon approval by the MPCA. [Minn. R. 7001.0150, subp. 3(E)]
3.1.79	The Permittee shall implement the actions necessary to comply with the contingency action requirements in accordance with Minn. R. 7035.2615. [Minn. R. 7035.2615, subp. 2]
3.1.80	The Permittee shall notify the Minnesota Duty Officer immediately of the discharge, accidental or otherwise, of any substance or material under its control which, if not recovered, may cause pollution of waters of the state. The Permittee shall recover as rapidly and as thoroughly as possible such substance or material and take immediate action to minimize or abate pollution of waters of the state. The MN Duty Office can be reached at 800-422-0798. [Minn. Stat. 115.61]
3.1.81	The Permittee shall maintain and operate the facility to minimize the possibility of a fire, explosion, or any release to air, land, or water of pollutants that threaten human health or the environment in accordance with Minn. R. 7035.2595. [Minn. R. 7035.2595, subp. 1]
3.1.82	The Permittee shall take all reasonable containment measures during an emergency and submit a written report to the Commissioner in accordance with Minn. R. 7035.2605. [Minn. R. 7035.2605, subp. 1]
3.1.83	<b>Closure Criteria.</b>
3.1.84	The Permittee shall close each waste activity, or the entire facility as appropriate, as specified in the approved plans and specifications, and in accordance with Minn. R. 7035.2625. [Minn. R. 7035.2625]
3.1.85	The Permittee shall perform closure for each waste activity as specified in the approved plans and specifications, and in accordance with Minn. R. 7035.2635. [Minn. R. 7035.2635]
3.1.86	The Permittee shall complete closure activities for the waste activity area in accordance with the closure plan within 180 days following the beginning of closure as specified in the closure procedures above. [Minn. R. 7001.0150, subp. 3(E)]
3.1.87	<b>Postclosure Criteria.</b>
3.1.88	The post-closure care period shall be a minimum of twenty years starting on the date the Commissioner approves the facility's final closure certification report. [Minn. Stat. 116.07, subd. 4h]

3.1.89	The Permittee shall comply with postclosure requirements as specified in the approved plans and specifications, and in accordance with Minn. R. 7035.2645. [Minn. R. 7035.2645]
3.1.90	The Permittee shall perform postclosure care for each waste activity as specified in the approved plans and specifications, and in accordance with Minn. R. 7035.2655, subp. 1. [Minn. R. 7035.2655, subp. 1]
3.1.91	The Permittee shall comply with postclosure use of property requirements in accordance with Minn. R. 7035.2655, subp. 2. [Minn. R. 7035.2655, subp. 2]
3.1.92	Prior to the end of the postclosure care period the Permittee must submit to the MPCA for review and approval a Post Closure Care Summary Report signed by a professional engineer licensed with the State of Minnesota. [Minn. R. 7035.2645]
3.1.93	<b>Financial Criteria.</b>
3.1.94	The Permittee shall keep the current cost estimates for contingency action, closure and postclosure care for each waste activity at the facility during the operating life in accordance with Minn. R. 7035.2685, subp. 2. [Minn. R. 7035.2685]
3.1.95	The Permittee shall establish and maintain financial assurance in accordance with Minn. R. 7035.2665 to 7035.2805. [Minn. R. 7035.2665-2805]
3.1.96	The Permittee's application indicates that a single Letter of Credit (LOC) is maintained for the total financial assurance requirement of Wilmarth and Red Win Landfills. [Minn. R. 7035.2665-2805]
3.1.97	<b>General Conditions.</b>
3.1.98	The MPCA's issuance of a permit does not release the Permittee from any liability, penalty, or duty imposed by Minnesota or federal statutes, or regulations, or local ordinances including, but not limited to, those promulgated pursuant to Minn. Stat. chs. 115, 115A, 116, 400 and 473. This permit shall be permissive only and shall not be construed as estopping or limiting any claims against the Permittee, its agents, contractors, or assigns, nor as estopping or limiting any legal claims of the state against the Permittee, its agents, contractors, or assigns for damages to state property, or for any violation of the terms of this permit. [Minn. R. 7001.0150, subp. 3(A)]
3.1.99	The MPCA's issuance of a permit does not prevent the future adoption by the MPCA of pollution control rules, standards, or enforcement orders more stringent than those now in existence and does not prevent the enforcement of these rules, standards, or enforcement orders against the Permittee. [Minn. R. 7001.0150, subp. 3(B)]
3.1.100	The permit does not convey a property right or an exclusive privilege. [Minn. R. 7001.0150, subp. 3(C)]
3.1.101	The MPCA's issuance of a permit does not obligate the MPCA to enforce local laws, rules or plans beyond that authorized by Minnesota Statutes. [Minn. R. 7001.0150, subp. 3(D)]
3.1.102	The Permittee shall perform the actions or conduct the activity authorized by the permit in accordance with the submittals and specifications approved by the MPCA and in compliance with the conditions of the permit. [Minn. R. 7001.0150, subp. 3(E)]
3.1.103	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(F)]
3.1.104	The Permittee may not knowingly make a false or misleading statement, representation, or certification in a record, report, plan, or other document required to be submitted to the MPCA or the Commissioner by the permit. The Permittee shall immediately upon discovery report to the Commissioner an error or omission in these records, reports, submittals or other documents. [Minn. R. 7001.0150, subp. 3(G)]
3.1.105	The Permittee shall, when requested by the Commissioner, submit within a reasonable time the information and reports that are relevant to the control of pollution regarding the construction, modification, or operation of the facility covered by the permit or regarding the conduct of the activity covered by the permit. [Minn. R. 7001.0150, subp. 3(H)]

