

**RIDGEVIEW RDF**

6207 Hempton Lake Rd  
Whitelaw, WI 54247  
(920) 732-4473  
(920) 732-3758 Fax

October 19, 2016

Ms. Lisa Graczyk  
United States Environmental Protection Agency  
77 West Jackson Boulevard  
Chicago, IL 60604-3590

RE: Reply to Questions - Risk-Based Disposal Approval  
Cedar Creek Remediation Project

Dear Ms. Graczyk:

This letter provides additional information that was requested in the Agency's September 19, 2016 letter. The questions are presented below in bold italics and followed by the response.

***1. Will sediments from the Cedar Creek Remediation Project be disposed in the Southern Expansion of the WMWI Ridgeview landfill? And if so, which cells will the sediment be placed into? And will this be the same cell that the Fox River sediments were placed into?***

Yes, if Mercury Marine elects to dispose of sediments from the Cedar Creek Remediation project at the Ridgeview landfill, they will be disposed in the Southern Expansion (license number 4992). This is the only active landfill at the Ridgeview facility. We understand the dredging is to take place in 2017. As such, these sediments will be placed into cell number one, the same cell that was used for the Fox River sediments. If the dredging were to extend beyond 2017, we would continue disposal of the dredge material in cell one while disposal capacity remains.

***2. Were there any design modifications to the Southern Expansion of the WMWI Ridgeview landfill since September 2012?***

Yes, but the modifications are not expected to affect the dredge disposal as they involved landfill gas extraction system and storm water improvements. The modifications are described below.

On February 7, 2014 we received approval from the Wisconsin Department of Natural Resources to utilize a temporary gas collection system until final grades are achieved, at which time the final gas collection system will be installed. Modifications to the gas collection system included allowing horizontal gas collectors, revising the condensate drip leg design, increasing the slope on the perimeter gas header, allowing the gas header to be placed above the geomembrane in the final cover, placement of gravel mounds on the leachate collection drainage blanket for future tie

in with gas wells, and providing an alternative perforation pattern for the gas wells. These modifications, in general, provide for more efficient landfill gas extraction capability.

A second design modification approval, dated June 26, 2015, widened the eastern berm outside of the landfill to allow for a wider access road on the east side of the landfill. Along with the wider road, storm water improvements were approved including the addition of a 36" diameter culvert. These modifications are outside of the landfill limits.

***3. How much capacity is remaining in the Southern Expansion of the Ridgeview Landfill?***

The remaining capacity of the southern expansion is approximately 8,270,000 cubic yards.

***4. How will the sediments be dewatered and processed at the Cedar Creek Remediation Project?***

We posed this question to Mercury Marine. Their response was

"We have selected JF Brennan as our contractor on the project. The sediment materials will be removed from the ponds hydraulically and dewatered using geo-tubes similar to the Fox river project. Brennan is also the contractor completing the work on the Fox."

For clarity, the Fox River project utilized different dewatering methods in different sections of the river cleanup project. Some areas used Geotubes while others used multiple processing steps including the use of filter presses.

***5. What will be the physical characteristics of the dewatered and processed sediments?***

We provided minimum specifications for the dredge material to the contractor, which in part, included the following.

Strength and moisture requirements are:

1. No free liquid
2. Able to
  - Support its own weight;
  - Support the weight of material placed over it;
  - Be capable of being worked and managed by the Disposal Site's low ground pressure bulldozers.
  - The dredge material must be dewatered or solidified, as necessary to pass the paint filter test prior to disposal.
  - The dredge material must be transported in leak proof and covered trucks to prevent leakage and air borne transport of sediments.
  - The dredge material must be received in a consistency that allows Ridgeview RDF to follow the regulatory requirements of placing the material in a manner that it supports its own weight, supports the weight of other materials placed over it without slumping, and maintains stable slopes.

If necessary, we may require additional geotechnical properties to assure the stability requirements above.

Based on an internet search of case studies on the Geotube use on the lower Fox River, the dewatered sediments averaged 50% total solids.

***6. How will the physical properties of the material received from the Cedar Creek Remediation Project differ from the material received from the Fox River Remediation Project?***

The specifications for the dredge material for the two projects are similar and therefore the physical properties should be somewhat similar. However, we recognize that the dewatering process for the Fox River sediment that Ridgeview received involved multiple steps including filter presses. That process produced a topsoil like sediment. The Cedar Creek project will utilize Geotubes for dewatering which may result in a somewhat different consistency, but is still expected to meet the project specifications for strength and moisture. We have not accepted dredge material from the Cedar Creek previously, so we don't have first-hand experience with this. However, Ridgeview has accepted dredge materials from other projects and was able to properly handle and dispose of those materials.

***7. What sampling and analysis will be performed at Cedar Creek site and at the Ridgeview landfill to ensure that the material sent to or received by the Ridgeview landfill is less than 50 ppm PCBs?***

The details on the sampling and analysis have not yet been finalized. We anticipate the details of a sampling plan will be worked out with Mercury Marine, JF Brennan, and the USEPA by the end of the year. Waste Management will require the generator to provide assurances that the results are representative of the material sent to Ridgeview for disposal. Such sampling plan details had been worked out on the Fox River project and typically included composite sampling of the sediments from the stockpiles. Such results were shared with Ridgeview. If the results were less than 50 ppm, Waste Management approved the sediment to be shipped to Ridgeview.

Ridgeview relies on the generator's representative results and is not planning on performing such analysis at the landfill. Testing at the dredging site makes the most sense logistically to allow time for the analytical test, to avoid staging of materials at the landfill that could be rejected, and to avoid double handling of potentially rejected material.

***8. Submit the following updated documents***

***a. Amended Conditional Plan of Operation Approval. Ridgeview RDF Southern Expansion. Manitowoc County. Wisconsin. License No. 04292 (amended to include the Cedar Creek TSCA-regulated sediments).***

We submitted the request to the Wisconsin Department of Natural Resources (WDNR) on October 19, 2016 to determine if the July 17, 2012 TSCA dredge material approval would cover the Cedar Creek project or request a separate approval if needed. While the EPA approval is by

rule project specific, the WDNR approval would not necessarily be project specific. We anticipate the Department's clarification or approval will be received by the end of the year.

***b. Wisconsin Department of Natural Resources (WDNR) Air Pollution Control Operation Permit Renewal. Waste Management of Wisconsin Inc. - Ridgeview. Permit No. 436020530-PIO.***

This permit is attached with this letter.

***c. Current wastewater discharge permit.***

This permit is attached with this letter.

We trust this information meets your needs. If you have any further questions, please feel free to contact me at (920) 796-6007.

Sincerely,  
Waste Management of Wisconsin, Inc.

A handwritten signature in blue ink, reading "Raymond Seegers".

Raymond Seegers, P.E.  
Environmental Engineer

cc. Kurt Kietzer  
Todd Hartman  
Gerard Hamblin  
Joel Meyer  
Dan Heidenreich  
Jerold Korinek  
Craig Dousharm  
Kim Powell  
Ridgeview File

## Ridgeview Air Pollution Control Operating Permit



## State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Scott Walker, Governor  
Cathy Stepp, Secretary  
Jean Romback-Bartels, Regional Director

Northeast Region Headquarters  
2984 Shawano Avenue  
Green Bay, Wisconsin 54313-6727  
Telephone 920-662-5115  
Fax 920-662-5464  
TTY Access via relay - 711

September 15, 2014

RECEIVED  
SEP 17 2014

FILE CODE: 4560-I  
FID NO.: 436020530  
OPERATION PERMIT NO.: 436020530-P20

BY: \_\_\_\_\_

### CERTIFIED MAIL RETURN RECEIPT REQUESTED

Kurt Kietzer  
District Manager  
Waste Management Of Wisconsin, Inc.  
6207 Hempton Lake Rd  
Whitelaw, WI 54247-9796

Dear Mr. Kietzer:

Your application to renew air pollution control operation permit number 436020530-P10 has been processed in accordance with § 285.62, Wis. Stats. This renewed permit expires **September 15, 2019**. [§ 285.66(3)(a), Wis. Stats. and § NR 407.04(2)07, Wis. Adm. Code]. This source may not operate after this operation permit expires unless you have submitted an operation permit renewal application that has been deemed complete.

The enclosed permit is issued to provide authorization for your source to operate a solid waste landfill facility in accordance with the requirements and conditions set forth within Parts I and II of the permit. This renewed operation permit adopts requirements and conditions from previously issued permits or orders, and upon issuance becomes the primary enforceable document for the facility. Please read it carefully.

A copy of this permit should be available at the source for inspection by any authorized representative of the Department. Questions about this permit should be directed to the Northeast Region Headquarters.

No permittee may continue operation of a source after the operation permit expires, unless the permittee submits a timely and complete application for renewal of the permit. If a timely and complete application for renewal is submitted, the existing operation permit will not expire until the renewal application has been finally acted upon by DNR. [§§ 227.51(2), Wis. Stats. and NR 407.04(2), Wis. Adm. Code].

### NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed.

To request a contested case hearing pursuant to § 285.81, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file a petition for a contested case hearing on the

Secretary of the Department of Natural Resources. Filing of any such petition must be accomplished in the manner prescribed by Wis. Admin. Code § NR 2.03 for service of contested case hearing requests upon the Secretary<sup>1</sup> and the petition must set forth specifically the issues sought to be reviewed, the interest of the petitioner, the reasons why a hearing is warranted and the relief desired. Pursuant to § 285.81(1m), Wis. Stats., if a permit holder or applicant seeks a hearing challenging part of a permit, the remainder of the permit shall become effective. If a permit holder or applicant challenges an emission limitation in a permit, the emission limitation becomes effective despite a challenge, unless the permit holder or applicant obtains a stay of the emission limitation. A person other than a permit holder or applicant may file a petition for a contested case hearing if the requirements of § 285.81(2), Wis. Stats., are met.

A person other than a permit holder or applicant may file a petition for a contested case hearing if the requirements of § 285.81(2), Wis. Stats., are met.

For judicial review of a decision pursuant to §§ 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department in the manner prescribed by those statutes. Such a petition for judicial review shall name the Department of Natural Resources as the respondent.

STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES



Bradford S. Pyle  
Air Management Engineer

cc: Randall S. Matty - Northeast Region Headquarters  
Air Enforcement Branch - EPA, Region 5

Enclosure

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<sup>1</sup> Wis. Admin. Code § NR 2.03 reads:

**Wis. Admin. Code § Service on the department.**

All petitions for hearings, petitions for rules, petitions for declaratory rulings, petitions for review of contested case decisions under § NR 2.20, answers and complaints required by any statute or rule shall be served on the department by personal delivery to the office of the secretary, by mailing to the secretary by certified mail, at the following address: PO Box 7921, Madison, Wisconsin 53707-7921, or by facsimile transmission to the secretary at (608) 266-6983. If the petition is served by facsimile transmission, a copy of the petition shall be mailed to the secretary by regular mail within one week of service. Service by mailing shall be deemed to have been made on the date the petition is received by the department. Service by facsimile received after 4:30 PM shall be deemed to have been made on the following day.

**BEFORE THE DEPARTMENT OF NATURAL RESOURCES  
AIR MANAGEMENT PROGRAM  
FINDINGS OF FACTS  
CONCLUSIONS OF LAW  
AND DECISION**

**Findings of Fact**

The Department of Natural Resources (DNR) finds that:

- 1) Waste Management Of Wisconsin, Inc., 6207 Hempton Lake Rd, Whitelaw, Manitowoc County, Wisconsin, has applied for a renewal of its operation permit. The authorized representative of the facility is Kurt Kietzer, District Manager.
- 2) Waste Management Of Wisconsin, Inc. submitted an air pollution control permit renewal application and plans and specifications and any additional information describing the air pollution source on June 27, 2013 .
- 3) DNR has reviewed Waste Management Of Wisconsin, Inc.'s air permit renewal application, plans, specifications and other information available to DNR.
- 4) DNR has prepared an analysis and a Preliminary Determination on the approvability of the permit renewal application.
- 5) This permit is for the operation of part 70 air pollution source.
- 6) DNR has complied with the procedures set forth in ss. 285.62, Wis. Stats.
- 7) The air contaminant source meets all of the applicable criteria in ss. 285.63 and 285.64, Wis. Stats.
- 8) DNR has complied with the requirements of s. 1.11, Wis. Stats., and ch. NR 150, Wis. Adm. Code.

**Conclusions of Law**

DNR concludes that:

- 1) DNR has authority under s. 285.11(1), Wis. Stats., to promulgate rules contained in chs. NR 400 to 499, Wis. Adm. Code, including but not limited to rules containing emission limits, compliance schedules and compliance determination methods.
- 2) DNR has the authority under ss. 285.11(1), (5), and (6), 285.27(1) and (2) and 285.65, Wis. Stats., and chs. NR 400 to 499, Wis. Adm. Code, to establish emission limits for sources of air pollution.
- 3) DNR has the authority to renew air pollution control operation permits and to include conditions in such permits under ss. 285.60, 285.62, 285.63, 285.64, 285.65 and 285.66 Wis. Stats.
- 4) The emission limits and other conditions included in this permit are authorized by ss. 285.65, Wis. Stats., and chs. NR 400 - 499, Wis. Adm. Code.
- 5) DNR is required to comply with s. 1.11, Wis. Stats., and ch. NR 150, Wis. Adm. Code, in conjunction with issuing a renewed air pollution control permit.

### **Operation Permit Renewal Decision**

Waste Management Of Wisconsin, Inc. is authorized to operate a solid waste landfill as described in plans and specifications dated June 27, 2013, , in conformity with the emission limits, monitoring, recordkeeping and reporting requirements and specific and general conditions set forth in this permit.

**AIR POLLUTION CONTROL OPERATION PERMIT RENEWAL**

EI FACILITY NO: 436020530

OPERATION PERMIT NO.: 436020530-P20

TYPE: Renewal of Part 70 source operation permit no. 436020530-P10

In compliance with the provisions of Chapter 285, Wis. Stats., and Chapters NR 400 to NR 499, Wis. Adm. Code,

Name of Source: Waste Management Of Wisconsin, Inc.

Street Address: 6207 Hempton Lake Rd,  
Whitelaw, Manitowoc County, Wisconsin

Responsible Official, & Title: Kurt Kietzer, District Manager

is authorized to operate a solid waste landfill described in the plans and specifications dated June 27, 2013, and in conformity with the conditions herein.

This renewed operation permit expires on September 15, 2019 [Section NR 407.09(1)(b)1., Wis. Adm. Code].

A renewal application must be submitted at least 6 months, but not more than 18 months, prior to the expiration date [ss. 285.66(3)(a), Wis. Stats. and NR 407.04(2), Wis. Adm. Code].

No permittee may continue operation of a source after the operation permit expires, unless the permittee submits a timely and complete application for renewal of the permit. If a timely and complete application for renewal is submitted, the existing operation permit will not expire until the renewal application has been finally acted upon by DNR. [§§ 227.51(2), Wis. Stats. and NR 407.04(2), Wis. Adm. Code].

Conditions of the operation permit marked with an asterisk (\*) have been created outside of the Wisconsin's federally approved State Implementation Plan (SIP) and are not federally enforceable.

This authorization requires compliance by the permit holder with the emission limitations, monitoring requirements and other terms and conditions set forth in Parts I and II hereof.

Dated at Oshkosh, Wisconsin

Sept. 15, 2014

STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES  
For the Secretary

By

Inelda R. Hofmeister

Inelda R. Hofmeister  
Environmental Engineer Supervisor

## PREAMBLE TO OPERATION PERMIT

An Asterisk (\*) throughout this document denotes legal authority, limitations and conditions which are not federally enforceable [Section NR 407.09(3)(b), Wis. Adm. Code.].

### Historical Summary of Permits/Orders Issued to the Facility.

The following permits, orders, etc., are adopted, under ss. 285.65(3), Wis. Stats., and NR 407.09(2)(d), Wis. Adm. Code, by Permit 436020530-P20 which then becomes the primary enforceable document:

Permit No.	Issued/Approved	Sources covered and desc.	Permit status
99-MHR-039	07/15/1999	Landfill modifications and construction of two landfill gas-fired reciprocating engines.	Inactive, adopted by 436020530-P01
01-MHR-125	02/21/2002	Construction of two additional landfill gas-fired reciprocating engines.	Inactive, adopted by 436020530-P01
436020530-P01	01/23/2004	Total facility	Inactive, revised/renewed by 436020530-P10
99-MHR-039-OP	01/23/2004	Issued concurrently with original Title V permit.	Inactive, adopted by 436020530-P01
01-MHR-125-OP	01/23/2004	Issued concurrently with original Title V permit.	Inactive, adopted by 436020530-P01
04-MHR-183	11/01/2005	Expansion of existing landfill, six new reciprocating engines, new open flare (after-the-fact), and removal of diesel industrial engines and diesel generators.	Inactive, adopted by 436020530-P10
07-MHR-223	01/11/2008	Expansion of existing landfill, six new reciprocating engines, new open flare (after-the-fact), and removal of diesel industrial engines and diesel generators.	Inactive, adopted by 436020530-P10
436020530-P10	01/20/2009	Total facility	Active
04-RAF-157			Not issued inactive
436020530-P02			Not issued inactive
04-MHR-183-OP			Not issued inactive
436020530-P03			Not issued inactive
436020530-P20	9/15/2014		Not issued yet

### Stack and Process Index.

Stack and Process	Description	Installation Date	Construction Permit?
S31, P31	Plant 1 Landfill gas-fired reciprocating engine #1, Cat. model #3516, E1R	2008	07-MHR-223
S32, P32	Plant 1 Landfill gas-fired reciprocating engine #2, Cat. model #3516, E2R	2008 <sup>1</sup>	07-MHR-223
S33, P33	Plant 1 Landfill gas-fired reciprocating engine #3, Cat. model #3516, E3R	2008	07-MHR-223
S34, P34	Plant 1 Landfill gas-fired reciprocating engine #4, Cat. model #3516, E4R	2008	07-MHR-223
S25, P25	Plant 2 Landfill gas-fired reciprocating engine #5, Cat. model #3516, E1	2005	07-MHR-223

<sup>1</sup> Although P31, P32, P33 and P34 were installed in 2008, they were manufactured prior to January 1, 2008 according to the facility.

Stack and Process	Description	Installation Date	Construction Permit?
S26, P26	Plant 2 Landfill gas-fired reciprocating engine #6, Cat. model #3516, E2	2005	07-MHR-223
S27, P27	Plant 2 Landfill gas-fired reciprocating engine #7, Cat. model #3516, E3	2005	07-MHR-223
S28, P28	Plant 2 Landfill gas-fired reciprocating engine #8, Cat. model #3516, E4	2005	07-MHR-223
S29, P29	Plant 2 Landfill gas-fired reciprocating engine #9, Cat. model #3516, E5	2005	07-MHR-223
S10, P10	Open flare - stationary	1999	07-MHR-223
S11, P11	Open flare - mobile	2005	07-MHR-223
F10	Fugitive landfill emissions	unknown	07-MHR-223

### **Insignificant Emission Units**

Maintenance of Grounds, Equipment, and Buildings  
 Boiler, Turbine, and HVAC System Maintenance  
 Pollution Control Equipment Maintenance  
 Internal Combustion Engines Used for Warehouse and Material Transportation  
 Fire Control Equipment  
 Janitorial Services  
 Office Activities  
 Convenience Water Heating  
 Convenience Space Heating (< 5 million BTU/hr burning gas, liquid or wood)  
 Fuel Oil Storage Tanks (< 10,000 gal.)  
 Stockpiled Contaminated Soils  
 Sanitary Sewer and Plumbing Venting  
 Site Vehicle Refueling  
 Contaminated Soil - Bioremediation  
 Leachate Tanks  
 Solidification Process  
 Composting (not currently performed)  
 Maintenance Welding  
 Small gasoline powered (8 Hp or similar) generators  
 Gasoline powered portable air compressor

**Permit Shield.** Unless precluded by the Administrator of the US EPA, compliance with all emission limitations in this operation permit is considered to be compliance with all emission limitations established under ss. 285.01 to 285.87, Wis. Stats., and emission limitations under the federal clean air act, that are applicable to the source if the permit includes the applicable limitation or if the Department determines that the emission limitations do not apply. The following emission limitations were reviewed in the analysis and preliminary determination and were determined not to apply to this stationary source:

None.

**Part I** - The headings for the areas in the permit are defined below. The legal authority for these limitations or methods follows them in [brackets].

**Pollutant** - This area will note which pollutant is being regulated by the permit.

**Limitations** - This area will list all applicable emission limitations that apply to the source, including case-by-case limitations such as Latest Available Control Techniques (LACT), Best Available Control Technology (BACT), or Lowest Achievable Emission Rate (LAER). It will also list any volun-

tary restrictions on hours of operation, raw material use, or production rate requested by the permittee to limit potential to emit.

