Ridgeview air permit

Seegers, Ray to: Jean Greensley 09/07/2011 08:04 AM

Cc: "Hartman, Todd", "Wolter, Michael", "Kietzer, Kurt", "Hamblin, Gerard", "Rossi, Ghia"

History: This message has been replied to and forwarded.

1 attachment

KMBT250201109070722246.pdf

Hi Jean,

As requested, attached please find the current air permit for the Ridgeview landfill.

Raymond Seegers
Environmental Engineer
(920) 732-4473

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Matthew J. Frank, Secretary
Ronald W. Kazmierczak, Regional Director

Northeast Region Headquarters
2984 Shawano Ave.
Green Bay, Wisconsin 54313-6727
Telephone 920-662-5100
FAX 920-662-5413
TTY Access via relay - 711

January 20, 2009

FILE CODE: 4530-1
FID # : 436020530
PERMIT #: 436020530-P10

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Kurt Keitzer, District Manager
Waste Management of Wisconsin, Inc. - Ridgeview
6207 Hempton Lake Road
Whitelaw, WI 54247

JAN 22 2009

Dear Mr. Keitzer:

Your application to renew air pollution control operation permit number 436020530-P01 has been processed in accordance with s. 285.62, Wis. Stats. **This renewed permit expires January 20, 2014.** 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 operation permit is issued to provide authorization for your source to operate a solid waste landfill 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 Department of Natural Resources - Northeast Region Air Program, 2984 Shawano Avenue, Green Bay, WI 54313-6727; Telephone 920-662-5484, Fax 920-662-5464.

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 you submit a timely and complete application for renewal, the existing operation permit will not expire until the renewal application has been finally acted upon by DNR. [ss. 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 s. 285.81, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for a contested case hearing on the Secretary of the Department of Natural Resources. Any such petition for hearing shall set forth the issues sought to be reviewed, the interest of the petitioner, the reasons why a hearing is warranted and the relief desired. Pursuant to s. 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 s. 285.81(2), Wis. Stats., are met.

For judicial review of a decision pursuant to ss. 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. Such a petition for judicial review shall name the Department of Natural Resources as the respondent.

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

Carol V. Crawford

Carol V. Crawford, P. E.
Air Management Engineer

cc: AM/7 — OP

Enclosure

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

Findings of Fact

The Department of Natural Resources (DNR) finds that:

1) Waste Management of Wisconsin, Inc. - Ridgeview, 6207 Hempton Lake Road, Whitelaw, WI 54247, has applied for an air pollution control operation permit. The authorized representative of the facility is Mr. Kurt Keitzer, District Manager.

2) Waste Management of Wisconsin, Inc. - Ridgeview submitted an air pollution control permit renewal application and plans and specifications and any additional information describing the air pollution source on September 18, 2008.

3) DNR has reviewed Waste Management of Wisconsin, Inc. - Ridgeview's air pollution control operation permit application, plans, specifications and other information available to DNR.

4) DNR has prepared an analysis and a Preliminary Determination on the approvability of the operation permit application.

5) This permit is for the operation of a Part 70 source.

6) DNR has complied with the procedures set forth in s. 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, Stats., and ch. NR 150, Wis. Adm. Code.

Conclusions of Law

DNR concludes that:

1) DNR has authority under sec. 285.11(1), Wis. Stats., to promulgate rules contained in chs. NR 400-499, 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 400-499, Wis. Adm. Code, to establish emission limits for sources of air pollution.

3) DNR has the authority to issue air pollution control permits and to include conditions in such permits under ss. 285.60, 285.62, 285.63, 285.64, and 285.65, Wis. Stats.

4) DNR has the authority to renew air pollution control operation permits and to include conditions in such permits under ss. 285.66, Wis. Stats.

5) The emission limits included in this permit are authorized by ss. 285.65, Wis. Stats., and NR 400-499, Wis. Adm. Code.

6) DNR is required to comply with sec. 1.11, Stats., and ch. NR 150, Wis. Adm. Code, in conjunction with issuing an air pollution control permit.

Decision

Waste Management of Wisconsin, Inc. - Ridgeview is authorized to operate a solid waste landfill in conformity with the emission limits, monitoring, record keeping and reporting requirements and specific and general conditions set forth in this permit.

AIR POLLUTION CONTROL OPERATION PERMIT RENEWAL

EI FACILITY NO: 436020530 PERMIT NO.: 436020530-P10

TYPE: Part 70

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. - Ridgeview

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

Responsible Official, & Title: Mr. Kurt Keitzer, District Manager

is authorized to operate a solid waste landfill in conformity with the conditions herein.

THIS OPERATION PERMIT EXPIRES [Section NR 407.09(1)(b)1., Wis. Adm. Code] **JANUARY 20, 2014**

A RENEWAL APPLICATION MUST BE SUBMITTED AT LEAST 6 MONTHS, BUT NOT MORE THAN 18 MONTHS, PRIOR TO THIS 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 you submit a timely and complete application for renewal, the existing operation permit will not expire until the renewal application has been finally acted upon by DNR. [ss. 227.51(2), Wis. Stats. and NR 407.04(2), Wis. Adm. Code].