3.1.106	When authorized by Minn. Stat. 115.04, 115B.17, subd. 4 and 116.091, and upon presentation of proper credentials, the MPCA, or an authorized employee or agent of the MPCA, 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(I)]
3.1.107	If the Permittee discovers, through any means, including notification by the MPCA, that noncompliance with a condition of the permit has occurred, the Permittee shall take all reasonable steps to minimize the adverse impacts on human health, public drinking water supplies, or the environment resulting from the noncompliance. [Minn. R. 7001.0150, subp. 3(J)]
3.1.108	If the Permittee discovers that noncompliance with a condition of the permit has occurred which could endanger human health, public drinking water supplies, or the environment, the Permittee shall, within 24 hours of the discovery of the noncompliance, orally notify the Commissioner. Within five (5) days of the discovery of the noncompliance, the Permittee shall submit to the Commissioner a written description of the noncompliance; the cause of the noncompliance; the exact dates of the period of the noncompliance; if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. [Minn. R. 7001.0150, subp. 3(K)]
3.1.109	The Permittee shall report noncompliance with the permit not reported in the Notification of Noncompliance subheading above by submitting the information listed in Notification of Noncompliance within 30 days of the discovery of the noncompliance. [Minn. R. 7001.0150, subp. 3(L)]
3.1.110	The Permittee shall give advance notice to the Commissioner as soon as possible of planned physical alterations or additions to the permitted facility or activity that may result in noncompliance with a Minnesota or federal pollution control statute or rule or condition of the permit. [Minn. R. 7001.0150, subp. 3(M)]
3.1.111	The permit is not transferable to any person without the express written approval of the MPCA after compliance with the requirements of Minn. R. 7001.0190. A person to whom the permit has been transferred shall comply with the conditions of the permit. [Minn. R. 7001.0150, subp. 3 (N)]
3.1.112	The permit authorizes the Permittee to perform the activities described in the permit under the conditions of the permit. In issuing the permit, the state and 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 the permit. To the extent the state and MPCA may be liable for the activities of its employees, that liability is explicitly limited to that provided in the Tort Claims Act, Minn. Stat. 3.736. [Minn. R. 7001.0150, subp. 3(O)]
3.1.113	The Commissioner may commence proceedings to modify or revoke this permit during its terms if cause exists under Minn. R. 7001.0170 to 7001.0180. [Minn. R. 7001.0170-0180]
3.1.114	The provisions of this permit are severable. If any provision of this permit is held invalid, the remainder of this permit shall not be affected. [Minn. R. 7035.3200]
3.1.115	The Permittee may request an extension of the dates set forth in this permit including the submittal and monitoring dates. The request shall include justification for requesting the extension of the date. Based on the justification, the Commissioner may grant an extension. [Minn. R. 7001.0190, subp. 3(B)]
3.1.116	This permit is valid until the expiration date unless revoked or modified by the MPCA pursuant to Minn. R. 7001.0170 to 7001.0180. To allow for adequate MPCA review time and to avoid possible termination of the permit at the time the permit expires, an application for reissuance of the permit shall be submitted no later than 180 calendar days before the expiration date of the permit. [Minn. R. 7001.0150, subp. 1, Minn. R. 7001.3500, subp. 1]
3.1.117	The Permittee shall maintain records of all groundwater monitoring data and groundwater surface elevations for the active life of the facility and each waste activity and, for disposal activities, for the postclosure care period. The Permittee shall also maintain an operating record in accordance with Minn. R. 7035.2575 until closure of each waste activity at the facility. [Minn. R. 7001.3500, subp. 3(A)]
3.1.118	The Permittee may not start treatment, storage, or disposal of solid waste in a new solid waste management facility or in a modified portion of an existing solid waste management facility until the Commissioner has received a letter and as-built plans signed by the owner or operator and by an engineer registered in Minnesota certifying that the facility or modified portion of the facility has been constructed in compliance with the conditions of the permit. [Minn. R. 7001.3500, subp. 3(B)]