**Compliance Demonstration** - The compliance demonstration methods outlined in this area may be used to demonstrate compliance with the associated emission limit or work practice standard listed under the corresponding **Limitations** column. The compliance demonstration area contains limits on parameters or other mechanisms that will be monitored periodically to ensure compliance with the limitations. The requirement to test as well as initial and periodic test schedules, if testing is required, will be stated here. Notwithstanding the compliance determination methods which the owner or operator of a source is authorized to use under ch. NR 439, Wis. Adm. Code, the Department may use any relevant information or appropriate method to determine a source's compliance with applicable emission limitations.

**Reference Test Methods, Recordkeeping, and Monitoring Requirements** - Specific US EPA Reference test methods or other approved test methods will be contained in this area and are the methods that must be used whenever testing is required. A reference test method will be listed even if no testing is immediately required. Also included in this area are any recordkeeping requirements and their frequency and reporting requirements. Accuracy of monitoring equipment shall meet, at a minimum, the requirements of s. NR 439.055(3) and (4), Wis. Adm. Code, as specified in Part II of this permit.

**Condition Type** - This area will specify other conditions that are applicable to the entire facility that may not be tied to one specific pollutant.

**Conditions** - Specific conditions usually applicable to the entire facility or compliance requirements.

**PART II** - This section contains the general limitations that the permittee must abide by. These requirements are standard for most sources of air pollutants so they are included in this section with every permit.

## Part I

A. Stack S31, Process P31: Plant 1 Landfill gas-fired reciprocating engine #1  
 B. Stack S32, Process P32: Plant 1 Landfill gas-fired reciprocating engine #2  
 C. Stack S33, Process P33: Plant 1 Landfill gas-fired reciprocating engine #3  
 D. Stack S34, Process P34: Plant 1 Landfill gas-fired reciprocating engine #4  
 E. Stack S25, Process P25: Plant 2 Landfill gas-fired reciprocating engine #5  
 F. Stack S26, Process P26: Plant 2 Landfill gas-fired reciprocating engine #6  
 G. Stack S27, Process P27: Plant 2 Landfill gas-fired reciprocating engine #7  
 H. Stack S28, Process P28: Plant 2 Landfill gas-fired reciprocating engine #8  
 I. Stack S29, Process P29: Plant 2 Landfill gas-fired reciprocating engine #9  
 P. Stack S10, Process P10: Open Flare (Stationary)  
 Q. Stack S11, Process P11: Open Flare (Mobile) ALL REQUIREMENTS ARE FROM PERMIT #07-MHR-223.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
1. Nonmethane Organic Compounds (NMOCs)	(1) The permittee shall install and operate an active gas collection system that effectively captures the landfill gas generated within the landfill in the manner specified in the most recently approved plan of operation, issued by the Department's Waste Management Program or as approved by the Department. [40 CFR s. 60.752(b)(2)(ii) s. 285.65(13), Wis. Stats.]	<p><u>Gas Collection System</u></p> <p>(1) The permittee shall operate the collection system such that landfill gas is collected from each area, cell, or group of cells in the landfill in which the initial solid waste has been in place for</p> <p>(a) 5 years or more if active; or</p> <p>(b) 2 years or more if closed or at final grade.</p> <p>[40 CFR s. 60.753(a), s. 285.65(13), Wis. Stats.]</p>	<p>(1) The permittee shall keep and maintain the following records:</p> <p>(a) A copy of the most recently approved plan of operation, issued by the Department's Waste Management Program, and records of other department approvals specified in I.A.-Q.1.a.-b.</p> <p>(b) The maximum design capacity of the landfill, in megagrams of solid waste.</p> <p>(c) When required by I.A.-Q.1.b.(10)(a), the average annual solid waste acceptance rate, in megagrams per year.</p> <p>(d) When required by I.A.-Q.1.b.(10)(b), the amount of solid waste in-place in each section of the landfill, in megagrams of solid waste.</p> <p>[Continued on Next Page]</p>

A. to J. Stacks S31, S32, S33, S34, and S25-S29; Processes P31, P32, P33, P34, and P25-P29: Landfill gas-fired reciprocating engines

P. Stack S10, Process P10: Open Flare (Stationary)

Q. Stack S11, Process P11: Open Flare (Mobile) ALL REQUIREMENTS ARE FROM PERMIT #07-MHR-223.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
I. Nonmethane Organic Compounds (NMOs) (Continued)	<p>(2) The active gas collection system shall:</p> <p>(a) Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of Processes P10, P11, and the landfill gas treatment system that processes the collected gas for subsequent sale or use;</p> <p>(b) Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been in place for</p> <p>(i) 5 years or more if active; or</p> <p>(ii) 2 years or more if closed or at final grade;</p> <p>(c) Collect gas at a sufficient extraction rate; and</p> <p>(d) Be designed to minimize off-site migration of subsurface gas.</p> <p>[40 CFR s. 60.752(b)(2)(ii)(A) s. 285.65(13), Wis. Stats.]</p>	<p>(2) The permittee shall operate the collection system with negative pressure at each wellhead except under the following conditions:</p> <p>(a) A fire or increased well temperature. The permittee shall record each instance when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the semiannual reports as provided in 1.ZZZ.5.b.(1);</p> <p>(b) Use of a geomembrane or synthetic cover. All positive pressure limits shall be approved by the department.</p> <p>(c) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the department.</p> <p>[40 CFR ss. 60.753(b), 60.756(e), 60.752(b)(2)(i)(B), s. 285.65(13), Wis. Stats.]</p> <p>(3) The permittee shall install a sampling port, a temperature measuring device, or an access port for temperature measurements at each wellhead. [40 CFR s. 60.756(a), s. 285.65(13), Wis. Stats.]</p> <p>(4) The permittee shall operate each interior wellhead in the gas collection system in the following manner:</p> <p>(a) Except as specified in (4)(c), with a landfill gas temperature less than 131° F (55°C).</p> <p>(b) Except as specified in (4)(c), with either a nitrogen level less than 20 percent, or an oxygen level less than 5 percent.</p> <p>(c) The permittee may establish a higher operating temperature, nitrogen level, and/or oxygen level at a particular well so long as that or those higher operating levels are approved by the department. Any higher operating temperature, nitrogen level, oxygen level may not cause fires or significantly inhibit anaerobic decomposition by killing methanogens. [40 CFR ss. 60.753(c) and 60.756(e), s. 285.65(13), Wis. Stats.]<sup>2</sup></p>	<p>(1) Continued</p> <p>(e) A surface monitoring design plan, as specified in I.A.-Q.1.b.(9).</p> <p>(f) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices as specified in 40 CFR s. 60.759(a)(1).</p> <p>(g) Up-to-date technical drawings, blueprints, or equivalent records showing each existing and planned well, horizontal collector, surface collector, and other gas extraction device, including a unique identification location label for each collector.</p> <p>(h) Up-to-date records of the installation date and location each well, horizontal collector, surface collector, and other gas extraction device that comprise the landfill gas collection system.</p> <p>(i) The date when each area and cell of the landfill began accepting solid waste.</p> <p>(j) The date when each cell of the landfill was closed or reached final grade.</p>

[Continued on Next Page]

<sup>1</sup> (reserved)

A. to J. Stacks S31, S32, S33, S34, and S25-S29; Processes P31, P32, P33, P34, and P25-P29: Landfill gas-fired reciprocating engines

P. Stack S10, Process P10: Open Flare (Stationary)

Q. Stack S11, Process P11: Open Flare (Mobile) ALL REQUIREMENTS ARE FROM PERMIT #07-MHR-223.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
I. Nonmethane Organic Compounds (NMOs) (Continued)	<p>(3) The permittee shall route all the collected landfill gas to one or more of the following:</p> <p>(a) The stationary open flare (Process P10),</p> <p>(b) The mobile open flare (Process P11)</p> <p>(c) A landfill gas treatment system followed by up to ten of the following gas-fired reciprocating engines: P31, P32, P33, P34, P25, P26, P27, P28, P29. During each shakedown period for any Process P31-P34, the permittee may operate the engine that is being replaced; and thus, operate more than 10 gas-fired engines during that period. [40 CFR s. 60.752(b)(2)(iii)(A) &amp; (C), s. 285.65(13), Wis. Stats., Permit # 07-MHR-223]</p>	<p>(5) Each temperature monitoring device shall be accurate to within <math>\pm 5\%</math> of the temperature being measured in degrees Fahrenheit or within <math>\pm 5^\circ \text{F}</math> of the temperature being measured, or the equivalent in degrees Celsius (centigrade), whichever is greater. [s. 285.65(3), Wis. Stats.]</p> <p>(6) Each pressure-monitoring device shall be accurate to within 5% or <math>\pm 1</math> inch of water column, whichever is greater. [s. NR 439.055(3)(b), Wis. Adm. Code]</p> <p>(7) The permittee shall determine the nitrogen level using US EPA Method 3C, unless an alternative test method is established as allowed by 40 CFR s. 60.752(b)(2)(i). [40 CFR s. 60.753(c)(1), s. 285.65(13), Wis. Stats.]</p> <p>(8) Unless an alternative test method is established as allowed by 40 CFR s. 60.752(b)(2)(i), the oxygen level shall be determined by an oxygen meter using Method 3A or 3C except that:</p> <p>(a) The span shall be set so that the regulatory limit is between 20 and 50 percent of the span;</p> <p>(b) A data recorder is not required;</p> <p>(c) Only two calibration gases are required, a zero and span, and ambient air may be used as the span;</p> <p>(d) A calibration error check is not required;</p> <p>(e) The allowable sample bias, zero drift, and calibration drift are <math>\pm 10</math> percent. [40 CFR s. 60.753(c)(2), s. 285.65(13), Wis. Stats.]</p>	<p>(1) Continued</p> <p>(k) Any alternative pressure levels established, as allowed under I.A.-Q.1.b.(2)(b).</p> <p>(L) Any alternative temperature, nitrogen, and oxygen levels established, as allowed under I.A.-Q.1.b.(4)(c).</p> <p>(m) The maximum expected landfill gas generation flow rate, in cubic meters per year.</p> <p>(n) On a monthly basis, the average actual landfill gas collection rate, in cubic feet per minute.</p> <p>(o) All data upon which the maximum expected gas generation flow rate is based.</p> <p>(p) Monthly gauge pressure records for each well.</p> <p>(q) Monthly temperature readings for each well, in <math>^\circ \text{F}</math> or <math>^\circ \text{C}</math>.</p> <p>(r) Monthly nitrogen or oxygen level readings for each well, in percent.</p> <p>[Continued on Next Page]</p>

A. to J. Stacks S31, S32, S33, S34, and S25-S29; Processes P31, P32, P33, P34, and P25-P29: Landfill gas-fired reciprocating engines

P. Stack S10, Process P10: Open Flare (Stationary)

Q. Stack S11, Process P11: Open Flare (Mobile) ALL REQUIREMENTS ARE FROM PERMIT #07-MHR-223.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
I. Nonmethane Organic Compounds (NMOCs) (Continued)	(4) The permittee shall operate the landfill gas treatment system as specified in Appendix A. <sup>3</sup> [40 CFR s. 60.752(b)(2)(iii)(C), s. 285.65(13), Wis. Stats.]	<p>(9) The permittee shall operate the collection system so that the methane concentration at the surface of the landfill is less than 500 parts per million above the background concentration at the surface of the landfill. To determine if this level is exceeded, the permittee shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals apart, and where visual observations indicate elevated concentrations of landfill gas (such as distressed vegetation and cracks or seeps in the cover). The permittee may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30 meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing. [40 CFR s. 60.753(d), s. 285.65(13), Wis. Stats.]</p> <p>(10) The permittee shall calculate the maximum expected gas generation flow rate from the landfill using one of the following equations. The k and L<sub>0</sub> kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site specific values demonstrated to be appropriate and approved by the Department. If k has been determined as specified in 40 CFR s. 60.754(a)(4), the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.</p> <p>[Continued on Next Page]</p>	<p>(I) Continued</p> <p>(s) Results of methane surface concentration monitoring, including the background concentration at the surface determined.</p> <p>(t) For each non-negative gauge pressure reading the permittee shall record the condition(s) specified in I.A.-Q.1.b.(2) that were present during the reading, and the corrective actions taken and the dates when those actions were taken.</p> <p>(u) The dates when and locations where any positive pressure reading(s) occurred.</p> <p>(v) The dates when and locations where any temperature, oxygen level, and nitrogen level exceedance readings occurred.</p> <p>[Continued on Next Page]</p>

<sup>3</sup> In a letter dated July 14, 2004, USEPA determined that the landfill gas treatment system described in Appendix A meets the requirements for a treatment system, as defined in 40 CFR s. 60.752(b)(2)(iii)(C).

A. to J. Stacks S31, S32, S33, S34, and S25-S29; Processes P31, P32, P33, P34, and P25-P29: Landfill gas-fired reciprocating engines

P. Stack S10, Process P10: Open Flare (Stationary)

Q. Stack S11, Process P11: Open Flare (Mobile) ALL REQUIREMENTS ARE FROM PERMIT #07-MHR-223.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
1. Nonmethane Organic Compounds (NMOs) (Continued)	<p>(5) The gas collection system, the landfill gas treatment system, Process P10, and Process P11, may be capped or removed provided that all the conditions below are met:</p> <p>(a) The landfill shall be no longer accepting solid waste and be permanently closed under the requirements specified in 40 CFR 60.752(b)(2)(v)(A);</p> <p>(b) The gas collection system, the landfill gas treatment system, Process P10, and Process P11 have been in operation for a minimum of 15 years; and</p> <p>(c) The calculated nonmethane organic compound generation rate is less than 50 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.</p> <p>[40 CFR 60.752(b)(2)(v), and s. 285.65(13), Wis. Stats.]</p>	<p>(10) Continued</p> <p>(a) For sites with unknown year-to-year solid waste acceptance rate:</p> $Q_m = 2L_o R (e^{-kc} - e^{-kt})$ <p>where,</p> <p><math>Q_m</math> = maximum expected gas generation flow rate, in cubic meters per year</p> <p><math>L_o</math> = methane generation potential, in cubic meters per megagram solid waste</p> <p><math>R</math> = average annual acceptance rate, in megagrams per year</p> <p><math>k</math> = methane generation rate constant, in year<sup>-1</sup></p> <p><math>t</math> = age of the landfill at equipment installation plus the time the permittee intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure, <math>t</math> is the age of the landfill at installation, in years</p> <p><math>c</math> = time since closure, in years (for an active landfill <math>c = 0</math> and <math>e^{-kc} = 1</math>)</p> <p>(b) For sites with known year-to-year solid waste acceptance rate:</p> $Q_M = \sum_{i=1}^n 2kL_o M_i [\exp(-kt_i)]$ <p>; where</p> <p><math>Q_M</math> = maximum expected gas generation flow rate, in cubic meters per year</p> <p><math>\exp(-kt_i) = e</math> (or 2.71828) raised to the power of <math>-kt_i</math></p> <p><math>k</math> = methane generation rate constant, in year<sup>-1</sup></p> <p><math>L_o</math> = methane generation potential, in cubic meters per megagram solid waste</p> <p><math>M_i</math> = mass of solid waste in the <math>i^{\text{th}}</math> section, in megagrams</p> <p><math>t_i</math> = age of the <math>i^{\text{th}}</math> section, in years.</p> <p>(c) If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in compliance demonstration conditions I.A.-Q.1.b.(10)(a) and (b). If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equations in compliance demonstration conditions I.A.-Q.1.a.(10)(a) or (b) or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.</p> <p>[40 CFR s. 60.755(a)(1), s. 285.65(13), Wis. Stats.]</p>	<p>(1) Continued</p> <p>(w) The corrective actions taken to correct any temperature exceedance, including the dates when those actions were taken.</p> <p>(x) The corrective actions taken to correct any oxygen level or nitrogen level exceedance, including the dates when those actions were taken.</p> <p>(y) The dates when and locations where any surface methane concentration exceedance reading occurred.</p> <p>(z) The corrective actions taken to correct any surface methane concentration exceedance reading, including the dates when those actions were taken.</p> <p>(aa) All data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices are based.</p> <p>(ab) The results of each cover integrity monitoring event.</p> <p>(ac) Any maintenance or corrective action conducted on the landfill cover, including the dates when those actions were taken.</p> <p>(ad) The dates when the gas collection system was expanded.</p> <p>(ae) The dates and times when the gas collection system was inoperable.</p> <p>(af) The dates and times when the gas mover system was shutdown.</p> <p>[Continued on Next Page]</p>

A. to J. Stacks S31, S32, S33, S34, and S25-S29; Processes P31, P32, P33, P34, and P25-P29: Landfill gas-fired reciprocating engines

P. Stack S10, Process P10: Open Flare (Stationary)

Q. Stack S11, Process P11: Open Flare (Mobile) ALL REQUIREMENTS ARE FROM PERMIT #07-MHR-223.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
I. Nonmethane Organic Compounds (NMOCs) (Continued)		<p>(11) The permittee shall design a system of vertical wells, horizontal collectors, or other collection devices, as specified in the most recently approved plan of operation issued by the Department's Waste Management Program, or as approved by the department. The gas collection system shall be capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards. [40 CFR s. 60.755(a)(1), s. 285.65(13), Wis. Stats.]</p> <p>(12) The permittee shall measure gauge pressure in the gas collection header at each individual well, monthly. [40 CFR ss. 60.755(a)(3) and 60.756(a)(1), s. 285.65(13), Wis. Stats.]</p> <p>(13) Any pressure reading that is not negative, except for the conditions allowed under compliance demonstration conditions I.A.-Q.1.b.(2)(a)-(c) shall be recorded as a monitored exceedance and the following actions shall be taken. As long as those actions are taken, the monitored exceedance is not a violation of the conditions specified in I.A.-Q.1.b.(2).</p> <p>(a) If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under compliance demonstration conditions I.A.-Q.1.b.(2)(a)-(c).</p> <p>(b) Except as specified in I.A.-Q.1.b.(14), if negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded, or other appropriate actions shall be implemented to correct the exceedance within 120 days of the initial measurement of positive pressure.</p> <p>(c) Any attempted corrective measure shall not cause exceedances of other operational or performance standards.</p> <p>(d) An alternative timeline for correcting the exceedance may be submitted to the department for approval.</p> <p>[40 CFR ss. 60.755(a)(3) and 60.753(g), s. 285.65(13), Wis. Stats.]</p> <p>(14) The permittee is not required to expand the gas collection system as required in conditions I.A.-Q.1.b.(13) during the first 180 days after gas collection system start-up. [40 CFR s. 60.755(a)(4), s. 285.65(13), Wis. Stats.]</p>	<p>(1) Continued</p> <p>(ag) The dates and times when all valves in the gas collection system, landfill gas treatment system, Process P10, and Process P11 that contribute to venting of landfill gas to the atmosphere were closed.</p> <p>(ah) For the collection system,</p> <p>(i) The dates when each start-up, shutdown, and malfunction commenced.</p> <p>(ii) The duration of each start-up, shutdown, and malfunction; in hours.</p> <p>(ai) For the landfill gas treatment system and each Process P25-P34</p> <p>(i) The dates and times when each start-up, shutdown, and malfunction commenced.</p> <p>(ii) The dates and times when each start-up, shutdown, and malfunction, concluded.</p> <p>(aj) For each Process P10 and P11</p> <p>(i) the flare type (i.e. - steam-assisted, air-assisted, or nonassisted)</p> <p>(ii) the dates and times when a flame is not present.</p> <p>(iii) The maximum allowed exit velocity of the gas.</p> <p>(iv) whenever required by Condition I.P.1.b.(31) or I.Q.1.b.(31), gas flow rate monitoring records, measured at least once every 15 minutes.</p> <p>(v) whenever required by condition I.P.1.b.(31) or I.Q.1.b.(31), visual inspections of the seal or closure mechanism for the bypass line valve.</p> <p>(vi) whenever a device is used to record flow, exit velocity of the gas, calculated based on the measured flow rate monitoring records specified in (aj)(iv).</p>

A. to J. Stacks S31, S32, S33, S34, and S25-S29; Processes P31, P32, P33, P34, and P25-P29: Landfill gas-fired reciprocating engines

