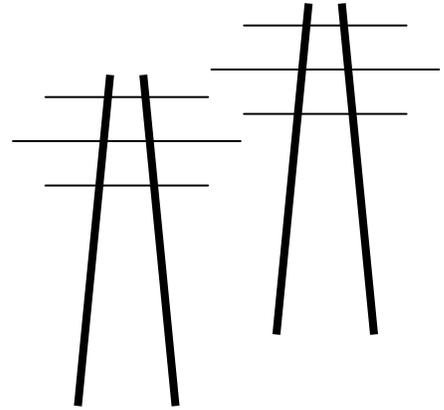


Legalelectric, Inc.

Carol Overland Attorney at Law, MN #254617
Energy Consultant—Transmission, Power Plants, Nuclear Waste
overland@legalelectric.org

1110 West Avenue
Red Wing, Minnesota 55066
612.227.8638



April 13, 2017

John Linc Stine, Commissioner
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155

via email: john.stine@state.mn.us

Kevin Kain
Resource Management and Assistance Division
MPCA
520 Lafayette Road North
St. Paul, MN 55155

via email: kevin.kain@state.mn.us

Sherri Nachtigal
Resource Management & Assistance Division
MPCA
18 Woodlake Drive
Rochester, MN 55904

via email: sherri.nachtigal@state.mn.us

Daniel Aamodt
Industrial Division
MPCA
520 Lafayette Road North
St. Paul, MN 55155

via email: daniel.aamodt@state.mn.us

RE: Response of Tyler Hills Neighbors to FOF, Conclusions and Order
Lab USA's Ash Processing Project – Red Wing

Dear Commissioner Stine, Mr. Kain, Ms. Nachtigal, and Mr. Aamodt:

On behalf of the Tyler Hills Neighbors, I've reviewed the Negative Declaration on the need for an EIS for the above-captioned project, and the PCA's reply to comments on the Environmental Assessment Worksheet for Lab USA's Ash Processing Project proposed for Red Wing, and submit this response to a few specific issues. Please note that these Comments are from the Tyler Hills Neighbors – the EAW Responses erroneously state that these are the "Comments by

Carol Overland, Legalectric, Inc.,” and includes this Comment in the “three individual comments from citizens” (p. 3), when instead they are the Comments of the Tyler Hills Neighbors. This attribution should be corrected to reflect this representation.

As stated in our initial comments, the Tyler Hills Neighbors have reviewed the EAW, agency responses to Comments, and the proposed project as revised, and have found, again, that there is potential, and likelihood, of significant environmental impact. In reviewing the negative declaration, we again find that the level of review and analysis in the EAW is inadequate for this project, the responses, including the ways in which the project has been reconfigured, are inadequate, and there remain material issues that require further investigation. The Tyler Hills Neighbors request an Environmental Impact Statement be prepared for this project.

I. INFORMATION IN THE EAW RESPONSE IS FALSE.

There are two obvious false statements and presumptions in the EAW and in agency responses to comments.

A. French Island ash is dumped at the Xcel Energy landfill

In Appendix B, responses to Comments, p. 8, regarding Comment 4-5, and referenced in agency response 4-26:

Comment 4-5: The commenter stated concerns that the EAW did not discuss waste combustor ash coming from the Xcel Energy French Island Incinerator in La Crosse.

Response: Xcel’s ash landfill has never accepted Ash Material from the French Island facility. In the future, should Xcel Energy elect to receive Ash Material from French Island, the Ash Material will go directly into the landfill. LabUSA will not process Ash Material from French Island.

The MPCA’s claim that “Xcel’s ash landfill has never accepted Ash Material from the French Island facility” is a presumptively false statement based on the record of Xcel Energy’s solid waste permits, the City of Red Wing’s permits, and media reports regarding French Island incinerator ash.

The Public Notice of Intent to Reissue for Xcel’s landfill is confirmed in the MPCA’s own Notice for solid waste permit SW-307, which states:

Description of permitted facility

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.

Public Notice of Intent to Reissue, Solid Waste SW-307, p. 1, December 5, 2016 (attached as Exhibit A). The May 10, 2012 major modification to the SW-307 permit was 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.” Id, p. 1. This expansion of the east cell and the center cell includes dumping of the French Island ash.

The Notice for Lab USA’s solid waste permit, issued the same day as the SW-307 Notice, omits the words “French Island” and in the first paragraph states instead that:

The MSW combustor ash that the facility proposes to process is currently being generated by Xcel Energy’s Red Wing Generating Plant, as well as combustor ash previously deposited in the Xcel Energy’s combustor ash landfill near Red Wing.

Public Notice of Intent to Reissue, Solid Waste SW-670-001, p. 1, December 5, 2016 (attached as Exhibit B).

The permitting of dumping of French Island ash in the Red Wing Xcel landfill is confirmed in the Red Wing Republican Eagle:

The City Council voted 5-1 Monday to allow Xcel Energy to expand its ash landfill off Bench Street in Red Wing.

The landfill stores ash created by burning garbage at the company's incinerator and the city's incinerator. The conditional-use permit approved Monday also allows Xcel to bring in ash from French Island in Wisconsin.

Ash Landfill Expansion Approved, Red Wing Republican Eagle, 11/29/2012 (attached as Exhibit C).

By Xcel’s admission, the French Island plant burns railroad ties:

French Island is a combination generating plant and resource recovery facility. The plant’s two generating units burn wood waste, railroad ties and processed municipal solid waste, called refuse-derived fuel (RDF) – a fluffy, burnable fuel produced on-site at a resource recovery facility built specifically for that purpose. There are also two oil-fired combustion turbines on-site to meet peak generation demands.

French Island Generating Station, Xcel Energy website.¹

Burning these railroad ties creates waste combustor ash of a decidedly different character and higher concentration of toxic and hazardous materials than an incinerator burning municipal solid waste.

The EAW must disclose several material facts:

- 1) Xcel’s French Island incinerator is a source of waste combustor ash in the Red Wing Xcel landfill;

¹ https://www.xcelenergy.com/energy_portfolio/electricity/power_plants/French_Island

- 2) The commencement date of acceptance of French Island combustor ash;
- 3) The locations in the landfill where the French Island incinerator waste is dumped;
- 4) Whether French Island ash waste is confined or isolated in a particular location in the landfill or dumped generally with other ash; and
- 5) Testing of French Island waste to determine composition.

As previously requested, in each instance where only Xcel's Red Wing incinerator is listed as a generating plant ash source, the EAW must be corrected to disclose and list Xcel's French Island incinerator as a contributor, a source of combustor ash. The EAW should be supplemented to address composition of the ash from the French Island incinerator. The composition and magnitude of these "residuals" must be disclosed, and potential impacts of processing this material must be disclosed and analyzed.

B. The Water Tank Mound site delineation is incorrect and must be corrected.

The Water Tank Mound site delineation is grossly understated by MPCA and Applicants. The Water Tank Mound is a historical site, identified as 21GD0042, and as such, is protected, and the exact delineation is not public information. It is available to affected landowners, and should be available to the MPCA. The responses of 4-29, 5-1 (incorrectly citing response as 4-28), and

The MPCA responses states that "the proposer provided a detailed map showing the relationship of the LabUSA project and the Water Tank Mounds area" and references an "Exhibit 1." This "Exhibit 1" is not in the packet. There is an aerial view map after the MPCA responses but it is not labeled as "Exhibit 1" and it does show two sets of dashed lines overlaid apparently on the boundaries of the Red Wing laydown yard and the LabUSA site, and also reflects the scenic easements, but there is also no legend. The dashed lines do not correspond with previous indications of the site. Where is Exhibit 1, and what is this map in the packet to represent?

Again, as a protected site this information is not publicly available, but is available to property owners. However, upon information and belief, the site 21GD0042, as delineated, extends over much, if not all of the Red Wing laydown yard, and extends to just over the northeast corner of the Walsworth property. Mr. Walsworth has obtained the delineation from the State Archeologist, whose contact info below, and we ask that you do the same so that this protected site be correctly represented in this proceeding:

Amanda Gronhovd, MS, RPA
Minnesota State Archaeologist
Office of the State Archaeologist
Fort Snelling History Center
St. Paul, MN 55111
612-725-2411
Amanda.Gronhovd@state.mn.us
<http://mn.gov/admin/archaeologist>

Please contact Ms. Gronhovd for the correct delineation, and clearly disclose "Exhibit 1."

Mr. Walsworth does have this delineation and can provide it, but respecting the protected nature of this resource. This historical site and its location may have a determinative impact on this project and its permitting. The record must be corrected.

II. LEACHATE SHOULD BE RETURNED TO THE XCEL ENERGY LANDFILL FOR PROPER TREATMENT OR DEPOSITED DIRECTLY IN THE BENCH STREET PRETREATMENT PLANT

There is an existing system at the Xcel Energy landfill to capture leachate to protect the groundwater. This system should be used, either by returning leachate to the Xcel Energy landfill so that it will be gathered in the system, or directly deposited in the Bench Street pretreatment facility built to pre-treat the leachate from Xcel's landfill.

The EAW did not provide specifics on ash residual and/or leachate collector and removal system, and the comments of the Tyler Hills Neighbors did raise questions about treatment of leachate.

Now, the project has been revised to include a leachate collection system, an improvement:

The Proposer will install an approved leachate holding tank and sump pump to collect all water generated from the Ash Material and any additional water that may come into contact with the Ash Material (leachate) within the Process Building. **The Proposer will pump leachate from the holding tank to a tank truck on an as-needed basis and transport it to the Red Wing Sanitary Wastewater Treatment Plant for Treatment.**

Findings of Fact, conclusions of Law and Order, p. 3, signed 4/3/2017, cover dated 3/31/2017 (emphasis added). This revision of the project should be subject to review and comment.

This project is specifically and expressly incorporated into Xcel Energy's solid waste permit SW-307, as specified in the Notice:

The current permit application for reissuance does not propose any further expansion 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 recycling of ferrous and non-ferrous metals. After the ash has been run through the processing facility, 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 received final cover. Upon issuance of this permit, the Red Wing Ash Disposal Facility would be authorized to perform ash reclamation activities and continue disposal operations for a permit term of 10 years.

Public Notice of Intent to Reissue, SW-307, December 5, 2016.

The May 10, 2012 permit specifies a leachate collection system to protect the groundwater:

33. The Landfill has an existing leachate collection system that includes a synthetic liner underlying the ash cells. This liner collects the leachate that is generated when precipitation infiltrates into the ash in the east and west cells. The purpose of the liner is to prevent leachate from entering the groundwater.
34. Leachate captured by the liner is directed to a double-walled 20,000-gallon fiberglass underground storage tank. The leachate is periodically discharged from the tank, via a gravity line, to the Red Wing Wastewater Treatment Facility (WWTF).

MPCA Permit SW-307, p. 5, May 10, 2012.

Leachate discharge, treatment, and protection of the groundwater was of sufficient concern that Xcel Energy's landfill is subject to a Leachate Agreement, dated May 30, 2002, extended until March 22, 2005, permitted by Red Wing again in an Industrial Wastewater Discharge Permit, with conditions, on October 10, 2016, under the provisions of the Leachate Management Plan, revised in May, 2016, to expire on October 10, 2021. Exhibit D, Industrial Wastewater Discharge Permit.

The leachate from this project, from Xcel Energy's ash from its landfill, processed on Xcel Energy land, for Xcel Energy's benefit, falls under the umbrella of Xcel's solid waste landfill permit, SW-307, the agreement and Industrial Wastewater Discharge Permit, granted by the City of Red Wing, is covered under these umbrella permits and agreements, and should be treated accordingly. There is an existing system at the Xcel Energy landfill to capture leachate to protect the groundwater. This system could easily be used -- after collecting the leachate and pumping into a truck, it could be returned to the Xcel Energy landfill so that it will be gathered in the system, or directly deposited in the Bench Street pretreatment facility built to pre-treat the leachate from Xcel's landfill. Either way would further the goal of protection of groundwater.

III. AN EIS IS REQUIRED FOR THIS PROJECT, OR IN THE ALTERNATIVE, A SUPPLEMENTAL EAW TO ADDRESS ERRORS AND OMISSIONS

The Findings of Fact, Conclusions of Law and Order and the EAW contain material errors and omissions that should be addressed before any permit is issued.

If you have any questions, or require anything further, please let us know.

Very truly yours,



Carol A. Overland
Attorney at Law

Attachments:

- Exhibit A: MPCA Public Notice of Intent to Reissue, SW-307
- Exhibit B: Ash Landfill Expansion Approved, Republican Eagle, November 29, 2012
- Exhibit C: MPCA Public Notice of Intent to Reissue, SW-670-001
- Exhibit D: Industrial Wastewater Discharge Permit, 10/10/2016 & 5/13/2016

Exhibit A

MPCA Public Notice of Intent to Reissue, SW-307



General information

Public comment period begins: Monday, December 5, 2016

Public comment period ends: 4:30 p.m. on Thursday, January 5, 2017

Current permit issued: February 1, 2011

Current permit expiration date: February 1, 2016

Name and address of Permittee:

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

Facility name and location:

NSP - Red Wing Ash Disposal Facility
1520 Bench Street
Red Wing, Minnesota 55066
Goodhue County
T113N, R15W, Section 035

MPCA contact person:

Daniel Aamodt
Minnesota Pollution Control Agency
Industrial Division
520 Lafayette Road
St. Paul, Minnesota 55155
Phone: 651-757-2435
Email: daniel.aamodt@state.mn.us
File manager phone:
651-757-2728 or 1-844-828-0942

The Minnesota Pollution Control Agency (MPCA) Commissioner has made a preliminary determination to reissue this permit for a term of approximately ten years. A draft permit is available for review on the MPCA Public Notices webpage at <http://www.pca.state.mn.us/publicnotices> or at the MPCA office address listed under the MPCA contact person. The MPCA will mail or email a copy of the draft permit upon request. Comments, petitions, and other requests must be received at the MPCA in writing on or before the public comment period end date and time identified above.