3.1.119	The Permittee may not start treatment, storage, or disposal of solid waste in a new solid waste management facility or in a modified portion of an existing solid waste management facility until the Commissioner has inspected the new facility or modified portion of the facility and has provided the owner or operator with a letter stating that the certification submitted is complete and approved. [Minn. R. 7001.3500, subp. 3(B (2))]
3.1.120	The Permittee may not start treatment, storage, or disposal of solid waste in a new solid waste management facility or in a modified portion of an existing solid waste management facility until the Commissioner has approved the financial assurance amount and instrument to be used for the facility in accordance with Minn. R. 7035.2665 to 7035.2805. [Minn. R. 7001.3500, subp. 3 (B (3))]
<b>MA 001</b>	<b>Ash Disposal Area</b>
3.2.1	<b>Design And Construction Criteria.</b>
3.2.2	The Permittee shall construct or install phases, cells, liners, leachate management system and water monitoring system of the municipal solid waste combustor ash landfill in accordance with the approved plans and specification. [Minn. R. 7035.2885, subp. 9]
3.2.3	The approved design allows a portion of the waste boundary to be 66 feet of the north property line. With respect to groundwater, the north edge of this cell is up gradient. [Minn. R. 7035.2815, subp. 2]
3.2.4	The permittee must evaluate soils intended for use as cover or liner material in accordance with Minn. R. 7035.2815, subp. 8 as specified in Minn. R. 7035.2885, subp. 12. [Minn. R. 7035.2885, subp. 12]. [Minn. R. 7035.2815, subp. 8, Minn. R. 7035.2885, subp. 12]
3.2.5	The Permittee shall design any proposed future expansion of the disposal area to include a leachate detection, collection, and on-site or off-site treatment system in accordance with Minn. R. 7035.2815, subp. 9 as specified in Minn. R. 7035.2885, subp. 13. [Minn. R. 7035.2815, subp. 9, Minn. R. 7035.2885, subp. 13]
3.2.6	The Permittee shall design any proposed future expansions or modifications of the combustor ash disposal area in accordance with the design requirements outlined in Minn. R. 7035.2885, subp. 9. [Minn. R. 7035.2885, subp. 9]
3.2.7	The Permittee shall design any proposed future expansion of the disposal area liner in accordance with this permit and the design requirements of Minn. R. 7035.2885, subp. 11. [Minn. R. 7035.2885, subp. 11]
3.2.8	The disposal area must be lined in accordance with Minn. R. 7035.2885, subp. 11. At the time of permit issuance, based on the quality of the leachate generated at this facility, and in accordance with Minn. R. 7035.2885, subp. 11, a minimum type N liner is required for this facility. The Permittee has received a variance to use a liner for the construction on the side slopes of the landfill that is equivalent to Minn. R. 7035.2885, subp. 11, paragraph N. This equivalent liner must consist of at least one-foot of re-compacted soil with a permeability not greater than 1E-7 cm/sec overlain by a geosynthetic clay liner, overlain by a 60-mil high density polyethylene (HDPE) liner, overlain by 12-inches of sand drainage layer with a permeability not less than 1E-3 cm/sec. The approved base liner design exceeds the type N design requirements. The base liner will consist of two-feet of re-compacted soil with a permeability not greater than 1 E -7 cm/sec, 60-mil HDPE geomembrane, geonet, 60-mil HDPE geomembrane, and a 12-inch sand drainage layer with a permeability not less than 1 E -3 cm/s. Additionally these side slope and base liner designs are approved for use in the future construction of Center Cell North and Center Cell South. [Minn. R. 7035.2885, subp. 11]
3.2.9	The Permittee shall design any proposed future expansion of the disposal area cover system in accordance with Minn. R. 7035.2885, subp. 10. [Minn. R. 7035.2885, subp. 10]
3.2.10	The final cover system shall be built in accordance with the approved plans which consist of (from top to bottom): <ul style="list-style-type: none"> <li>- Six-inches of top soil (mulched and seeded with shallow-rooted drought resistant vegetation),</li> <li>- 18-inches of rooting soil</li> <li>- Geonet geocomposite drainage layer</li> <li>- 40-mil linear low density polyethylene (LLDPE) geomembrane or equivalent.</li> </ul> <p>The Permittee has obtained an approved variance to allow for a 3H:1V maximum slope for the final cover system. [Minn. R. 7035.2885, subp. 10]</p>
3.2.11	The Permittee shall design any proposed expansion of the disposal area to include a water monitoring system in accordance with Minn. R. 7035.2885, subp. 16. [Minn. R. 7035.2885, subp. 16]
3.2.12	The West Cell of the disposal area is closed and has received final cover. No additional waste acceptance or disposal is permitted in the West Cell. The final cover system for the West Cell consists of 40-mil LLDPE geomembrane, 12-inch thick sand drainage layer, 12 inches of soil, and six-inches of top soil. The cover system has established shallow rooted, drought tolerant grasses. As the phase development of the facility continues a portion of the active Center Cell disposal area will partially overlay a section of the closed West Cell disposal area. [Minn. R. 7035.2885, subp. 10]