P. Stack S10, Process P10: Open Flare (Stationary)

Q. Stack S11, Process P11: Open Flare (Mobile) ALL REQUIREMENTS ARE FROM PERMIT #07-MHR-223.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
1. Nonmethane Organic Compounds (NMOs) (Continued)		<p>(15) The permittee shall monitor each well monthly for temperature, and nitrogen level or oxygen level. [40 CFR ss. 60.755(a)(5) and 60.756(a)(2)-(3), s. 285.65(13), Wis. Stats.]</p> <p>(16) Any temperature, nitrogen, or oxygen readings that does not meet the levels specified in the applicable conditions I.A.-Q.1.b.(4), except for the conditions allowed under compliance demonstration conditions I.A.-Q.1.b.(4)(c), shall be recorded as a monitored exceedance, and the following actions shall be taken. As long as those actions are taken, the monitored exceedance is not a violation of the applicable conditions specified in I.A.-Q.1.b.(4).</p> <p>(a) Action shall be initiated to correct the exceedance within 5 calendar days.</p> <p>(b) If correction of the exceedance cannot be achieved within 15 calendar days after the first measurement, then the gas collection system shall be expanded or other appropriate actions shall be implemented to correct the exceedance within 120 days after the initial exceedance.</p> <p>(c) Any attempted corrective measure shall not cause exceedances of other operational or performance standards.</p> <p>(d) An alternative timeline for correcting the exceedance may be submitted to the department for approval.</p> <p>[40 CFR ss. 60.755(a)(5) and 60.753(g), s. 285.65(13), Wis. Stats.]</p> <p>(17) If the permittee is seeking to demonstrate compliance with conditions I.A.-Q.1.a.(2)(d) through the use of a collection system not conforming to the specifications provided in 40 CFR 60.759 (see Appendix B), then the permittee shall provide information satisfactory to the Department's Waste Management Program as specified in 40 CFR 60.752(b)(2)(i)(C) demonstrating that off-site migration is being controlled. [40 CFR s. 60.755(a)(6), s. 285.65(13), Wis. Stats.]</p> <p>(18) The permittee shall place each well or design component as specified in the most recently approved plan of operation issued by the Department's Waste Management Program, or as approved by the department, as provided in I.A.-Q.1.a.(1). Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:</p> <p>(a) 5 years or more if active; or</p> <p>(b) 2 years or more if closed or at final grade.</p> <p>[40 CFR s. 60.755(b), s. 285.65(13), Wis. Stats.]</p>	<p>(1) Continued</p> <p>(ak) The dates when each of the following are capped or removed, based on the equation specified in conditions I.A.-Q.1.b.(34) the landfill gas collection system, the landfill gas treatment system, Process P10, and Process P11.</p> <p>(aL) For each gas well, the date when it became equipped with an automatic leachate extraction system or submersible pump.</p> <p>(am) For each gas well that is not equipped with an automatic leachate extraction system or submersible pump, records of leachate levels, and the length of slotted perforation in the well, in feet.</p> <p>(an) The dates when the permittee initially operated each Process P31-P34.</p> <p>(ao) For each Process P31-P34, the date when the shutdown period began.</p> <p>(ap) For each Process P31-P34, the date when the shutdown period ended.</p> <p>(aq) For each Process P25-P29, the date when the permittee ceased operation of that process.</p> <p>[s. 439.04(1)(d), Wis. Adm. Code, 40 s. CFR 60.758, s. 285.65(13), Wis. Stats.]</p>

A. to J. Stacks S31, S32, S33, S34, and S25-S29; Processes P31, P32, P33, P34, and P25-P29: Landfill gas-fired reciprocating engines

P. Stack S10, Process P10: Open Flare (Stationary)

Q. Stack S11, Process P11: Open Flare (Mobile) ALL REQUIREMENTS ARE FROM PERMIT #07-MHR-223.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
I. Nonmethane Organic Compounds (NMOs) (Continued)		<p>(19) Except as specified in I.A.-Q.1.b.(20), the following procedures shall be used to show compliance with the surface methane operational standard as provided in compliance demonstration conditions I.A.-Q.1.b.(9).</p> <p>(a) After installation of the collection system, the permittee shall monitor surface concentrations of methane in the locations specified in I.A.-Q.1.b.(9) on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in compliance demonstration conditions I.A.-Q.1.b.(21).</p> <p>(b) The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.</p> <p>(c) Surface emission monitoring shall be performed in accordance with s. 4.3.1 of Method 21 of appendix A of 40 CFR part 60, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.</p> <p>(d) Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified in compliance demonstration conditions I.A.-Q.1.b.(19)(d)(i) through (v) below shall be taken. As long as the specified actions are taken, the monitored exceedance is not a violation of the operational requirements of I.A.-Q.1.b.(9).</p> <p>(i) The location of each monitored exceedance shall be marked and the location recorded.</p> <p>(ii) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance.</p> <p>(iii) If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in I.A.-Q.1.b.(19)(d)(v) shall be taken, and no further monitoring of that location is required until the action specified in compliance demonstration conditions I.A.-Q.1.b.(19)(d)(v) has been taken.</p> <p>[Continued on Next Page]</p>	

A. to J. Stacks S31, S32, S33, S34, and S25-S29; Processes P31, P32, P33, P34, and P25-P29: Landfill gas-fired reciprocating engines

P. Stack S10, Process P10: Open Flare (Stationary)

Q. Stack S11, Process P11: Open Flare (Mobile) ALL REQUIREMENTS ARE FROM PERMIT #07-MHR-223.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
I. Nonmethane Organic Compounds (NMOCs) (Continued)		<p>(19)(d) Continued</p> <p>(iv) Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the re-monitoring specified in I.A.-Q.1.b. (19)(d)(ii) or (iii) shall be re-monitored 1 month from the initial exceedance. If the 1-month remonitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month remonitoring shows an exceedance, the actions specified in I.A.-Q.1.b.(19)(d)(iii) or (v) shall be taken.</p> <p>(v) For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the department for approval.</p> <p>(e) The permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis. [40 CFR ss. 60.755(e), 60.756(e), 60.753(d), and 60.753(g), s. 285.65(13), Wis. Stats.]</p> <p>(20) Any closed landfill that has no monitored exceedances of the surface methane operational standard provided in compliance demonstration conditions I.A.-Q.1.b.(9) in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above the background detected during the annual monitoring returns the frequency for that area of the landfill to quarterly monitoring. [40 CFR 60.756(f), 60.756(e), s. 285.65(13), Wis. Stats.]</p>	

A. to J. Stacks S31, S32, S33, S34, and S25-S29; Processes P31, P32, P33, P34, and P25-P29: Landfill gas-fired reciprocating engines

P. Stack S10, Process P10: Open Flare (Stationary)

Q. Stack S11, Process P11: Open Flare (Mobile) ALL REQUIREMENTS ARE FROM PERMIT #07-MHR-223.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
1. Nonmethane Organic Compounds (NMOCs) (Continued)		<p>(21) The permittee shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:</p> <p>(a) The portable analyzer shall meet the instrument specifications provided in section 3 of Method 21 of appendix A of 40 CFR part 60, except that "methane" shall replace all references to VOC.</p> <p>(b) The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.</p> <p>(c) To meet the performance evaluation requirements in s. 3.1.3 of Method 21 of app. A of 40 CFR 60, the instrument evaluation procedures of s. 4.4 of Method 21 of app. A of 40 CFR part 60 shall be used.</p> <p>(d) The calibration procedures provided in section 4.2 of Method 21 of appendix A of 40 CFR part 60 shall be followed immediately before commencing a surface monitoring survey.</p> <p>[s. 40 CFR 60.755(d), s. 285.65(13), Wis. Stats.]</p> <p>(22) The permittee shall operate the gas collection system such that all collected landfill gases are vented to Process P10, Process P11, and/or a landfill gas treatment system that processes the collected landfill gas for subsequent sale or use. In the event that the gas collection system, Process P10, Process P11, and/or the treatment system that processes the collected landfill gas for subsequent sale or use are inoperable, the gas mover system shall be shut down and all valves in the gas collection system and the control devices contributing to venting of the gas to the atmosphere shall be closed within 1 hour. [40 CFR s. 60.753(e), s. 285.65(13), Wis. Stats.]</p> <p>(23) The permittee shall ensure that the applicable specifications of the landfill gas collection system in 40 CFR s. 60.759 are met (See Appendix B). [40 CFR s. 60.759, s. 285.65(13), Wis. Stats.]</p>	

A. to J. Stacks S31, S32, S33, S34, and S25-S29; Processes P31, P32, P33, P34, and P25-P29: Landfill gas-fired reciprocating engines

P. Stack S10, Process P10: Open Flare (Stationary)

Q. Stack S11, Process P11: Open Flare (Mobile) ALL REQUIREMENTS ARE FROM PERMIT #07-MHR-223.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
1. Nonmethane Organic Compounds (NMOs) (Continued)		<p><u>Processes P25-P34</u></p> <p>(24) The permittee shall operate the landfill gas treatment system whenever landfill gas is routed to it. [40 CFR s. 60.753(f), s. 285.65(13), Wis. Stats.]</p> <p>(25) The permittee shall route landfill gas that has been treated by the landfill gas treatment system to Processes P25-P34 or back to a header pipe. [s. 285.65(3), Wis. Stats.]</p> <p>(26) P25 may be reactivated only if a construction permit is not required. [s. NR 406, Wis. Adm. Code]</p> <p><u>Each Process P10 and P11</u></p> <p>(26) The permittee shall operate each Process P10 and P11 at all times that collected gas is routed to it. [40 CFR ss. 60.752(b)(2)(iii)(A) and 60.753(f), s. 440.18(5), Wis. Adm. Code, s. 285.65(13), Wis. Stats.]</p> <p>(27) Each Process P10 and P11 shall be a steam-assisted, air-assisted, or nonassisted flare. [40 CFR s. 60.752(b)(2)(iii)(A), s. 440.18(3)(f), Wis. Adm. Code, and s. 285.65(13), Wis. Stats. ]</p> <p>(28) Each Process P10 and P11 shall be designed for and operated with no visible emissions as determined by the methods specified in conditions I.P.-Q.3.b.(2) and (3), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [40 CFR s. 60.752(b)(2)(iii)(A), s. NR 440.18(3)(a), Wis. Adm. Code, and s. 285.65(13), Wis. Stats.]</p> <p>(29) The permittee may not vent landfill gas to any Process P10 and P11 whenever a flame is not present in that particular open flare, as determined by the methods specified in condition I.P.-Q.1.b.(31)(a). [40 CFR s. 60.752(b)(2)(iii)(A), s. NR 440.18(3)(b), Wis. Adm. Code, and s. 285.65(13), Wis. Stats.]</p>	

A. to J. Stacks S31, S32, S33, S34, and S25-S29; Processes P31, P32, P33, P34, and P25-P29: Landfill gas-fired reciprocating engines

P. Stack S10, Process P10: Open Flare (Stationary)

Q. Stack S11, Process P11: Open Flare (Mobile) ALL REQUIREMENTS ARE FROM PERMIT #07-MHR-223.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
I. Nonmethane Organic Compounds (NMOCs) (Continued)		<p>(30) Each flare system P10 and P11 shall be designed for and operated with an exit velocity, as determined by the methods specified in condition I.P.-Q.1.b.(32), less than 18.3 m/sec (60 ft/sec), except as specified in s. 440.18(3)(d)3., Wis. Adm. Code. [40 CFR s. 60.752(b)(2)(iii)(A), s. NR 440.18(3)(d)(1), Wis. Adm. Code, and s. 285.65(13), Wis. Stats.]</p> <p>(31) For each Process P10 and P11, the permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:</p> <p>(a) A heat-sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.</p> <p>(b) A device that records flow to the flare. The permittee shall install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least once every 15 minutes.</p> <p>Or</p> <p>Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that gas flow is not being diverted through the bypass line. [40 CFR s. 60.756(c), ss. 285.65(7) and (13), Wis. Stats.]</p> <p>(32) The actual exit velocity of the flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined as appropriate by Reference Method 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip. [40 CFR s. 60.752(b)(2)(iii)(A), s. NR 440.18(6)(d), Wis. Adm. Code, and s. 285.65(13), Wis. Stats.]</p>	

A. to J. Stacks S31, S32, S33, S34, and S25-S29; Processes P31, P32, P33, P34, and P25-P29: Landfill gas-fired reciprocating engines

P. Stack S10, Process P10: Open Flare (Stationary)

Q. Stack S11, Process P11: Open Flare (Mobile) ALL REQUIREMENTS ARE FROM PERMIT #07-MHR-223.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
I. Nonmethane Organic Compounds (NMOCs) (Continued)		<p><u>Operation of Collection System, Landfill Gas Treatment System (which precedes Processes P25-P34), Process P10, and Process P11</u></p> <p>(33) Conditions I.A.-Q.1.b.(1)-(32) apply at all times, except during periods of start-up, shutdown, or malfunction, provided that following conditions are met:</p> <p>(a) For the landfill gas collection system: the duration of start-up, shutdown, or malfunction shall not exceed 5 days.</p> <p>(b) For the landfill gas treatment system that precedes Processes P25-P34, the duration of start-up, shutdown, or malfunction shall not exceed 1 hour.</p> <p>(c) For each Process P10 and P11, the duration of start-up, shutdown, or malfunction shall not exceed 1 hour,</p> <p>[40 CFR ss. 60.755(e) , s. 285.65(13), Wis. Stats.]</p> <p><u>Removal of Collection and Control Systems</u></p> <p>(34) After the installation of a collection and control system, the permittee shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in I.A.-Q.1.a.(5), using the following equation:</p> $M_{NMOC} = 1.89 \times 10^{-3} Q_{LFG} C_{NMOC} \quad ; \text{ where}$ <p><math>M_{NMOC}</math> = mass emission rate of NMOC, megagrams per year  <math>Q_{LFG}</math> = flow rate of landfill gas, cubic meters per minute  <math>C_{NMOC}</math> = NMOC concentration, parts per million by volume as hexane</p> <p>(a) The flow rate of landfill gas, <math>Q_{LFG}</math>, shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the devices specified in I.A.-Q.1.a.(3) using a gas flow measuring device calibrated according to the provisions of section 4 of Method 2E of appendix A of 40 CFR 60.</p> <p>[Continued on Next Page]</p>	

A. to J. Stacks S31, S32, S33, S34, and S25-S29; Processes P31, P32, P33, P34, and P25-P29: Landfill gas-fired reciprocating engines

P. Stack S10, Process P10: Open Flare (Stationary)

Q. Stack S11, Process P11: Open Flare (Mobile) ALL REQUIREMENTS ARE FROM PERMIT #07-MHR-223.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
I. Nonmethane Organic Compounds (NMOCs) (Continued)		<p>(34) Continued</p> <p>(b) The average NMOC concentration, <math>C_{NMOC}</math>, shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25C or Method 18 of appendix A of 40 CFR 60. If using Method 18 of appendix A of 40 CFR part 60, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The sample location on the common header pipe shall be before any condensate removal or other gas refining units. The permittee shall divide the NMOC concentration from Method 25C of appendix A of 40 CFR 60 by six to convert from <math>C_{NMOC}</math> as carbon to <math>C_{NMOC}</math> as hexane.</p> <p>(c) The permittee may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the department as provided in 40 CFR s. 60.752(b)(2)(i)(B). [40 CFR s. 60.754(b), s. 285.65(13), Wis. Stats.]</p> <p><u>Monitoring Leachate Levels in Gas Wells<sup>4</sup></u></p> <p>(35) The permittee shall monitor and report quarterly the leachate levels in all gas wells that are not equipped with an automatic leachate extraction system or submersible pump, in feet. [40 CFR s. 60.759(a)(1), ss. 285.65(3) &amp; (13), Wis. Stats.]</p> <p>(36) The permittee shall install and operate an automatic leachate extraction system or submersible pump in any gas well where there is more than 20 feet of liquid or where more than half the slotted perforations are submerged. [40 CFR s. 60.759(a)(1), ss. 285.65(3) &amp; (13), Wis. Stats.]</p>	

<sup>4</sup> The permittee shall meet the requirements specified in I.A.-Q.1.b. (35)-(36) as a means to maximize the efficiency of the landfill gas collection system.

A. to J. Stacks S31, S32, S33, S34, and S25-S29; Processes P31, P32, P33, P34, and P25-P29: Landfill gas-fired reciprocating engines

P. Stack S10, Process P10: Open Flare (Stationary)

Q. Stack S11, Process P11: Open Flare (Mobile) ALL REQUIREMENTS ARE FROM PERMIT #07-MHR-223.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
2. Particulate Matter Emissions <sup>5</sup>	(1) The permittee may not emit more than 0.9 pounds of particulate matter per hour from each Process P25-P34. [s. NR 404.08(2), 415.03, and 415.06(2)(a), Wis. Adm. Code, Permit # 07-MHR-223]	(1) The permittee may only fire landfill gas and natural gas in each Process P25-P34. The permittee may use propane and LP gas to light the pilot light in each Process P25-P34. [s. 285.65(3), Wis. Stats.]  (2) Stack S10, S11, and each Stack S25-S35 shall meet the stack parameters specified in I.ZZZ.1.a. [s. 285.65(3), Wis. Stats.]	(1) <u>Reference Test Method for Particulate Matter Emissions:</u> Whenever compliance emission testing is required, US EPA Method 5 and Method 202 shall be used to demonstrate compliance, unless alternative or equivalent methods are approved, or specific methods are required, in writing, by the department. [ss. NR 439.06, and 439.06(1), Wis. Adm. Code]  (2) <u>Reference Test Method for PM<sub>10</sub> Emissions:</u> Whenever compliance emission testing is required, the appropriate US EPA Method; 201 or 201A shall be used to demonstrate compliance, unless alternative or equivalent methods are approved, or specific methods are required, in writing, by the department.. [s. NR 439.06(1m), Wis. Adm. Code]

<sup>5</sup> These limits have been established to avoid a violation of the particulate matter ambient air standard or increment and ensure that the source can comply with the criteria for permit approval set forth in s. 285.63(1)(b), Wis. Stats.

A. to J, Stacks S31, S32, S33, S34, and S25-S29; Processes P31, P32, P33, P34, and P25-P29: Landfill gas-fired reciprocating engines

P. Stack S10, Process P10: Open Flare (Stationary)

Q. Stack S11, Process P11: Open Flare (Mobile) ALL REQUIREMENTS ARE FROM PERMIT #07-MHR-223.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
3. Visible Emissions	<p>(1) For Each Process P25-P34: 20 percent opacity. [s. NR 431.05, Wis. Adm. Code, Permit # 04-MHR-183, Permit # 07-MHR-223]</p> <p>(2) For each Process P10 and P11: 0 percent opacity, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [ss. NR 440.18 (3)(a), and 431.05, Wis. Adm. Code, Permit # 04-MHR-183]</p>	<p>(1) For Each Process P25-P34: The permittee shall conduct compliance emission testing using USEPA Method 9 at the times specified below:</p> <p>(a) Within 60 days after achieving the maximum production rate at which that engine will be operated, but not later than 180 days after initial start-up of that engine. Whenever a compliance emission test cannot be conducted by the date required in this condition, the permittee may request and the department may approve, in writing, an extension of the time to conduct the test(s). and</p> <p>(b) At other times as may be required by the department. [ss. 439.075(1), and 439.06(9)(a)1., Wis. Adm. Code, Permit # 04-MHR-183, Permit # 07-MHR-223]</p> <p>(2) For Process P10: Whenever required by the department, the permittee shall conduct compliance emission testing using Reference Method 22 of Appendix A, 40 CFR part 60. The observation period is 2 hours and shall be used according to Method 22. [ss. NR 440.08(1), and 440.18(6)(a), Wis. Adm. Code.]</p> <p>(3) For Process P11: Whenever required by the department, the permittee shall conduct compliance emission testing using Reference Method 22 of Appendix A, 40 CFR part 60 at the times specified below. The observation period is 2 hours and shall be used according to Method 22. [ss. NR 440.08(1), and 440.18(6)(a), Wis. Adm. Code]</p>	<p>(1) For Each Process P25-P34: Whenever visible emissions compliance testing is required, USEPA Method 9 in 40 CFR part 60, Appendix A shall be used. [s. NR 439.06(9)(a)1., Wis. Adm. Code]</p> <p>(2) For Each Process P10 and P11: Whenever visible emissions compliance testing is required, USEPA Method 22 in 40 CFR part 60, Appendix A shall be used. The observation period is 2 hours and shall be used according to Method 22. [s. NR 440.18(6)(a), Wis. Adm. Code]</p> <p>(3) The permittee shall keep and maintain copies of emission testing results. [s. NR 439.04(1)(d), Wis. Adm. Code]</p>

A. to J. Stacks S31, S32, S33, S34, and S25-S29; Processes P31, P32, P33, P34, and P25-P29: Landfill gas-fired reciprocating engines

P. Stack S10, Process P10: Open Flare (Stationary)

Q. Stack S11, Process P11: Open Flare (Mobile) ALL REQUIREMENTS ARE FROM PERMIT #07-MHR-223.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
4. Sulfur Dioxide <sup>6</sup>	<p>(1) The permittee may not emit sulfur dioxide in such quantities to cause any of the ambient air increments to be exceeded:</p> <p>(a) annual arithmetic mean: 20 micrograms per cubic meter.</p> <p>(b) 24 hour maximum: 91 micrograms per cubic meter.</p> <p>(c) 3 hour maximum: 512 micrograms per cubic meter. [s. NR 404.05(3)(b), Wis. Adm. Code, Permit # 04-MHR-183]</p>	<p>(1) The permittee may only fire landfill gas and natural gas in each Process P25-P34. The permittee may use propane and LP gas to light the pilot light in each Process P25-P34. [s. 285.65(3), Wis. Stats., Permit 04-MHR-183, Permit # 07-MHR-223]</p> <p>(2) Stack S10, S11, and each Stack S25-S34 shall meet the stack parameters specified in I.ZZZ.1.a. [s. 285.65(3), Wis. Stats., Permit # 04-MHR-183]</p> <p>(3) The permittee shall sample and analyze the landfill gas for sulfur content in the following manner:</p> <p>(a) The permittee shall sample and analyze a representative sample of landfill gas that leads to Processes P10, P11, P31, P32, P33, P34, P25, P26, P27, P28, and P29 on or before July 31, 2006, and no less frequently than once every 12 months thereafter. Whenever a representative sample of landfill gas cannot be taken by the date required in this condition, the permittee may request and the department may approve, in writing, an extension of time to conduct the test(s).</p> <p>(b) The permittee shall sample and analyze the landfill gas for sulfur content using department-approved method(s). [s. 285.65(3), Wis. Stats., s. NR 439.085(4), Wis. Adm. Code, Permit # 04-MHR-183]</p> <p>(4) On a monthly basis, the permittee shall measure and record the amount of landfill gas fired in each Process P25-P34, in cubic feet per month. [s. 285.65(3), Wis. Stats., Permit # 04-MHR-183, Permit # 07-MHR-223]</p>	<p>(1) <u>Reference Test Method for Sulfur Dioxide Emissions:</u> Whenever compliance emission testing is required, USEPA Method 6, 6A, 6B, 6C, or 8 shall be used to demonstrate compliance. [s. 439.06(2)(a), Wis. Adm. Code]</p> <p>(2) <u>Reference Test Method for Sampling and Analyzing Landfill Gas for Sulfur Content:</u> Whenever sampling and analysis is required to determine the sulfur content in landfill gas, department approved method(s) shall be used to demonstrate compliance. [s. NR 439.08(3), Wis. Adm. Code]</p> <p>(3) The permittee shall keep and maintain the following:</p> <p>(a) On site technical drawings, blueprints, or equivalent records that show</p> <p>(i) The location of fencelines described in conditions I.A.-Q.4.a.(3)-(4).</p> <p>(ii) The stack parameters of Stack S10, Stack S11, and each Stack S25-S34.</p> <p>(b) Copies of landfill gas analytical results.</p> <p>(c) Monthly average landfill gas collection rates for each Process P25-P34, in cubic feet per month.</p> <p>[Continued on Next Page]</p>

<sup>6</sup> The department does not expect the permittee to come close to the limitation specified in I.A.-Q.4.a.(5) during the life of this permit. The compliance demonstration methods in I.A.-Q.4.b. will be used to re-evaluate the permittee's compliance status with those limitations during the review for the operation permit.