Watershed: Upper Mississippi River, Lower Portion

Receiving water: NA

Description of permitted facility

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 recycling of ferrous and non-ferrous metals. After the ash has been run through the processing facility, 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 recieved final cover. Upon issuance of this permit, the Red Wing Ash Disposal Facility would be authorized to perform ash reclamation activities and continue disposal operations for a permit term of 10 years.

The preliminary determination to reissue this Solid Waste is tentative.

Procedure for public participation

As stated in Minn. R. chs. 7000 and 7001, there are three formal procedures for public participation in the MPCA's consideration of this matter. Interested persons may:

- (1) Submit written comments on the draft permit.
- (2) Petition the MPCA to hold a public informational meeting.
- (3) Petition the MPCA to hold a contested case hearing.

Submitting written comments

To submit comments or petitions to the MPCA through the mail or email, you must state:

- (1) Your interest in the permit application or the draft permit.
- (2) The action you wish the MPCA to take, including specific references to the section of the draft permit you believe should be changed.
- (3) The reasons supporting your position, stated with sufficient specificity as to allow the MPCA to investigate the merits of the position.

Public informational meeting

A public informational meeting is an informal meeting during which interested persons can ask questions concerning the proposed facility. The MPCA staff will be present to provide information. If an interested person would like the MPCA to hold a public informational meeting, the person should include all information identified above and in addition include a statement of the reasons the person desires the MPCA to hold a public informational meeting and the issues that the person would like the agency to address at the public informational meeting.

Contested Case Hearing

A contested case hearing is a formal proceeding before an administrative law judge empowered to advise the MPCA regarding issues of fact. As described in Minn. R. 7000.1800, persons who submit petitions for a contested case hearing must also state the issues they propose to address in a contested case hearing, the specific relief requested or resolution of the matter, and the reasons (which may be in the form of proposed findings) supporting an MPCA decision to hold a contested case hearing. Failure to comply with these rules exactly may result in a denial of the request. To the extent known, the petitioner may also submit a list of prospective witnesses to be called at a hearing, a proposed list of publications, references, or studies to be introduced at a hearing and the approximate time required for the petitioner to present the matter at a hearing. The decision whether to hold a contested case hearing will be made under Minn. R. 7000.1900.

Exhibit B

Ash Landfill Expansion Approved
Republican Eagle
November 29, 2012

Ash landfill expansion approved

<http://www.republican-eagle.com/news/government/1159283-ash-landfill-expansion-approved>

By [Danielle Killey](#) on Nov 29, 2012 at 9:00 a.m.

The City Council voted 5-1 Monday to allow Xcel Energy to expand its ash landfill off Bench Street in Red Wing.

The landfill stores ash created by burning garbage at the company's incinerator and the city's incinerator. The conditional-use permit approved Monday also allows Xcel to bring in ash from French Island in Wisconsin.

The expansion would add about 981,000 cubic yards to storage, making the landfill 2,434,800 cubic yards total.

The original landfill was approved in 1987. The "west cell" of the landfill is closed and the east portion will be filled within about four years, Planning Director Brian Peterson said. The expansion would essentially be between the two existing areas.

The process has been ongoing, including redesigns and a number of public hearings as the application was vetted by the Planning Commission.

Residents often raised concerns about the expansion, including negative effects on property values and seeing the landfill from their homes.

Xcel submitted its original application in August, Peterson said. That plan had the landfill expanding to the west, but that drew concerns from a number of residents. A revised application was resubmitted in October that showed the higher landfill between the two existing cells.

The hill-like design worried some council members, but Xcel said it is necessary to get another 20 to 25 years out of the site.

"The peak gives us the capacity that we needed," Chuck Donkers, a geologist with Xcel, told the council Monday. The new high point on the site will be 50 feet above the current one.

Council member Dean Hove, who voted against the resolution, said he was "extremely disappointed" this application did not go through the Sustainability Commission before coming to the City Council.

He also was concerned about the effects of bringing in ash from outside the area.

"What I don't like is to have a business that's not doing business in this town, not paying taxes here and we're pulling in their ash," Hove said. "If we're going to shorten the life of this landfill, what's going to happen to those jobs?" he asked, noting bringing in the French Island ash will fill the landfill faster.

Peterson said there is no established process for sending applications like this to the Sustainability Commission. Council members agreed one should be developed.

Hove said there are other uses for ash that Xcel should be exploring, such as including it in concrete, asphalt and other materials.

"Hopefully in the future Xcel might be able to recapture that ash for other uses," Council member Peggy Rehder said. "(Allowing the expansion) doesn't mean they can't take that ash in the future and use it."

"This is consistent with what I've heard from citizens, which is that they'd rather burn than landfill," Mayor Dennis Egan said. "The byproduct (of burning) is the ash."

Council member Dan Bender was absent.

Exhibit C

MPCA Public Notice of Intent to Reissue, SW-670-001



Public Notice of the Intent to Issue Solid Waste Permit SW-670-001

General information

Public comment period begins: December 5, 2016

Public comment period ends: 4:30 p.m. on January 5, 2017

Name and address of Permittee:

Lab USA Corporation
211 North Broadway, Suite 211
Green Bay, Wisconsin 54303

Land owner:

Xcel Energy – Minneapolis
414 Nicollet Mall
Minneapolis, Minnesota 55401

Facility name and location:

Lab USA's Ash Processing Facility -
Red Wing
1540 Bench Street
Red Wing, Minnesota 55066
Goodhue County
T113N, R15W, Section 035

MPCA contact person:

Sherri Nachtigal
Resource Management and Assistance Division
Minnesota Pollution Control Agency
18 Wood Lake Drive Southeast
Rochester, Minnesota 55904
Phone: 507-206-2600
Email: sherri.nachtigal@state.mn.us

File manager phone: 651-757-2728 or
844-828-0942

The MPCA Commissioner has made a preliminary determination to issue this permit for a term of 10 years. A draft permit is available for review on the Minnesota Pollution Control Agency (MPCA) Public Notices webpage at <http://www.pca.state.mn.us/publicnotices> or at the MPCA office address listed under the MPCA contact person. The MPCA will mail or email a copy of the draft permit upon request. Comments, petitions, and other requests must be received at the MPCA in writing on or before the public comment period end date and time identified above.

Watershed: Upper Mississippi River, Lower Portion

Description of Lab USA's Ash Processing Facility - Red Wing

Solid Waste Permit:

Lab USA's Ash Processing Facility - Red Wing, SW-670, is a proposed resource recovery facility. Lab USA proposes to construct and operate a facility that will process municipal solid waste (MSW) combustor ash for purposes of recovering the ferrous and non-ferrous metals. The MSW combustor ash that the facility proposes to process is currently being generated by Xcel Energy's Red Wing Generating Plant, as well as combustor ash previously deposited in the Xcel Energy's combustor ash landfill near Red Wing.

The proposed facility will be located on 3.4 acres on property that is owned by Xcel Energy Inc. The City of Red Wing plans to lease the land, and sublease it to Lab USA. The proposed building is an approximately 30,000 square foot facility that will be used to process the MSW combustor ash. The ash will be processed as follows:

- * Offloading Operations
- * Crushing/Screening Processing (oversized material removal)
- * Magnetic Separator Processing (mid-fraction ferrous and non-ferrous removal)
- * Eddy Current Processing (mid and fine-fraction non-ferrous removal)
- * Loading Operations

The facility proposes to process up to 150,000 tons per year of combustor ash, and 600 tons per day. The facility also proposes to store up to 3,500 tons per day of combustor ash, as well as 15,000 tons per year of recovered metals, and 60 tons per day.

Environmental Review:

The proposed combustor ash processing facility does not trigger a mandatory requirement for the preparation and completion of an Environmental Assessment Worksheet (EAW), or an Environmental Impact Statement (EIS), as outlined in Minn. R. 4410.4300, subp. 17. However, Lab USA has elected to complete a discretionary EAW in conjunction with the application to obtain a solid waste permit. A separate public notice was prepared for the discretionary EAW.

The preliminary determination to issue this Solid Waste Permit is tentative.

Procedure for public participation

As stated in Minn. R. chs. 7000 and 7001, there are three formal procedures for public participation in the MPCA's consideration of this matter. Interested persons may:

- (1) Submit written comments on the draft permit.
- (2) Petition the MPCA to hold a public informational meeting.
- (3) Petition the MPCA to hold a contested case hearing.

Submitting written comments

To submit comments or petitions to the MPCA through the mail or email, you must state:

- (1) Your interest in the permit application or the draft permit.
- (2) The action you wish the MPCA to take, including specific references to the section of the draft permit you believe should be changed.
- (3) The reasons supporting your position, stated with sufficient specificity as to allow the MPCA to investigate the merits of the position.

Public informational meeting

A public informational meeting is an informal meeting during which interested persons can ask questions concerning the proposed facility. MPCA staff will be present to provide information. If an interested person would like the MPCA to hold a public informational meeting, the person should include all information identified above and in addition include a statement of the reasons the person desires the MPCA to hold a public informational meeting and the issues that the person would like the agency to address at the public informational meeting.

Contested Case Hearing

A contested case hearing is a formal proceeding before an administrative law judge empowered to advise the MPCA regarding issues of fact. As described in Minn. R. 7000.1800, persons who submit petitions for a contested case hearing must also state the issues they propose to address in a contested case hearing, the specific relief requested or resolution of the matter, and the reasons (which may be in the form of proposed findings) supporting an MPCA decision to hold a contested case hearing. Failure to comply with these rules exactly may result in a denial of the request. To the extent known, the petitioner may also submit a list of prospective witnesses to be called at a hearing, a proposed list of publications, references, or studies to be introduced at a hearing and the approximate time required for the petitioner to present the matter at a hearing. The decision whether to hold a contested case hearing will be made under Minn. R. 7000.1900.

Exhibit D

Industrial Wastewater Discharge Permit 10/10/2016 & 5/13/2016



INDUSTRIAL WASTEWATER DISCHARGE PERMIT

FACILITY:

Xcel Energy Ash Landfill- Bench Street
PIN 557350051
Red Wing, MN 55066

CONTACT:

Manuel Castillo
Xcel Energy
Sr. Environmental Analyst
414 Nicollet Mall, GO2, Minneapolis, MN 55401

GENERAL CONDITIONS: This permit allows the permitted facility to discharge leachate from existing leachate collection facilities at the Bench Street ash disposal facility to the City of Red Wing's sanitary wastewater collection and treatment system. This permit is based on the facility and operational descriptions provided in the Leachate Management Plan dated 5/13/2016 (copy attached). A permit modification is necessary if the facilities or operational conditions change from that provided in the plan.

Charges Excess strength charges will apply to BOD and TSS concentrations in excess of that established in the current City of Red Wing Fee Schedule, however all sampling data to date suggests that waste strength is well below the threshold and excess strength charges are not anticipated.

Wastewater discharge permits are issued to specific users for a specific operation. A wastewater discharge permit shall not be transferred or sold to a new owner, new user or different premises, or a new or changed operation without approval of the undersigned. Any succeeding owner or user shall also comply with the terms and conditions of this permit.

The City has the responsibility to respond to ordinance violations as they occur. Established procedures and responses to permitted user's noncompliance with their wastewater discharge permit shall be per the City's Enforcement Response Plan.

The wastewater discharge shall be in compliance with the regulations and effluent limitations established in Subdivision 3 of Chapter 3 of the Municipal Code. These are summarized on the attachment to this permit.

SPECIAL CONDITIONS:

Monitoring Information: Monitoring and sampling beyond that required by the Minnesota Pollution Control Agency is not required.

Pumping Timing: Coordinate pumping frequency timing and maximum flow rates with Red Wing Public Works as required, to prevent exceedance of the capacity of the Bench Street Lift station.

Maximum Daily Discharge: Maximum daily discharge shall not exceed 30,000 gallons per day without authorization from the Deputy Director Public Works-Utilities. The Deputy Director Public Works – Utilities may prohibit discharging leachate during period when such a discharge could cause sewer backups or overflows.

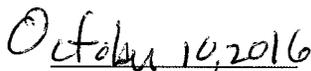
Wastewater discharges other than the leachate from the leachate collection system is not included under this permit.

Disposal Charges: The cost to dispose of the leachate is identified in the Council approved fee schedule. This schedule is typically reviewed and updated on an annual basis. The current charge (as of October 2016) is 11.50/1000 gallons.

Report any unusual wastewater characteristics and/or volume, slug loads or accidental releases immediately upon discovery. Contact numbers: Red Wing Wastewater Treatment Facility, 651-3385-5141. If no response, call 651-380-8221.

EXPIRATION: This industrial wastewater discharge permit expires on October 10, 2021. An application for permit renewal shall be submitted to Deputy Director Public Works -Utilities at least 180 days prior to expiration date of this permit.


Deputy Director Public Works – Utilities


Date

Attachment 1 - General Discharge Prohibitions

No user shall discharge or cause to be discharged, directly or indirectly, any of the following substances into the wastewater disposal system or to any public sewer:

1. Any liquids, solids or gases that may be sufficient either alone or by interaction with other substances to cause fire or explosion or be injurious in any other way to the wastewater disposal system. At no time, shall waste streams with a closed cup flashpoint of less than 140°F or 60°C be introduced into the wastewater disposal system. Prohibited materials include, but are not limited to, gasoline, kerosene, naphtha, benzene, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromates, carbides, hydrides and sulfides.

2. Solid or viscous substances which may cause obstruction to the flow in a sewer such as grease, garbage with particles greater than one-half inch in any dimension, animal guts or tissues, paunch manure, bones, hair, hides or fleshings, entrails, whole blood, feathers, ashes, cinders, sand, spent lime, stone or marble dust, metal, glass, straw, shavings, grass clippings, rags, spent grains, spent hops, waste paper, wood, plastic, gas tar, asphalt residues, residues from refining or processing of fuel or lubricating oil, mud or glass grinding or polishing wastes.

3. Any wastewater having a pH less than 6.0 or more than 9.0 or having any other corrosive property capable of causing damage structures, equipment, and personnel of the wastewater disposal system.