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 Green Bay, Wisconsin, 1-20-09

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
For the Secretary

By Richard Wulk
Richard Wulk
Environmental Engineer Supervisor

PREAMBLE

An Asterisk (*) throughout this document denotes legal authority, limitations and conditions which are not federally enforceable.

Historical Summary of Permits and Orders Issued to the facility:

Permit/Order Number	Issuance Date	Description
99-MHR-039	July 15, 1999	Construction permit. Landfill modifications and construction of two landfill gas-fired reciprocating engines.
01-MHR-125	February 21, 2002	Construction permit. Construction of two additional landfill gas-fired reciprocating engines.
436020530-P01	January 23, 2004	Title V operation permit.
99-MHR-039-OP	January 23, 2004	ConOp for Construction Permit 99-MHR-039. Issued concurrently with original Title V permit.
01-MHR-125-OP	January 23, 2004	ConOp for Construction Permit 01-MHR-125. Issued concurrently with original Title V permit.
04-MHR-183	November 1, 2005	Construction permit. Expansion of existing landfill, six new reciprocating engines, new open flare (after-the-fact), and removal of diesel industrial engines and diesel generators.
07-MHR-223	July 11, 2008	Construction permit for up to five replacements of reciprocating engines.

The following permits, orders, etc. are adopted, under ss. 285.65(3), Wis. Stats., NR 406.11(1)(c) and (d), NR 407.09(2)(d) and NR 407.15(3) and (4), Wis. Adm. Code, by Permit #436020530-P10 which then becomes the primary enforceable document:

04-MHR-183
07-MHR-223

Stack and Process Index

Significant Emission Units

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[1]	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
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
S30, P30	Plant 2 Landfill gas-fired reciprocating engine #10, Cat. model #3516, E6	2005	07-MHR-223
S35, P35	Replacement Landfill gas-fired reciprocating engine	In Future	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

[1] Although P31, P32, P33 and P34 were installed in 2008, they were manufactured prior to January 1, 2008 according to the facility.

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:

1. 40 CFR Part 64: The requirements of 40 CFR Part 64 do not apply to the facility because the emission limitations and standards for non-methane organic compounds (NMOC) are from a New Source Performance Standard that was proposed after November 15, 1990. [40 CFR §64.2(b)(1)(i)]

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 voluntary 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 sources 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 USEPA 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.

Compliance Demonstration – This area contains monitoring and testing requirements and methods to demonstrate compliance with the conditions.

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

APPLICABLE LIMITATIONS AND SPECIFIC CONDITIONS

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
J. Stack S30, Process P30: Plant 2 Landfill gas-fired reciprocating engine #10
Stack S35, Process P35: Landfill gas-fired reciprocating engine #15 (to be installed in the future)
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.]**	**Gas Collection System** **(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 **(a)** 5 years or more if active; or **(b)** 2 years or more if closed or at final grade. **[40 CFR s. 60.753(a), s. 285.65(13), Wis. Stats.]**	**(1)** The permittee shall keep and maintain the following records: **(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. **(b)** The maximum design capacity of the landfill, in megagrams of solid waste. **(c)** When required by I.A.-Q.1.b.(10)(a), the average annual solid waste acceptance rate, in megagrams per year. **(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. [Continued on Next Page]

A. to J. Stacks S31, S32, S33, S34, S25-S30, and S35; Processes P31, P32, P33, P34, P25-P30, and P35: 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)	**(2)** The active gas collection system shall: **(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; **(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 **(i)** 5 years or more if active; or **(ii)** 2 years or more if closed or at final grade; **(c)** Collect gas at a sufficient extraction rate; and **(d)** Be designed to minimize off-site migration of subsurface gas. **[40 CFR s. 60.752(b)(2)(ii)(A) s. 285.65(13), Wis. Stats.]**	**(2)** The permittee shall operate the collection system with negative pressure at each wellhead except under the following conditions: **(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 I.ZZZ.5.b.(1); **(b)** Use of a geomembrane or synthetic cover. All positive pressure limits shall be approved by the department. **(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. **[40 CFR ss. 60.753(b), 60.756(e), 60.752(b)(2)(i)(B), s. 285.65(13), Wis. Stats.]** **(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.]** **(4)** The permittee shall operate each interior wellhead in the gas collection system in the following manner: **(a)** Except as specified in (4)(c), with a landfill gas temperature less than 131°F (55°C). **(b)** Except as specified in (4)(c), with either a nitrogen level less than 20 percent, or an oxygen level less than 5 percent. **(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.]**[2]	**(1) Continued** **(e)** A surface monitoring design plan, as specified in I.A.-Q.1.b.(9). **(f)** The density of wells, horizontal collectors, surface collectors, or other gas extraction devices as specified in 40 CFR s. 60.759(a)(1). **(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. **(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. **(i)** The date when each area and cell of the landfill began accepting solid waste. **(j)** The date when each cell of the landfill was closed or reached final grade. [Continued on Next Page]

[2] (reserved)