A. to J. Stacks S31, S32, S33, S34, and S25-S29; Processes P31, P32, P33, P34, and P25-P29: Landfill gas-fired reciprocating engines

P. Stack S10, Process P10: Open Flare (Stationary)

Q. Stack S11, Process P11: Open Flare (Mobile) ALL REQUIREMENTS ARE FROM PERMIT #07-MHR-223.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
4. Sulfur Dioxide (Continued)	<p>(2) The permittee may not emit sulfur dioxide in such quantities to cause any of the following ambient air concentrations to be exceeded</p> <p>(a) Primary standards:</p> <p>(a)(i) annual arithmetic mean: 0.030 parts per million.</p> <p>(a)(ii) maximum 24-hour average concentration, not to be exceeded more than once per year: 0.14 parts per million.</p> <p>(b) Secondary standard of 0.5 parts per million, not to be exceeded more than once per year.</p> <p>[s. NR 404.05(2), Wis. Adm. Code, Permit # 04-MHR-183]</p> <p>(3) The closed landfill, existing landfill, and proposed landfill expansion shall each be enclosed by a fence. [s. 406.10, Wis. Adm. Code, Permit # 04-MHR-183]</p>	<p>(5) For each Process P25-P34, the permittee shall (within 30 days after each calendar month) calculate monthly sulfur dioxide emissions (in tons/month) using the following equation:</p> $MS = LFG_m \times \frac{1}{379} \times \frac{SC}{1,000,000} \times 64 \times \frac{1}{2000} \quad ; \text{ where}$ <p>MS = monthly SO<sub>2</sub> emissions for any Process P25-P34, in tons per month</p> <p>LFG<sub>m</sub> = amount of landfill gas fired in any Process P25-P34 during month m, in cubic feet per month</p> <p>379 cubic feet per pound mole</p> <p>SC = sulfur content of landfill gas from the most recent landfill gas analysis, in parts per million (on a molar basis)</p> <p>64 pounds of SO<sub>2</sub> per pound mole of sulfur</p> <p>2000 pounds per ton</p> <p>[s. 285.65(3), Wis. Stats., Permit # 07-MHR-223]</p>	<p>(3) Continued</p> <p>(d) Monthly SO<sub>2</sub> emissions from each Process P25-P34, in tons per month.</p> <p>(e) SO<sub>2</sub> emission limit for Processes P31-P34, combined.</p> <p>(f) Annual SO<sub>2</sub> emissions for each Process P25-P34, in tons per year.</p> <p>(g) Annual SO<sub>2</sub> emissions for Processes P25-P34, combined, in tons per year.</p> <p>[s. NR 439.04(1)(d), Wis. Adm. Code]</p>

**A. to J. Stacks S31, S32, S33, S34, and S25-S29; Processes P31, P32, P33, P34, and P25-P29:** Landfill gas-fired reciprocating engines

**P. Stack S10, Process P10:** Open Flare (Stationary)

**Q. Stack S11, Process P11:** Open Flare (Mobile) **ALL REQUIREMENTS ARE FROM PERMIT #07-MHR-223.**

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
4. Sulfur Dioxide (Continued)	<p>(4) The permittee shall maintain a fence in the locations specified in Figure 1. [s. 406.10, Wis. Adm. Code, Permit # 04-MHR-183]</p> <p>(5) For Stacks S25-S34, Stack S10, and S11, combined, the permittee shall limit sulfur dioxide emissions from the expansion of the landfill to 41,500 pounds per month, based on a 12-month rolling average.<sup>7</sup> [s. 285.65(7), Wis. Stats., Permit # 04-MHR-183]</p>		

<sup>7</sup> Ridgeview Landfill proposed to limit emissions so that the project reflected in Air Pollution Control Construction Permit # 04-MHR-183 would not constitute a major source for prevention of significant deterioration purposes.

A. to J. Stacks S31, S32, S33, S34, and S25-S29; Processes P31, P32, P33, P34, and P25-P29: Landfill gas-fired reciprocating engines

P. Stack S10, Process P10: Open Flare (Stationary)

Q. Stack S11, Process P11: Open Flare (Mobile) ALL REQUIREMENTS ARE FROM PERMIT #07-MHR-223.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
5. Nitrogen Oxides	(1) The permittee may not emit more than 2,920 pounds of nitrogen oxides per month from each Process P25-P34, calculated on a 12 consecutive month average basis. <sup>8</sup> [s. 285.65(7), Wis. Stats., Permit # 04-MHR-183]	(1) The permittee may only fire landfill gas and natural gas in each Process P25-P34. The permittee may use propane and LP gas to light the pilot light in each Process P25-P34. [s. 285.65(3), Wis. Stats.]	<p>(1) <u>Reference Test Method for Nitrogen Oxides Emissions:</u> Whenever nitrogen oxides emission testing is required, the permittee shall use USEPA Method 7, 7A, 7B, 7C, 7D, or 7E. [s. NR 439.06(1), Wis. Adm. Code]</p> <p>(2) The permittee shall keep and maintain copies of emission testing results, including the level of each parameter specified by the department. [s. 439.04(1)(d), Wis. Adm. Code]</p> <p>(3) The permittee shall keep and maintain copies of the following records:</p> <p>(a) The amount of landfill gas fired in each Process P25-P34, in cubic feet per month.</p> <p>(b) Emission testing results, including the level of each parameter specified by the department.</p> <p>(c) An emission factor for nitrogen oxides</p> <p>(d) Calculation of monthly emissions of nitrogen oxides in pounds per month.</p> <p>(e) Calculation of the 12 consecutive month average of nitrogen oxides in pounds per month.</p> <p>[s. 439.04(1)(d), Wis. Adm. Code]</p>

<sup>8</sup> Manitowoc County is a basic nonattainment area for ozone. Nitrogen oxides is a precursor to ozone formation. The permittee proposed to limit nitrogen oxides emissions so that the existing facility before the issuance of Air Pollution Control Construction Permit # 04-MHR-183 would be a minor nitrogen oxides source for nonattainment area purposes, as specified in s. NR 408.02(21), Wis. Adm. Code. For the existing facility (before Permit # 04-MHR-183 was issued), Process P01 consisted of 4 engines. After Permit # 04-MHR-183 was issued, this facility became a major nitrogen oxides source for nonattainment area purposes, and Process P01 may consist of up to 10 engines. With the issuance of Permit # 07-MHR-223, each of those existing 10 generators was given separate process numbers (some of these have been replaced under 07-MHR-223).

A. to J. Stacks S31, S32, S33, S34, and S25-S29; Processes P31, P32, P33, P34, and P25-P29: Landfill gas-fired reciprocating engines

P. Stack S10, Process P10: Open Flare (Stationary)

Q. Stack S11, Process P11: Open Flare (Mobile) ALL REQUIREMENTS ARE FROM PERMIT #07-MHR-223.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
6. Carbon Monoxide	(1) The permittee may not emit more than 40,833 pounds of carbon monoxide per month calculated on a 12 consecutive month average basis. [s. 285.65(7), Wis. Stats.]		<p>(1) The permittee shall keep and maintain copies of the records specified in 5.c.(3)(a)-(c) above. [s. 439.04(1)(d), Wis. Adm. Code]</p> <p>(2) The permittee shall keep and maintain copies of the following records:</p> <p>(a) The amount of landfill gas fired in cubic feet per month.</p> <p>(b) The amount of landfill gas fired over each consecutive 12 month period, in cubic feet per year.</p> <p>(c) An emission factor for carbon monoxide</p> <p>(d) Calculation of monthly emissions of carbon monoxide in pounds per month.</p> <p>(e) Calculation of the 12 consecutive month average of carbon monoxide in pounds per month. [s. 439.04(1)(d), Wis. Adm. Code]</p>

A. to J. Stacks S31, S32, S33, S34, and S25-S29; Processes P31, P32, P33, P34, and P25-P29: Landfill gas-fired reciprocating engines

P. Stack S10, Process P10: Open Flare (Stationary)

Q. Stack S11, Process P11: Open Flare (Mobile) ALL REQUIREMENTS ARE FROM PERMIT #07-MHR-223.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
7. Formaldehyde	<p>(1) Presumptive BACT for formaldehyde emissions Applicability: The following presumptive BACT applies to each landfill gas-fired SI RICE engine that meets the following conditions:</p> <ul style="list-style-type: none"> <li>• Landfill gas is at least 10% or more of the gross heat input to the SI RICE on an annual basis;</li> <li>• The landfill gas-fired SI RICE is not subject to an <i>emission</i> standard promulgated under section 112 of the Clean Air Act; and</li> </ul> <p>The owner or operator of the landfill gas-fired SI RICE is either paid less than a Threshold Energy Price of \$0.08 per kilowatt-hour. or</p> <p>The owner or operator of the landfill gas-fired SI RICE documents an operating margin of less than \$0.05 per kilowatt-hour, calculated before controls.</p>	<p>(1) Work Practice Standards</p> <p>a. Change the oil and filter every 1,440 hours of operation or annually, whichever comes first. The facility may opt to use an oil analysis program to extend this specified oil change interval requirement. The oil analysis program must be performed at the same frequency specified for changing the oil above. The oil analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis. If the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later.</p> <p>b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.</p> <p>c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.</p> <p>d. If a site-specific engine maintenance plan recommends a different interval than those specified in 1.a., b. or c., the permittee shall follow whichever interval is more stringent.</p> <p>e. Operate and maintain any pre-engine landfill gas treatment or conditioning system according to the manufacturer's emission related written instructions. [s. NR 445.08(2)(f), Wis. Adm. Code]</p>	<p>(1) Utilize one of the following USEPA test methods: Method 320 or 323 of 40 CFR Part 63, appendix A; ASTM D6348-03, provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique); or alternative test method approved by the Department. [s. NR 439.06, Wis. Adm. Code]</p> <p>(2). Monitoring</p> <p>a. Continuously monitor the amount of landfill gas combusted, and record in cubic feet per month.</p> <p>b. Monitor and record the methane content of the landfill gas as fired at least once per month, in percent methane.</p> <p>c. Equip each engine with a non-resettable hour meter to monitor the hours of operation.</p> <p>d. Label each engine with a unique identification number and cross referenced to the Department's process identification in the applicable air permit and air emission inventory. [s. NR 407.09(1)(c)1.b., Wis. Adm. Code]</p> <p>(3) Record Keeping:</p> <p>1. To demonstrate compliance with the requirements of the presumptive BACT, an owner or operator using this presumptive BACT is required to keep the following records. These records are to be kept for five (5) years on-site or readily accessible and made available for review upon request by the Department.</p> <p>a. The total hours of operation of each engine, in hours per week, as recorded by a non-resettable hour meter.</p>

A. to J. Stacks S31, S32, S33, S34, and S25-S29; Processes P31, P32, P33, P34, and P25-P29: Landfill gas-fired reciprocating engines

P. Stack S10, Process P10: Open Flare (Stationary)

Q. Stack S11, Process P11: Open Flare (Mobile) ALL REQUIREMENTS ARE FROM PERMIT #07-MHR-223.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
7. Formaldehyde <i>continued</i>	<p>Operating margin shall be calculated as the difference between the Threshold Energy Price and the ten-year average annualized costs associated with operating the landfill gas-fired RICE (including capital investment, O&amp;M, etc.), calculated in accordance with generally accepted accounting principles. [s. NR 445.08(2)(f), Wis. Adm. Code]</p>	<p>(2) Stack Emission Testing a. If stack testing has not been performed within five years of application submittal, the owner or operator shall perform stack emission testing within 90 days of permit issuance. Testing shall be conducted on one of each class or category of engine at the facility to determine an emission factor for formaldehyde. The test report shall report formaldehyde emissions in pounds of formaldehyde emitted per hour, pounds of formaldehyde per MMBTU of landfill gas combusted, and grams of formaldehyde per brake horsepower-hour. b. Subsequent performance testing shall be performed every five (5) years, within 90 days of the anniversary date of the initial test. [s. NR 439.075(1)(b), Wis. Adm. Code]</p>	<p>b. Records of all required engine maintenance, including: (i) The date and current hour meter reading of any maintenance activity. (ii) A description of each maintenance activity (i.e., oil change, spark plugs changed, hoses and belts replaced). (iii) The length of time the engine was out of service. (iv) If the engine is involved in an oil analysis program: the results from each oil analysis which include the Total Acid Number, viscosity, and percent water content and whether their condemning limits, as defined in B.1.a., are exceeded. c. A copy of the maintenance plan for the SI RICE, or a copy of the facility's own maintenance plan for the SI RICE. d. A copy of the operation and maintenance plan for pre-engine landfill gas treatment or conditioning systems, and maintenance records for these items; e. Records of emission testing. These records shall, at a minimum, include: (i) The date of each emission test. (ii) An identification of each engine tested. (iii) The results of each emission test, in pounds of formaldehyde emitted per hour, pounds of formaldehyde emitted per MMBTU of landfill gas combusted, and grams of formaldehyde per brake horsepower-hour. f. The combined amount of landfill gas combusted in the engines for each calendar month, in cubic feet g. The methane content of the landfill gas, as fired. h. Supporting documentation for the calculation of the Threshold Energy Price as outlined in Section 3.A. (Presumptive BACT Applicability). [s. NR 439.04(1)(d), Wis. Adm. Code]</p>

A. to J. Stacks S31, S32, S33, S34, and S25-S29; Processes P31, P32, P33, P34, and P25-P29: Landfill gas-fired reciprocating engines

P. Stack S10, Process P10: Open Flare (Stationary)

Q. Stack S11, Process P11: Open Flare (Mobile) ALL REQUIREMENTS ARE FROM PERMIT #07-MHR-223.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
8. Federal Hazardous Air Pollutants Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	<p>(1) Existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements. [40 CFR 63.6590(b)(3)(v)]</p> <p>(2) A new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of §63.6645(f) and the requirements of §§63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart. [40 CFR 63.6590(b)(2)] -</p>	<p>(1) Area sources that become major sources. If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the following compliance date applies to you: Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP. (The facility became a major source on November 2011 so the facility must meet the fuel usage monitoring and reporting and notification requirements by November 2014). [40 CFR 63.6595(b)]</p>	<p>(1) If you are operating a new or reconstructed stationary RICE which fires landfill gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. In addition, you must operate your stationary RICE in a manner which reasonably minimizes HAP emissions. [40 CFR 63.6625(c)]</p> <p>(2) If you are operating as a new or reconstructed stationary RICE which fires landfill gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must submit an annual report according to Table 7 of this subpart by the date specified unless the Administrator has approved a different schedule, according to the information described in paragraphs (b)(1) through (b)(5) of this section. You must report the data specified in (g)(1) through (g)(3) of this section.</p> <p>(1) Fuel flow rate of each fuel and the heating values that were used in your calculations. You must also demonstrate that the percentage of heat input provided by landfill gas or digester gas is equivalent to 10 percent or more of the total fuel consumption on an annual basis.</p> <p>(2) The operating limits provided in your federally enforceable permit, and any deviations from these limits.</p> <p>(3) Any problems or errors suspected with the meters. [40 CFR 63.6650 (g)]</p> <p>(3) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must keep the records of your daily fuel usage monitors. [40 CFR 63.6655(c)]</p>

T. Process F10: Fugitive Landfill Emissions. All requirements come from Permit #07-MHR-223.			
POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
1. Particulate Matter Emissions	<p>(1) The permittee may not cause, allow, or permit any materials to be handled, transported, or stored without taking precautions to prevent particulate matter from becoming airborne. Nor may the permittee allow a structure, a parking lot, or a road to be used, constructed, altered, repaired, sand blasted, or demolished without taking such precautions. [s. NR 415.04, Wis. Adm. Code]</p> <p>(2) Secondary Ambient Air Standard of <math>150 \mu\text{g}/\text{m}^3</math>, not to be exceeded more than once per year [s. NR 404.04(3), Wis. Adm. Code]</p>	<p>(1) Whenever compliance ambient air monitoring is required, methods approved in writing by the department shall be used to demonstrate compliance. [ss. NR 439.06(8) and 439.075(1)(b), Wis. Adm. Code, s. 285.65(3), Wis. Stats.]</p> <p>(2) The permittee shall follow the procedures in the fugitive dust control plan required by conditions I.T.I.b.(3). These procedures shall include, but not be limited to:</p> <p>(a) Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, or construction operations.</p> <p>(b) Application of asphalt, water, suitable chemicals or plastic covering on dirt roads, material stockpiles and other surfaces which can create airborne dust, provided such application does not create a hydrocarbon, odor or water pollution problem.</p> <p>(c) Installation and use of hoods, fans, and air cleaning devices to enclose and vent the areas where dusty materials are handled.</p> <p>(d) Covering or securing of materials likely to become airborne while being moved on public roads, railroads, or navigable waters.</p> <p>(e) Paving or maintenance of roadway areas so as not to create air pollution. [s. NR 415.04(1), Wis. Adm. Code]</p> <p>(3) The permittee shall prepare and implement a written fugitive dust control plan. The permittee shall keep a copy of that plan onsite and make that plan available to department personnel upon request during normal business hours. [s. 265.03, Wis. Stats., s. 439.06(8), Wis. Adm. Code]</p>	<p>(1) The permittee shall keep and maintain the following records:</p> <p>(a) Daily records of all precautions and corrective actions taken to prevent fugitive dust emissions.</p> <p>(b) The records required in the most recent fugitive dust control plan.</p> <p>(c) A copy of the most recent fugitive dust plan. [s. NR 439.04(1)(d), Wis. Adm. Code]</p>

T. Process F10: Fugitive Landfill Emissions. All requirements come from Permit #07-MHR-223.			
POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
2. Malodorous Emissions	(1) The permittee may not cause, allow, or permit emissions into the ambient air of any substance or combination of substances in such quantities that an objectionable odor is determined to result, unless preventative measures (e.g. - operating a landfill gas collection and control systems) are taken to abate or control such emissions. [s. NR 429.03, Wis. Adm. Code]	<p>(1) The permittee shall operate a landfill gas collection system, the landfill gas treatment system, Process P10, and Process P11 to control malodorous emissions, as specified in I.A.-Q.1. a. - b. [s. 285.65(3), Wis. Stats., and s. NR 429.03(3), Wis. Adm. Code]</p> <p>(2) The permittee shall prepare and implement the odor control plan that has been most recently submitted to the department. [s. 285.65(3), Wis. Stats.]</p> <p>(3) The permittee shall submit any requested changes to the odor control plan to the Wisconsin Department of Natural Resources, Northeast Region Air Program, 2984 Shawano Avenue, Green Bay, WI 54313 at least 45 days prior to making any changes. [s. 285.65(3), Wis. Stats.]</p>	<p>(1) The permittee shall keep and maintain the following:</p> <p>(a) The records required in the most recent, Department-approved odor control plan.</p> <p>(b) A copy of the most recent Department approved odor control plan</p> <p>(c) Copies of all Department approvals of the odor control plan and requested changes to that plan. [s. NR 439.04(1)(d), Wis. Adm. Code]</p>