4. Any wastewater containing toxic pollutants in sufficient quantity, either singly or by interaction with other pollutants, disrupt any wastewater treatment process, constitute a hazard to humans or animals, or create a toxic effect in the receiving waters of the wastewater disposal system. A toxic pollutant shall include, but not be limited to, any pollutant identified pursuant to Section 307(a) of the Clean Water Act. Prescription drugs and other over-the-counter pharmaceuticals shall be considered toxic pollutants.

5. Any noxious or malodorous liquids, gases, or solids which either singly or by interaction with other wastes are capable of creating a public nuisance or hazard to life or are sufficient to prevent entry into the sewers for their maintenance and repair.

6. Any wastewater with objectionable color not removed in the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions.

7. Any wastewater which creates conditions at or near the wastewater disposal system which violate any statute or any rule, regulation or ordinance of any public agency or State or Federal regulatory body.

8. Any wastewater having a temperature greater than 150°F (65.6°C), or causing, individually or in combination with other wastewater, the influent at the wastewater treatment plant to have a temperature exceeding 104°F (40°C),

9. Any slug load released in a discharge of such volume or strength as to cause inhibition or disruption in the wastewater disposal system. In no case shall a slug load have a flow rate or contain concentrations or quantities of pollutants that exceed for any time period longer than 15 minutes more than 5 times the average 24 hour concentrations, quantities, or flow of the user during normal operation.

10. Non-contact cooling water or unpolluted storm or groundwater.

11. Any wastewater containing fats, wax, grease, or oils, whether emulsified or not, in excess of +150 mg/l or containing substances which may solidify or become viscous at temperatures between 32°F and 150°F (0°C and 65.6°C); and any wastewater containing oil and grease concentrations of mineral origin of greater than +100 mg/l, whether emulsified or not.

12. Wastewater containing inert suspended solids (such as, but not limited to, Fullers earth, lime slurries, and lime residues) or of dissolved solids (such as, but not limited to, sodium chloride and sodium sulfate) in such quantities that they would cause disruption with the wastewater disposal system.

13. Any wastewater following pretreatment or directly discharged containing the following described elements in concentrations greater than those included in the following list:

Maximum Daily Concentrations

Cd	0.20 mg/l
Cr	2.80 mg/l
Cu	3.38 mg/l
Pb	0.40 mg/l
Hg	0.10 mg/l
Ni	2.98 mg/l
Ag	0.43 mg/l
Zn	2.61 mg/l

All discharge shall comply with the above limits unless the City has been granted a pollutant removal credit or exception.

B. In addition to these prohibitions, no user shall discharge to any public sewer any discharge which causes interference with the wastewater disposal system.



Leachate Management Plan

SW - 307
RED WING
RDF Ash Disposal Facility

Revised May, 2016

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I. Introduction

Xcel Energy owns and operates a permitted ash disposal facility located in Red Wing, Minnesota. This facility is used for the disposal of the ash produced at Xcel Energy's Refuse Derived Fuel (RDF) generating plant in Red Wing. Xcel Energy's Red Wing RDF Ash Disposal Facility (Facility) has been in operation since May of 1988. This facility is characterized by a 60 mil high density polyethylene (HDPE) liner, a leachate collection system, and a leak detection system. This manual was written to provide documentation of the leachate discharge procedures, associated leachate sampling procedures, and the assignment of responsibilities. Enclosed are tables which summarize the required sampling events for this facility.

This management plan addresses leachate collected from the primary liner systems in the East and Center active cells and the West closed cell. Water collected from the full scale secondary collection system and sump lysimeters are pumped to the primary liner system and subsequently treated as leachate. Xcel Energy is permitted to discharge the leachate generated from this facility into the City of Red Wing Wastewater Sewer System. Discharge limits were established to prevent the addition of this leachate from negatively impacting the effectiveness of the WWTP. As a backup to the City of Red Wing WWTP, Xcel Energy also maintains an industrial wastewater special discharges permit with the Metropolitan Council's Environmental Services (MCES) Permit #2197.

The leachate collection and discharge from Xcel Energy's Red Wing Facility into the Red Wing sewer system is operated in accordance with Minnesota Pollution Control Agency's (MPCA) Solid Waste Permit SW-307, Red Wing Leachate Treatment Agreement, Goodhue County Solid Waste Ordinance, Minnesota Waste Combustor Ash Rules, and/or any approved modifications to the above. The MPCA Solid Waste Rules (Part 7035.2885, Subp 5) define the Maximum Leachable Contaminant Levels (MLCLs) for the following elements: arsenic, barium, boron, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, tin and zinc.

The maximum leachate generation rate has been predicted to be approximately 2.4 million gallons per year, based on the HELP model (Hydrologic Evaluation of Landfill Performance) developed by the U S Army Corps of Engineers. This corresponds fairly well to historical records that show that the average (2006 -2015), is 2,689,000 gallons per year, with a maximum of 4,492,000 gallons were generated in 2015.

II. Leachate Collection Design

The original design for the facility was prepared in 1987 with a total of five construction “phases” which correspond to areas of waste capacity expansion. Phases 1, 2 and 3 were constructed according to the original permit plan. In 1991 the design of the facility had to be revised as part of the permit renewal to comply with the MPCA Combustor Ash Rules. In order to comply with these new rules a new liner and leachate collection system was installed over the Phases 1, 2 and 3; and Phases 4 and 5 were to be constructed to the new (1991) permit requirements. Phases 6 and 7 were added to the design corresponding to the area where new liner was to be placed over Phases 1, 2 and 3. Also, a 10 foot high perimeter berm was included in the redesign to add capacity to the original design.

As a result of this re-design, the site has two primary leachate collection systems and two lysimeter systems. The “old” system corresponds to Phases 1, 2 and 3, while the “new” system corresponds to Phases 4, 5, 6 and 7. Areas where ash was placed prior to 1991 (Phases 1, 2 and 3) are lined with a 60 mil geo-membrane and a geo-synthetic clay liner (GCL). A GCL is a thin layer of bentonite attached to fabric to replace three feet of clay which is normally required. A conventional composite liner was installed in Phases 4 and 5 and the perimeter berm, consisting of 60 mil geo-membrane and three feet of clay.

The facility has been developed with three cells: the closed West cell with seven phases – Phases 1 through 7, the East cell with three phases – Phases 1A/B (partially closed), 2A/B and 3A/B currently accepting ash, and the Center Cell with a North Phase completed in 2014, and a South Phase scheduled for construction in 2021. With the development of the Center cell, the facility is expected to be in operation for another 23 years based on the annual report for 2014.

1. Leachate Storage Tank

The leachate storage tank system has been designed to collect leachate from the east, center and west composite liners for discharge to the City of Red Wing sewer system. The leachate storage tank has a storage capacity of 20,000 gallons. Past experience has demonstrated that this storage capacity is adequate.

The storage tank is the final point of the leachate collection system, by collecting leachate from the various cells. The cells are controlled by the level in the tank. The east cell pump is disabled when the tank level reaches a high level. The center and west cell valves are closed when the tank level reaches a higher level. The level in the storage tank is lowered by pumping the leachate to the City of Red Wing sewer system. The City currently restricts the pumping time from 12 a.m. to noon at ten minute intervals. This may be changed when the City closes the landfill that is connected to the same sewer system as the Xcel landfill.

The storage tank also has monitoring equipment that continuously monitors the level of the storage tank. If a high or low level is reached, the system turns on an alarm and sends a text via phone to various operating personnel.

2. West Cell

The West cell leachate collection system has been designed to collect and convey leachate from the composite liner to a single collection sump at the lowest point of the base liner, which includes a side-slope riser system. The sump incorporates side-slope risers to eliminate penetration of the liner. Leachate from the West cell is pumped at the rate of 40 gpm, using a level controller, to the existing West cell leachate tank, eventually with the construction of the South Phase of the Central Cell the leachate will be pumped to the riser vault of the South Phase for final discharge to the gravity sewer main.

a. Primary

Manhole MH-1 is located within the center of the leachate collection system for the West cell. The liner under MH-1 is the lowest point of the West cell. The leachate collection system accumulates the leachate of the west cell through gravity at this point to MH-8 where it is pumped at the rate of 40 gpm, to the leachate storage tank.

b. Secondary

Water in the secondary system is pumped from MH-A at the rate of 10 gpm, using a level controller, to the primary system.

i. Sump/Pump System:

A vertical riser pipe installed in the manhole serves as the sump. The sump is evacuated by a submersible pump which will discharge gravity discharge line that will discharge into the sump for the Center Cell via the leachate collection piping system. The interior of MH-A has been treated with a coal tar epoxy that will serve to prevent leakage of liquids into/out of the manhole. The leak detection system pump is activated manually by a switch. The level is currently set to warn the operator when the leachate level coincides with the base level of the secondary liner.

ii. Leak Detection:

The leak detection system is equipped with an indicator light on the secondary control panel. When this light is lit, the leak detection pump must be run manually until the warning lit is no longer lit. Once a quarter the indicator light for this pump is checked by Environmental

Services to determine if the pump needs to be operated since the last inspection.

Leachate leaks must be reported to Environmental Services and action must be taken to find the cause of the leak. Corrective action should be taken immediately.

3. East Cell

The East cell leachate collection system has been designed to collect and convey leachate from the composite liner to a single collection sump at the lowest point of the base liner, which includes a side-slope riser system. The sump incorporates side-slope risers to eliminate penetration of the liner. Leachate from the East cell is pumped at the rate of 80 gpm, using a level controller, to the leachate storage tank, eventually with the construction of the South Phase of the Central Cell; the leachate will be pumped to the riser vault of the South Phase for final discharge to the gravity sewer main.

a. Primary

The primary leachate is collected in a sump for pumping to the leachate storage tank. Manhole MH-U is located within the center of the leachate collection system for the East cell. The liner under MH-U is the lowest point of the East cell. The leachate collection system accumulates the leachate of the east cell through gravity at this point. This will be the collection point for the East cell prior to discharge to the gravity discharge line. The leachate from this point is currently pumped through a force-main to the leachate storage tank.

b. Secondary

Water from the secondary system is collected in a sump for pumping into the primary sump. There is a flow meter and hour meter totalizer on the pipe to the primary sump.

c. Lysimeter

Water from the lysimeter is collected in a sump for pumping into the primary sump. There is a flow meter and hour meter totalizer on the pipe to the primary sump.

4. Center Cell

The Center Cell (North Phase) leachate collection system has been installed to collect and convey leachate from the composite liner to a single collection sump at the lowest point of the base liner, which includes a gravity drain to the leachate storage tank.

Leachate from the center cell expansion will be collected and conveyed from the composite liner in a manner similar to the existing East cell leachate collection system. Leachate will be conveyed to a single collection sump at the lowest point of the base liner, which includes a side-slope riser system. Currently leachate drains into the storage tank unless a control valve in Manhole P is closed, which occurs when the storage tank is full.

The Center Cell (South Phase) leachate collection system has been designed to collect and convey leachate from the composite liner to a single collection sump at the lowest point of the base liner, which includes a riser vault and either a pump or gravity drain that will be connected to the gravity main to the City of Red Wing sewer system.

a. Primary

The primary leachate from the North Phase is collected in a trench and drains by gravity to the leachate storage tank. When the South Phase of the cell is built, the North Phase leachate piping will be extended and sloped to the final primary sump of the cell. The primary leachate will be collected for pumping to a riser vault where the east cell leachate is pumped for final pumping to the gravity main sewer system and eventual discharge to the City sewer system.

b. Secondary

The secondary sump of the North Phase is below the primary and is monitored using a level indicator. When the South Phase of the cell is built, the North Phase secondary sump will be extended and sloped to the final secondary sump of the cell. The secondary leachate will be collected for pumping to a riser vault where the east cell leachate is pumped for final pumping to the gravity main sewer system and eventual discharge to the City sewer system.

c. Lysimeter

There is no lysimeter under the secondary for the North Phase since the North Phase primary sump will become a trench connected to the final sump of the South Phase. When the South Phase of the cell is built, a lysimeter sump will be constructed under the secondary sump. The lysimeter leachate will be collected for pumping to a riser vault where the center cell leachate is pumped for final pumping to the gravity main sewer system and eventual discharge to the City sewer system.

The center cell (South Phase) construction will allow for the abandonment of the leachate storage tank. The leachate from the East Cell will then be pumped into a metering manhole constructed in the south berm of the East Cell that will combine the discharge from the East, west and Center cells before discharging to the gravity sewer.

III. Operations

The leachate from the various cells is currently pumped to the storage tank until the South Phase of the Central Cell is built, when it will be pumped to the Central Cell riser vault for final discharge to the City of Red Wing sewer system.

The various pumps are operated from an automatic controller based on level in the east primary sump, except for the North Phase of the Central cell which is constantly discharged to the leachate storage tank. When the storage tank reaches a high level, the east cell primary pump is dis-enabled. If the level in the storage tank continues to rise, a control valve on the pipe from the North Phase of the Central Cell is closed. The flow, sump level and pump operating time for each cell is monitored and recorded once per day.

Xcel Energy is required by MN Rules Chapter 7035.2585 to submit an annual report to the MPCA no later than February 1 for the proceeding calendar year. The annual report must cover all facility activities during the previous year. Xcel Energy will summarize the results from the leachate and groundwater monitoring programs in this report. In addition, the report will be sent to the distribution list in section L. Reporting Results of III. Quarterly Leachate Monitoring.

A. Inspections

The control system has various alarms for the sump level in the east primary and the storage tank, if the alarm is activated a text is sent to the operator and Environmental Services for acknowledgement and investigation.

The pump in the storage tank is inspected once a year. The submersible pumps in the primary, secondary and lysimeter sumps of the east and west cells are tested electronically every year to determine that they are operating within the manufacturer's specifications.

The West cell manholes are checked periodically for the leachate depth. The depth of the leachate within this manhole is calculated by subtracting the difference between the distance to the surface of the liquid and the bottom of the manhole.