A. to J. Stacks S31, S32, S33, S34, S25-S30, and S35; Processes P31, P32, P33, P34, P25-P30, and P35: 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)	**(3)** The permittee shall route all the collected landfill gas to one or more of the following: **(a)** The stationary open flare (Process P10), **(b)** The mobile open flare (Process P11) **(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, P30, P35. During each shakedown period for any Process P31-P35, 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) & (C), s. 285.65(13), Wis. Stats., Permit # 07-MHR-223]**	**(5)** Each temperature monitoring device shall be accurate to within ± 5% of the temperature being measured in degrees Fahrenheit or within ± 5 ° F of the temperature being measured, or the equivalent in degrees Celsius (centigrade), whichever is greater. **[s. 285.65(3), Wis. Stats.]** **(6)** Each pressure-monitoring device shall be accurate to within 5% or ± 1 inch of water column, whichever is greater. **[s. NR 439.055(3)(b), Wis. Adm. Code]** **(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.]** **(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: **(a)** The span shall be set so that the regulatory limit is between 20 and 50 percent of the span; **(b)** A data recorder is not required; **(c)** Only two calibration gases are required, a zero and span, and ambient air may be used as the span; **(d)** A calibration error check is not required; **(e)** The allowable sample bias, zero drift, and calibration drift are ± 10 percent. **[40 CFR s. 60.753(c)(2), s. 285.65(13), Wis. Stats.]**	**(1) Continued** **(k)** Any alternative pressure levels established, as allowed under I.A.-Q.1.b.(2)(b). **(L)** Any alternative temperature, nitrogen, and oxygen levels established, as allowed under I.A.-Q.1.b.(4)(c). **(m)** The maximum expected landfill gas generation flow rate, in cubic meters per year. **(n)** On a monthly basis, the average actual landfill gas collection rate, in cubic feet per minute. **(o)** All data upon which the maximum expected gas generation flow rate is based. **(p)** Monthly gauge pressure records for each well. **(q)** Monthly temperature readings for each well, in °F or °C. **(r)** Monthly nitrogen or oxygen level readings for each well, in percent. [Continued on Next Page]

A. to J. Stacks S31, S32, S33, S34, S25-S30, and S35; Processes P31, P32, P33, P34, P25-P30, and P35: 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)	**(4)** The permittee shall operate the landfill gas treatment system as specified in Appendix A.[3] **[40 CFR s. 60.752(b)(2)(iii)(C), s. 285.65(13), Wis. Stats.]**	**(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.]** **(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_O 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. **[Continued on Next Page]**	**(1) Continued** **(s)** Results of methane surface concentration monitoring, including the background concentration at the surface determined. **(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. **(u)** The dates when and locations where any positive pressure reading(s) occurred. **(v)** The dates when and locations where any temperature, oxygen level, and nitrogen level exceedance readings occurred. [Continued on Next Page]

[3] 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, S25-S30, and S35; Processes P31, P32, P33, P34, P25-P30, and P35: 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)	**(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: **(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); **(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 **(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. **[40 CFR 60.752(b)(2)(v), and s. 285.65(13), Wis. Stats.]**	**(10) Continued** **(a)** For sites with unknown year-to-year solid waste acceptance rate: $Q_m = 2L_o R (e^{-kc} - e^{-kt})$ where, Q_m = maximum expected gas generation flow rate, in cubic meters per year L_o = methane generation potential, in cubic meters per megagram solid waste R = average annual acceptance rate, in megagrams per year k = methane generation rate constant, in year^{-1} t = 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, t is the age of the landfill at installation, in years c = time since closure, in years (for an active landfill c = O and e^{-kc} = 1) **(b)** For sites with known year-to-year solid waste acceptance rate: $Q_M = \sum_{i=1}^{n} 2kL_o M_i [\exp(-kt_i)]$; where Q_M =maximum expected gas generation flow rate, in cubic meters per year exp(-kt_i) = e (or 2.71828) raised to the power of -kt_i k = methane generation rate constant, in year^{-1} L_o = methane generation potential, in cubic meters per megagram solid waste M_i = mass of solid waste in the i^{th} section, in megagrams t_i = age of the i^{th} section, in years. **(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. **[40 CFR s. 60.755(a)(1), s. 285.65(13), Wis. Stats.]**	**(1) Continued** **(w)** The corrective actions taken to correct any temperature exceedance, including the dates when those actions were taken. **(x)** The corrective actions taken to correct any oxygen level or nitrogen level exceedance, including the dates when those actions were taken. **(y)** The dates when and locations where any surface methane concentration exceedance reading occurred. **(z)** The corrective actions taken to correct any surface methane concentration exceedance reading, including the dates when those actions were taken. **(aa)** All data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices are based. **(ab)** The results of each cover integrity monitoring event. **(ac)** Any maintenance or corrective action conducted on the landfill cover, including the dates when those actions were taken. **(ad)** The dates when the gas collection system was expanded. **(ae)** The dates and times when the gas collection system was inoperable. **(af)** The dates and times when the gas mover system was shutdown. [Continued on Next Page]

A. to J. Stacks S31, S32, S33, S34, S25-S30, and S35; Processes P31, P32, P33, P34, P25-P30, and P35: 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)		**(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.]** **(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.]** **(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). **(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). **(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 to correct the exceedance within 120 days of the initial measurement of positive pressure. **(c)** Any attempted corrective measure shall not cause exceedances of other operational or performance standards. **(d)** An alternative timeline for correcting the exceedance may be submitted to the department for approval. **[40 CFR ss. 60.755(a)(3) and 60.753(g), s. 285.65(13), Wis. Stats.]** **(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.]**	**(1) Continued** **(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. **(ah)** For the collection system, **(i)** The dates when each start-up, shutdown, and malfunction commenced. **(ii)** The duration of each start-up, shutdown, and malfunction; in hours. **(ai)** For the landfill gas treatment system and each Process P25-P35 **(i)** The dates and times when each start-up, shutdown, and malfunction commenced. **(ii)** The dates and times when each start-up, shutdown, and malfunction, concluded. **(aj)** For each Process P10 and P11 **(i)** the flare type (i.e. - steam-assisted, air-assisted, or nonassisted) **(ii)** the dates and times when a flame is not present. **(iii)** The maximum allowed exit velocity of the gas. **(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. **(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. **(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).