ZZZ. Conditions Applicable to the Entire Facility		
CONDITION TYPE	a. CONDITIONS	b. COMPLIANCE DEMONSTRATION, REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
<b>1. Stack Parameters</b>  NOTE: These requirements are included because the source was reviewed with these stack parameters and it was determined that no increments or ambient air quality standards will be violated.	<p>(1) For Each Stack S31, S32, S33, S34, S25, S26, S27, S28, S29, S30, S31, and S35:</p> <ul style="list-style-type: none"> <li>(a) The height shall be at least 31 feet above ground level.</li> <li>(b) The inside diameter at the outlet may not exceed 0.83 feet.</li> <li>(c) Exhaust gases shall be vented vertically.</li> <li>(d) The stack may not be equipped with a rainhat or other device, which impedes the upward flow of the exhaust gases. [s. NR 406.10, Wis. Adm. Code, and s. 285.65(3), Wis. Stats., Permit # 07-MHR-223]</li> </ul> <p>(2) For Stack S10:</p> <ul style="list-style-type: none"> <li>(a) The stack height shall be at least 30 feet above ground level.</li> <li>(b) The stack inside diameter at the outlet may not exceed 0.83 feet.</li> <li>(c) Exhaust gases shall be vented vertically.</li> <li>(d) The stack may not be equipped with a rainhat or other device, which impedes the upward flow of the exhaust gases. [s. NR 406.10, Wis. Adm. Code, and s. 285.65(3), Wis. Stats., Permit # 07-MHR-223]</li> </ul> <p>(3) For Stack S11:</p> <ul style="list-style-type: none"> <li>(a) The stack height shall be at least 22 feet above ground level.</li> <li>(b) The stack inside diameter at the outlet may not exceed 0.67 feet.</li> <li>(c) Exhaust gases shall be vented vertically.</li> <li>(d) The stack may not be equipped with a rainhat or other device, which impedes the upward flow of the exhaust gases. [s. NR 406.10, Wis. Adm. Code, and s. 285.65(3), Wis. Stats., Permit # 07-MHR-223]</li> </ul>	<p>(1) The permittee shall keep and maintain the on site technical drawings, blueprints, or equivalent records that show as-built physical stack parameters of each stack. [s. NR 439.04(1)(d), Wis. Adm. Code; Permit #07-MHR-223]</p>

<b>ZZZ. Conditions Applicable to the Entire Facility</b>		
<b>CONDITION TYPE</b>	<b>a. CONDITIONS</b>	<b>b. COMPLIANCE DEMONSTRATION, REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS</b>
<b>2. Malfunction Prevention and Abatement Plans</b>	<p>(1) A malfunction prevention and abatement plan shall be prepared and followed for the plant.</p> <p>(a) All air pollution control equipment shall be operated and maintained in conformance with good engineering practices (i.e. operated and maintained according to manufacturer's specifications and directions) to minimize the possibility for the exceedance of any emission limitations.</p> <p>(b) The Wisconsin Department of Natural Resources, Northeast Region Air Program, 2984 Shawano Avenue, Green Bay, WI 54313 may require the permittee to submit the plan for review and approval. The Department may amend the plan if deemed necessary for malfunction prevention or for the reduction of excess emissions during malfunctions.</p> <p>[s. NR 439.11(2), Wis. Adm. Code, Permit # 07-MHR-223]</p>	<p>(1) The malfunction prevention and abatement plan shall be developed to prevent, detect and correct malfunctions or equipment failures which may cause any applicable emissions limitation to be violated or which may cause air pollution. [s. NR 439.11(1), Wis. Adm. Code; Permit #07-MHR-223]</p> <p>(a) This malfunction prevention and abatement plan shall include installation, maintenance and routine calibration procedures for the process monitoring and control equipment instrumentation. This plan shall require an instrumentation calibration at the frequency specified by the manufacturer, yearly or at a frequency based on good engineering practice as established by operational history, whichever is more frequent. Inspection and calibration shall also be conducted whenever instrumentation anomalies are noted. [s. NR 407.09(1)(c)I.c., NR 439.055(4) and s. NR 439.11, Wis. Adm. Code; Permit #07-MHR-223]</p> <p>(b) The malfunction prevention and abatement plan shall require a copy of the operation and maintenance manual for the control equipment to be maintained on site. The plan shall contain all of the elements in s. NR 439.11(1)(a) – (h), Wis. Adm. Code. [s. NR 439.11, Wis. Adm. Code; Permit #07-MHR-223]</p> <p>(2) A written copy of the malfunction prevention and abatement plan shall be kept at the plant and shall be updated once every five years. [s. NR 439.11(1), Wis. Adm. Code; Permit #07-MHR-223]</p> <p>(3) The facility shall maintain an inventory of normal consumable items necessary to ensure operation of the control device(s) in conformance with the manufacturer's specifications and recommendations. [s. NR 439.11, Wis. Adm. Code; Permit #07-MHR-223]</p> <p>(4) The facility shall maintain records of the instrumentation calibrations. [s. NR 439.04, Wis. Adm. Code; Permit #07-MHR-223]</p>

<b>ZZZ. Conditions Applicable to the Entire Facility</b>		
<b>CONDITION TYPE</b>	<b>a. CONDITIONS</b>	<b>b. COMPLIANCE DEMONSTRATION, REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS</b>
<b>3. 40 CFR Part 63, Subpart AAAA: National Emission Standard for Hazardous Air Pollutants (NESHAP) for Municipal Solid Waste Landfills</b>	<p>(1) The permittee shall comply with any applicable requirements in the National Emission Standards for Hazardous Air Pollutants (NESHAP) which establish Maximum Achievable Control Technology (MACT) standards. [s. NR 460.05(3)(a), Wis. Adm. Code; Permit #07-MHR-223]</p> <p>(2) The permittee shall meet the requirements of Condition ZZZ.3.a.(1) by complying with the requirements of 40 CFR Part 60, Subpart WWW as outlined in Table A.-Q. of this operation permit. [s. NR 460.05(3)(a), Wis. Adm. Code; 40 CFR §63.1955(a)]</p>	<p>(1) Except as specified in I.ZZZ.3.b.(2), the permittee shall meet the requirements specified in I.ZZZ.3.b.(3) - (8) upon issuance of the operation permit. [40 CFR s. 63.1945(f), s. 285.65(13), Wis. Stats.; Permit #07-MHR-223]</p> <p>(2) The permittee shall not be required to meet the requirements specified in I.ZZZ.3.b.(3)-(8) when the permittee is no longer required to operate Process P10, Process P11, or the landfill gas treatment system, as specified in I.A.-Q.1.a.(5). [40 CFR s. 63.1950, s. 285.65(13), Wis. Stats.; Permit #07-MHR-223]</p> <p>(3) The permittee shall meet the requirements specified in I.A.-Q.1.a. [40 CFR s. 63.1955(a)(1), s. 285.65(13), Wis. Stats.; Permit #07-MHR-223]</p> <p>(4) The permittee shall meet the compliance demonstration requirements specified in I.A.-Q.1.b. [40 CFR s. 63.1955(b), s. 285.65(13), Wis. Stats.; Permit #07-MHR-223]</p> <p>(5) The permittee shall keep and maintain the records specified in I.A.-Q.1.c. [40 CFR s. 63.1980(a), s. 285.65(13), Wis. Stats.; Permit #07-MHR-223]</p> <p><b>(6) Startup, Shutdown, and Malfunction Plan -</b>            (a) In addition to the malfunction prevention and abatement requirements specified in Section I.ZZZ.2, the permittee shall develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown and malfunction and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant requirements specified in this permit. As required under s. NR 460.07(3)(a)1., the plan shall identify all routine or otherwise predictable continuous monitoring system malfunctions. The permittee shall develop the startup, shutdown, and malfunction plan upon issuance of the operation permit.            (b) During periods of startup, shutdown and malfunction, the permittee shall operate and maintain the source, including associated air pollution control equipment, in accordance with the procedures specified in the startup, shutdown and malfunction plan developed under Condition I.ZZZ.3.b.(6)(a) above.</p> <p>[Continued on Next Page]</p>

ZZZ. Conditions Applicable to the Entire Facility		
CONDITION TYPE	a. CONDITIONS	b. COMPLIANCE DEMONSTRATION, REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
3. 40 CFR Part 63, Subpart AAAA: National Emission Standard for Hazardous Air Pollutants (NESHAP) for Municipal Solid Waste Landfills (Continued)		<p>(6)(c) When actions taken by the permittee during a startup, shutdown or malfunction, including actions taken to correct a malfunction, are consistent with the procedures specified in the affected source's startup, shutdown and malfunction plan, the permittee shall keep records for that event that demonstrate that the procedures specified in the plan were followed. In addition, the permittee shall keep records of these events, including records of the occurrence and duration of each startup, shutdown or malfunction of operation and each malfunction of the air pollution control equipment. Furthermore, the permittee shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown and malfunction were consistent with the permittee's report required in Condition 1.ZZZ.3.b.(1).</p> <p>(d) If an action taken by the permittee during a startup, shutdown or malfunction, including an action taken to correct a malfunction, is not consistent with the procedures specified in the affected source's startup, shutdown and malfunction plan, the permittee shall record the actions taken for that event and shall report the actions as specified in 1.ZZZ.3.b.(2).</p> <p>(e) The permittee shall keep the written startup, shutdown and malfunction plan on record after it is developed to be made available for inspection, upon request, by the department for the life of the source or until the source is no longer subject to the provisions 40 CFR, subpart AAAA (National Emission Standard for Hazardous Air Pollutants for Municipal Solid Waste Landfills). In addition, if the startup, shutdown and malfunction plan is revised, the permittee shall keep previous versions of the startup, shutdown and malfunction plan on record, to be made available for inspection, upon request, by the department, for a period of 5 years after each revision to the plan.</p> <p>(f) To satisfy the requirements to develop a startup, shutdown and malfunction plan, the permittee may use the source's standard operating procedures manual, or an occupational safety and health administration or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection when requested by the department.</p> <p>(g) The department may require the permittee to make changes to the startup, shutdown and malfunction plan for that source. The department may require reasonable revisions to a startup, shutdown and malfunction plan, if the department finds that the plan does any of the following:</p> <p>(g)(i) Does not address a startup, shutdown or malfunction event that has occurred.</p> <p>(g)(ii) Fails to provide for the operation of the source, including associated air pollution control equipment, during a startup, shutdown or malfunction event in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards.</p> <p>(g)(iii) Does not provide adequate procedures for correcting malfunctioning process and air pollution control equipment as quickly as practicable.</p> <p>[Continued on Next Page]</p>

ZZZ. Conditions Applicable to the Entire Facility		
CONDITION TYPE	a. CONDITIONS	b. COMPLIANCE DEMONSTRATION, REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
<b>3. 40 CFR Part 63, Subpart AAAA: National Emission Standard for Hazardous Air Pollutants (NESHAP) for Municipal Solid Waste Landfills (Continued)</b>		<p>(6)(h) If the startup, shutdown and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown and malfunction plan at the time the permittee developed the plan, the permittee shall revise the startup, shutdown and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control equipment. [40 CFR s. 63.1955(b), s. NR 460.05(4)(c), Wis. Adm. Code, s. 285.65(13), Wis. Stats.; Permit #07-MHR-223]</p> <p>(7) <u>Prohibited activities</u> –</p> <ul style="list-style-type: none"> <li>(a) The permittee may not operate the source in violation of the requirements of I.ZZZ.3.b., except under any of the following: <ul style="list-style-type: none"> <li>(a)(i) A compliance date extension granted by the administrator under 40 CFR part 63.</li> <li>(a)(ii) A compliance date extension granted under ch. NR 460 by the Department.</li> <li>(a)(iii) An exemption from compliance granted by the president of the United States under section 112 (i)(4) of the act (42 USC 7412(i)(4)).</li> </ul> </li> <li>(b) The permittee may not fail to keep records, notify, report or revise reports as required under I.ZZZ.3.b. and I.ZZZ.3.b.(1) [40 CFR s. 63.1955(b), s. NR 460.04(1), Wis. Adm. Code, s. 285.65(13), Wis. Stats.; Permit #07-MHR-223]</li> </ul> <p>(8) <u>Circumvention</u> – The permittee may not build, erect, install or use any article, machine, equipment or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Concealment includes, but is not limited to, all of the following:</p> <ul style="list-style-type: none"> <li>(a) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere.</li> <li>(b) The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions.</li> <li>(c) The fragmentation of an operation such that the operation avoids regulation by a relevant standard. [40 CFR s. 63.1955(b), s. NR 460.04(2), Wis. Adm. Code, s. 285.65(13), Wis. Stats.; Permit #07-MHR-223]</li> </ul>

<b>ZZZ. Conditions Applicable to the Entire Facility</b>		
<b>CONDITION TYPE</b>	<b>a. CONDITIONS</b>	<b>b. COMPLIANCE DEMONSTRATION, REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS</b>
4. Emissions Testing	(1) At times specified in this permit, or when requested by the Department, the permittee shall perform emissions testing. [s. NR 439.075(1)(b), Wis. Adm. Code]	<p>(1) (1) If any required compliance emission test(s) cannot be conducted within the time frames specified in this permit, the permit holder may request and the Department may approve, in writing, an extension of time to conduct the test(s). [s. NR 439.07, Wis. Adm. Code; Permit #07-MHR-223]</p> <p>(2)</p> <p>(3) (2) All testing shall be performed with the emissions unit operating at capacity or as close to capacity as practicable and in accordance with approved procedures. If operation at capacity is not feasible, the source shall operate at a capacity level which is approved by the Department in writing. [s. NR 439.07(1), Wis. Adm. Code; Permit #07-MHR-223]</p> <p>(3) The Department shall be informed at least 20 working days prior to any stack testing, so a Department representative can witness the testing. At the time of notification, a compliance emission test plan shall also be submitted to the Department for approval. When approved in writing, an equivalent test method may be substituted for the reference test method. The notification and test plan shall be submitted to the Wisconsin Department of Natural Resources. [s. NR 439.07(2), Wis. Adm. Code; Permit #07-MHR-223]</p> <p>(4) Two copies of the report on any compliance emission tests shall be submitted to the Department for evaluation within 60 days following the completion of tests. [s. NR 439.07(9), Wis. Adm. Code; Permit #07-MHR-223]</p>

<b>ZZZ. Conditions Applicable to the Entire Facility</b>		
<b>CONDITION TYPE</b>	<b>a. CONDITIONS</b>	<b>b. COMPLIANCE DEMONSTRATION, REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS</b>
5. Compliance Reports	<p>(1) Except as provided under I.ZZZ.6.a.(6), the facility shall submit periodic monitoring reports. [s. NR 407.09(1)(c)3., Wis. Adm. Code; Permit #07-MHR-223]</p> <p>(2) Except as provided under I.ZZZ.6.a.(6), the permittee shall submit periodic certifications of compliance. [s. NR 407.09(4)(c)3., Wis. Adm. Code; Permit #07-MHR-223]</p>	<p>(1) The permittee shall submit the results of monitoring or a summary of the monitoring results required by this permit to the Department.</p> <p>(a) The time period to be addressed by the submittal is either the January 1 to June 30 or the July 1 to December 31 period which precedes the report.</p> <p>(b) The report shall be submitted to the Wisconsin Department of Natural Resources, Northeast Region Air Program, 2984 Shawano Avenue, Green Bay, WI 54313, by September 1<sup>st</sup> for the period ending June 30, and by March 1<sup>st</sup> for the period ending December 31.</p> <p>(c) All deviations from and violations of applicable requirements shall be clearly identified in the submittal. In addition to the deviations specified in I.A.-Q.1.b.,</p> <p>(i) A deviation occurs when 1 hour or more of the hours during the 3-hour block averaging period does not constitute a valid hour of data. A valid hour of data shall have measure values for at least three 15-minute monitoring periods within the hour. When calculating a 3-hour average the following events shall not be included: monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high level adjustments; startups; shutdowns; and malfunctions.</p> <p>(ii) A deviation also occurs when a start-up, shutdown, and malfunction plan is not developed, implemented, or maintained on site.</p> <p>(d) In addition to the items specified in I.ZZZ.5.b.(1)(c), the summary shall include the following:</p> <p>(i) All periods when the landfill gas collection system was not operating for a period exceeding 5 days.</p> <p>(ii) The location of each exceedance of the 500 parts per million methane above the background level and the concentration recorded at each location for which an exceedance was recorded.</p> <p>(iii) The date of installation and the location of each well or landfill gas collection system expansion added.</p> <p>(iv) If a startup, shutdown, or malfunction occurred during the reporting period, the actions taken by the permittee during the startups, shutdowns, and malfunctions - including actions taken to correct the malfunction - that are consistent with the procedures specified in the permittee's startup, shutdown, and malfunction plan.</p> <p>(e) Each submittal shall be certified by a responsible official as to the truth, accuracy, and completeness of the report.</p> <p>[ss. NR 439.03(1)(b) &amp; 460.09(4)(e)1., Wis. Adm. Code, 40 CFR ss. 60.757(f), 60.758(c)(4), 63.1960, 63.1965(b)-(c), 63.1975, 63.1980(a); Permit #07-MHR-223]</p>

ZZZ. Conditions Applicable to the Entire Facility		
CONDITION TYPE	a. CONDITIONS	b. COMPLIANCE DEMONSTRATION, REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
5. Compliance Reports (Continued)		<p>(2) <b>Immediate reports.</b> Any time an action taken by the permittee during a startup, shutdown or malfunction, including actions taken to correct a malfunction, is not consistent with the procedures specified in the permittee's startup, shutdown and malfunction plan, the permittee shall report the actions taken for that event to the Department's Northeast Region Air Program Office within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event. The immediate report required under this subdivision shall consist of a telephone call, facsimile transmission, or electronic mail to the Department's Northeast Region Air Program Office within 2 working days after commencing actions inconsistent with the plan, and it shall be followed by a letter, delivered or postmarked within 7 working days after the end of the event, that contains the name, title, and signature of the permittee or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown and malfunction plan, and whether any excess emissions or parameter monitoring exceedances or both are believed to have occurred. The correct electronic mail address may be obtained by telephoning the Department's Northeast Region Air Program Office.</p> <p>The time periods and deadlines for the immediate reports may be changed by mutual agreement between the permittee and the department. The permittee who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The permittee shall include in the request whatever information he or she considers useful to convince the department that an adjustment is warranted.</p> <p>If, in the department's judgment, the permittee's request for an adjustment to a particular time period or postmark deadline is warranted, the department shall approve the adjustment. The department shall notify the permittee in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request. If the department is unable to meet that 15 calendar days deadline, it shall notify the permittee of any significant delay and inform the permittee of the amended schedule. [40 CFR s. 63.1955(b), ss. NR 460.09(4)(e)2.-3., and 460.08(9), Wis. Adm. Code, s. 285.65(13), Wis. Stats.; Permit #07-MHR-223]</p>

<b>ZZZ. Conditions Applicable to the Entire Facility</b>		
<b>CONDITION TYPE</b>	<b>a. CONDITIONS</b>	<b>b. COMPLIANCE DEMONSTRATION, REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS</b>
5. Compliance Reports (Continued)		<p>(3) The permittee shall submit certification of compliance with the requirements of this permit to the Department and U.S. EPA annually.</p> <p>(a) The time period to be addressed by the report is the January 1 to December 31 period which precedes the report.</p> <p>(b) The report shall be submitted to the Wisconsin Department of Natural Resources, Northeast Region Air Program, 2984 Shawano Avenue, Green Bay, WI 54313, and to Compliance Data - Wisconsin, Air and Radiation Division, U.S. EPA, 77 W. Jackson, Chicago, IL 60604, by March 1<sup>st</sup> each year this permit is in effect.</p> <p>(c) The information included in the report shall comply with the requirements of Part II, Section N of this permit.</p> <p>(d) Each report shall be certified by a responsible official as to the truth, accuracy, and completeness of the report.</p> <p>[s. NR 439.03(1)(c), Wis. Adm. Code; Permit #07-MHR-223]</p> <p>(4) The records required under this permit shall be retained for at least five (5) years and shall be made available to department personnel upon request during normal business hours. [ss. NR 439.04 and NR 439.05, Wis. Adm. Code; Permit #07-MHR-223]</p>
6. Construction Permit 07 MHR 223 Transitional Language (Continued)	<p><del>(4) (7) Compliance Reports/Records. The permittee shall submit periodic monitoring reports and certification of compliance as required by Conditions I.ZZZ.5.a.(1) and (2) for any new emission unit for the period when that unit becomes operational. Note that compliance monitoring and reporting requirements and limitations of any unmodified units remain in effect. [s. NR 439.03(1), Wis. Adm. Code; Permit #07-MHR-223]</del></p> <p><del>(8) Completion of Operation Permit Application. Before Permit # 436020530-P11 is issued, the permittee shall update the permit application if any changes occur which are not specified or described in the plans and specifications approved under construction permit 07 MHR 223. [s. NR 407.04(1)(b), Wis. Adm. Code; Permit 07-MHR-223]</del></p>	