Liquid in the base of the any manhole not connected to the storage tank or riser vault must be tested to determine if it is leachate by checking the liquid's conductivity. If the conductivity is between 20,000 – 30,000 μ mhos (micromhos), or higher, it is likely to be leachate. Other sources of liquid in the manhole are condensation, ground water infiltration or storm water. The amount of liquid pumped should be estimated, and this volume and the sampling results should be noted. The liquid may be disposed of by pumping it into the manhole sump and then using the sump pump to pump the water to the Leachate Collection Tank, and after construction of the South Phase of the Central cell into the central cell riser sump.

1. Cleaning

The leachate collection piping system is cleaned annually.

2. Leak Detection

Lysimeters are used to detect leaks from the secondary collection sump for the various cells. The volume and analysis of the leachate collected in the lysimeter can provide an indication of the source of the leak, as well as provide some guidance to potential groundwater issues. Currently, there are lysimeters in the east and west cells. A lysimeter will be added to the central cell during the construction of the South Phase. Also, the existing storage tank has an interstitial space that is monitored for level and can be sampled for analysis.

a. West Cell

The operator shall inspect the leak detection warning lights weekly and note the results of this inspection. The liquid in the leak detection system should be removed when the warning light on the main control panel is lit. The operator shall notify personnel from Environmental Services if the volume of liquid collected in the leak detection system suddenly increases.

b. East Cell

The secondary and lysimeter sumps of the east cell are monitored daily for the leachate level. If the sump level is high enough it will activate the submersible pump to pump the leachate to the primary sump.

c. Central Cell

The secondary sump of the North Phase is monitored weekly using a level indicator. Water will be pumped out as needed.

d. Storage Tank

The leachate in the storage tank pumped for final discharge to the City using a level controller in the tank to turn the pump on and off. The flow of leachate pumped to the City is metered and recorded once per day. In addition, the storage tank is double-walled and the space between the walls is monitored for a release.

B. Leachate Disposal Procedures

The site has three primary leachate collection systems and two lysimeter systems, and a third lysimeter collection system is proposed for the Center Cell (South Phase). The leachate from the Center Cell (North Phase) is routed by gravity through Manhole P (MH-P), using a control valve, to the Leachate Storage Tank.

The west cell old system includes a lysimeter piping system and leachate collection system for Phases 1, 2, and 3 (phases constructed prior to 1991). The west cell new system includes a lysimeter piping system and leachate collection system for Phases 4 - 7. The leachate for Phases 4 - 7 flows by gravity to the Leachate Storage Tank through MH-P. Leachate is collected for Phases 1 -3 in piping radiating out from Manhole 1 (MH-1) in a spoke fashion. Leachate flows via gravity to a sump in Manhole 8 (MH-8), and from this sump is pumped to the Leachate Storage Tank via Manhole P (MH-P). Water in the secondary collection system under MH-1 flows by gravity to MH-A. From MH-A the water is pumped to the Leachate Storage Tank.

Leachate is collected from the east cell in piping radiating out from Manhole U (MH-U) in a spoke fashion. Leachate is pumped from Manhole U to the Leachate Storage Tank.

Leachate is pumped from the Leachate Storage Tank directly into the Red Wing sewer system for treatment at the Red Wing Waste Water Treatment Plant (WWTP).

The discharge of leachate from the Ash Disposal Facility will be completed in accordance with this document. A gravity sewer main from the site to the City of Red Wing lift station at Bench Street was constructed in 2009. Since the construction, the City of Red Wing has accepted the leachate by pumping from the storage tank directly into the sewer system. The gravity drainage of the Central Cell both North and South Phases will be modified as described in the previous section of this Report.

In the event that the Red Wing sewer system or WWTP cannot accept the discharge; the leachate would be hauled to either the Red Wing WWTP or the Metropolitan Council Environmental Services' (MCES) St. Paul facility. Xcel Energy has a permit from the MCES (#2197), which provides guidelines in order to discharge. A copy of MCES Permit 2197 is included in the Appendix.

1. Leachate Collection

Most of the leachate is generated in the active East cell and the Central cell, with minor amounts generated in the closed west cell. The East cell flow is metered. The Central cell flow is calculated from the change in tank level and the amount of leachate pumped from the East cell. After construction of the South Phase of the Central cell, the leachate will be collected in a sump that collects the leachate discharges from all of the cells in a riser vault prior to final discharge to the gravity sewer main. The collection sumps are or will be equipped with submersible pumps and a 3-inch discharge line. The final discharge line is connected to the gravity sewer main which discharges into the City of Red Wing lift station on Bench Street.

2. Discharge Location

Leachate from the storage tank will be discharged directly to the sewer system, until the South Phase of the central cell is constructed. The leachate is removed from the tank, by a pump at 240 gpm, to a double-wall, solid HDPE gravity main, buried at depth to prevent freezing. The tank is cleaned and inspected on biennial basis. Leachate samples are collected from the tank according to the schedule in Section III. Leachate Monitoring.

In the event of an emergency, such that the gravity main discharge or the City of Red Wing lift station is not able to accept the leachate, a truck hauler would haul the leachate to an approved City or MCES manhole for discharge. A leachate manifest will be filled out for each load transported to the WWTP. Completed copies of these records will be submitted by the operator to the Xcel Energy Environmental Services Department's Environmental Analyst weekly during such emergencies.

A leachate sample will be collected in accordance with the procedures as outlined in Section II of this manual. After a leachate sample has been collected, labeled, and preserved, the leachate will be transported to the discharge location.

3. Discharge Restrictions

Due to the nature of the leachate and the need to properly dispose of and treat the leachate, the following guidelines should be used to make sure that the leachate is discharged to a sewer system that is connected to a Waste Water Treatment Plant (WWTP), usually the one in the City of Red Wing.

- a. Leachate from Xcel Energy's Ash Landfill and the City of Red Wing's Municipal Ash Landfill cannot be discharged simultaneously into the WWTP or any of its intercepts. The discharge of leachate from the Xcel Energy Ash Landfill to the gravity sewer main can only occur from 12 a.m. to 12 p.m.
- b. Xcel Energy is prohibited from discharging leachate into the WWTP or any of its intercepts during periods in which excessive river flow is occurring. During potential flooding (spring run-off or large storm events), which could cause the City sewer system to potentially back-up, the Red Wing WWTP may not be able to accept the discharge of leachate to the sewer system.
- c. Xcel Energy has a maximum daily leachate discharge limit of 30,000 gallons of leachate. If greater than 30,000 gallons of leachate is produced at the landfill, the City of Red Wing is to be informed and a decision made as to whether the lift station can handle the flow or if the leachate needs to be hauled to other City of Red Wing manholes or to the MCES, additional storage capacity could be used if permission is obtained from the MPCA.

- d. When the direct discharge option is not available, and the leachate has to be hauled by tanker truck, road weight restrictions need to be adhered to during leachate hauling operations.
- e. The discharge rates for the transfer of the leachate from the haul truck into the WWTP system must be less than 30,000 gallons per day.
- f. The leachate to be discharged must have a pH between 6 and 9, according to the City of Red Wing Ordinance.
- g. The leachate samples collected for analysis will be analyzed and compared to the discharge limits in the MCES permit and the City CUP to verify compliance. If there is a non-compliance issue the City will be informed and remedial actions will be determined.

4. Discharge Limits

The City of Red Wing has discharge limits for the following elements in concentrations as follows:

Maximum Concentration Limits (Daily)		MPCA
Constituent	Limit (mg/L)	MLCL (mg/L)
Cadmium	0.20	0.06
Chromium	2.80	1.50
Copper	3.38	15.0
Lead	0.10	0.3
Mercury	0.10	0.03
Nickel	2.98	2.1
Silver	0.43	0.3
Zinc	2.61	21.0

Leachate analysis for the past year has not had any levels that have been near (< 50 % of) these values. The leachate analysis for the past year as compared to the City of Red Wing discharge limits for the following elements in concentrations are as follows:

Maximum Concentration Limits (Daily)		MPCA	2015 Leachate
Constituent	Limit (mg/L)	MLCL (mg/L)	Analysis (mg/L)
Cadmium	0.20	0.06	< 0.05
Chromium	2.80	1.50	< 0.05
Copper	3.38	15.0	< 0.05
Lead	0.10	0.3	< 0.005
Mercury	0.10	0.03	< 0.0008

Nickel	2.98	2.1	< 0.05
Silver	0.43	0.3	0.038
Zinc	2.61	21.0	< 0.05

As can be seen from the Table above, the leachate analysis for the past year shows that the only constituent detected was silver at about 10% of the MLCL and the City of Red Wing discharge limit for waste water.

5. Operating Hours

Pumping from the storage tank to the gravity sewer will occur between the hours of 12 a.m. and 12 p.m. in 10 minutes on/10 minutes off cycles. The timing cycle is necessary to allow the lift station at Bench Street to transfer the leachate to the City gravity sewer system.

Emergency discharge of leachate from a haul truck to the Red Wing WWTP will only occur between the hours of 7:00 a.m. and 9:00 p.m.

6. Leachate Flowrates

a. Pumping from the storage

For the pump discharge to the gravity sewer system, the discharge rate is 240 gpm for ten minutes, with a rest time of ten minutes before the pump can run again. This was set up this way in the control system to allow the lift station time to pump the leachate to the City gravity sewer system.

b. Emergency Discharges

For any emergency leachate discharged by tanker truck, the discharge rates will not exceed the rate as outlined in the MCES permit (6,000 gallons per hour). For all truck leachate samples, Xcel Energy's environmental laboratory will provide Environmental Services and the Red Wing Steam Plant with a verbal notification of the results from the analyses of the leachate composite sample. Upon notification, the Environmental Services Environmental Analyst and personnel from the Red Wing Steam Plant will review the data to determine if the MCES discharge limits are met. If the leachate is over the discharge limit, the leachate will be hauled back to the landfill for discharge onto the ash in the active area.

Xcel Energy's emergency discharges can be no greater than 30,000 gpd, unless other arrangements are made by Environmental Services with the City of Red Wing.

E. Discharge Documentation

The control system for the storage tank records the daily discharge amounts. Environmental Services will review the monthly total discharge on the City of Red Wing invoice to make sure that the City read the meter properly. Any maintenance or construction work that could affect the time that the control system is on, and thus recorder for the discharge meter, should be reported to Environmental Services so that proper adjustments can be made prior to the end of the month when the City reads the meter.

III. Emergency Procedures and Response

If there was to be a leak or spill of ash or leachate the following guidelines should be used to contain and clean-up the spill.

Surface Water Contamination: Report; contain and collect retrievable leachate; absorb remaining leachate; monitor; evaluate impact; determine and implement appropriate follow-up actions.

Soil Contamination: Report; collect saturated soil for disposal in lined cell; collect soil samples; evaluate impact; determine and implement appropriate follow-up actions.

A. Corrective Actions

1. Leachate Spill

Immediately retrieve any free liquid by pumping it into the active, lined area of the landfill or the truck pad near the storage tank. Apply materials to absorb unpumpable liquid. Immediately contact Xcel Energy's Spill Control number at 1-612-330-5972. Xcel Energy will contact the MPCA and the Minnesota Duty Officer. A leachate spill is most likely to occur when facility personnel are on-site while pumping leachate from the tank or involved in transporting the leachate. During post-closure, the tanker truck operator will inspect the site regularly and will specifically check the leachate collection system for evidence of spills or leaks.

Surface Water Contamination: Report to Environmental Services; contain and collect retrievable leachate; absorb remaining leachate; dispose of leachate in the active cell of the landfill, monitor; evaluate impact; determine and implement appropriate follow-up actions.

- a. Soil Contamination: Report to Environmental Services; collect saturated soil for disposal in the active, lined cell; collect soil samples; evaluate impact; determine and implement appropriate follow-up actions.
- b. Damaged Vegetation: Report to Environmental Services; assess damage; place temporary controls; evaluate cause; vegetate.

For any haul trucks that need to be sampled, the leachate will be collected in a reusable sampling bottle. Two liter reusable bottles will be supplied by Xcel Energy's Environmental Laboratory at the Chestnut Service Center. These bottles are used to obtain the leachate samples from the leachate sampling port.

2. Ash Spill

Surface Water Contamination: Report to Environmental Services; contain and collect retrievable ash and contaminated soils for disposal in lined cell; collect soil samples; evaluate impact; determine and implement appropriate follow-up actions.

3. Exceedance of Maximum Leachate Concentrations

Monitor; report; evaluate cause of exceedance; design pretreatment actions; report; implement recommendations.

4. pH of Leachate out of Range

Monitor; report to Environmental Services; follow neutralization procedures provided by Environmental Services to adjust the pH to within the limits for discharge; resample.

B. Notification

Any Spill must be reported to Environmental Services immediately.

If the spill should occur, immediately call Environmental Services at 612-330-5972.

Environmental Services will call the MPCA Spill Hotline (651-296-8100) within 24 hours of the spill. Be prepared to describe the nature of the release; include an estimate of the volume spilled and the spill cleanup methods used. Environmental Services personnel will notify the City of Red Wing, Goodhue County, and the MPCA solid waste engineer.

Document the events which lead to the release as soon as possible. Describe the nature of the release; include an estimate of the volume spilled and what was done to clean up the spill. Provide this information to Environmental Services and the Red Wing Steam Plant. See Appendix D for the list of spill report phone numbers and other contacts for pertinent information.

IV. Leachate Monitoring

According to MN rule 7035.2885 (Municipal Solid Waste Combustor Ash Land Disposal Facilities), Subpart 16, the owner is to design, install and maintain a water monitoring system, as outlined in MN Rule 7035.2815 (Mixed Municipal Solid Waste Land Disposal Facilities), subpart 10. These rules provide the guidance to develop a sampling and analysis plan that complies with the rules.

A. Sample Procedure

Samples of leachate from the leachate collection tank shall be collected by a vendor selected by Environmental Services. These samples are collected directly from the leachate tank with a clean bailer. If the operator is pumping leachate from the tank into a truck a sample should be collected from the sampling spigot for each truckload. The individual truck samples should be composited in a larger bottle for the period of truck hauling, but no more than 30 days.

1. Sample Locations

The following locations will be sampled at the same frequency as the ground water, except for the MCES which will be collected whenever the emergency service is used.