3.2.13	The closed West Cell disposal area was lined in accordance with Minn. R. 7035.2885 subp. 11. Phases 1, 2, and 3 were constructed prior to the promulgation of the MSW combustor ash rules. These Phases were constructed with a 60-mil synthetic membrane and a 12-inch sand drainage layer. Upon promulgation of the MSW combustor ash rules, the liner design for Phases 4 through 7 was upgraded to meet the design requirements of Minn. R. 7035.2885 subp. 11, item N based on the quality of the leachate generated at the facility. Portion of Phases 4 through 7 which overlay Phases 1, 2, and 3 were provided with a supplemental composite liner system consisting of a geosynthetic clay liner topped by a 60-mil synthetic. [Minn. R. 7035.2885, subp. 11]
3.2.14	<b>Operating And Maintenance Criteria.</b>
3.2.15	The Permittee may only dispose of municipal solid waste combustor ash, ash contaminated wastes described in the June 2016 Permit Application described in this permit; such as masks, gloves, filter bags, and air quality control system residuals generated at the NSP Red Wing Steam Plant, the Xcel Energy French Island Plant, or the city of Red Wing's incinerator. The Permittee must obtain written approval from the commissioner before placing any other type of material in the ash disposal area. Only those waste determined acceptable, in accordance with Minn. R. 7035.2885, subp. 3, may be disposed of in the disposal area. [Minn. R. 7035.2885, subp. 3]
3.2.16	The Permittee shall operate the disposal area in accordance with the approved operations and maintenance manual, and in accordance with Minn. R. 7035.2885, subp. 15. [Minn. R. 7035.2885, subp. 15]
3.2.17	The disposal area must be operated by a certified operator, as defined in Minn. R. 7048.0100 to 7048.1300. Per variance granted on October 24, 1997, the facility may accept ash for disposal on a 24-hour basis and over long holiday weekends without a certified operator being present. Stockpiled ash must be spread and compacted in lifts no greater than one foot in depth as soon as practicable by the certified operator on the next business day at the facility. All operations must conform to state and federal site safety regulations. [Minn. R. 7048.0100-1300]
3.2.18	The Permittee shall place at least three feet of ash, or an MPCA approved alternative insulating material, on any newly constructed liner by December 1 of each year. If an alternative insulating material is utilized, the Permittee must install thermocouples in the newly lined area, and must maintain the approved thickness of the insulating material until the three feet of ash has been placed on the liner. If an alternative insulating material is utilized, the material must be removed prior to the placement of ash to prevent biofouling of the drainage layer. No disposal may take place on uncovered areas after December 1 without testing the liner integrity and obtaining written approval from the Commissioner. [Minn. R. 7035.2885, subp. 15(T)]
3.2.19	The Permittee shall maintain a run-on control system to prevent flow onto any waste activity area and a run-off control system to collect and control flow from the waste activity are for at least the water volume resulting from a 24-hour, 25-year storm event. [Minn. R. 7035.2885, subp. 16]
3.2.20	The Permittee shall develop the site in phases according to the approved phase development plans and specifications. Each phase must contain individual cells that will proved for filling in a manner to achieve final waste elevations as rapidly as possible. [Minn. R. 7035.2885, subp. 15]
3.2.21	The Permittee shall outline each fill phase with grade stakes or another marking method before the deposition of any waste. [Minn. R. 7035.2885, subp. 15(I)]
3.2.22	The Permittee shall spread and compact the combustor ash or other approved waste in layers which are one foot or less in depth before compaction. [Minn. R. 7035.2885, subp. 15(B)]
3.2.23	The Permittee must place and compact the combustor ash at a moderate slope to promote drainage off of the fill area, and to allow for the adequate application of intermittent or intermediate cover. [Minn. R. 7035.2885, subp. 15]
3.2.24	The Permittee shall maintain a cover system in accordance with Minn. R. 7035.2885, subp. 10. [Minn. R. 7035.2885, subp. 10]
3.2.25	The Permittee shall maintain suitable cover material at the site. If suitable cover is not available on-site, cover material must be delivered to and stockpiled at the site. The Commissioner reserves the right to alter the type of cover and method of placement if problems exist. [Minn. R. 7035.2885, subp. 10]
3.2.26	The Permittee shall place intermittent cover on all exposed ash in accordance with the approved plans and specifications specified in this permit, and in accordance with Minn. R. 7035.2885, subp. 10, item A. The Permittee may also utilize an Alternative Daily Cover (ADC) as approved by the Commissioner in writing. In all cases, intermittent cover placement shall be adequate to prevent fugitive dust emissions. [Minn. R. 7035.2885, subp. 10(A)]
3.2.27	The Permittee shall place intermediate cover on all filled surfaces of the facility where no additional ash will be deposited within 30 days. The intermediate shall be at least six inches deep if soil or similar material is used, cover the ash completely, and be graded to prevent surface water ponding. [Minn. R. 7035.2885, subp. 10(B)]