<b>ZZZ. Conditions Applicable to the Entire Facility</b>		
<b>CONDITION TYPE</b>	<b>a. CONDITIONS</b>	<b>b. COMPLIANCE DEMONSTRATION, REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS</b>
8. Alternate Operating Scenario: Use of raw materials not included in the permit application	<p>(1) If the permittee has the capability to burn or use a raw material not included in the application reviewed for this permit, the permittee may use this material without first obtaining a construction permit provided the following conditions are met:</p> <p>(a) The source has continuously had such design capability to burn or use the raw material.</p> <p>(b) The use will not cause or exacerbate the violation of an ambient air quality standard or an ambient air increment.</p> <p>(c) The use is not prohibited by any permit, plan approval or special order applicable to the source.</p> <p>(d) The use will not result in a violation of any emission limit in chs. NR 405, 408, 409, 415 to 436, and 445, Wis. Adm. Code.</p> <p>(e) The use will not subject the source to any standard or regulation under s. 112 of the Clean Air Act (42 USC 7412). [s. NR 406.04(4)(a), Wis. Adm. Code]</p>	<p>(1) Any calculations and supporting material required to demonstrate compliance with Condition ZZZ.8.a.(1) shall be kept on file by the permittee. [ss. NR 407.09(1)(c)2. and NR 439.04(1)(d), Wis. Adm. Code]</p>
9. *NR 445 Reporting, Recordkeeping and Compliance Requirements	<p>(1) *If the permittee has non-exempt, potential to emit emissions of any hazardous air contaminant less than or equal to the applicable threshold in column (c), (d), (e) or (f) of Table A, B or C of s. NR 445.07, Wis. Adm. Code, then the permittee shall maintain records in accordance with s. NR 439.04(1) and (2), Wis. Adm. Code. [ss. NR 407.09(4)(a)1. and NR *445.08(6)(b), Wis. Adm. Code]</p> <p>(2) *If the permittee has non-exempt, potential to emit emissions of any hazardous air contaminant greater than the applicable threshold in column (c), (d), (e) or (f) of Table A, B or C of s. NR 445.07, Wis. Adm. Code, then the permittee shall keep records to verify continuous compliance for each non-exempt hazardous air contaminant with its applicable standard. [ss. NR 407.09(4)(a)1. and NR *445.08(6)(c), Wis. Adm. Code]</p>	<p>(1) *To meet the requirements of Condition ZZZ.9.a.(1), the permittee shall, at a minimum, keep records of the calculations of non-exempt, potential to emit emissions of each hazardous air contaminant emitted by the facility in quantities less than or equal to the applicable threshold in column (c), (d), (e) or (f) of Table A, B or C of s. NR 445.07, Wis. Adm. Code. Calculations shall include the emission factors used to calculate emissions, and the source of the emission factors. [s. NR 439.04(1)(d), Wis. Adm. Code]</p> <p>(2) *To meet the requirements of Condition ZZZ.9.a.(2), the permittee shall, at a minimum, keep records of the following:</p> <p>(a) Calculations of the non-exempt, potential to emit emissions of each hazardous air contaminant identified under Condition ZZZ.9.a.(2). Calculations shall include the emission factors used to calculate emissions, and the source of the emission factors.</p> <p>(b) Documentation of the determination that the hazardous air contaminant emissions are in compliance with the applicable standards in s. NR 445.07, Wis. Adm. Code. [s. NR 439.04(1)(d), Wis. Adm. Code]</p>

## Appendix B – 40 CFR 60.759 Specifications for Active Collection Systems

### § 60.759 Specifications for active collection systems.

(a) Each owner or operator seeking to comply with §60.752(b)(2)(i) shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Administrator as provided in §60.752(b)(2)(i)(C) and (D):

(1) The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat.

(2) The sufficient density of gas collection devices determined in paragraph (a)(1) of this section shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.

(3) The placement of gas collection devices determined in paragraph (a)(1) of this section shall control all gas producing areas, except as provided by paragraphs (a)(3)(i) and (a)(3)(ii) of this section.

(i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under §60.758(d). The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and shall be provided to the Administrator upon request.

(ii) Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material shall be documented and provided to the Administrator upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section shall be computed using the following equation:

$$Q_i = 2 k L_o M_i (e^{-kt_i}) (C_{NMOC}) (3.6 \times 10^{-9})$$

where,

$Q_i$  = NMOC emission rate from the  $i^{th}$  section, megagrams per year

$k$  = methane generation rate constant, year<sup>-1</sup>

$L_o$  = methane generation potential, cubic meters per megagram solid waste

$M_i$  = mass of the degradable solid waste in the  $i^{th}$  section, megagram

$t_i$  = age of the solid waste in the  $i^{th}$  section, years

$C_{NMOC}$  = concentration of nonmethane organic compounds, parts per million by volume

$3.6 \times 10^{-9}$  = conversion factor

(iii) The values for  $k$  and  $C_{NMOC}$  determined in field testing shall be used if field testing has been performed in determining the NMOC emission rate or the radii of influence (this distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the

default values for  $k$ ,  $L_0$  and  $C_{NMOC}$  provided in §60.754(a)(1) or the alternative values from §60.754(a)(5) shall be used. The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in paragraph (a)(3)(i) of this section.

(b) Each owner or operator seeking to comply with §60.752(b)(2)(i)(A) shall construct the gas collection devices using the following equipment or procedures:

(1) The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration.

(2) Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.

(3) Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.

(c) Each owner or operator seeking to comply with §60.752(b)(2)(i)(A) shall convey the landfill gas to a control system in compliance with §60.752(b)(2)(iii) through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:

(1) For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in paragraph (c)(2) of this section shall be used.

(2) For new collection systems, the maximum flow rate shall be in accordance with §60.755(a)(1).

**PART II**  
**General Permit Conditions**  
**For Direct Stationary Sources**

**A. Scope.**

This permit is valid only for the structure, building, facility, equipment or operation specifically identified herein. All emissions authorized hereby shall be in compliance with the terms and conditions of Parts I and II of this permit. [s. 285.60(7), Wis. Stats.]

**B. Emissions Prohibited.**

Unless the Department has approved an exception under s. NR 436.03(2), no person may cause, allow, or permit emissions of any air contaminant into the ambient air in excess of the limits set in chs. NR 400 to 499, Wis. Adm. Code. [s. NR 436.03(1), Wis. Adm. Code]

**C. General Emission Limits.**

**C.1. Applicable to Insignificant Emissions Units.**

The following general emission limitations may apply to one or more of the insignificant emission units identified in the preamble of this permit. It is the permittee's responsibility to comply with these requirements, if they do apply. Insignificant emission units typically are associated with inconsequential environmental impacts and present little potential for violations of these generally applicable requirements. If there were no observed, documented or known instances of noncompliance, certification of compliance is appropriate. Testing or monitoring to assure compliance is not required by this permit.

- C.1.a. Section NR 415.05, Wis. Adm. Code - Particulate emission limits for processes;
- C.1.b. Section NR 415.06, Wis. Adm. Code - Particulate emission limits for fuel burning installations;
- C.1.c. Section NR 415.07, Wis. Adm. Code - Particulate emission limits for incinerators;
- C.1.d. Section NR 423.03, Wis. Adm. Code - Solvent metal cleaning;
- C.1.e. Section NR 485.05, Wis. Adm. Code - Visible emission limits for motor vehicles, internal combustion engines and mobile sources; and
- C.1.f. Section NR 485.055, Wis. Adm. Code - Particulate emission limit for gasoline and diesel internal combustion engines.

**C.2. Applicable to Significant and Insignificant Emissions Units.**

The following general emission limitations may apply to both significant and insignificant emission units. It is the permittee's responsibility to comply with these requirements, if they apply. Testing or monitoring to assure compliance with these general emission limits is not required by this permit.

For each significant emission unit, if a more specific emission limit is included in Part I of this permit for any of the pollutants listed below, then compliance with that more specific limit will constitute compliance with the general emission limit.

For insignificant emission units, if there were no observed, documented or known instances of non-compliance, certification of compliance is appropriate.

- C.2.a. No person may cause, allow, or permit particulate matter to be emitted into the ambient air which substantially contributes to exceeding of an air standard, or creates air pollution. [s. NR 415.03, Wis. Adm. Code]
- C.2.b. No person may cause, allow, or permit any materials to be handled, transported, or stored without taking precautions to prevent

particulate matter from becoming airborne. Nor may a person allow a structure, a parking lot, or a road to be used, constructed, altered, repaired, sand blasted or demolished without taking such precautions. Such precautions shall include, but not be limited to the following [s. NR 415.04, Wis. Adm. Code]:

- C.2.b.(1) Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, or construction operations.
- C.2.b.(2) Application of asphalt, oil, water, suitable chemicals, or plastic covering on dirt roads, material stockpiles, and other surfaces which can create airborne dust, provided such application does not create a hydrocarbon, odor, or water pollution problem.
- C.2.b.(3) Installation and use of hoods, fans and air cleaning devices to enclose and vent the areas where dusty materials are handled.
- C.2.b.(4) Covering or securing of materials likely to become airborne while being moved on public roads, railroads, or navigable waters.
- C.2.b.(5) Conduct of agricultural practices such as tilling of land or application of fertilizers in such manner as not to create air pollution.
- C.2.b.(6) The paving or maintenance of roadway areas so as not to create air pollution.
- C.2.c. No person may cause, allow or permit emission of sulfur or sulfur compounds into the ambient air which substantially contribute to the exceeding of an air standard or cause air pollution. [s. NR 417.03, Wis. Adm. Code]
- C.2.d. No person may cause, allow or permit organic compound emissions into the ambient air which substantially contribute to the exceeding of an air standard or cause air pollution. No person may cause, allow or permit organic compounds to be used or handled without using good operating practices and taking reasonable precautions to prevent the spillage, escape or emission of organic compounds, solvents or mixtures. [s. NR 419.03, Wis. Adm. Code]
- C.2.e. No person may cause, allow or permit the disposal of more than 5.7 liters (1.5 gallons) of any liquid Volatile Organic Compound (VOC) waste, or of any liquid, semisolid or solid waste materials containing more than 5.7 liters (1.5 gallons) of any VOC, in any one day from a facility in a manner that would permit their evaporation into the ambient air during the ozone season. This includes, but is not limited to, the disposal of VOC which must be removed from VOC control devices so as to maintain the control devices at their required operating efficiency. Disposal during the ozone season shall be by methods approved by the Department, such as incineration, recovery for reuse, or transfer in closed containers to an acceptable disposal facility, such that the quantity of VOC which evaporates into the ambient air does not exceed 15% (by weight) or 5.7 liters (1.5 gallons) in any one day, whichever is larger. [s. NR 419.04, Wis. Adm. Code]
- C.2.f. No person may cause, allow or permit emissions of carbon monoxide to the ambient air which substantially contribute to the exceeding of an air standard or cause air pollution. [s. NR 426.03, Wis. Adm. Code].
- C.2.g. No person may cause, allow or permit emissions into the ambient air of lead or lead compounds which substantially contribute to the exceeding of an air standard or air increment, or which create air pollution. [s. NR 427.025, Wis. Adm. Code]
- C.2.h. No person may cause, allow, or permit nitrogen oxides or

nitrogen compounds to be emitted to the ambient air which substantially contribute to the exceeding of an air standard or cause air pollution. [s. NR 428.03, Wis. Adm. Code]

C.2.i. No person may cause, allow or permit emission into the ambient air of any substance or combination of substances in such quantities that an objectionable odor is determined to result unless preventive measures satisfactory to the Department are taken to abate or control such emission. [s. NR 429.03(1), Wis. Adm. Code]

C.2.j. Open burning is prohibited except as provided in s. NR 429.04, Wis. Adm. Code. [s. NR 429.04, Wis. Adm. Code]

C.2.k. [Note: Under the Wisconsin Recycling Law, small businesses, commercial enterprises, and industries may not use burn barrels or engage in other kinds of open burning and may not be granted burning permits by municipalities. However, the prohibition on burn barrels does not apply to small businesses in which the owners reside at the same location and cannot separate their business waste from their household waste.]

C.2.l. No person may cause, allow or permit emissions into the ambient air from any direct or portable source in excess of one of the limits specified in ch. NR 431, Wis. Adm. Code. Where the presence of uncombined water is the only reason for failure to meet the requirements of ch. NR 431, Wis. Adm. Code, such failure is not a violation of the chapter. [s. NR 431.03, Wis. Adm. Code]

C.2.m. When the Department requires instrumentation to monitor the operation of air pollution control equipment, or to monitor source performance, the instrument shall measure operational variables with the following accuracy: [ss. NR 439.055(3) and NR 407.09(1)(c)1.c., Wis. Adm. Code]

C.2.m.(1) The temperature monitoring device shall have an accuracy of 0.5% of the temperature being measured in degrees Fahrenheit or  $\pm 5^{\circ}\text{F}$  of the temperature being measured, or the equivalent in degrees Celsius (centigrade), whichever is greater.

C.2.m.(2) The pressure drop monitoring device shall be accurate to within 5% of the pressure drop being measured or within  $\pm 1$  inch of water column, whichever is greater.

C.2.m.(3) The current, voltage, flow or pH monitoring device shall be accurate to within 5% of the specific variable being measured.

C.2.n. All instruments used for measuring source or air pollution control equipment operational variables shall be calibrated yearly or at a frequency based on good engineering practice as established by operational history, whichever is more frequent. [ss. NR 439.055(4) and NR 407.09(1)(c)1.c., Wis. Adm. Code]

C.2.o. No person may cause, allow, or permit emissions into the ambient air of any hazardous substance in such quantity, concentration, or duration as to be injurious to human health, plant or animal life unless the purpose of that emission is for the control of plant or animal life. Hazardous substances include, but are not limited to, hazardous air contaminants listed in Tables A to C of s. NR 445.07, Wis. Adm. Code. [s. NR 445.03, Wis. Adm. Code]

C.2.p. Chapter NR 447, Wis. Adm. Code, applies to all air contaminant sources which may emit asbestos, to their owners and operators and to any person whose action causes the emission of asbestos to the ambient air, including demolition and renovation activities. Chapter NR 447, Wis. Adm. Code, establishes emission limitations for asbestos air contaminant sources, establishes procedures to be followed when working with asbestos materials and contains additional reporting and record keeping requirements for owners or operators of asbestos air contaminant sources in order to protect air quality. [ch. NR 447, Wis. Adm. Code]

C.2.q. Accidental Release Prevention Requirements.

C.2.r. An owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, shall comply with the requirements of 40 CFR Part 68, no later than the latest of the following dates:

C.2.r.(1) June 21, 1999;

C.2.r.(2) Three years after the date on which a regulated substance is first listed under 40 CFR 68.130; or

C.2.r.(3) The date on which a regulated substance is first present above a threshold quantity in a process.

[40 CFR Part 68.10]

#### D. Reporting Requirements.

D.1. The Department shall be notified of the events in Table 1.:

**Table D1.**

Event	Timing
D.1.a. Hazardous substance air spill.	Immediate call: 1-800-943-0003
D.1.b. Malfunction or other unscheduled event which causes or may cause any emission limitation to be exceeded (except certain visible emissions limit exceedences detected by a continuous emission monitor, see s. NR 439.03(4)(a)2., Wis. Adm. Code.).	Notification by next business day of any such event at the source which is not reported in advance to the Department. Report the cause and duration of the exceedence, the period of time considered necessary for correction, and measures taken to minimize emissions during the period.
D.1.c. Deviation from any other condition specified in this permit.	Notification by next business day identifying the deviation, cause, duration and steps taken to prevent recurrence.

[ss. 285.65(10) and 292.11(2), Wis. Stats., and s. NR 439.03(4), Wis. Adm. Code]

D.2. Persons possessing or controlling a hazardous substance shall immediately notify the Department of any hazardous emission not in conformity with a permit or allowed by the Department under

chs. NR 400 to 499. Notice shall be given as required by s. 292.11, Stats., and ch. NR 706.

**Table D2.**

Event	Timing
D.2.a. Hazardous substance air spill	Immediate call: 1-800-943-0003

[s. 292.11(2), Wis. Stats., and s. NR 445.16, Wis. Adm. Code]

- \* D.3. The permittee shall report to the Department, in advance, schedules for planned shutdown and startup of air pollution control equipment and the measures to be taken to minimize the down time of the control equipment while the source is operating. Scheduled maintenance or any other scheduled event, including startup, shutdown or soot blowing procedures which have been approved by the Department under s. NR 436.03(2)(b), which causes an emission limit to be exceeded shall also be reported in advance to the Department. Advance reporting pursuant to this permit condition does not relieve any person from the duty to comply with any applicable emission limitations. Emissions in excess of the limits set in chs. NR 400-499, Wis. Adm. Code, may be allowed when the emissions are temporary and due to scheduled maintenance, startup or shutdown of operations carried out in accord with a plan and schedule approved by the Department. [s. NR 436.03(2)(b) and NR 439.03(6), Wis. Adm. Code]
- D.4. The permittee shall furnish to the Department, within a reasonable time specified by the Department, any information that the Department may request in writing to determine whether cause exists to revise, revoke or suspend this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Department copies of records required to be kept pursuant to this permit. [s. NR 407.09(1)(f)5., Wis. Adm. Code]
- D.5. The permittee shall submit the results of monitoring required by the permit to the Department according to the schedule established in Part I of this permit. Any such report shall clearly identify all instances of deviations from permit requirements. All such reports shall be signed by the responsible official for the source. [s. 285.17(2), Wis. Stats., and s. NR 439.03(1)(b), Wis. Adm. Code]
- D.6. Each report required under s. NR 439.03, Wis. Adm. Code, shall be certified by a responsible official as to its truth, accuracy and completeness. This certification and any other certification required under ch. NR 439 shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete. [s. NR 439.03(10), Wis. Adm. Code]
- D.7. Except for information determined to be confidential under s. 285.70(2), Wis. Stats., any information or reports obtained by the Department in the administration of ss. 285.01 to 285.87 and 299.15, Wis. Stats., will be available for public inspection at the offices of the Department. [s. 285.70(1), Wis. Stats.]
- D.8. All certifications made under s. NR 439.03, Wis. Adm. Code, and all material statements and representations made in any report or notice required by this operation permit shall be truthful. [s. NR 439.03(11), Wis. Adm. Code]
- D.9. Any document required under this permit and submitted to the Department, including reports, shall contain a certification by a responsible official that meets the requirements of s. NR 407.05(4)(j), Wis. Adm. Code. [s. NR 407.09(4)(a)1., Wis. Adm. Code]
- D.10. For ch. NR 408, Wis. Adm. Code, (non-attainment area) major sources, the records required under s. NR 408.10(5)(a), Wis. Adm. Code.
- D.11. Copies of all records and reports required under this permit shall be retained by the permittee for a period of 5 years except for records required to be maintained or reports required to be submitted under ss. NR 405.16(3) or NR 408.10(5), Wis. Adm. Code. Records and reports required under ss. NR 405.16(3) or NR 408.10(5), Wis. Adm. Code, shall be maintained for a minimum of 10 years. [s. NR 439.04(2), Wis. Adm. Code]
- D.12. For ch. NR 405, Wis. Adm. Code, (PSD) major sources, the records required under s. NR 405.16(3)(a), Wis. Adm. Code.