- a. Storage Tank
 - i. MPCA sample
 - ii. MCES sample
- b. Secondary Liners
 - i. East Cell
 - ii. West Cell
 - iii. Central Cell – South Phase
- c. Lysimeters
 - i. East Cell
 - ii. Central Cell – South Phase

The leak detection system for the landfill shall be monitored by Environmental Services. These measurements shall be taken at the following locations:

Manhole A	Sampled at Manhole A
Lysimeter Q	Sampled at Riser Pipe
Manhole 3	Sampled at Riser Pipe
Future Lysimeter (Center Cell-South Phase)	Sampled at Riser Pipe

2. Sampling Schedule

Leachate samples will be taken on a schedule concurrent with the required groundwater monitoring for this facility.

Spring (March 14 - April 21)

Summer (June 21 - July 31)

Autumn (October 21 - November 21)

3. Containers

Samples of leachate from the storage tank and the various leachate sumps will be collected in sample bottles supplied by the sampling vendor in accordance with the requirements of the analytical laboratory.

Obtaining Additional Bottles: The Facility operator shall call the Plant Engineer (Red Wing Steam Plant) when additional sample bottles are required. The Plant Engineer will then call the chemist at Xcel Energy's Environmental Laboratory (612-630-4439) and request that bottles are prepared and sent to the ash storage facility via Xcel Energy company mail. The box containing the bottles shall be mailed to the Red Wing Ash Storage Facility in care of the Plant Engineer - Red Wing Steam Plant. Red Wing Plant personnel can deliver the sample bottles to the facility.

4. Sample Bottle Preparation

Sample bottles will be prepared by the vendor. Any bottles required for the trucking of leachate will be prepared by Xcel Energy's Environmental Lab. After preparation, laboratory personnel shall place pre-measured amounts of preservative in each bottle if required. Bottles shall be labeled with preservative used.

5. Sample Labeling

Sample bottles shall be labeled so that the Site Name, Date of Collection, Load Number, and Collectors Name is clearly identified.

Example:

Red Wing Ash Disposal Facility

5/1/99

Sample Location _____

6. Leachate Head Monitoring

Xcel Energy is required by MPCA permit SW-307 to monitor the leachate head for the various cells quarterly. Xcel Energy shall determine the height of the leachate head over each liner at the various manholes. The measurement of the leachate head shall be taken by Environmental Services using a vendor or an Environmental Analyst. This measurement shall be taken in accordance with the procedures as outlined in Section II.A of this manual. The data obtained from these measurements will be submitted to Environmental Services Environmental Analyst.

- a. West Cell – Manhole 1 (MH-1)
- b. East Cell – Manhole U (MH-U)
- c. Central Cell (North Phase) – Pipe Riser
- d. Central Cell (South Phase) – Manhole
- e. Storage Tank level

7. Sample Transport

Samples shall be transported on ice to the Xcel Energy Environmental Lab.

B. Sample Analysis

The leachate collection tank samples will be analyzed by Xcel Energy's Environmental Laboratory. The routine parameters to be tested are listed in Table 1. The extended parameters, to be tested during the summer sampling event, are listed in Table 2. The composite leachate for the samples from any emergency truck hauling will be analyzed for the parameter list in Table 3.

1. Parameter List

Samples collected by the vendor and any truck composite samples will be analyzed by Xcel Energy's Environmental Laboratory. The samples shall be analyzed for the parameters listed in Table 1.

2. Documentation

An NSP Ground Water Sampling Field Sheet shall be completed and submitted to Environmental Services after each sampling event (Refer to sample sheet in Appendix C).

3. Reporting Results

The results from the analysis of any leachate samples will be reported to the MPCA quarterly. A summary of the quarterly monitoring will be submitted in the Annual Operations Report. Environmental Services will be responsible for these reports. The reports will be submitted in accordance with the following schedule.

Spring by July 30
Summer by October 30
Autumn with Annual Report
Annual Report February 1
Annual Report January 31 – MCES

This report shall be submitted electronically to the MPCA with PDF copies of this report distributed to the following:

City of Red Wing, City Administrator (Kay Kuhlman)
City of Red Wing, Environmental Engineer (Robert Stark)
Goodhue County (William Root)
Red Wing Steam Plant (Chuck Kinney)
Environmental Services Manager, Water (Rick Rosvold)

4. Data Retention

Electronic copies of the results from the analysis for these samples will be maintained on Xcel Energy computer systems and will be sent to the distribution list for review. This information will be stored in the file identified as follows:

- ENV-Red WingADF
 - Reporting
 - Year
 - Leachate Reports

Table 1. Routine List of Leachate Parameters*
(Spring, Summer, Autumn)

<u>Parameter</u>	<u>Units</u>	<u>Detection Limit (mg/l)</u>
Alkalinity, Total	ppm. CaCO ₃	5.0
Aluminum, Total	ppm Al	
Ammonia, Nitrogen	ppm N	
Arsenic, Total	ppm As	0.01
Boron,	ppm B	0.1
Barium, Total	ppm Ba	0.04
BOD	ppm C	
Cadmium, Total	ppm Cd	0.005
Calcium, Total	ppm Ca	
Chloride	ppm. Cl	5.0
Chromium, Total	ppm Cr	0.01
COD	ppm C	
Copper, Total	ppm Cu	0.01
TDS		
Iron, Total	ppm Fe	0.05
Lead, Lead	ppm Pb	0.005
Magnesium, Total	ppm Mg	0.05
Manganese, Total	ppm Mn	0.01
Mercury, Total	ppm Hg	0.0005
Nickel, Total	ppm Ni	0.02
Nitrate + Nitrite, as N	ppm N	0.1
Potassium, Total	ppm K	0.1
Selenium, Total	ppm Se	0.01
Silver, Total	ppm Ag	0.01
Sodium, Total	ppm Na	1.0
Sulfate	ppm SO ₄	5.0
TSS		1.0
Tin, Total	ppm Sn	0.05
Zinc, Total	ppm Zn	0.02
Appearance (a)		
pH (b)		
Specific Conductance (b)		
Oxidation Potential (b) mV		
Temperature (c)		
Leachate Elevation (d)		

*From MN Rules Chapter 7035.2885 Subp. 16B.1

- (a) Visual observation, in field, noting conditions such as the following, if present: color, cloudiness, floating films, other liquid or gas phases, odor.
- (b) Two measurements: in the field, immediately after obtaining the sample, and in the laboratory.
- (c) One measurement in the field immediately after obtaining the sample.
- (d) As measured in MH-1, to the nearest 0.1 foot.

Table 2A. Extended Lists of Leachate Parameters*

Inorganics
(summer sampling event, every 5th year)
Cyanide

Semivolatile and Other Organic Parameters
(summer sampling event, every 5th year)
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(k)fluoranthene
Benzo(g,h,i)perylene
Chrysene
Hexachlorobenzene
Indeno(1,2,3,-cd)pyrene
Pyrene
Pentachlorophenol

Volatile Organic Parameters
(summer sampling event, every 5th year)
Acetone Vinyl Chloride

*From MN Rules Chapter 7035.2885 Subp 16B.2

Table 2B. Dioxin and Furans
(summer sampling event, every 5th year)

2,3,7,8-TCDD	
Tetrachlorodibenzodioxin	Tetrachlorodibenzofuran
Pentachlorodibenzodioxin	Pentachlorodibenzofuran
Hexachlorodibenzodioxin	Hexachlorodibenzofuran
Heptachlorodiabenzodioxin	Heptachlorodibenzofuran

Minnesota Rules Part 7035.2885, subpart 16.B requires dioxin and furan analysis "for at least two years, and thereafter at least every other year or on a schedule determined by the Commissioner." Because of past testing data, Xcel Energy is allowed to test for dioxins and furans on an every five year basis

Detection limits may vary due to the analytical procedure and equipment capabilities used by the laboratory.

A written report will be completed by the Environmental Services Senior Environmental Analyst.

Table 3. Routine List of Leachate Parameters for Discharge (MCES)
(Spring, Summer, Autumn, as needed)

Parameter	Units	Discharge		
		Detection Limit (mg/L)	MCES Limit (mg/L)	Red Wing Limit (mg/L)
Arsenic, Total	mg/L, As	0.01		
Cadmium, Total	mg/L, Cd	0.005	1.0	0.20
Chromium, Total	mg/L, Cr	0.01	6.0	2.80
COD	ppm, COD		500.0	450.00
Copper, Total	mg/L, Cu	0.01	4.0	3.38
Lead, Total	mg/L, Pb	0.005	1.0	0.40
Mercury, Total	ug/L, Hg	0.0005	0.002	0.10
Molybdenum, Total	mg/L, Mo			
Nickel, Total	mg/L, Ni	0.02	6.0	2.98
Selenium, Total	mg/L, Se	0.01		
Silver	mg/L, Ag			0.43
TSS	mg/L, TSS	1.0		
Zinc, Total	mg/L, Zn	0.02	6.0	2.61
Appearance (a)				
pH (b)	Units		6 - 9	
Specific Conductance (b)				
Temperature (c)				
Leachate Elevation (d)				

- (a) Visual observation, in field, noting conditions such as the following, if present: color, cloudiness, floating films, other liquid or gas phases, odor.
- (b) Two measurements: in the field, immediately after obtaining the sample, and in the laboratory.
- (c) One measurement in the field immediately after obtaining the sample.
- (d) As measured in MH-1, to the nearest 0.1 foot.

Detection limits may vary due to the analytical procedure and equipment capabilities used by the laboratory.

Table 4. Routine Parameter List (Leachate Leak Detection System)*
(Spring, Summer, Autumn)

<u>Parameter</u>	<u>Units</u>	<u>Detection Limit (mg/l)</u>
Alkalinity, Total	ppm CaCO ₃	5.0
Calcium, Dissolved	ppm Ca	5.0
Chloride	ppm Cl	5.0
Magnesium, Dissolved	ppm Mg	0.05
Manganese, Dissolved	ppm, Mn	0.01
Nitrate +Nitrite as N	ppm N	0.1
Potassium, Dissolved	ppm K	0.1
Sodium, Dissolved	ppm Na	1.0
Sulfate	ppm SO ₄	5.0
TDS		
TSS		
Appearance (a)		
pH (b)		
Specific Conductance (b)		
Temperature (c)		
Water Elevation (d)		

* Current Permit, expires Feb 1, 2016

*Note: A newly designed Environmental Services Chain-of-Custody form eliminates the need for Chestnut Lab performing lab temperature and lab appearance of leachate samples. MPCA provided written approval of this change to Xcel Energy on August 5, 1999.

- (a) Visual observation, in field , noting conditions such as the following, if present: color, cloudiness, floating films, other liquid or gas phases, odor.
- (b) Two measurements: in the field, immediately after obtaining the sample, and in the laboratory.
- (c) One measurement in the field, immediately after obtaining the sample.
- (d) As measured in the field before pumping or bailing, to the nearest 0.01 foot.

Detection limits may vary due to chemical composition of the leachate.

Annually, during the summer sampling event, the sample must be analyzed for the extended list of parameters as listed in Table 3.

**Table 4A. Extended Parameter List (Leachate Leak Detection System)*
(Summer Only)**

Parameter	Units	Detection Limit (mg/l)
Alkalinity, Total	ppm CaCO ₃	5.0
Aluminum, Dissolved	ppm Al	
Ammonia, Nitrogen	ppm N	
Arsenic, Total	ppm As	0.01
Boron,	ppm B	0.1
Barium, Dissolved	ppm Ba	0.04
BOD	ppm C	
Cadmium, Dissolved	ppm Cd	0.005
Calcium, Total	ppm Ca	1.0
Chloride	ppm C,	5.0
Chromium, Dissolved	ppm Cr	0.01
Copper, Dissolved	ppm CU	0.01
TDS		
Iron, Dissolved	ppm Fe	0.03
Lead, Dissolved	ppm Pb	0.005
Magnesium, Dissolved	ppm Mg	0.05
Manganese, Dissolved	ppm Mn	0.01.
Mercury, Dissolved	ppm Hg	0.0005
Nickel, Dissolved	ppm Ni	0.02
Nitrate + Nitrite as N	ppm N	0.1
Potassium, Total	ppm K	0.1
Selenium, Dissolved	ppm Se	.001
Silver, Dissolved	ppm Ag	0.01
Sodium, Total	ppm Na	1.0
Sulfate	ppm SO ₄	5.0
TSS		1.0
Tin, Dissolved	ppm Sn	0.05
Zinc, Dissolved	ppm Zn	0.01
Appearance (a)	pH (b)	Specific Conductance (b)
Temperature (c)	Lysimeter Fluid Elevation (d)	

*Current Permit, expires Feb 1, 2016

- (a) Visual observation, in field, noting conditions such as the following, if present: color, cloudiness, floating films, other liquid or gas phases, odor.
- (b) Two measurements: in the field, immediately after obtaining the sample, and in the laboratory.
- (c) One measurement in the field, immediately after obtaining the sample.
- (d) Measured at the upper and lower lysimeter monitoring points to the nearest 0.01 foot.

Detection limits may vary due to the analytical procedures and equipment capabilities used at the laboratory.

V. Quarterly Sedimentation Basin Monitoring

The site currently has two sedimentation basins. During construction of the South Phase of the Central cell two additional sedimentation basins will be constructed and the existing west sedimentation basin will be eliminated. Refer to the Design Report of the permit application for a description and location of the sedimentation basins. The discharge from the each sedimentation basin will be sampled and analyzed according to the requirements in the NPDES permit No. MNR0533X9.

Table 5. Storm Water Routine Parameter List*
(Winter, Spring, Summer, Autumn)

Parameter	units	Detection (mg/l)	Discharge (mg/L)
Total Suspended Solids, TSS	mg/L TSS	1.0	100.0
Iron, Total, Fe	mg/L Fe	1.0	1.0

Appearance (a)
pH (b)
Specific Conductance (b)
Temperature (c)

- (a) Visual observation, in field, noting conditions such as the following, if present: color, cloudiness, floating films, other liquid or gas phases, odor.
- (b) Two measurements: in the field, immediately after obtaining the sample, and in the laboratory.
- (c) One measurement in the field, immediately after obtaining the sample.