3.2.28	The Permittee shall begin closure of each fill phase within 30 days after reaching final permitted waste elevations in accordance with the approved plans and specifications, and in accordance with Minn. R. 7035.2885, subp. 10, item C. [Minn. R. 7035.2885, subp. 10]
3.2.29	The Permittee shall maintain the final cover system on all closed portions of the active ash disposal area in accordance with the approved plans and specifications. [Minn. R. 7001.0150]
3.2.30	<p>The Permittee shall divert surface water drainage around and away from the site operating area. Final cover slopes longer than 200 feet with grades no greater than 4H:1V shall include drainage swales and design features to prevent erosion.</p> <p>The Permittee has obtained an approved variance to allow for final cover with a maximum slope of 3H:1V. Final cover with slopes of 3H:1V shall include drainage terraces every 40 vertical feet in order to prevent erosion. [Minn. R. 7001.0150, Minn. R. 7035.2815, subp. 5(D&amp; E)]</p>
3.2.31	The Permittee shall maintain the integrity and functionality of the groundwater monitoring network. The Permittee shall operate and maintain the water monitoring system in accordance with the approved plans and specifications, and in accordance with Minn. R. 7035.2885, subp. 16. [Minn. R. 7035.2885, subp. 16]
3.2.32	The Permittee shall maintain the integrity and functionality of the leachate detection, collection and on-site or off-site treatment system. The Permittee shall also operate and maintain the leachate detection, collection, and on-site or off-site treatment system in accordance with the approved plans and specifications, and in accordance with Minn. R. 7035.2885, subp. 15. [Minn. R. 7035.2885, subp. 15]
3.2.33	The Permittee shall identify all trenches or fill areas with permanent markers. [Minn. R. 7035.2885, subp. 15(S)]
3.2.34	<b>Monitoring Criteria.</b>
3.2.35	The Permittee shall design, construct, operate, and maintain the disposal area in accordance with Minn. R. 7035.2815, subp. 4 to achieve compliance with the analytical limits set forth in the Sampling and Monitoring Requirements of this permit as specified in Minn. R. 7035.2815, subp. 8. These limits are based upon the Minnesota Department of Health, Health Risk Limits (HRL), Health-Based Values (HBV), Risk Assessment Advice (RAA), and Maximum Contaminate Level (MCL) and replace the standards listed in Minn. R. 7035.2885, subp. 16. [Minn. R. 7035.2885, subp. 16, Minn. R. 7035.2885, subp. 8]
3.2.36	<b>Reporting Criteria.</b>
3.2.37	The Permittee shall submit routine monitoring results accompanied by information sufficient to establish the reliability, precision, and accuracy of the reported values, including the requirements of Minn. R. 7035.2815, subp. 14, item P. The Permittee shall submit the monitoring results to the Commissioner according to the schedule in the Submittal/Action Requirements of this permit. [Minn. R. 7035.2815, subp. 14(P)]
3.2.38	The Permittee shall submit an annual water and leachate monitoring evaluation report in accordance with Minn. R. 7035.2585 and 7035.2885, subp. 16. The Permittee shall submit the report to the Commissioner, as part of the annual facility report, according to the schedule in the Submittal/Action Requirements of this permit. [Minn. R. 7035.2585, Minn. R. 7035.2815, subp. 16, Minn. R. 7035.2885, subp. 16]
3.2.39	<b>Financial Criteria.</b>
3.2.40	The Permittee shall establish and maintain financial assurance in accordance with Minn. R. 7035.2665 to 7035.2805. [Minn. R. 7035.2665]