## E. Right of Entry and Inspection.

The permittee shall allow authorized representatives of the Department to enter upon the permittee's premises, to have access to and examine any record relating to emissions or required to be kept, and to make any inspection necessary to ascertain compliance with air pollution control laws and the terms of this permit. The Department may, for the purpose of determining a source's compliance with applicable requirements, sample or monitor at reasonable times production materials or other substances or operational parameters. [ss. 285.13 and 285.19, Wis. Stats., and s. NR 439.05, Wis. Adm. Code]

## F. Malfunction Prevention and Abatement Plans.

The owner or operator of any direct or portable source which may emit hazardous substances or emits more than 15 pounds in any day or 3 pounds in any hour of any air contaminant for which emission limits have been adopted shall prepare a written malfunction prevention and abatement plan to prevent, detect, and correct malfunctions or equipment failures which may cause any applicable emission limitation to be violated or which may cause air pollution. Any such plan shall be carried out by the owner or operator. The plan shall be updated at least every 5 years. The Department may require the plan to be submitted for review and approval. [s. NR 439.11, Wis. Adm. Code]

## G. Emission Control Action Plan.

For source(s) covered by this permit which emit 0.25 tons or more per day of any air contaminant for which air standards have been adopted, the permittee shall prepare an emission control action program, consistent with good industrial practice and safe operating procedures, for reducing the emission of air contaminants into the outdoor atmosphere during periods of an air pollution alert, air pollution warning or air pollution emergency declared under s. NR 493.03(2), Wis. Adm. Code. The emission control action program shall be in writing, available on the premises and is subject to review and approval by the Department on request. [s. NR 493.04, Wis. Adm. Code]

## H. Change in Ownership or Control.

In the event of a change in ownership or operational control of a source, the permittee shall file a written request for an administrative permit revision in accordance with s. NR 407.11, Wis. Adm. Code. The request should include a written agreement between the current and new owner or operator which sets forth a specific date for transfer of permit responsibility, coverage and liability. If the Department determines that no other change in this permit is necessary, this permit may be revised according to the administrative revision procedures in s. NR 407.11, Wis. Adm. Code. [s. NR 407.11(3)(a), Wis. Adm. Code]

## I. Permit Flexibility, Revision, Suspension, and Revocation.

I.1. Changes to the source which are not modifications and changes in permit content are regulated under the permit flexibility provisions of s. 285.60(4), Wis. Stats., and s. NR 407.025, Wis. Adm. Code, and the permit revision provisions in ss. NR 407.11, NR 407.12, NR 407.13, NR 407.14, and NR 407.16, Wis. Adm. Code.

I.2. An operation permit may be suspended or revoked, in whole or in part, for cause. [ss. NR 407.09(1)(f)3. and NR 407.15, Wis. Adm. Code.]

## J. Construction, Reconstruction, Replacement, Relocation or Modification.

J.1. Unless the replacement is authorized by a permit or is exempt under s. NR 406.04, Wis. Adm. Code, replacement of the source(s) covered by this permit is prohibited. [s. 285.60(1)(a), Wis. Stats.]

J.2. No person may commence construction, reconstruction, replacement, relocation or modification of a stationary source unless the person has a construction permit for the source or unless the source is exempt from the requirement to obtain a permit under s. 285.60(5), Wis. Stats., or under ch. NR 406, Wis. Adm. Code. Applications for the construction permit shall be submitted on forms which are available from the Department at its Madison headquarters and district offices. [s. 285.60(1)(a), Wis. Stats.]

Note: The address of the Madison headquarters is: Wisconsin Department of Natural Resources, Bureau of Air Management, PO Box 7921, Madison, WI 53707. Attention: Permit Application Forms.

J.3. For new or modified sources for which no construction permit is required, the application for an operation permit shall be filed before the source commences construction or modification. [s. NR 407.04, Wis. Adm. Code]

#### K. Circumvention.

K.1. The installation or use of any article, machine, equipment, process, or method which conceals an emission which would otherwise constitute a violation of an applicable rule is prohibited unless written approval has been obtained from the Department. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance and the unnecessary separation of an operation into parts to avoid coverage by a rule that applies only to operations larger than a specified size. [s. NR 439.10, Wis. Adm. Code]

K.2. No one may render inaccurate any monitoring device or method required under ch. NR 439, Wis. Adm. Code, or in this permit. [s. NR 439.03(12), Wis. Adm. Code]

K.3. No person may knowingly falsify, tamper with, render inaccurate or fail to install any monitoring device or method required to be maintained or followed under the Clean Air Act. [Clean Air Act s. 113(c)(2)(C); 42 USC 7413(c)(2)(C), s. 285.65(13), Wis. Stats.]

#### L. Civil/Criminal Liability.

L.1. Nothing in this permit shall be construed to relieve the permit holder from civil and/or criminal penalties under ss. 285.87 and 299.15, Wis. Stats., for violation of the terms or conditions of this permit, or for violation of ss. 285.01 to 285.87, 292.11(2) and 299.15, Wis. Stats., or of any rule or any special order issued under those sections except where the operation permit shield provisions of s. 285.62(10)(b), Wis. Stats., are applicable. [s. 285.62(10)(b), Wis. Stats.]

L.2. The permittee has the duty to comply with all conditions of the permit. Any noncompliance with this permit constitutes a violation of the Wisconsin statutes, the federal clean air act, or both, and is grounds for enforcement action; for permit suspension, revocation or revision; or, if allowed under s. 285.62(6), Wis. Stats., for denial of a permit renewal application. [ss. NR 407.14, NR 407.15, and NR 407.09(1)(f)1., Wis. Adm. Code, s. 285.60(7), Wis. Stats. and 42 USC 7661a]

L.3. The following items are provided per s. NR 407.09(1)(d) and (f), Wis. Adm. Code:

L.3.a. It is not a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this permit. [s. NR 407.09(1)(f)2., Wis. Adm. Code]

L.3.b. The filing of a request by the permittee for a permit revision or revocation, or the filing of a notification of planned changes under s. NR 407.025, Wis. Adm. Code, or of anticipated noncompliance, does not stay any permit condition. [s. NR 407.09(1)(f)3., Wis. Adm. Code]

L.3.c. The issuance of this permit does not convey any property rights of

any sort, or any exclusive privilege, nor does it authorize any injury to private property or any invasion of personal rights. [s. NR 407.09(1)(f)4., Wis. Adm. Code]

L.3.d. The provisions of this permit are severable. In the event of a successful challenge to any portion of the permit, all other portions of the permit remain valid and effective. [s. NR 407.09(1)(d), Wis. Adm. Code]

#### M. Recordkeeping Requirements.

M.1. The permittee shall maintain the following records, per s. NR 439.04, Wis. Adm. Code:

M.1.a. Records of all sampling, testing and monitoring conducted or required under chs. NR 400 to 499 or under this permit. Records of sampling, testing or monitoring shall include the following:

M.1.a.(1) The date, monitoring site and time and duration of sampling, testing, monitoring or measurements.

M.1.a.(2) The dates the analyses were performed.

M.1.a.(3) The company or entity that performed the analysis.

M.1.a.(4) The analytical techniques or methods used, including supporting information such as calibration and maintenance records of all original recording charts for continuous monitoring instrumentation including emissions or equipment monitors.

M.1.a.(5) The results of the analyses.

M.1.a.(6) The relevant operating conditions that existed at the time of sampling, testing, monitoring or measurement.

M.1.b. Records detailing all malfunctions which cause any applicable emission limitation to be exceeded, including logs to document the implementation of the plan required under s. NR 439.11, Wis. Adm. Code;

M.1.c. Records detailing all activities specified in any compliance schedule approved by the Department under chs. NR 400 to 499, Wis. Adm. Code; and

M.1.d. Any other records relating to the emission of air contaminants which may be requested in writing by the Department.

M.2. The owner or operator of a source constructed or last modified prior to July 1, 2004, with non-exempt, potential to emit emissions of a hazardous air contaminant less than or equal to the applicable threshold in column (c), (d), (e), or (f) of Table A, B or C of s. NR 445.07 shall maintain records in accordance with s. NR 439.04(1) and (2) starting no later than June 30, 2007. [s. NR 445.08(6)(b), Wis. Adm. Code]

M.2.a. The records shall list the hazardous air contaminants in Tables A, B, and C of s. NR 445.07 the source is capable of emitting. In addition to meeting the recordkeeping requirements of s. NR 439.04(1) and (2), an owner or operator shall:

M.2.a.(1) Keep records of maintenance performed on any particulate matter emission control device used to comply with s. NR 445.09(3).

M.2.a.(2) For any engine that stays or that is intended to stay in a single location for any 12 consecutive month period, keep the following records:

M.2.a.(2)1. The amount fuel oil combusted on a monthly basis for any engine not using a certified control device.

M.2.a.(2)2. The power rating and days of operation of any CI engine used to substitute power under s. NR 445.09(1)(d).

M.2.a.(2)3. The cost of rebuilding any CI engine on a monthly basis. [s. NR 445.09(6), Wis. Adm. Code]

M.2.b. Keep records of actions taken to control outdoor fugitive coal dust emissions in accordance with s. NR 439.04(2). [s. NR 445.10(2)(c), Wis. Adm. Code]

M.2.c. Keep a copy of the plan and records of all actions taken at the facility for inspection upon request. [s. NR 445.10(2)(c), Wis. Adm. Code]

M.3. Owners and operators of facilities required to file emission inventory reports shall keep accurate and reliable records sufficient to enable verification of the reports by the Department. [s. NR 438.03(4), Wis. Adm. Code]

M.4. Copies of all records and reports required under this permit shall be retained by the permittee for a period of 5 years. [s. NR 439.04(2), Wis. Adm. Code]

M.5. For ch. NR 405, Wis. Adm. Code, (PSD) major sources, the permittee shall report to the Department as required under s. NR 405.16(3), Wis. Adm. Code.

M.6. For ch. NR 408, Wis. Adm. Code, (non-attainment area) major sources, the permittee shall report to the Department as required under s. NR 408.10(5), Wis. Adm. Code.

M.7. Except for information determined to be confidential under s. 285.70(2), Wis. Stats., any information or reports obtained by the Department in the administration of ss. 285.01 to 285.87 and 299.15, Wis. Stats., will be available for public inspection at the offices of the Department. [s. 285.70(1), Wis. Stats.]

#### N. Compliance Certification.

N.1. The permittee shall submit compliance certifications to the Department, and part 70 sources shall also submit this compliance certification to the United States Environmental Protection Agency. [s. NR 439.03(1)(c) and (9), Wis. Adm. Code]

N.2. The certification shall be submitted according to the schedule established in Part I of the permit. [s. NR 439.03(1)(c), Wis. Adm. Code]

N.3. The certification shall include the following:

N.3.a. Identification of each permit term or condition that is the basis of the certification;

N.3.b. The compliance status of the source with respect to each term or condition identified in N.1.b.(1);

N.3.c. Whether compliance was continuous or intermittent;

N.3.d. Method(s) used for determining the compliance status, currently and over the previous 12 month period;

N.3.e. Compliance status with respect to 40 CFR 68 (Accidental Release Prevention) including registration and submission of the risk management plan, as specified in 40 CFR 68.160 and 68.150, respectively, if applicable;

N.3.f. Other information required to determine the compliance status of the source, as specified in this permit. [s. NR 439.03(8), Wis. Adm. Code]

N.4. Compliance certifications shall be signed by a responsible official of the source. The responsible official shall certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. [s. NR 439.03(10), Wis. Adm. Code]

#### O. Required Air Emission Inventory Reports.

The permittee shall annually submit to the Department an emission inventory report of annual, actual emissions or throughput information in accordance with ch. NR 438, Wis. Adm. Code. [s. NR 438.03, Wis. Adm. Code]

#### P. Annual Emission Fees.

The permittee shall pay an annual emissions fee to the Department at the rate specified in s. 285.69(2), Wis. Stats. [ss. NR 410.04 and NR 407.09(1)(e), Wis. Adm. Code]

#### Q. General Provisions for Hazardous Air Pollutant MACT Standards.

The general provisions in ch. NR 460, Wis. Adm. Code, apply to any permittee that is affected or becomes affected by a standard promulgated by EPA under section 112 of the act (42 USC 7412). [s. NR 460.01, Wis. Adm. Code]

#### R. Stratospheric Ozone Protection.

R.1. Federal Requirements. (Call 1-800-296-1996 for information)

R.1.a. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:

R.1.a.(1) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to section 82.106.

R.1.a.(2) The placement of the required warning statement must comply with the requirements pursuant to section 82.108.

R.1.a.(3) The form of the label bearing the required warning statement must comply with the requirements pursuant to section 82.110.

R.1.a.(4) No person may modify, remove or interfere with the required warning statement except as described in section 82.112.

R.1.b. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in 40 CFR Part 82, Subpart B:

R.1.b.(1) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to section 82.156.

R.1.b.(2) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to section 82.158.

R.1.b.(3) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to section 82.161.

R.1.b.(4) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to section 82.166 (the term, "MVAC-like appliance", is defined in section 82.152).

R.1.b.(5) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to section 82.156.

R.1.b.(6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to section 82.166.

R.1.c. If the permittee manufactures, transforms, imports or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.

R.1.d. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82,

Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo or system used on passenger buses using HCFC-22 refrigerant.

R.1.e. The permittee may be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program.

[s. 285.65(12), Wis. Stats.]

R.2. State Requirements. (Call 1-608-264-6049 for information)

R.2.a. During the salvaging, dismantling or transporting of refrigeration equipment, no person may knowingly or negligently release ozone-depleting refrigerant to the environment, except for minimal releases that occur as a result of efforts to transfer ozone-depleting refrigerant into storage tanks. [s. 285.59(4)(a), Wis. Stats.]

R.2.b. No person may knowingly or negligently release from a storage tank to the environment ozone-depleting refrigerant that was removed during the salvaging, dismantling or transporting of refrigeration equipment, except for minimal releases that occur as a result of efforts to transfer ozone-depleting refrigerant into refrigeration equipment or other storage tanks. [s. 285.59(4)(am), Wis. Stats.]

R.2.c. No person may salvage or dismantle any refrigeration equipment unless:

R.2.c.(1) That person holds and prominently displays an annual registration of certification obtained from the Department under s. NR 488.04, Wis. Adm. Code;

R.2.c.(2) That person uses refrigerant recovery equipment approved by the Department under s. NR 488.07, Wis. Adm. Code, to transfer remaining ozone-depleting refrigerant from each piece of refrigeration equipment into storage tanks; and

R.2.c.(3) Individuals who use the approved refrigerant recovery equipment have, or are working under the direct supervision of individuals who have, the qualifications required under s. NR 488.08, Wis. Adm. Code. [s. NR 488.03(3), Wis. Adm. Code]

R.2.d. Any person who sells, gives or transports refrigeration equipment to a scrap metal processor shall:

R.2.d.(1) Transfer ozone-depleting refrigerant from the refrigeration equipment into a storage tank using approved refrigerant recovery equipment or obtain and possess documentation that another person performed the transfer; and

R.2.d.(2) Provide documentation to the scrap metal processor that he or she has complied with R.2.d.(1).

Note: Sample forms for the documentation of compliance with R.2.d.(1) are available from the Bureau of Air Management CFC Program.

Exemption: R.2.d.(1) and R.2.d.(2) do not apply to a person who sells, gives or transports refrigeration equipment to a scrap metal processor when that processor has agreed in writing to transfer the ozone-depleting refrigerant into a storage tank using approved refrigerant recovery equipment and that the processor is registered with the Department under s. NR 488.04. [s. NR 488.05, Wis. Adm. Code]

R.2.e. Any person who transports, for the purposes of salvaging or dismantling, refrigeration equipment that contains ozone-depleting refrigerant shall certify to the Department that person will not knowingly or negligently release ozone-depleting refrigerant to the environment, except for minimal releases that occur as a result

of refrigerant recovery efforts. This certification shall be submitted annually, along with a description of the safe transport methods to be used, and the fees required under s. NR 488.11, Wis. Adm. Code. [s. NR 488.10, Wis. Adm. Code]

## Ridgeview Wastewater Discharge Permit



CITY OF  
MANITOWOC

Brian Helminger  
Superintendent

RECEIVED  
DEC 21 2013

BY: \_\_\_\_\_

December 19, 2013

Permit No. 00019

Kurt Kietzer  
Ridgeview Landfill  
PO Box 227  
Whitelaw WI 54247-0227

Dear Kurt:

Enclosed is your wastewater discharge permit for the period of January 1, 2014 through December 31, 2017.

If you have any questions regarding this permit, please call me at 920-686-3550.



OFFICE OF WASTEWATER TREATMENT

Sincerely,

*Brian Helminger*

Brian Helminger  
Superintendent

Copy: Nan Jameson, DNR

WASTEWATER TREATMENT FACILITY

1015 South Lakeview Drive • Mailing - 900 Quay Street • Manitowoc, WI 54220-4543

Phone: (920) 686-3550 • FAX: (920) 683-4513

[www.manitowoc.org](http://www.manitowoc.org) • [bhelminger@manitowoc.org](mailto:bhelminger@manitowoc.org)



WASTEWATER DISCHARGE PERMIT

In compliance with the provisions of NR211.20, Wisconsin Administrative Code and Chapter 25, Wastewater Facilities, City of Manitowoc,

Ridgeview Recycling and Disposal Facility  
6207 Hempton Lake Road  
Whitelaw WI 54247

Is hereby authorized to discharge process wastewater from the above-identified facility into the City of Manitowoc Sewerage System in accordance with the effluent limitations, monitoring requirements and other conditions set forth in this Permit. Compliance with this Permit does not relieve the permittee of its obligation to comply with any or all applicable pretreatment regulations, standards or requirements under local, state and federal laws, including any such regulations, standards, requirements, or laws that may become effective during the term of the Permit.

All discharges authorized herein shall be consistent with the terms and conditions of this Permit. The discharge of any pollutant identified in this Permit more frequently than or at a level in excess of that authorized shall constitute a violation of the Permit.

This Permit shall become effective on the date of issuance and shall expire at midnight, December 31, 2017.

The permittee shall not discharge after the date of expiration. If the permittee wishes to continue to discharge after this expiration date an application shall be filed for reissuance of this Permit in accordance with the requirements of Chapter 25, Wastewater Facilities, at least 90 days prior to the expiration date.

City of Manitowoc, Wastewater Treatment Facility

By Brian Helming  
Brian Helming, Superintendent

Dated this 16<sup>th</sup> day of December, 2013

## PART 1—APPLICABLE EFFLUENT LIMITATIONS AND SURCHARGES

SECTION 1—City of Manitowoc Pretreatment Standards and Surcharges

- A. All wastewater discharged to the City of Manitowoc, Wisconsin, Wastewater Treatment Facility shall not exceed the following daily maximum effluent limitations over a 24-hour period or for the period of discharge, if such period of discharge is less than 24 hours:

<u>Parameter</u>	<u>Limitation (mg/l)</u>
Cadmium (T)	0.54
Chromium (T)	7.0
Copper (T)	4.5
Cyanide (T)	1.9
Lead (T)	0.6
Mercury (T)	0.02
Molybdenum (T)	≤0.10 (no mass loading limit) >0.10 (mass loading shall be <0.10 lbs/day)
Nickel (T)	4.1
Phosphorus (T)	≤20.0 (no mass loading limit) >20.0 (mass loading shall be <40.0 lbs/day)
Silver (T)	0.43
Zinc (T)	4.2

- B. The limitations listed in Paragraph "A", apply to the total discharge from the permittee, exclusive of sanitary wastewater and uncontaminated cooling water.
- C. The permittee may not discharge any wastewater having a pH of less than 5.0 or in excess of 10.5 standard units. At no time shall wastewater be discharged that would have corrosive properties capable of causing damage to the Wastewater Treatment Facility or create a hazard for the Wastewater Treatment Facility Personnel.
- D. The permittee may not discharge any wastewater containing more than 100 mg/l of nonbiodegradable oils and grease of mineral or petroleum origin.
- E. The permittee may not discharge any wastewater containing floatable oils, fats, or grease.
- F. The permittee shall not discharge wastes at a flow rate and/or pollutant discharge rate which is excessive over relatively short time periods so as to constitute a slug loading that may cause a wastewater treatment facility process upset and subsequent loss of treatment efficiency, interference, or pass through. A slug is defined as a discharge of wastewater which in concentration of any given constituent or in quantity of flow exceeds for any period of duration longer than fifteen (15) minutes more than five (5) times the average twenty-four (24) hour concentration of flows during the normal operation.
- G. Under Section 25.05 (6) of Chapter 25, Wastewater Facilities, a surcharge shall be assessed to any user discharging wastewater to the Manitowoc Wastewater Treatment Facility that contains BOD<sub>5</sub>, total suspended solids, and phosphorus in

concentrations exceeding on a daily basis the average twenty-four (24) hour concentration of 260 mg/l, 240 mg/l, and 12 mg/l respectively. The costs shall be assessed as specified in Section 25.05 (6) of the Ordinance.

- H. The compliance date of the City of Manitowoc Effluent Limitations is the effective date of incorporation of the limits into Chapter 25 of the Municipal Code.
- I. In addition, the permittee shall comply with all other applicable regulations and standards contained in Chapter 25, Wastewater Facilities.

## SECTION 2—EPA Categorical Pretreatment Standards

The permittee's industrial process discharge from Outfall Nos. MHO1-EIP, MH-03U, LST-05, LST-06, MH-4L, EIP Groundwater Collection Sump, and SRM-1 presently are not subject to regulation by EPA Categorical Pretreatment Standards.