Detection limits may vary due to the analytical procedures and equipment capabilities used at the laboratory.

The results from these measurements will be reported to the MPCA in a quarterly report. Environmental Services Environmental Analyst will be responsible for these reports. The quarterly reports will be submitted by the 21st of the month after the end of the quarter per the NPDES permit. All results are reported to the MPCA, if there is no discharge the report will so state.

Appendix A

Permit Documentation

Landfill Leachate Treatment Agreement

LANDFILL LEACHATE TREATMENT AGREEMENT

between

City of Red Wing
(Name of Municipality)

and

Northern States Power Company dba Xcel Energy
(Name of Landfill Permittee)

City of Red Wing and Northern States Power Company dba Xcel Energy
(Name of Municipality) (Name of Landfill Permittee)

agree to the following:

1. City of Red Wing (hereinafter called the Municipality) shall accept the discharge from Northern States Power Co. dba Xcel Energy Refuse Derived Fuel Ash Landfill located at 1502 Bench Street and shall provide treatment of the volume and quantities of waste listed in Part-7 of this agreement.
Northern States Power Company dba Xcel Energy (hereinafter called Landfill Permittee) (Name of Landfill Permittee) shall not exceed the volume and concentrations of waste as listed in the MPCA approved Leachate Management and Contingency Plan.
3. The Landfill Permittee shall comply with all applicable Minnesota Pollution Control Agency (MPCA) and U.S. Environmental Protection Agency (EPA) standards and requirements relating to the discharge, including any pretreatment requirements.
4. The Landfill Permittee shall comply with all applicable local ordinances and sewer service agreements established or entered into by the Municipality and nothing in this agreement shall be construed to exempt the Landfill Permittee from the requirements of applicable local ordinances and sewer service agreements.
5. The Landfill Permittee shall comply with all applicable fee systems for the sewer services and/or treatment system user costs.
6. The leachate produced by the ash monofills serving the Red Wing municipal incinerator and the Red Wing Ash Disposal Facility may be discharged at the same location, but not simultaneously.
7. The Landfill Permittee daily discharges can be no greater than 30,000 gpd, unless other arrangements are made with the City of Red Wing. The maximum allowable discharge rate for the tank truck is 150 gpm. The maximum number of gallons per discharge event is 6,000 gallons.

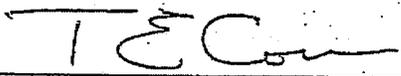
8. The leachate will be discharged between the hours of 7:00 AM and 9:00 PM only.

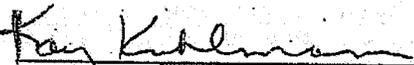
9. This Agreement may be modified in writing upon consent of the parties if such modification does not cause the municipality to violate or exceed any of its National Pollutant Discharge Elimination Systems (NPDES) Permit limitations and conditions and is approved in writing by the MPCA.

10. This agreement shall remain in effect until March 22, 2004, which is the expiration date of the MPCA permit. By letter the Landfill Permittee may request and extension to continue the Landfill Leachate Treatment Agreement until the re-issuance of the MPCA permit.

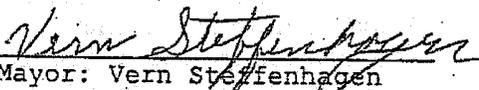
Northern States Power Co. dba Xcel Energy
Name of Landfill Permittee

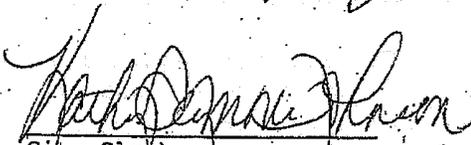
City of Red Wing
Name of Municipality


Authorized Representative's Signature
Manager, Water Quality


Authorized Representative's Signature
City Administrator

5-30-2002
Date:


Mayor: Vern Steffenhagen


City Clerk

June 10, 2002
Date:

Plat & Parcel #55-735-0051



Date March 23rd , 2004

Xcel Energy
Mr. Manuel Castillo
414 Nicollet Mall
Minneapolis, MN 55401-1993

Dear Mr. Castillo:

On March 22nd, 2004 the Red Wing City Council authorized Xcel Energy to discharge the leachate from their ash landfill into Red Wing's sewer system for another year. The current agreement will be in place until March 22, 2005. Xcel's contractor will continue to discharge in the designated location on Industrial Park Road. The disposal fee will remain at \$4.00 per thousand gallons for this term. Xcel will continue to fax the amount of leachate discharged monthly to the City of Red Wing at 651-388-0243 in the attention of Kathy Cordes. The discharge report would have the daily discharge amount for each day of the month.

If there are any questions or additional information is required, please contact me at 651.385-3651.

Sincerely,

Dan Hemmah
Deputy Director Public Works

Denny Tebbe, Public Works Director

510-3632

Billing Process

The "process" for reporting and billing is in place. Mary Woodward from Xcel Energy's Coal Supply Dept. has set up Purchase Order #8875FB (W.O. # 152885) with the City of Red Wing to purchase leachate treatment services. This P.O. references the Leachate Treatment Agreement. Each month, Mary Woodward faxes the monthly gallons discharged to the City. The discharge data is provided by Landfill Services' invoice amounts. Arthur Zimmerman (Engineer in charge of landfill operations) also reviews the invoices. The City bills the Xcel Energy Coal Supply Dept. on a quarterly basis for incurred treatment costs.

Prepared by Xcel Energy's Coal Supply Dept. / May 29, 2002

MCES Industrial Discharge Permit 2197

From: Industrial Waste and Pollution Prevention Section

Direct Dial: (651) 602-4715 Fax Number: (651) 602-4730

E-Mail: michael.flaherty@metc.state.mn.us

February 27, 2015

To: Roger Clarke, Manager Waste & Remediation

NSP - Red Wing

414 Nicollet Mall MP4

Minneapolis, MN 55401-1993

RE: INDUSTRIAL DISCHARGE PERMIT (SPECIAL DISCHARGES) NUMBER 2197

FOR THE SITE LOCATED AT Bench St

Red Wing, MN 55066

TRANSMITTED HERewith is the reissued Industrial Discharge Permit (Special Discharges) for the above referenced site. This Permit has been reissued by Metropolitan Council Environmental Services for the period specified, and it supercedes the previous Permit. The discharge of landfill leachate, contaminated groundwater or special industrial waste into the Metropolitan Disposal System is hereby allowed, subject to any and all provisions of the Waste Discharge Rules for the Metropolitan Disposal System, and this Permit.

THE PERMIT contains Discharge Limitations, Monitoring and Reporting Requirements, Special Conditions regarding connected and nonconnected sites, General Permit Conditions, and Specific Permit Conditions. Any failure to submit the required Special Discharge Reports is a violation of this Permit. The Permit Number shall be included on all correspondence regarding this Permit.

THE PERMITTEE is reminded that reissuance of this Permit is not automatic; the Permittee must apply for reissuance at least 60 days prior to the Permit expiration date. If questions arise, contact Michael Flaherty at (651) 602-4715 or via e-mail at michael.flaherty@metc.state.mn.us.

Sincerely,



Robert Nordquist, P.E.
Industrial Waste Manager
MCES Industrial Waste & Pollution Prevention Section

Enclosure

350 Robert Street North | St. Paul, MN 55101-1993
Phone: 651 602 1800 | Fax: 651 602 1550 | TTY: 651 281 3904 | metcouncil.org
414 Nicollet Mall, Minneapolis, MN 55401



METROPOLITAN COUNCIL ENVIRONMENTAL SERVICES (MCES)

INDUSTRIAL DISCHARGE PERMIT
SPECIAL DISCHARGES

Pursuant to the provisions of Minnesota Statutes Chapter 473 as amended, the Waste Discharge Rules for the Metropolitan Disposal System (MDS), and the MCES Leachate and Contaminated Groundwater Program, permission is hereby granted to

NSP - Red Wing

414 Nicollet Mall, RS-7

Minneapolis, MN 55401-1993

for the discharge of ash landfill leachate

from Bench St, Red Wing, MN 55066

into the Metropolitan Council's Metropolitan Wastewater Treatment Plant.

This permit is granted in accordance with the application previously submitted and in consideration of the plans, specifications, and data contained in the application.

Discharge Limitations, Monitoring and Reporting Requirements, Special Conditions regarding connected and non-connected sites, and Specific Permit Conditions are contained in the following sections of this Permit.

EFFECTIVE DATE: March 01, 2015

EXPIRATION DATE: February 28, 2018

Issued by METROPOLITAN COUNCIL ENVIRONMENTAL SERVICES

L. Rogacki

Feb 27, 2015

General Manager, or duly authorized representative
Larry Rogacki, Assistant General Manager
Support Services Business Unit

Date

METROPOLITAN COUNCIL ENVIRONMENTAL SERVICES (MCES)

A. Discharge Limitations

1. Local Pretreatment Standards

Parameter	Standard (mg/L)
Cadmium (Cd)	1.0
Chromium (Cr)	6.0
Copper (Cu)	4.0
Cyanide - total (CN)	4.0
Lead (Pb)	1.0
Mercury (Hg)	0.002
Nickel (Ni)	6.0
Zinc (Zn)	6.0
pH - maximum (Standard Units)	11.0
pH - minimum (Standard Units)	5.0

Local pretreatment standards are for metals and cyanide are the maximum for any 24 hour period.

pH standards are continuous and apply at all times.

2. Additional Limitations:

The following limits apply to special discharges:

Concentration of any one toxic organic parameter	3 mg/L
Combined total toxic organics parameter concentration	10 mg/L
2,3,7,8-Tetrachloro-dibenzo-p-dioxin	<0.000002 mg/L
Polychlorinated Biphenyls (PCBs)	<0.0002 mg/L

METROPOLITAN COUNCIL ENVIRONMENTAL SERVICES (MCES)

A. Discharge Limitations (continued)

3. Prohibited Waste Discharges:

Prohibited Waste Discharges are specified in Waste Discharge Rule 406 and include, but are not limited to the following: (a) Flammable, explosive, and corrosive wastes, gasoline, fuel oil, lubricating oil, hydraulic oil, motor oil, or grease; (b) Wastes that are likely to obstruct the flow within public sewers: grease, fat or oil of animal or vegetable origin, solid wastes, garbage, guts, bones, ash, sand, rags, lime, metal, wood, plastic, glass, or yard wastes; (c) Wastes that are likely to cause interference, pass-through or operational problems: slug discharges, toxic chemicals, poisons, dyes, or inks; (d) Wastes that are likely to cause a public nuisance: noxious, malodorous, or foam producing products; (e) Cooling water, runoff, and other unpolluted water; (f) Hazardous wastes, as defined by Minnesota Statutes; and (g) Waste generated outside of the Metropolitan Area, unless prior approval is obtained from MCES.

B. Monitoring and Reporting Requirements:

1. Sample Collection

Representative wastewater sample(s) shall be collected from the following sample locations. See Attachment A for sample collection frequency.

SP-01: Leachate collection system storage tank.

A representative sample shall be collected from the leachate holding tank and/or from the tanker truck.

2. Parameters

Chemical analysis, in accordance with Waste Discharge Rule 216, of the sample(s) representing the waste discharged through the specific sample location(s), shall be performed for the following parameters:

See Attachment A

3. Reporting Requirements

a) Schedule:

The Permittee is required to submit complete Special Discharge Reports to MCES 1 times per year according to the following schedule:

<u>Reporting Period</u>	<u>Reports Due in MCES Office by</u>
January 1 - December 31	January 30

METROPOLITAN COUNCIL ENVIRONMENTAL SERVICES (MCES)

Reports shall be submitted each reporting period until this Permit is terminated, whether or not a discharge has occurred during a given reporting period.

b) Report Contents:

A complete report consists of an MCES Special Discharge Report form and a copy of the laboratory data sheets for all samples collected for this discharge during the reporting period. The total discharge volume for the reporting period shall be reported. Other pertinent information shall also be included, such as operational problems and changes, etc. The Permittee or a designated authorized representative shall sign the Special Discharge Report.

C. Special Conditions for Discharge Sites Not Connected to Public Sewers

1. Discharge Location

Permitted discharge for sites not connected to public sewers shall be transported by an MCES-permitted Liquid Waste Hauler to the Metropolitan Plant Liquid Waste Receiving Facility in St. Paul. As defined in Waste Discharge Rule 004.28, public sewers include MCES interceptors and all community-owned sanitary and combined sewers that are tributary to the MDS.

2. Load Charge

Transported discharges are be subject to a Load Charge which includes a volume component, a strength component, and a facilities cost component. The volume component is based on the volume rate that MCES charges all communities served. The strength component is based on volume, a Chemical Oxygen Demand concentration in excess of 500 milligrams per liter (mg/L) and a Total Suspended Solids concentration in excess of 250 mg/L. The facilities cost component includes debt service for capital costs for new or upgraded disposal sites, and associated operating costs. The Load Charge recovers the full cost of treating hauled liquid waste discharged into MCES facilities. The Out of Service Area Load Charge includes an additional service fee, determined by the Regional Administrator. The MCES rates used to calculate the load charge components are adjusted annually.

D. Special Conditions for Discharge Sites Connected to Public Sewers

1. Connection Approval

A Permittee making a connection to a community-owned sewer or an MCES interceptor shall obtain approval from the appropriate authority prior to making the connection. Billing for sewer use shall also be arranged with the community.

2. Volume Measurement

The Permittee shall install and maintain an appropriate discharge volume metering device, in accordance with Waste Discharge Rules 213 and 215.

METROPOLITAN COUNCIL ENVIRONMENTAL SERVICES (MCES)

D. Special Conditions for Discharge Sites Connected to Public Sewers (continued)

3. Temporary Capacity Charge (TCC)

Permitted sites that are connected to public sewers will be subject to a Temporary Capacity Charge for temporary use of reserve capacity in the MDS.