A. to J. Stacks S31, S32, S33, S34, S25-S30, and S35; Processes P31, P32, P33, P34, P25-P30, and P35: 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)		**(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.]** **(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). **(a)** Action shall be initiated to correct the exceedance within 5 calendar days. **(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 to correct the exceedance within 120 days after the initial exceedance. **(c)** Any attempted corrective measure shall not cause exceedances of other operational or performance standards. **(d)** An alternative timeline for correcting the exceedance may be submitted to the department for approval. **[40 CFR ss. 60.755(a)(5) and 60.753(g), s. 285.65(13), Wis. Stats.]** **(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.]** **(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: **(a)** 5 years or more if active; or **(b)** 2 years or more if closed or at final grade. **[40 CFR s. 60.755(b), s. 285.65(13), Wis. Stats.]**	**(1) Continued** **(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. **(aL)** For each gas well, the date when it became equipped with an automatic leachate extraction system or submersible pump. **(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. **(an)** The dates when the permittee initially operated each Process P31-P35. **(ao)** For each Process P31-P35, the date when the shakedown period began. **(ap)** For each Process P31-P35, the date when the shakedown period ended. **(aq)** For each Process P25-P30, the date when the permittee ceased operation of that process. **[s. 439.04(1)(d), Wis. Adm. Code, 40 s. CFR 60.758, s. 285.65(13), Wis. Stats.]**

A. to J. Stacks S31, S32, S33, S34, S25-S30, and S35; Processes P31, P32, P33, P34, P25-P30, and P35: 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)		**(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). **(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). **(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. **(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. **(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). **(i)** The location of each monitored exceedance shall be marked and the location recorded. **(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. **(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. [Continued on Next Page]	

A. to J. Stacks S31, S32, S33, S34, S25-S30, and S35; Processes P31, P32, P33, P34, P25-P30, and P35: 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)		**(19)(d) Continued** **(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. **(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. **(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(c), 60.756(e), 60.753(d), and 60.753(g), s. 285.65(13), Wis. Stats.]** **(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.]**	

A. to J. Stacks S31, S32, S33, S34, S25-S30, and S35; Processes P31, P32, P33, P34, P25-P30, and P35: 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)		**(21)** The permittee shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices: **(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. **(b)** The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air. **(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. **(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. **[s. 40 CFR 60.755(d), s. 285.65(13), Wis. Stats.]** **(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.]** **(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.]**	

A. to J. Stacks S31, S32, S33, S34, S25-S30, and S35; Processes P31, P32, P33, P34, P25-P30, and P35: 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)		**Processes P25-P35** **(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.]** **(25)** The permittee shall route landfill gas that has been treated by the landfill gas treatment system to Processes P25-P35 or back to a header pipe. **[s. 285.65(3), Wis. Stats.]** **Each Process P10 and P11** **(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.]** **(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.]** **(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.]** **(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.]**	

A. to J. Stacks S31, S32, S33, S34, S25-S30, and S35; Processes P31, P32, P33, P34, P25-P30, and P35: 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)		**(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.]** **(31)** For each Process P10 and P11, the permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment: (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. (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. Or 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.]** **(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.]**	

A. to J. Stacks S31, S32, S33, S34, S25-S30, and S35; Processes P31, P32, P33, P34, P25-P30, and P35: 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)		**Operation of Collection System, Landfill Gas Treatment System (which precedes Processes P25-P35), Process P10, and Process P11** **(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: **(a)** For the landfill gas collection system: the duration of start-up, shutdown, or malfunction shall not exceed 5 days. **(b)** For the landfill gas treatment system that precedes Processes P25-P35, the duration of start-up, shutdown, or malfunction shall not exceed 1 hour. **(c)** For each Process P10 and P11, the duration of start-up, shutdown, or malfunction shall not exceed 1 hour, **[40 CFR ss. 60.755(e) , s. 285.65(13), Wis. Stats.]** **Removal of Collection and Control Systems** **(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: $M_{NMOC} = 1.89 \times 10^{-3} Q_{LFG} C_{NMOC}$; where M_{NMOC} = mass emission rate of NMOC, megagrams per year Q_{LFG} = flow rate of landfill gas, cubic meters per minute C_{NMOC} = NMOC concentration, parts per million by volume as hexane **(a)** The flow rate of landfill gas, Q_{LFG}, 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. [Continued on Next Page]	

A. to J. Stacks S31, S32, S33, S34, S25-S30, and S35; Processes P31, P32, P33, P34, P25-P30, and P35: 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)		**(34) Continued** **(b)** The average NMOC concentration, C_{NMOC}, 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 C_{NMOC} as carbon to C_{NMOC} as hexane. **(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.] **Monitoring Leachate Levels in Gas Wells**[4] **(35)** The permittee shall monitor and report 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) & (13), Wis. Stats.]** **(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) & (13), Wis. Stats.]**	