## SECTION 3—Specific Applicable Effluent Limitations

Based upon the standards identified in Sections 1 and 2, the applicable effluent limitations for the regulated outfalls are as follows:

- A. Outfall Nos. MHO1-EIP, MH-03U-HE, LST-05, LST-06, MH-4L, EIP Groundwater Collection Sump, and SRM-1.
  - 1. From the effective date of the Permit until December 31, 2017, all wastewater discharged to the City of Manitowoc Wastewater Treatment Facility through Outfall Nos. MHO1-EIP, MH-03U-HE, LST-05, LST-06, MH-4L, EIP Groundwater Collection Sump, and SRM-1 shall not exceed the effluent limitations listed in Table No. 1, which are presently in effect. The effective date of this Permit does not relieve the permittee from any consequences of noncompliance with wastewater standards effective prior to this date.
  - 2. Outfall No. MHO1-EIP is defined as the wastewater collected from Area 5 of Leachate Collection System MHO1-EIP. Samples shall be collected and composited accordingly from Sample Point "A", a sampling point located on the discharge pipe of the leachate collection system's loading terminal. Refer to Figure No. 1 for the location of the Outfall's Sampling Point.
  - 3. Outfall No. MH-03U-HE is defined as the wastewater collected from the upper liner of Leachate Collection System MH-03U-HE. Samples shall be collected and composited accordingly from Sample Point "B" a sampling point located on the discharge pipe of the leachate collection system's loading terminal. Refer to Figure No. 2 for the location of the Outfall's Sampling Point.
  - 4. Outfall No. LST-05 is defined as the wastewater collected from the Horizontal Expansion. Samples shall be collected and composited accordingly from Sample point "C", a sampling point located on the discharge pipe of the leachate collection system's loading terminal. Refer to Figure No. 3 for the location of the outfall's sampling point.

5. Outfall No. EIP Groundwater Collection Sump is defined as the wastewater collected from the EIP Groundwater Collection system. Refer to Figure No. 4 for the location of the Outfall's Sampling Point.
6. Outfall No. LST-06 is defined as the new leachate collection and storage tank.
7. Outfall No. MH-4L is defined as a leachate collection tank (not new). This tank is under the clay liner and acts as a backup system.
8. Outfall SRM-1 is defined as the leachate collection tank #7 that collects leachate from the southern expansion.
9. In addition to the parameters listed previously, the permittee shall monitor Outfall Nos. MHOI-EIP, MH-03U-HE, LST-05, LST-06, MH-4L, EIP Groundwater Collection Sump, and SRM-1 for the following parameters for the purpose of computing sewer user surcharges.

PARAMETER	SURCHARGE CONCENTRATION (mg/l)
5 Day Biochemical Oxygen Demand	>260
Total Suspended Solids	>240

TABLE NO. 1  
OUTFALL NOS. MHOI-EIP, MH-03U-HE, LST-05, LST-06, MH-4L,  
EIP GROUNDWATER COLLECTION SUMP, and SRM-1

Pollutants	Local limits Daily Maximum (mg/l)
Cadmium (T)	0.54
Chromium (T)	7.0
Copper (T)	4.5
Cyanide (T)	1.9
Lead (T)	0.6
Mercury (T)	0.02
Molybdenum (T)	≤0.10 (no mass loading limit) >0.10 (mass loading shall be <0.10 lbs/day)
Nickel (T)	4.1
Silver (T)	0.43
Zinc (T)	4.2
Phosphorus (T)	≤20.0 (no mass loading limit) >20.0 (mass loading shall be <40.0 lbs/day)
ph (Standard Units)	5.0 (Min) 10.5 (Max)
Nonbiodegradable Oils & Grease (Mineral or Petroleum Origin)	100.0

## PART 2—MONITORING AND REPORTING REQUIREMENTS

SECTION 1—Monitoring Requirements

- A. From the effective date of this Permit until December 31, 2017, the permittee shall monitor its wastewater discharges subject to regulations under Part 1, Section 3, of this Permit to ascertain compliance with the applicable limitations. The following monitoring requirements shall be conducted at Outfall Nos. MHOI-EIP, MH-03U-HE, LST-05, LST-06, MH-4L, EIP Groundwater Collection Sump, and SRM-1 in accordance with the stated frequency to determine compliance with the applicable limitations:

OUTFALL NOS. MHOI-EIP, MH-03U-HE, LST-05, LST-06, MH-4L, SRM-1

<u>PARAMETER</u>	<u>UNITS</u>	<u>FREQUENCY</u>	<u>SAMPLE</u>
1. Cadmium (T) Chromium (T) Copper (T) Lead (T) Mercury (T) Nickel (T) Silver (T) Zinc (T) Phosphorus (T) Molybdenum (T)	mg/l	Once/month when a discharge occurs.	A minimum of two (2) grab samples collected from each outfall over the daily period of discharge. The samples shall be flow proportionally composited for a single analysis.
2. Cyanide	mg/l	Once/month when a discharge occurs.	A minimum of two (2) grab samples collected from each outfall over the daily period of discharge. The samples shall be composited for a single analysis.
3. Flow	Gallons/day	Daily when a discharge occurs.	Measure the volume of every load discharged from each outfall.
4. Nonbiodegradable Oils & Grease (Mineral or Petroleum Origin)	mg/l	Once/month when a discharge occurs.	A minimum of two (2) grab samples collected from each outfall over the daily period of discharge. The samples shall be composited for a single analysis. When compositing, each glass grab sample bottle shall be rinsed with the extractant solvent.
5. pH	Standard Units	Once per week when a discharge occurs.	A minimum of two (2) grab samples collected from each outfall over the daily period of discharge. Each grab sample shall be analyzed individually for pH in the field.
6. BOD5 TSS	mg/l	Once per week when a discharge occurs.	A minimum of one (1) grab sample collected from each outfall over the daily period of discharge. The samples shall be flow proportionally

composited and analyzed for each day.

7. Phenols	mg/l	Once/month when a discharge occurs.	A minimum of two (2) grab samples collected from each outfall over the daily period of discharge with each grab sample properly preserved at the time of collection. The grab samples shall be composited for a single analysis. Each grab sample for phenols must be preserved with a 4ml 12.5% (4.5N) H <sub>2</sub> SO <sub>4</sub> /quart to obtain pH<2 and kept at 4 degrees C. The collection container must be glass.
8. Priority Pollutants	mg/l and ug/l	Once/4 years for one working day prior to permit reissuance.	A minimum of two (2) grab samples collected from each outfall over the daily period of discharge. The samples shall be flow proportionally composited for a single analysis. A minimum of two (2) grab samples shall be collected from each outfall over the daily period of discharge for volatile organic compound analysis. The grab samples shall be composited for a single analysis by injecting a 5 ml subsample of each grab sample directly into the purging device of the GC/MS.

- B. From the effective date of this Permit until December 31, 2017, the permittee shall monitor its wastewater discharges subject to regulations under Part 1, Section 3, of this Permit to ascertain compliance with the applicable limitations. The following monitoring requirements shall be conducted at Outfall Nos. EIP Groundwater Collection Sump in accordance with the stated frequency to determine compliance with the applicable limitations:

OUTFALL NO. EIP GROUNDWATER COLLECTION SUMP

	<u>PARAMETER</u>	<u>UNITS</u>	<u>FREQUENCY</u>	<u>SAMPLE</u>
1.	Cadmium (T) Chromium (T) Copper (T) Lead (T) Mercury (T) Nickel (T) Silver (T) Zinc (T) Phosphorus (T) Molybednum (T)	mg/l	Once/quarterly when a discharge occurs.	A minimum of one (1) grab sample collected from the sampling tap of the sump.
2.	Cyanide	mg/l	Once/quarterly when a discharge occurs.	A minimum of one (1) grab sample collected from the sampling tap of the sump.
3.	VOC	ug/l	Once/quarterly when a discharge occurs.	A minimum of one (1) grab sample collected from the sampling tap of the sump.
4.	Flow	Gallons/day	Daily when a discharge occurs.	Measure the volume of every load discharged from the outfall.
5.	Nonbiodegradable Oils & Grease (Mineral or Petroleum Origin)	mg/l	Once/quarterly when a discharge occurs.	A minimum of one (1) grab sample collected from the sampling tap of the sump. A glass grab sample bottle shall be rinsed with the extractant solvent.
6.	pH	Standard Units	Daily when a discharge occurs.	A minimum of one (1) grab sample collected from the sampling tap of the sump.
6.	BOD5 TSS	mg/l	Daily when a discharge occurs.	A minimum of one (1) grab sample collected from the sampling tap of the sump.

## NOTES:

1. Samples will be taken on a day of normal facility operation when the previously stated substances would be present in a maximum concentration in discharges to the sanitary sewer system including those in any batch discharges.
2. The permittee will sample from the discharge pipe of each leachate collection system's loading terminal. The discharges from the leachate collection systems will be sampled and analyzed per the previously stated requirements. Grab samples will be collected at each outfall during the filling of each tank truck and composited accordingly. Grab samples, which are required to be flow proportionally composited, will be based on the volumes of leachate collected at each outfall during the filling of

each tank truck. Compliance with the applicable effluent limitations will be based on sampling and analytical results obtained during any one day of discharge.

3. Alternatively, grab samples which are required to be flow proportionally composited may be taken of each terminal discharge, analyzed individually, and the following flow weighted average formula utilized to determine compliance for any one day of discharge with the applicable effluent limitations:

$$\frac{(V_{HE} \times C_{HE}) + (V_{EIP} \times C_{EIP}) + (V_{HEL} \times C_{HEL})}{V_{HE} + V_{EIP} + V_{HEL}} = \text{mg/l}$$

Where:

- $V_{HE}$  = Total tank truck volume of leachate hauled from Outfall No. MH-03U-HE to the Manitowoc WWTF on any one-day of discharge.
- $V_{EIP}$  = Total tank truck volume of leachate hauled from Outfall No. MHOI-EIP to the Manitowoc WWTF on any one-day of discharge.
- $V_{HEL}$  = Total tank truck volume of leachate hauled from Outfall No. LST-05 to the Manitowoc WWTF on any one-day of discharge.
- $C_{HE}$  = Concentration of the pollutants in the wastewater sample obtained from Outfall No. MH-03U-HE.
- $C_{EIP}$  = Concentration of the pollutants in the wastewater sample obtained from Outfall No. MHOI-EIP.
- $C_{HEL}$  = Concentration of the pollutants in the wastewater sample obtained from Outfall No. LST-05.

- C. Laboratory analysis of samples collected shall be performed in accordance with "Standard Methods for Examination of Water and Wastewater", latest edition, with 40 CFR Part 136 and amendments, thereto, or other such methods as approved by the Wastewater Treatment Facility Superintendent. Holding and preservation of collected samples shall be as specified in 40 CFR, Part 136, and amendments, thereto. Sample results submitted by the permittee shall be performed by a laboratory certified or registered under Chapter NR149, Wisconsin Administrative Code.

## SECTION 2—Reporting Requirements

- A. Monitoring results of all samples collected during a given month will be reported to the Wastewater Treatment Facility Superintendent no later than the fifteenth day of the following month. However, if the monitoring results reveal a violation of any of the effluent limitations specified within, the permittee will submit the results to the Superintendent within 24 hours of becoming aware of the violation(s). The User will repeat the sampling and analysis and submit the results of the repeat analysis to the

POTW within 30 days after becoming aware of the violation. In addition to the monitoring results, the permittee shall submit in the reports the following information:

- B. If the permittee monitors any pollutant more frequently than required by this Permit, the results of such monitoring shall be submitted to the Wastewater Treatment Facility Superintendent.
- C. The permittee must notify the Wastewater Treatment Facility Superintendent of any changes to its wastewater discharge, such as addition or deletion of waste streams contributory to any outfalls, or long term changes in the relative flows or wastewater characteristics of the component waste streams.
- D. All reports required by this Permit shall be submitted to:

Superintendent  
Manitowoc Wastewater Treatment Facility  
900 Quay Street  
Manitowoc, WI 54220

### PART 3—PRETREATMENT AND MONITORING FACILITIES

1. The permittee shall comply with the effluent limitations identified in Part 1, Section 3 of the Permit in accordance with the following schedule:

<u>EVENT</u>	<u>BY NO LATER THAN</u>
Achieve compliance	Effective date of adoption of Manitowoc Effluent Limitations as specified in Chapter 25 of the Municipal Code.

#### NOTES:

1. These dates do not relieve the permittee from the consequences of noncompliance with wastewater standards effective prior to these dates.
2. In the event additional pretreatment and/or implementation of additional operational and maintenance activities are required to comply with applicable limitations, the permittee shall submit to the City the shortest compliance schedule that will be performed to achieve compliance of the violation(s).

The schedule shall contain milestones dates for the commencement and completion of major events leading to compliance with the applicable limitations. The schedule shall also include, but not be limited to, dates relating to hiring an engineer, hiring other appropriate personnel, completing preliminary plans, completing final plans, executing a contract for major components, commencing construction, completing construction, and all other acts necessary to achieve compliance with applicable limitations.

Compliance schedule progress reports shall be submitted by the permittee to the Superintendent no later than 14 days following each milestone date in the schedule and the final date for compliance. The progress reports at a minimum shall include a statement as to whether or not the permittee complied with the increment of the progress represented by that milestone date and, if not, the date when compliance with the increment of progress will occur, the reason for delay, and the steps taken to return to the timetable of the approved schedule.

**PART 4—ENFORCEMENT AND PENALTIES****1. Annual Publication**

A list of all industrial users which were in significant noncompliance at any time during the twelve (12) previous months shall be published at least annually by the City of Manitowoc in the largest daily newspaper within its service area. For the purposes of this provision, a permittee is in significant noncompliance if its violation meets one or more of the following criteria:

- a. Chronic violations of wastewater discharge limits, defined here as those in which sixty-six percent (66%) or more of all of the measurements taken during a six-month period exceed (by any magnitude) the daily maximum limit or the average limit for the same pollutant parameter;
- b. Technical Review Criteria (TRC) violations, defined here as those in which thirty-three percent (33%) or more of all of the measurements for each pollutant parameter taken during a six-month period equal or exceed the product of the daily maximum limit or the average limit multiplied by the applicable TRC (TRC=1.4 for BOD, TSS, fats, oil and grease, and 1.2 for all other pollutants except pH);
- c. Any other violation of a pretreatment effluent limit (daily maximum or long-term average) that the City of Manitowoc determines has caused, alone or in combination with other discharges, interference or pass through (including endangering the health of POTW personnel or the general public);
- d. Any discharge of a pollutant that has caused imminent endangerment to human health, welfare or to the environment or has resulted in the POTW's exercise of its emergency authority to halt or prevent such a discharge;
- e. Failure to meet, within 90 days after the schedule date, a compliance schedule milestone contained in this Permit or an enforcement order for starting construction, completing construction, or attaining final compliance;
- f. Failure to provide, within 30 days after the due date, required reports such as baseline monitoring reports, 90-day compliance reports, periodic self-monitoring reports, and reports on compliance with compliance schedules;
- g. Failure to accurately report noncompliance;
- h. Any other violation or group of violations, which the City of Manitowoc determines adversely, affects the operation or implementation of the local pretreatment program.

**2. Civil and Criminal Liability**

Nothing in this Permit shall be construed to relieve the permittee from civil and/or criminal penalties for noncompliance under Chapter 25, Wastewater Facilities, 25.06(9)(a) or state or federal laws or regulations.

### 3. Penalties for Violations of Permit Conditions

Chapter 25, Wastewater Facilities, 25.06(9)(a) provides that any person who violates a permit condition is subject to a civil penalty of at least \$2,000 per day of such violation. Any person who willfully or negligently violates permit conditions is subject to criminal penalties of a fine of up to \$2,000 per day of violation, or by imprisonment for a period not to exceed 6 months, or both. The permittee may also be subject to sanctions under state and/or federal law.

### 4. Recovery of Costs Incurred

In addition to civil and criminal liability, the permittee violating any of the provisions of this Permit or Chapter 25, Wastewater Facilities, 25.06(9)(b) or causing damage to or otherwise inhibiting the City of Manitowoc wastewater disposal system shall be liable to the City of Manitowoc for any expense, loss, or damage caused by such violation or discharge. The City of Manitowoc shall bill the permittee for the costs incurred by the City of Manitowoc for any cleaning, repair, or replacement work caused by the violation or discharge. Refusal to pay the assessed costs shall constitute a separate violation of Chapter 25, Wastewater Facilities, 25.06(9)(b).

## PART 5—GENERAL CONDITIONS

In addition to compliance with Parts 1, 2, and 3, this Permit is issued conditioned upon compliance with the following general conditions. Violation of any Permit condition below, either alone or in conjunction with a violation of parts 1, 2, or 3, shall be adequate basis for the revocation of this Permit.

- A. Wastewater discharge permits are subject to the provisions of Chapter 25 of the Municipal Code of the City of Manitowoc.
- B. No permittee shall directly or indirectly contribute or cause to contribute any pollutant or wastewater, which will interfere with the operation or performance of the Manitowoc Wastewater Treatment Facility, or cause pass-through.
- C. The permittee shall, after reasonable notification by the Wastewater Treatment Facility, allow the Superintendent or his representatives, to enter upon the premises of the permitted for the purposes of inspection, sampling and verification of flow measurement and/or internal drainage systems in the building.
- D. The permittee shall provide, operate and maintain wastewater treatment facilities necessary to comply with the wastewater limitations of this Permit and with all national categorical pretreatment standards.
- E. The permittee shall provide all records and information resulting from the monitoring of pretreatment activities to the City of Manitowoc as stated in Part 2, Section 2A of this Permit, unless required more frequently by the Superintendent.
- F. The permittee shall inform the City of Manitowoc 90 days prior to the introduction of any new wastewater constituents or any substantial change in the volume or character of the wastewater constituents being introduced into the Manitowoc Wastewater Treatment Facility.

- G. The permittee shall notify the Wastewater Treatment Facility Superintendent (920-683-4516) immediately upon having a slug or accidental discharge of substances or wastewater in violation of Chapter 25 of the Municipal Code of the City of Manitowoc in order to enable countermeasures to be taken by the City to minimize damage to the Wastewater Treatment Facility and the receiving waters. The notification shall include location of discharge, type of waste, concentration and volume and corrective actions. The permittee shall be liable for any and all costs incurred by the City of Manitowoc.
- H. Any discharger who experiences an upset in operations which places the discharger in a temporary state of noncompliance shall inform the Superintendent of the Wastewater Facility within 24 hours of first awareness of the commencement of the upset. A written follow-up report shall be filed by the discharger with the Superintendent within 5 days.
- I. Any industrial user who commences the discharge of hazardous waste shall notify POTW, the CPA Regional Waste Management Division Director, and State hazardous waste authorities in writing of any discharge into the POTW of a substance which, if otherwise disposed of, would be a hazardous waste under 40CFR, part 261.
- J. All dischargers subject to this Permit shall retain for three years any records, documents, reports, correspondence and any summaries thereof relating to monitoring, sampling, and chemical analyses made by or in behalf of a discharger in connection with its discharge.
- K. The terms and conditions of this Permit may be subject to modification by the Wastewater Treatment Facility Superintendent at any time as limitations of requirements as identified in Chapter 25, Wastewater Facilities, are modified or other just cause exists. Any modifications which result in new conditions in the Permit shall include a reasonable time schedule for compliance if necessary.
- L. No permittee shall increase the use of a potable or process water or, in any way, attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in this Permit.
- M. In the event it becomes necessary for the permittee to install or modify existing pretreatment facilities, the permittee shall submit to the State and the City the plans and specifications of the project for review and approval prior to construction of the facilities.
- N. The provisions of this Permit are severable, and if any provision of this Permit or the application of any provision of this Permit to any circumstance is held invalid, the application of such provisions to other circumstances and the remainder of the Permit shall not be affected.
- O. Knowingly making any false statements on any report or document required by this Permit or knowingly rendering any monitoring device or method inaccurate may result in punishment under the criminal laws of Wisconsin as well as being subjected to civil penalties.
- P. Any user required by the DNR to file a NR101 Annual Monitoring Report for wastewater discharges shall submit a copy of the report to the City. Monitoring results obtained under this Permit may be submitted to the DNR on the NR101 Form.

- Q. The disposal of sludge generated within wastewater pretreatment systems shall be done in accordance with applicable State and Federal regulations, namely Section 405 of the Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act and equivalent State regulations.
- R. Wastewater Discharge Permits are issued to a specific discharger for a specific operation and are not assignable to another discharger or transferable to a different premises or operation, without prior written approval of the Superintendent.
- S. All reports required by this Permit shall be signed as follows:

1. If the user is a corporation:

The president, secretary, treasurer, or vice-president of the corporation in charges of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or

The manager of one or more manufacturing, production, or operation facilities employing more than two hundred fifty (250) persons or having gross annual sales or expenditures exceeding twenty-five (25) million dollars (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2. If the user is a partnership or sole proprietorship: a general partner or proprietor, respectively.
3. If the user is a federal, state or local governmental facility; a director or highest official appointed or designated to oversee the operation and performance of the activities of the government facility, or their designee.
4. The individuals described in paragraphs 1 through 3, above, may designate another authorized representative if the authorization is in writing, the authorization specifies the individual or position responsible for the overall operation of the facility from which the discharge originates or having overall responsibility for environmental matters for the company, and the written authorization is submitted to the City of Manitowoc:

Superintendent  
Manitowoc Wastewater Treatment Facility  
900 Quay Street  
Manitowoc WI 54220