E. General Permit Conditions

1. All discharges into public sewers by the Permittee shall be in accordance with applicable provisions of the Waste Discharge Rules for the MDS, the MCES Leachate and Contaminated Groundwater Program and this Permit.
2. The Permittee shall not knowingly make any false statement, representation or certification in any record, report, plan or other document submitted to MCES.
3. The Permit shall not release the Permittee from any liability, duty or penalty imposed by local, state or federal statutes, regulations, ordinances or license requirements regarding waste disposal.
4. The Permittee shall take all reasonable precautions to minimize all accidental discharges including prohibited slugs, spills and bypasses. Plans for the prevention and control of accidental discharges shall be submitted to the Industrial Waste & Pollution Prevention Section for approval within a specified period of time when required by MCES. **In the event of any significant accidental discharge, spill or bypass, the Permittee shall IMMEDIATELY notify the Minnesota State Duty Officer at (651) 649-5451 and report the facility address, and other pertinent information.** In accordance with Waste Discharge Rule 412, for sites connected to public sewers, the Permittee shall post a permanent notice in a prominent place advising employees how to notify the Minnesota State Duty Officer in the event of an accidental or prohibited slug discharge.
5. The Permittee shall notify the Industrial Waste & Pollution Prevention Section within 24 hours of becoming aware of any violation of the Discharge Limitations in Section A. of this Permit.
6. The Permittee shall pay applicable Permit fees, temporary capacity charges, Strength Charges, Load Charges, self-monitoring report late fees and other cost recovery fees assessed by MCES.
7. In accordance with Waste Discharge Rule 211, the Permittee shall not assign or transfer an Industrial Discharge Permit (Special Discharges) to a new owner, without written approval of MCES.

METROPOLITAN COUNCIL ENVIRONMENTAL SERVICES (MCES)

E. General Permit Conditions (continued)

8. In accordance with Waste Discharge Rule 214, the Permittee shall unconditionally allow MCES personnel to enter the Permittee's premises for the purposes of inspection, monitoring, records review or any other actions, needed to verify information received by MCES or determine compliance with the Waste Discharge Rules and this Permit. The Permittee shall not place conditions upon entry of MCES personnel to the Permittee's premises. In the event that an employee of MCES signs any document agreeing to conditions of entry, including, but not limited to confidentiality of information, this Permit supersedes any such agreement.
9. The Permittee shall retain its waste disposal records, in accordance with Waste Discharge Rule 214, for a period of not less than three years.
10. The laboratory reports for all wastewater monitoring conducted during each reporting period, at the point of discharge into public sewers, shall be submitted with the Special Discharge Report for that period. Reports must be submitted each reporting period until this Permit is terminated. Sample collection and analytical methods shall meet EPA protocol established in 40 CFR Part 136.
11. The Permittee shall report any operational changes or practices which differ from those described in the original Special Discharge Permit application, including changes in pretreatment system design or operation, or rate of discharge. The Permittee shall also notify the Industrial Waste & Pollution Prevention Section within 48 hours if the discharge is temporarily or permanently discontinued.
12. This Permit supercedes any MCES discharge approvals or Industrial Discharge Permits previously issued for the discharge of landfill leachate, contaminated groundwater or special industrial waste from this site into the Metropolitan Disposal System.
13. This Permit is not exclusive. This Permit shall not release the Permittee from conditions set forth by the Minnesota Pollution Control Agency, Minnesota Department of Health, Minnesota Department of Natural Resources or the community in which the site is located.
14. The Permittee shall be subject to civil liability as a result of discharges which violate the Waste Discharge Rules, applicable federal pretreatment standards or requirements, or any requirement or condition contained in this Permit. Further, any violation may also result in the Permittee being subject to civil and/or criminal penalties in the amount of \$1,000 per day, 90 days imprisonment, or both.
15. Information and data that Permittees submit to MCES shall be available to the public as required by Waste Discharge Rule 221, the Minnesota Government Data Practices Act, Minnesota Statutes, chapter 13, 40 CFR part 403.14 or any other applicable law. The Permittee may make a written request that certain submitted information remain confidential. If MCES determines that this information is eligible for classification as confidential, then the information will not be made available to the public. Information determined to be confidential will remain available only to MCES or any other public agency with the authority to view such information. Information that MCES needs to determine applicable regulations, compliance with the Waste Discharge Rules, or characteristics of the wastewater discharge cannot be deemed confidential.

METROPOLITAN COUNCIL ENVIRONMENTAL SERVICES (MCES)

F. Specific Permit Conditions

1. Metropolitan Council Environmental Services has approved the discharge of wastewater from the Permittee into the Metropolitan Disposal System on a contingency basis. The discharge is subject to all appropriate operational and financial conditions for Out-of-Service Area industrial users.
2. Any industrial waste hauled to the Metropolitan Disposal System (MDS) shall be transported by an MCES-permitted Liquid Waste Hauler to the Metropolitan Plant Liquid Waste Receiving Facility in St. Paul. The use of a 4" minimum inside diameter hose is required when discharging at MCES disposal sites. MCES reserves the right to restrict the discharge of industrial waste to specific time periods in order to avoid system overloads, treatment plant upsets or violations.
3. Daily records of loads hauled to the Metropolitan Disposal System shall be maintained by the Permittee and a summary submitted with each Special Discharge Report. At a minimum, the summary shall contain a listing of the date of each load hauled, the name of the Liquid Waste Hauler and the total gallons per load.
4. MCES reserves the right to impose lower limitations than those listed in Sections A.1 and A.2 if the discharge contributes to a treatment plant upset, a violation of the MCES treatment plant's NPDES permit, or a violation of applicable sewage sludge rules.
5. The Permittee may request exemption from a limitation in Section A.2 for individual parameters that are regulated solely because they exhibit a hazardous waste characteristic (ignitability, corrosivity, oxidativity or reactivity as defined in Minnesota Rules 7045.0131). Such an exemption may be granted only upon demonstration by the Permittee that the leachate or condensate containing that parameter does not exhibit the specific characteristic for which the parameter is defined as hazardous.
6. The quantity of wastewater discharged shall not exceed 40,000 gallons per day between the hours of 7:00 AM and 4:00 PM Monday through Friday. MCES reserves the right to place further restrictions at any time on the volume and/or accessibility to the disposal site, if deemed necessary.

METROPOLITAN COUNCIL ENVIRONMENTAL SERVICES (MCES)

Attachment A

Sampling Requirements from Section B.2.

Sampling Location: SP-01, Leachate collection system storage tank.

Analytical Method (1)	Analyte Description	Minimum Sample Collection Frequency (2)
EPA 150.1	pH	One Grab Sample Per Year
EPA 160.2	Total Suspended Solids	One Grab Sample Per Year
EPA 410.4	Chemical Oxygen Demand	One Grab Sample Per Year
EPA 537	PERFLUORINATED COMPOUNDS (PFCs) (3) <i>Perfluorobutane Sulfonate (PFBS)</i> <i>Perfluorobutanoic acid (PFBA)</i> <i>Perfluorodecanoic acid (PFDA)</i> <i>Perfluorododecanoic acid (PFDoA)</i> <i>Perfluoroheptanoic acid (PFHpA)</i> <i>Perfluorohexane Sulfonate (PFHxS)</i> <i>Perfluorohexanoic acid (PFHxA)</i> <i>Perfluorononanoic acid (PFNA)</i> <i>Perfluorooctane Sulfonamide (PFOSA)</i> <i>Perfluorooctane Sulfonate (PFOS)</i> <i>Perfluorooctanoic acid (PFOA)</i> <i>Perfluoropentanoic acid (PFPeA)</i> <i>Perfluoroundecanoic acid (PFUnA)</i>	One Grab Sample Per Year

- (1) All samples shall be collected, preserved and analyzed in accordance with the procedures and methods established above and/or in 40 Code of Federal Regulations Part 136 and amendments.
- (2) Sampling and/or analysis is not required during reporting periods when there is no discharge to the Metropolitan Disposal System.
- (3) Perfluorinated compounds (PFCs) shall be monitored by EPA Method 537 or by any method that has been certified by the Minnesota Department of Health.

Appendix B

Maximum Daily Emergency (via Truck) Discharge Rates

RED WING LEACHATE MAXIMUM DISCHARGE RATES (IN GALLONS PER HOUR)*

PARAMETER	10000	9000	8000	7000	6000	5000	4000	3000	2000	1000
Arsenic mg/L	0.527	0.614	0.700	0.795	0.920	1.054	1.350	1.770	2.600	5.270
Barium mg/L	4.100	4.850	5.600	6.350	7.370	8.200	10.800	14.000	21.000	41.000
Boron mg/L	2.799	3.340	3.880	4.420	5.038	5.598	7.300	9.600	14.000	27.990
Cadmium mg/L	0.213	0.256	0.298	0.340	0.383	0.426	0.600	0.790	1.000	2.130
Chromium mg/L	0.050	0.058	0.066	0.074	0.085	0.100	0.120	0.160	0.230	0.400
Copper mg/L	0.040	0.043	0.051	0.057	0.064	0.070	0.120	0.180	0.200	0.350
Lead mg/L	0.630	0.755	0.879	1.004	1.130	1.260	1.700	2.250	3.400	6.300
Manganese mg/L	10.000	12.000	14.000	16.000	18.000	20.000	22.000	25.000	28.000	33.000
Mercury mg/L	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Nickel mg/L	2.895	3.383	3.850	4.360	5.050	5.790	7.400	9.800	14.600	28.950
Selenium mg/L	0.035	0.038	0.040	0.046	0.052	0.060	0.065	0.080	0.130	0.240
Silver mg/L	0.02	0.021	0.023	0.023	0.026	0.03	0.035	0.04	0.06	0.12
Sulfates mg/L	2465	2880	3300	3730	4300	4930	6300	8300	12300	24650
Zinc mg/L	0.520	0.570	0.620	0.700	0.800	0.900	1.100	1.400	2.100	4.230

*From 1991 Revision by SEC Donohue

Appendix C

Record Forms

Sample Red Wing Landfill Log

Daily Log
Red Wing Ash Landfill

DATE: _____

Operator: _____

Number of Loads Hauled	Ash			
Quantity Hauled	Tons			
Quantity of Cover Placed	Tons			
Amount of Rain /Snow	Inches			
Area Ash Placed:	E Cell	W Cell	N Central Cell	S Central Cell

Meter Readings	Tank	_____	Gallons
	East Cell Primary	_____	Gallons
	Center Cell	_____	Gallons

Comments:

Operator Inspection of Site

Weekly Inspection RED WING LANDFILL

WEEKLY INSPECTION : _____		INSPECTOR : _____		
INSPECTION - DATE : _____				
ITEM	OKAY	REMEDY REQUIRED		
Access Controls (Fence, gates)				
Vandalism				
Permit Signage				
Litter Outside Active Area				
Vegetative Growth				
Erosion on Side Slopes				
Erosion on Access Roads				
Excessive Settlement				
Liner or Cap Damage				
Animal Burrows/Damage				
Contact Water Contained				
Leachate System Alarms				
Leachate Pumps Working				
Culvert Inlet/Outlets Open				
Pond Outfalls Working				
Fugitive Dust (Roads, ash)				
Noise Complaints				
Fugitive Dust (Roads, ash)				
Weekly Equipment Status	Hour Meter	Maint		
Dozer				
Compactor				
Truck				
Loader				
Weekly Pump Status	working	Volume	Hours	Inches of water
Tank				
E. Cell Primary				
E Cell Secondary				
Center Cell Valve				
MH-1				
MH-Q				

Sample Quarterly Leachate Report



414 Nicollet Mall
Minneapolis, Minnesota 55401-1993

April 8, 2015

Dan Azmodt
Metro District
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55122-4194

Re: Red Wing RDF Ash Disposal Facility's Winter Quarter Leachate Monitoring Report/ Permit SW-307

Dear Mr. Azmodt:

As per monitoring and reporting requirements of permit SW-307 for the Red Wing ash disposal facility, Xcel Energy hereby submits results from the chemical analysis of the Lysimeter, and Leachate samples. The samples were collected during the winter quarter of 2015. For the quarter the volume differential between the primary and secondary leachate collection systems was below the set standard of 3%. In addition to the data analysis, the Laboratory Report is included with the dates of analysis. Included is the required 5 year PFC leachate analysis.

The samples were collected from the facility's leachate collection system, and were analyzed by Xcel Energy's environmental laboratory.

Please call if you have any questions concerning the report.

Sincerely,

Manuel Castillo
Sr. Environmental Analyst
612-330-6506

Attachments:

cc:	Megan Horst	MPCA
	Kay Kulhman	City Administrator, Red Wing
	Robert Stark	Environmental Engineer, Red Wing
	Ron Rosenthal	City Engineer, Red Wing
	Michael Wozniak	Goodhue County

bcc: Roger Clarke MP4
Chuck Donkers MP4
Ron Dettman MP\$
Steve Davis Chestnut Lab
Chuck Kinney Red Wing Plant
ES Record Center

Operator Certification

I certify that this document and all attachments were prepared under my direction or supervision under a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. All collection, and analysis protocols were followed as required by Minnesota Rules, and the Leachate Management Plan.

NAME Manuel Castillo	TITLE Sr. Environmental Analyst	DATE 4/8/2015
MAILING ADDRESS Xcel Energy Environmental Services 414 Nicollet Mall MP4 Minneapolis, MN 55401		PHONE NUMBER (612) 330-6506
SIGNATURE 		

Sampling Personnel Certification - Leachate

I certify that the leachate sampling performed on February 9, 2015, at the Xcel Energy Red Wing ADF Facility was performed under my direction or supervision under a system designed to assure that qualified personnel collect leachate samples for laboratory analysis. All collection protocols were followed as required by Minnesota Rules, and the Leachate Management Plan.