**4. Waste capacity table**

Waste activity	ID	Status	Permitted area	Permitted area units	Permitted capacity	Permitted capacity (Units)	Design capacity	Design capacity (Units)
MSW Ash Land Disposal	MA 001	Active / Existing	26	acre	2434800	yd3	2434800	yd3

**5. Submittal/Action requirements**

SW-307	NSP - Red Wing Ash Disposal Facility
5.1.1	The Permittee shall submit an annual facility report: Due annually, by the 1st of February. [Minn. R. 7035.2585]
5.1.2	The Permittee shall submit a spring water monitoring report: Due annually, by the 30th of June. [Minn. R. 7035.2815, subp. 14(P)]
5.1.3	The Permittee shall submit a summer water monitoring report: Due annually, by the 30th of September. [Minn. R. 7035.2815, subp. 14(P)]
5.1.4	The Permittee shall submit an autumn water monitoring report: Due annually, by the 1st of February. [Minn. R. 7035.2815, subp. 14(P)]
5.1.5	The Permittee shall submit annual water monitoring evaluation report: Due annually, by the 1st of February. [Minn. R. 7035.2815, subp. 14(Q)]
5.1.6	At a minimum of 180 days before the expiration date of this Permit, the Permittee shall submit an application for permit reissuance: Due 3472 calendar days after Permit Issuance Date. [Minn. R. 7001.0040, subp. 3]

**6. Monitoring stations**

Monitoring type	Station name	Status
Groundwater	B-1	Active / Existing
Groundwater	C-1	Active / Existing
Groundwater	C-2	Active / Existing
Groundwater	D-1	Active / Existing
Groundwater	D-2	Active / Existing
Groundwater	E-1	Active / Existing
Groundwater	MW-1	Active / Existing
Groundwater	MW-102	Active / Existing
Groundwater	MW-103	Active / Existing
Groundwater	MW-104	Active / Existing
Groundwater	MW-105	Active / Existing
Groundwater	MW-106	Active / Existing
Groundwater	MW-2	Active / Existing
Groundwater	MW-202	Active / Existing
Groundwater	MW-3	Active / Existing
Groundwater	P-1	Active / Existing
Groundwater	P-2	Active / Existing
Groundwater	P-3	Active / Existing
Liner Leak Detection	Lysimeter	Active / Existing
Surface Water	Sedimentation Basin	Active / Existing
Waste Stream	Leachate Tank	Active / Existing

## 7. Monitoring groups

Type	Name	Group description	Assigned stations
Ground Water Monitoring Group	Groundwater Sampling Group 1	Summer Groundwater Sampling	MW-105, P-2, P-3
Ground Water Monitoring Group	Groundwater Sampling Group 2	Quarterly Groundwater Sampling	B-1, C-1, D-1, E-1, MW-1, MW-102, MW-103, MW-104, MW-106, MW-2, MW-202
Leachate Monitoring Group	Leachate and Lysimeter Sampling Group	Leachate and Lysimeter Sampling	Leachate Tank, Lysimeter
Surface Water Monitoring Group	Sedimentation Basin Sampling Group	Sedimentation Basin Sampling	Sedimentation Basin

## 8. Sampling and monitoring requirements

Type	Group code	Parameter	CAS	Limit	Unit	Sampling freq.
<b>Groundwater Sampling Group 1</b>						
8.1.1	CAGR	Alkalinity, Total as CaCO3	T-005		ug/L	Jul
8.1.2	CAGR	Nitrite Plus Nitrate, Total (as N)	C005		ug/L	Jul
8.1.3	CAGR	Nitrogen, Ammonia, Total (as N)	7664-41-7		ug/L	Jul
8.1.4	CAGR	Solids, Total Dissolved (TDS)	C010		ug/L	Jul
8.1.5	CAGR	Solids, Total Suspended (TSS)	C009		NTU	Jul
8.1.6	CAGR	Chloride	16887-00-6		ug/L	Jul
8.1.7	CAGR	Sulfate	14808-79-8		ug/L	Jul
8.1.8	CAGR	Arsenic	7440-38-2	2.5	ug/L	Jul
8.1.9	CAGR	Barium	7440-39-3	500	ug/L	Jul
8.1.10	CAGR	Aluminum	7429-90-5		ug/L	Jul
8.1.11	CAGR	Boron	7440-42-8	250	ug/L	Jul
8.1.12	CAGR	Cadmium	7440-43-9	.125	ug/L	Jul
8.1.13	CAGR	Calcium	7440-70-2		ug/L	Jul
8.1.14	CAGR	Chromium, Total (as Cr)	7440-47-3	25	ug/L	Jul
8.1.15	CAGR	Copper	7440-50-8	250	ug/L	Jul
8.1.16	CAGR	Iron	7439-89-6		ug/L	Jul
8.1.17	CAGR	Lead	7439-92-1	3.75	ug/L	Jul
8.1.18	CAGR	Magnesium	7439-95-4		ug/L	Jul
8.1.19	CAGR	Manganese	7439-96-5	25	ug/L	Jul
8.1.20	CAGR	Mercury	7439-97-6	.5	ug/L	Jul
8.1.21	CAGR	Nickel	7440-02-0	25	ug/L	Jul
8.1.22	CAGR	Potassium	7440-09-7		ug/L	Jul
8.1.23	CAGR	Selenium	7782-49-2	7.5	ug/L	Jul
8.1.24	CAGR	Tin	7440-31-5	1000	ug/L	Jul
8.1.25	CAGR	Zinc	7440-66-6	500	ug/L	Jul
8.1.26	None	Silver	7440-22-4	7.5	ug/L	
8.1.27	None	Sodium	7440-23-5		ug/L	
8.1.28	PHYS	Eh (Oxidation potential)	4		mV	Jul
8.1.29	PHYS	Oxygen, Dissolved	7782-44-7		ug/L	Jul
8.1.30	PHYS	pH	C006		SU	Jul
8.1.31	PHYS	Specific Conductance	C-011		umhos/cm	Jul