[4] 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, S25-S30, and S35; Processes P31, P32, P33, P34, P25-P30, and P35: 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[5]	(1) The permittee may not emit more than 0.9 pounds of particulate matter per hour from each Process P25-P35. **[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-P35. The permittee may use propane and LP gas to light the pilot light in each Process P25-P35. **[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) **Reference Test Method for Particulate Matter Emissions:** 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) Reference Test Method for PM_{10} Emissions:** 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]**

[5] 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, S25-S30, and S35; Processes P31, P32, P33, P34, P25-P30, and P35: 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	(1) **For Each Process P25-P35:** 20 percent opacity. **[s. NR 431.05, Wis. Adm. Code, Permit # 04-MHR-183, Permit # 07-MHR-223]** (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]**	(1) **For Each Process P25-P35**: The permittee shall conduct compliance emission testing using USEPA Method 9 at the times specified below: (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 (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]** (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.]** (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]**	(1) **For Each Process P25-P35**: 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]** (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]** (3) The permittee shall keep and maintain copies of emission testing results. **[s. NR 439.04(1)(d), Wis. Adm. Code]**

A. to J. Stacks S31, S32, S33, S34, S25-S30, and S35; Processes P31, P32, P33, P34, P25-P30, and P35: 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[6]	(1) The permittee may not emit sulfur dioxide in such quantities to cause any of the ambient air increments to be exceeded: (a) annual arithmetic mean: 20 micrograms per cubic meter. (b) 24 hour maximum: 91 micrograms per cubic meter. (c) 3 hour maximum: 512 micrograms per cubic meter. **[s. NR 404.05(3)(b), Wis. Adm. Code, Permit # 04-MHR-183]**	(1) The permittee may only fire landfill gas and natural gas in each Process P25-P35. The permittee may use propane and LP gas to light the pilot light in each Process P25-P35. **[s. 285.65(3), Wis. Stats., Permit 04-MHR-183, Permit # 07-MHR-223]** (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., Permit # 04-MHR-183]** (3) The permittee shall sample and analyze the landfill gas for sulfur content in the following manner: (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, P29, P30, P31, and P35 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). (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]** (4) On a monthly basis, the permittee shall measure and record the amount of landfill gas fired in each Process P25-P35, in cubic feet per month. **[s. 285.65(3), Wis. Stats., Permit # 04-MHR-183, Permit # 07-MHR-223]**	(1) Reference Test Method for Sulfur Dioxide Emissions: 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]** (2) Reference Test Method for Sampling and Analyzing Landfill Gas for Sulfur Content: 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** (3) The permittee shall keep and maintain the following: (a) On site technical drawings, blueprints, or equivalent records that show (i) The location of fencelines described in conditions I.A.-Q.4.a.(3)-(4). (ii) The stack parameters of Stack S10, Stack S11, and each Stack S25-S35. (b) Copies of landfill gas analytical results. (c) Monthly average landfill gas collection rates for each Process P25-P30, in cubic feet per month. [Continued on Next Page]

[6] 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, S25-S30, and S35; Processes P31, P32, P33, P34, P25-P30, and P35: 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)	(2) The permittee may not emit sulfur dioxide in such quantities to cause any of the following ambient air concentrations to be exceeded (a) Primary standards: (a)(i) annual arithmetic mean: 0.030 parts per million. (a)(ii) maximum 24-hour average concentration, not to be exceeded more than once per year: 0.14 parts per million. (b) Secondary standard of 0.5 parts per million, not to be exceeded more than once per year. **[s. NR 404.05(2), Wis. Adm. Code, Permit # 04-MHR-183]** (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]**	(5) For each Process P25-P35, the permittee shall (within 30 days after each calendar month) calculate monthly sulfur dioxide emissions (in tons/month) using the following equation: $MS = LFG_m \times \frac{1}{379} \times \frac{SC}{1{,}000{,}000} \times 64 \times \frac{1}{2000}$; where MS = monthly SO_2 emissions for any Process P25-P35, in tons per month LFG_m = amount of landfill gas fired in any Process P25-P35 during month m, in cubic feet per month 379 cubic feet per pound mole SC = sulfur content of landfill gas from the most recent landfill gas analysis, in parts per million (on a molar basis) 64 pounds of SO_2 per pound mole of sulfur 2000 pounds per ton **[s. 285.65(3), Wis. Stats., Permit # 07-MHR-223]** (6) For each engine replaced (any Process P21-P30), the permittee shall calculate the following within 30 days after it was replaced. (6)(a) SO_2 emissions for the most recent calendar year prior to replacement, by summing the SO_2 emissions for each month during that calendar year. The result shall be expressed in tons per year. (6)(b) SO_2 emissions for the second most recent calendar year prior to replacement, by summing the SO_2 emissions for each month during that calendar year. The result shall be expressed in tons per year. (6)(c) The average past actual SO_2 emissions by summing the SO_2 emissions in (6)(a) and (b) and dividing the result by two. The result shall be expressed in tons per year. [s. 285.65(3), Wis. Stats., Permit # 07-MHR-223] (7) Within 30 days after each engine is replaced (any Process P21-P30), the permittee shall sum the average past actual SO_2 emissions for all engines replaced, and express the result in tons per year. **[s. 285.65(3), Wis. Stats., Permit # 07-MHR-223]**	(3) Continued (d) Monthly SO_2 emissions from each Process P25-P35, in tons per month. (e) For each engine replaced, SO_2 emissions for the most recent calendar year prior to replacement, in tons per year. (f) For each engine replaced, SO_2 emissions for the second most recent calendar year prior to replacement, in tons per year. (g) For each engine replaced, average past actual SO_2 emissions, in tons per year. (h) The average past actual SO_2 emissions for all engines replaced (combined), in tons per year. (i) SO_2 emission limit for Processes P31-P35, combined. (j) Annual SO_2 emissions for each Process P31 – P35, in tons per year. (k) Annual SO_2 emissions for Processes P31 – P35, combined, in tons per year. **[s. NR 439.04(1)(d), Wis. Adm. Code]**