Name: Timothy Tolle MacDonald	Title: Manager, Field Services Dept.	Date: February 27, 2015
Mailing Address: Interpoll Laboratories, Inc. 4500 Ball Road NE Circle Pines, Minnesota 55014		Phone Number: (763) 786-6020 Ext. 29
Signature: 		

Comments for Deviations from Sample Plan:

Red Wing 1st Quarter
Leachate Analysis 2015

Lab Id			MAB0097-04	
Sample Description			Leachate-SW	MLCL
Date Sampled			2/9/2015	
Parameter	Method	Units		
Alkalinity, Total	EPA 310.1	mg/L CaCO3	156	
Aluminum	EPA 200.7	ug/L Al	<50	
Ammonia Nitrogen	ORION	mg/L N	26.5	
Arsenic	EPA 200.8	ug/L As	5.43	750
Barium	EPA 200.7	ug/L Ba	17100	30000
Biochemical Oxygen Demand	EPA 405.1	ug/L O2	8100	
Boron	EPA 200.7	ug/L B	357	9000
Cadmium	EPA 200.7	ug/L Cd	<50	60
Calcium	EPA 200.7	mg/L Ca	14800	
Chemical Oxygen Demand	Hach Ampule	mg/L O2	4340	
Chloride	EPA 300.0	mg/L CL	41700	
Chromium	EPA 200.7	ug/L Cr	<50	1500
Copper	EPA 200.7	ug/L Cu	<50	15000
Iron	EPA 200.7	ug/L Fe	1250	
Lead	EPA 200.8	ug/L Pb	<5	300
Magnesium	EPA 200.7	ug/L Mg	141000	
Manganese	EPA 200.7	ug/L Mn	35400	9000
Mercury	EPA 245.1	ug/L Hg	<0.80	30
Nickel	EPA 200.7	ug/L Ni	<50	2100
Nitrate + Nitrite	EPA 353.2	ug/L N	<250	
pH (Lab)	EPA 150.1		6.87	
Potassium	EPA 200.7	ug/L K	4700000	
Selenium	EPA 200.8	ug/L Se	<5.00	300
Silver	EPA 200.7	ug/L Ag	37.8	300
Sodium	EPA 200.7	ug/L Na	10500000	
Specific Conductance	EPA 120.1	umhos/cm	75900	
Sulfate	EPA 300.0	ug/L SO4	100000	
Tin	EPA 200.8	ug/L Sn	<5	60
Total Dissolved Solids	EPA 160.1	mg/L	70600	
Total Suspended Solids	EPA 160.2	mg/L	19.6	
Zinc	EPA 200.7	ug/L Zn	<50	21000
Sum of Anions			1180	
Sum of Cations			1330	
Calculate Cation & Anion Balance			5.98%	
Field Appearance			none	
Field pH			5.58	
Specific Conductance			80800	
Temperature@			17.2	
Leachate Elevation (ft)			19.1	

Negative numbers are less than the RL (Lab Reporting Limit)

Red Wing 1st Quarter 2015
Lysimeters Analysis

Lab Id			MAB0097-02	MAB0097-03
Sample Description			LYS-3	LYS -A
Date Sampled			Dry	2/9/2015
				2/9/2015
Parameter	Method	Units		
Alkalinity, Total	EPA 310.1	mg/L CaCO3	168	470
Aluminum	EPA 200.7	ug/L Al		
Ammonia Nitrogen	ORION	ug/L N		
Arsenic	EPA 200.8	ug/L As		
Barium	EPA 200.7	ug/L Ba	14.1	84.2
Biochemical Oxygen Demand	EPA 405.1	mg/L O2		
Boron	EPA 200.7	ug/L B		
Cadmium	EPA 200.7	ug/L Cd		
Calcium	EPA 200.7	mg/L Ca	21.3	295
Chemical Oxygen Demand	Hach Ampule	mg/L O2		
Chloride	EPA 300.0	ug/L CL	4890	129000
Chromium	EPA 200.7	ug/L Cr		
Copper	EPA 200.7	ug/L Cu		
Iron	EPA 200.7	ug/L Fe		
Lead	EPA 200.8	ug/L Pb		
Magnesium	EPA 200.7	ug/L Mg	10100	100000
Manganese	EPA 200.7	ug/L Mn	<50	<50
Mercury	EPA 245.1	ug/L Hg		
Nickel	EPA 200.7	ug/L Ni		
Nitrate + Nitrite	EPA 353.2	ug/L N	1500	2210
pH (Lab)	EPA 150.1		8.37	7.32
Potassium	EPA 200.7	ug/L K	43600	4370
Selenium	EPA 200.8	ug/L Se		
Silver	EPA 200.7	ug/L Ag		
Sodium	EPA 200.7	ug/L Na	23600	13400
Specific Conductance	EPA 120.1	umhos/cm	362	1790
Sulfate	EPA 300.0	ug/L SO4	7210	502000
Tin	EPA 200.8	ug/L Sn		
Total Dissolved Solids	EPA 160.1	mg/L	228	1390
Total Suspended Solids	EPA 160.2	mg/L	<4	19.6
Zinc	EPA 200.7	ug/L Zn		
Sum of Anions			3.75	23.6
Sum of Cations			4.04	23.6
Calculate Cation & Anion Balance			3.72%	0.00%
Field Apperance			Clear	Clear
Field pH			6.99	6.87
Specific Conductance			430	2043
Temperature@			6.1	5.1
Leachate Elevation (ft)			66.22	31.5

Negative numbers are less than the RL (Lab Reporting Limits)

Red Wing
1st. Quarter 2015
Head Measurement

Winter

2/9/2015

Feet

Manhole 1	0.55
Manhole U	0.48



Minneapolis Testing Laboratory
1518 Chestnut Ave N
Minneapolis, MN 55043
Certification #MN-027-053-197
WI-999071150
Christine Keefe, Supervisor (612) 630-4506

20 February 2015
Charles A Donkers
Environmental Services-Water Minneapolis
250 Marquette Plaza
Minneapolis, MN 55401
RE: Red Wing Leachate -1st Quarter

cc:

Enclosed are the results of analyses for samples received by the laboratory on 02/10/2015 08:15. If you have any questions concerning this report, please feel free to contact me.

I certify that this analysis report was prepared under my direction or supervision under a system designed to assure that qualified personnel analyzed the submitted samples. All protocols for analysis were followed as required by Minnesota Rules and the Applicable Management Plan.

Sincerely,

Steve Davis
Project Manager

Sampling Personnel Certification - Leachate

I certify that the leachate sampling performed on February 9, 2015, at the Xcel Energy Red Wing ADF Facility was performed under my direction or supervision under a system designed to assure that qualified personnel collect leachate samples for laboratory analysis. All collection protocols were followed as required by Minnesota Rules, and the Leachate Management Plan.

Name: Timothy Tolle MacDonald	Title: Manager, Field Services Dept.	Date: February 27, 2015
Mailing Address: Interpoll Laboratories, Inc. 4500 Ball Road NE Circle Pines, Minnesota 55014		Phone Number: (763) 786-6020 Ext. 29
Signature: 		

Comments for Deviations from Sample Plan:

2/19/15

0800 Prep / driving

FB Bank

Sampled: Lys A

Q

Leachate SWM MEGS

+ 5 year permits + PACS

Static DTR

MH-U ~~5.5~~ 5.5

MH-V 100.45 101

Lys - A 66.22 67.4

Lys - Q 31.50 31.9

Leachate 191.00

* 51.0

1530 Pace Samples delivered

1600 Fuel Check-out

1700 PCLs FedEx (1 M)

2/19/15 XCEL samples delivered (1 hr)

Site/Well Information

Unique Well Number: _____	Site Name: XCEL Red Wing
Well Common Name: <u>LYS A</u>	SW Permit: _____
Casing Diameter (in): _____	Water Column (ft): _____
Well Depth (ft): _____	Vol./Reading (gal): _____
Pump Rate (gpm): _____	Vol. Interval (min): <u>#DIV/0!</u>
Pump Type: _____	Volume Purged: <u>#DIV/0!</u>
Static Depth (ft) (1st): _____	Purged Water Column (ft): _____
Static Depth (ft) (2nd): _____	# of Volumes Removed: _____
Static Depth (ft) (Final): _____	
Start Time: _____	Sample Time: <u>13:00</u>
Date: _____	Date: <u>2/9/15</u>

Stabilization / Recovery Data

	1st/initial	2nd	3rd	4th	5th/recovery
Time (hours)	<u>#DIV/0!</u>	<u>#DIV/0!</u>	<u>#DIV/0!</u>	<u>#DIV/0!</u>	<u>#DIV/0!</u>
Temperature (deg. C)					6.1
Conductivity (umhos/cm)					430
Dissolved Oxygen (mg/L)					7.2
pH (Std. Units)					6.99
Turbidity (NTU)					17.1
Eh (mV)					232.0

Appearance

Color	<u>None</u>	Phases	<u>None</u>
Odor	<u>None</u>	Turbidity	_____

Natural Attenuation Field Results

Fe II (mg/L)	_____	CO2 (mg/L)	_____
Mn II (mg/L)	_____	CaCO3 (mg/L)	_____
H2S (mg/L)	_____		_____

Comments

Site/Well Information

Unique Well Number: _____	Site Name: <u>XCEL Red Wing</u>
Well Common Name: <u>LYS Q</u>	SW Permit: _____
Casing Diameter (in): _____	Water Column (ft): _____
Well Depth (ft): _____	Vol./Reading (gal): _____
Pump Rate (gpm): _____	Vol. Interval (min): <u>#DIV/0!</u>
Pump Type: _____	Volume Purged: <u>#DIV/0!</u>
Static Depth (ft) (1st): _____	Purged Water Column (ft): _____
Static Depth (ft) (2nd): _____	# of Volumes Removed: _____
Static Depth (ft) (Final): _____	
Start Time: _____	Sample Time: <u>13:30</u>
Date: _____	Date: <u>2/9/15</u>

Stabilization /Recovery Data

	1st/Initial	2nd	3rd	4th	5th/recovery
Time (hours)	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Temperature (deg. C)					5.1
Conductivity (umhos/cm)					2043
Dissolved Oxygen (mg/L)					7.0
pH (Std. Units)					6.87
Turbidity (NTU)					7.9
Eh (mV)					224.0

Appearance

Color	<u>None</u>	Phases	<u>None</u>
Odor	<u>None</u>	Turbidity	_____

Natural Attenuation Field Results

Fe II (mg/L) _____	CO2 (mg/L) _____
Mn II (mg/L) _____	CaCO3 (mg/L) _____
H2S (mg/L) _____	_____

Comments

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



Section A
 Required Client Information:
 Company: XCEL Red Wing
 Address: _____
 Email To: _____
 Phone: _____ Fax: _____
 Requested Due Date/TAT: _____

Section B
 Required Project Information:
 Report To: Chuck Denker / XCEL
 Copy To: _____
 Purchase Order No.: _____
 Project Name: Red Wing
 Project Number: _____

Section C
 Invoice Information:
 Attention: _____
 Company Name: _____
 Address: _____
 Pace Quote Reference: _____
 Pace Project Manager: Shawn Davis
 Pace Profile #: _____

Section D
 Required Client Information:
 Matrix Codes
 DW Drinking Water
 WT Waste Water
 WW Waste Water Product
 P Soil/Solid
 SL Oil
 OL Wipe
 WP Air
 AR Tissue
 TS Other
 OT
SAMPLE ID
 (A-Z, 0-9, /, -)
 Sample IDs MUST BE UNIQUE

Section E
 Regulatory Agency
 NPDES GROUND WATER DRINKING WATER
 UST RCRA OTHER _____

Site Location
 STATE: _____

ITEM #	Matrix Codes	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Filtered (Y/N)	Requested Analysis Filtered (Y/N)	Temp In °C	Received on	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
				COMPOSITE START	COMPOSITE END/GRAB									
1				DATE: 2/15	TIME: 1400		5	Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₈ Methanol Other						
2				DATE: 2/15	TIME: 1400		3							
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														

Section F
 ADDITIONAL COMMENTS: _____

Section G
 RELINQUISHED BY / AFFILIATION: _____ DATE: _____ TIME: _____

Section H
 ACCEPTED BY / AFFILIATION: _____ DATE: _____ TIME: _____

Section I
 SAMPLER NAME AND SIGNATURE: _____
 PRINT Name of SAMPLER: _____
 SIGNATURE of SAMPLER: _____
 DATE Signed (MM/DD/YYYY): _____

3

*Import. By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for a.

ices not paid within 30 days.

Appendix D

Spill Report Phone Numbers

EMERGENCY PHONE NUMBERS

<u>Spill Reporting</u>	<u>NUMBER</u>	<u>NAME</u>
Environmental Services (Spill Reporting)	612-330-5972	
City of Red Wing Police Chief	651-385-3155	Roger Pohlman
City of Red Wing Police Department (Emergency)	911	
 <u>City of Red Wing WWTP</u>		
City Council Administrator	651-385-3612	Kay Kuhlmann
Director of Public Works	651-385-3653	Rick Moskwa
Deputy Director of Utilities	651-385-5112	Bob Stark
Superintendent of WWTP	651-380-0538	Jerry Plein
Red Wing City Offices	651-385-3600	
 <u>RDF Ash Landfill Operations</u>		
Contract Operator (Cell phone)	612-790-0757	Robin McNeill
Xcel Energy Ash Operations (Sr Env Analyst)	612-518-6081	Chuck Donkers
Pump Services (GES)	800-735-1077x3171	Brian Deering
Pump Control Services (TPC)	651-430-0435	Dave Gardeen
 <u>Xcel Energy</u>		
Red Wing RDF Generating Plant- Plant Manager	651-385-5604	Chuck Kinney
Red Wing RDF Generating Plant – Superintendent	651-385-5611	Leon Lenertz
Red Wing RDF Generating Plant- ES Analyst	651-385-5603	Brian Schmidt
Environmental Services Ash Compliance	612-330-6506	Manny Castillo
Environmental Services Ash Manager	612-330-7879	Rick Rosvold
 <u>Goodhue County</u>		
Sheriff,	651-385-3155	Scott McNurlin
County Engineer Director	651-385-3025	Greg Isakson
Solid Waste Official	651-385-3107	Willie Root
Goodhue County Offices	651-385-3001	
 <u>MPCA</u>		
Solid Waste – Staff Engineer	651-757-2435	Dan Aadmodt