Type	Group code	Parameter	CAS	Limit	Unit	Sampling freq.
8.1.32	PHYS	Static Water Level (Elevation, MSL)	PCA-001		ft msl	Jul
8.1.33	PHYS	Temperature	T-121		degrees C	Jul
8.1.34	PHYS	Color	M002		SU	Jul
8.1.35	PHYS	pH, Field	C006		SU	Jul
<b>Groundwater Sampling Group 2</b>						
8.2.1	CAGR	Alkalinity, Total as CaCO3	T-005		ug/L	Apr, Jul, Oct
8.2.2	CAGR	Nitrite Plus Nitrate, Total (as N)	C005		ug/L	Apr, Jul, Oct
8.2.3	CAGR	Nitrogen, Ammonia, Total (as N)	7664-41-7		ug/L	Apr, Jul, Oct
8.2.4	CAGR	Solids, Total Dissolved (TDS)	C010		ug/L	Apr, Jul, Oct
8.2.5	CAGR	Solids, Total Suspended (TSS)	C009		NTU	Apr, Jul, Oct
8.2.6	CAGR	Chloride	16887-00-6		ug/L	Apr, Jul, Oct
8.2.7	CAGR	Sulfate	14808-79-8		ug/L	Apr, Jul, Oct
8.2.8	CAGR	Arsenic	7440-38-2	2.5	ug/L	Apr, Jul, Oct
8.2.9	CAGR	Barium	7440-39-3	500	ug/L	Apr, Jul, Oct
8.2.10	CAGR	Aluminum	7429-90-5		ug/L	Apr, Jul, Oct
8.2.11	CAGR	Boron	7440-42-8	250	ug/L	Apr, Jul, Oct
8.2.12	CAGR	Cadmium	7440-43-9	.125	ug/L	Apr, Jul, Oct
8.2.13	CAGR	Calcium	7440-70-2		ug/L	Apr, Jul, Oct
8.2.14	CAGR	Chromium, Total (as Cr)	7440-47-3	25	ug/L	Apr, Jul, Oct
8.2.15	CAGR	Copper	7440-50-8	250	ug/L	Apr, Jul, Oct
8.2.16	CAGR	Iron	7439-89-6		ug/L	Apr, Jul, Oct
8.2.17	CAGR	Lead	7439-92-1	3.75	ug/L	Apr, Jul, Oct
8.2.18	CAGR	Magnesium	7439-95-4		ug/L	Apr, Jul, Oct
8.2.19	CAGR	Manganese	7439-96-5	25	ug/L	Apr, Jul, Oct
8.2.20	CAGR	Mercury	7439-97-6	.5	ug/L	Apr, Jul, Oct
8.2.21	CAGR	Nickel	7440-02-0	25	ug/L	Apr, Jul, Oct
8.2.22	CAGR	Potassium	7440-09-7		ug/L	Apr, Jul, Oct
8.2.23	CAGR	Selenium	7782-49-2	7.5	ug/L	Apr, Jul, Oct
8.2.24	CAGR	Tin	7440-31-5	1000	ug/L	Apr, Jul, Oct
8.2.25	CAGR	Zinc	7440-66-6	500	ug/L	Apr, Jul, Oct
8.2.26	None	Silver	7440-22-4	7.5	ug/L	
8.2.27	None	Sodium	7440-23-5		ug/L	
8.2.28	PHYS	Eh (Oxidation potential)	4		mV	Apr, Jul, Oct
8.2.29	PHYS	Oxygen, Dissolved	7782-44-7		ug/L	Apr, Jul, Oct
8.2.30	PHYS	pH	C006		SU	Apr, Jul, Oct
8.2.31	PHYS	Specific Conductance	C-011		umhos/cm	Apr, Jul, Oct
8.2.32	PHYS	Static Water Level (Elevation, MSL)	PCA-001		ft msl	Apr, Jul, Oct
8.2.33	PHYS	Temperature	T-121		degrees C	Apr, Jul, Oct
8.2.34	PHYS	Color	M002		SU	Apr, Jul, Oct
8.2.35	PHYS	pH, Field	C006		SU	Apr, Jul, Oct