A. to J. Stacks S31, S32, S33, S34, S25-S30, and S35; Processes P31, P32, P33, P34, P25-P30, and P35: 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)	(4) The permittee shall maintain a fence in the locations specified in Figure 1. **[s. 406.10, Wis. Adm. Code, Permit # 04-MHR-183]** (5) For Stacks S25-S35, 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.[7] **[s. 285.65(7), Wis. Stats., Permit # 04-MHR-183]** (6) The permittee shall limit sulfur dioxide emissions from Processes P31-P35, combined to 39 tons per year plus the average past actual sulfur dioxide emission rate from the processes replaced by Processes P31-P35. The result shall be expressed in tons per year (and computed monthly). **[s. 285.65(7), Wis. Stats., ch. NR 405, Wis. Adm. Code, Permit # 07-MHR-223]**	(8) Within 30 days after the end of each calendar month, the permittee shall calculate the limit for Processes P31-P35 combined by summing the result from 4.b.(7) with 39 tons per year. The result shall be expressed in tons per year. **[s. 285.65(3), Wis. Stats., Permit # 07-MHR-223]** (9) To demonstrate compliance with condition 4..b.(6), the permittee shall perform the following calculations within 30 days after end of each calendar month. (a) For each Process P31-P35, calculate annual SO_2 emissions in tons per year using the following method. After the first month of operation, emissions shall equal the emissions for that month. After the second month of operation, emissions shall equal the sum of emissions for the previous two consecutive months. After the third month of operation, emissions shall equal the emissions for the sum of emissions for the previous three consecutive months. The permittee shall follow this method through the end of 11^{th} month of operation. After the 12^{th} month of operation and beyond, the permittee shall calculate annual SO_2 emissions by summing the emissions for the past 12 consecutive months. (b) Calculate annual SO_2 emissions for Processes P31-P35, combined. **[s. 285.65(3), Wis. Stats., Permit # 07-MHR-223]**	

[7] 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, S25-S30, and S35; Processes P31, P32, P33, P34, P25-P30, and P35: 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 4.0 pounds of nitrogen oxides per hour from each Process P25-P35.[8] **[s. 285.65(7), Wis. Stats., Permit # 04-MHR-183]** (2) Before replacing any Process P21-P30, the permittee shall have fired at least 137.8 million cubic feet of landfill gas per year, averaged over the most recent two consecutive calendar years.[9] **[s. 285.65(7), Wis. Stats., ch. NR 405, Wis. Adm. Code, Permit # 07-MHR-223]**	(1) The permittee may only fire landfill gas and natural gas in each Process P25-P35. The permittee may use propane and LP gas to light the pilot light in each Process P25-P35. **[s. 285.65(3), Wis. Stats.]**	(1) Reference Test Method for Nitrogen Oxides Emissions: 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]** (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]** (3) The permittee shall keep and maintain copies of the following records: (a) The amount of landfill gas fired in each Process P21 – P30, in cubic feet per month. (b) The amount of landfill gas fired in each Process P21 – P30 during the previous calendar year, in cubic feet per year. (c) Whenever any Process P21 – P30 is replaced, the amount of landfill gas fired in that process, averaged over the most recent two consecutive calendar years. (d) Emission testing results, including the level of each parameter specified by the department. **[s. 439.04(1)(d), Wis. Adm. Code]**

[8] 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 consists 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 Processes P21 – P30 (some of these have been replaced under 07-MHR-223).

[9] Manitowoc County is a basic nonattainment area for ozone. Nitrogen oxides is a precursor to ozone formation. The permittee proposed this limit to ensure that the project reflected in Permit # 07-MHR-223 will constitute a minor modification for nonattainment area purposes.

A. to J. Stacks S31, S32, S33, S34, S25-S30, and S35; Processes P31, P32, P33, P34, P25-P30, and P35: 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) Before replacing any Process P21-P30, the permittee shall have fired at least 137.8 million cubic feet of landfill gas per year, averaged over the most recent two consecutive calendar years. **[s. 285.65(7), Wis. Stats., ch. NR 405, Wis. Adm. Code, Permit # 07-MHR-223]**		(1) The permittee shall keep and maintain copies of the records specified in 5.c.(3)(a)-(c) above.

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	**(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]** **(2)** Secondary Ambient Air Standard of 150 $\mu g/m^3$, not to be exceeded more than once per year **[s. NR 404.04(3), Wis. Adm. Code]**	(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.]** (2) The permittee shall follow the procedures in the fugitive dust control plan required by conditions I.T.1.b.(3). These procedures shall include, but not be limited to: **(a)** Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, or construction operations. **(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. **(c)** Installation and use of hoods, fans, and air cleaning devices to enclose and vent the areas where dusty materials are handled. **(d)** Covering or securing of materials likely to become airborne while being moved on public roads, railroads, or navigable waters. **(e)** Paving or maintenance of roadway areas so as not to create air pollution. **[s. NR 415.04(1), Wis. Adm. Code]** (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]**	**(1)** The permittee shall keep and maintain the following records: (a) Daily records of all precautions and corrective actions taken to prevent fugitive dust emissions. (b) The records required in the most recent fugitive dust control plan. (c) A copy of the most recent fugitive dust plan. **[s. NR 439.04(1)(d), Wis. Adm. Code]**

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]**	**(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]** **(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.]** **(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 54313-6727, Phone (920) 662-5484 at least 45 days prior to making any changes. **[s. 285.65(3), Wis. Stats.]**	**(1)** The permittee shall keep and maintain the following: (a) The records required in the most recent, Department-approved odor control plan. (b) A copy of the most recent Department approved odor control plan (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]**

ZZZ. Conditions Applicable to the Entire Facility		
CONDITION TYPE	**a. CONDITIONS**	**b. COMPLIANCE DEMONSTRATION, REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
1. Stack Parameters 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.	(1) For Each Stack S31, S32, S33, S34, S25, S26, S27, S28, S29, S30, S31, and S35: (a) The height shall be at least 31feet above ground level. (b) The inside diameter at the outlet may not exceed 0.83 feet. (c) Exhaust gases shall be vented vertically. (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]** (2) For Stack S10: (a) The stack height shall be at least 30 feet above ground level. (b) The stack inside diameter at the outlet may not exceed 0.83 feet. (c) Exhaust gases shall be vented vertically. (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]** (3) For Stack S11: (a) The stack height shall be at least 22 feet above ground level. (b) The stack inside diameter at the outlet may not exceed 0.67 feet. (c) Exhaust gases shall be vented vertically. (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]**	(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]**

ZZZ. Conditions Applicable to the Entire Facility		
CONDITION TYPE	**a. CONDITIONS**	**b. COMPLIANCE DEMONSTRATION, REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
2. Malfunction Prevention and Abatement Plans	**(1)** A malfunction prevention and abatement plan shall be prepared and followed for the plant. (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. **(b)** The Wisconsin Department of Natural Resources, Northeast Region Air Program, 2984 Shawano Avenue, Green Bay, WI 54313-6727, Phone (920) 662-5199 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. **[s. NR 439.11(2), Wis. Adm. Code, Permit # 07-MHR-223]**	**(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]** **(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)1.c., NR 439.055(4) and s. NR 439.11, Wis. Adm. Code; Permit #07-MHR-223]** **(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]** **(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]** **(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]** **(4)** The facility shall maintain records of the instrumentation calibrations. **[s. NR 439.04, Wis. Adm. Code; Permit #07-MHR-223]**

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	**(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]** **(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)]**	**(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]** **(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]** **(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]** **(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]** **(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]** **(6)** Startup, Shutdown, and Malfunction Plan - **(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. [Continued on Next Page]

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)		**(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 I.ZZZ.3.b.(1). **(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 I.ZZZ.3.b.(2). **(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. **(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. **(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: **(g)(i)** Does not address a startup, shutdown or malfunction event that has occurred. **(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. **(g)(iii)** Does not provide adequate procedures for correcting malfunctioning process and air pollution control equipment as quickly as practicable. [Continued on Next Page]

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)		**(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]** (7) Prohibited activities – **(a)** The permittee may not operate the source in violation of the requirements of I.ZZZ.3.b., except under any of the following: **(a)(i)** A compliance date extension granted by the administrator under 40 CFR part 63. **(a)(ii)** A compliance date extension granted under ch. NR 460 by the Department. **(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)). **(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]** **(8)** Circumvention – 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: **(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. **(b)** The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions. **(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]**

ZZZ. Conditions Applicable to the Entire Facility		
CONDITION TYPE	**a. CONDITIONS**	**b. COMPLIANCE DEMONSTRATION, REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
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]	(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]** (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]** (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]** (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]**

ZZZ. Conditions Applicable to the Entire Facility		
CONDITION TYPE	**a. CONDITIONS**	**b. COMPLIANCE DEMONSTRATION, REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
5. Compliance Reports	(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]** (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]**	**(1)** The permittee shall submit the results of monitoring or a summary of the monitoring results required by this permit to the Department. **(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. **(b)** The report shall be submitted to the Wisconsin Department of Natural Resources, Northeast Region Air Program, 2984 Shawano Avenue, Green Bay, WI 54313-6727, Phone (920) 662-5484, by September 1st for the period ending June 30, and by March 1st for the period ending December 31. **(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., **(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. **(ii)** A deviation also occurs when a start-up, shutdown, and malfunction plan is not developed, implemented, or maintained on site. **(d)** In addition to the items specified in I.ZZZ.5.b.(1)(c), the summary shall include the following: **(i)** All periods when the landfill gas collection system was not operating for a period exceeding 5 days. **(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. **(iii)** The date of installation and the location of each well or landfill gas collection system expansion added. **(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. **(e)** Each submittal shall be certified by a responsible official as to the truth, accuracy, and completeness of the report. **[ss. NR 439.03(1)(b) & 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]**