<b>Leachate and Lysimeter Sampling Group</b>						
8.3.1	CAGR	Alkalinity, Total as CaCO <sub>3</sub>	T-005		ug/L	Apr, Jul, Oct
8.3.2	CAGR	Nitrite Plus Nitrate, Total (as N)	C005		ug/L	Apr, Jul, Oct
8.3.3	CAGR	Nitrogen, Ammonia, Total (as N)	7664-41-7		ug/L	Apr, Jul, Oct
8.3.4	CAGR	Solids, Total Dissolved (TDS)	C010		ug/L	Apr, Jul, Oct
8.3.5	CAGR	Solids, Total Suspended (TSS)	C009		NTU	Apr, Jul, Oct
8.3.6	CAGR	Chloride	16887-00-6		ug/L	Apr, Jul, Oct
8.3.7	CAGR	Sulfate	14808-79-8		ug/L	Apr, Jul, Oct
8.3.8	CAGR	Arsenic	7440-38-2		ug/L	Apr, Jul, Oct
8.3.9	CAGR	Barium	7440-39-3		ug/L	Apr, Jul, Oct
8.3.10	CAGR	Aluminum	7429-90-5		ug/L	Apr, Jul, Oct
8.3.11	CAGR	Boron	7440-42-8		ug/L	Apr, Jul, Oct
8.3.12	CAGR	Cadmium	7440-43-9		ug/L	Apr, Jul, Oct
8.3.13	CAGR	Calcium	7440-70-2		ug/L	Apr, Jul, Oct
8.3.14	CAGR	Chromium, Total (as Cr)	7440-47-3		ug/L	Apr, Jul, Oct
8.3.15	CAGR	Copper	7440-50-8		ug/L	Apr, Jul, Oct
8.3.16	CAGR	Iron	7439-89-6		ug/L	Apr, Jul, Oct
8.3.17	CAGR	Lead	7439-92-1		ug/L	Apr, Jul, Oct
8.3.18	CAGR	Magnesium	7439-95-4		ug/L	Apr, Jul, Oct
8.3.19	CAGR	Manganese	7439-96-5		ug/L	Apr, Jul, Oct
8.3.20	CAGR	Mercury	7439-97-6		ug/L	Apr, Jul, Oct
8.3.21	CAGR	Nickel	7440-02-0		ug/L	Apr, Jul, Oct
8.3.22	CAGR	Potassium	7440-09-7		ug/L	Apr, Jul, Oct
8.3.23	CAGR	Selenium	7782-49-2		ug/L	Apr, Jul, Oct
8.3.24	CAGR	Tin	7440-31-5		ug/L	Apr, Jul, Oct
8.3.25	CAGR	Zinc	7440-66-6		ug/L	Apr, Jul, Oct
8.3.26	None	Silver	7440-22-4		ug/L	Apr, Jul, Oct
8.3.27	None	Sodium	7440-23-5		ug/L	Apr, Jul, Oct
8.3.28	PHYS	Appearance	1		na	Apr, Jul, Oct
8.3.29	PHYS	pH	C006		SU	Apr, Jul, Oct
8.3.30	PHYS	Specific Conductance	C-011		umhos/cm	Apr, Jul, Oct
8.3.31	PHYS	Temperature	T-121		degrees C	Apr, Jul, Oct
<b>Sedimentation Basin Sampling Group</b>						
8.4.1	None	Iron, Total (as Fe)	7439-89-6		ug/L	Apr, Jul, Oct
8.4.2	PHYS	Appearance	1		na	Apr, Jul, Oct
8.4.3	PHYS	Solids, Total Suspended (TSS)	C009		NTU	Apr, Jul, Oct
8.4.4	PHYS	pH	C006		SU	Apr, Jul, Oct
8.4.5	PHYS	Specific Conductance	C-011		umhos/cm	Apr, Jul, Oct
8.4.6	PHYS	Temperature	T-121		degrees C	Apr, Jul, Oct