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)		(2) Immediate reports. 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 [(920) 662-5199], facsimile transmission [(920) 662-5464], 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. 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. 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]**

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)		**(3)** The permittee shall submit certification of compliance with the requirements of this permit to the Department and U.S. EPA annually. **(a)** The time period to be addressed by the report is the January 1 to December 31 period which precedes the report. **(b)** The report shall be submitted to the Wisconsin Department of Natural Resources, Northeast Region Air Program, 2984 Shawano Avenue, Green Bay, WI 54313-6727, Phone (920) 662-5199, and to Compliance Data - Wisconsin, Air and Radiation Division, U.S. EPA, 77 W. Jackson, Chicago, IL 60604, by March 1st each year this permit is in effect. **(c)** The information included in the report shall comply with the requirements of Part II, Section N of this permit. **(d)** Each report shall be certified by a responsible official as to the truth, accuracy, and completeness of the report. **[s. NR 439.03(1)(c), Wis. Adm. Code; Permit #07-MHR-223]** **(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]**

ZZZ. Conditions Applicable to the Entire Facility		
CONDITION TYPE	**a. CONDITIONS**	**b. COMPLIANCE DEMONSTRATION, REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
6. Construction Permit 07-MHR-223 Transitional Language	(1) Any new reciprocating engine P31-P35 shall be the same make and model as the existing reciprocating engines P25-P30. **[s. 285.65(7), Wis. Stats.; Permit # 07-MHR-223]** (2) The permittee may operate up to ten of the following gas-fired reciprocating engines at any one time: P31, P32, P33, P34, P25, P26, P27, P28, P29, P30, P31, P35. During each shakedown period for any Process P31-P35, the permittee may operate the engine that is being replaced; and thus, operate more than 10 gas-fired engines during that period. **[s. 285.65(7), Wis. Stats.; Permit # 07-MHR-223]** (3) **Notifications.** The permittee shall inform the Department of the following dates: (a) The date construction commences on any new emission units addressed in Permit 07-MHR-223 (Processes P31, P32, P33, P34, and P35). (b) The date new emission units (P31, P32, P33, P34, and P35) become operational. For purposes of this permit, "operational" shall be defined as the first time of any process related air contaminant is emitted into the ambient air. **[s. NR 439.03(1), Wis. Adm. Code; Permit 07-MHR-223]**	(1) Notifications. The permittee shall submit to the Department of Natural Resources, Northeast Region Headquarters in writing, within 15 days of the date the event, the following: (a) The date construction commences on the any new emission unit(s) P31-P35 addressed in Permit 07-MHR-223. (b) The date each new emission unit P31, P32, P33, P34, and P35 became operational. **[s. NR 439.04(1)(d), Wis. Adm. Code; Permit 07-MHR-223]** (2) The permittee shall keep and maintain records that list the make and model of each reciprocating engine P31, P32, P33, P34, P25, P27, P28, P29, P30, P31, and P35. **[s. NR 439.04(1)(d), Wis. Adm. Code; Permit # 07-MHR-223]** (3) **Malfunction Prevention and Abatement Plan.** The owner or operator shall update the facility's Malfunction Prevention and Abatement Plan to include each new emission unit P31, P32, P33, P34, and P35 within 60 days of the date each unit becomes operational. **[s. NR 439.11(1), Wis. Adm. Code; Permit 07-MHR-223]** (4) **Emission Stack Testing.** Upon completion of any required compliance emission tests of the new emission units (P31, P32, P33, P34, and P35), the permittee shall submit to the Department of Natural Resources, Northeast Region Headquarters two copies of the report on the tests for evaluation within 60 days of the date the tests were completed. **[s. NR 439.04(1)(d), Wis. Adm. Code; Permit 07-MHR-223]**

ZZZ. Conditions Applicable to the Entire Facility		
CONDITION TYPE	**a. CONDITIONS**	**b. COMPLIANCE DEMONSTRATION, REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
6. Construction Permit 07-MHR-223 Transitional Language (Continued)	(4) **Construction Authorization Expiration.** The Authorization to Construct, under Construction Permit 07-MHR-223 expires 42 months after the date of issuance (i. e. on January 11, 2011). Construction or modification and an initial operation period for equipment shakedown, testing and Department evaluation of operation to assure conformity with the permit conditions is authorized for each emissions unit covered in this permit. Please note that the sources covered by this permit are required to meet all emission limits and conditions contained in the permit at all times, including during the initial operation period. If 42 months is an insufficient time period for construction or modification, equipment shakedown, testing and Department evaluation of operation, the permit holder may request and the Department may approve in writing an extension of this permit. The conditions of the construction permit are permanent, unless revised, superseded or revoked. **[ss. 285.60(1)(a)2. and 285.66(1), Wis. Stats., and s. NR 406.12, Wis. Adm. Code; Permit 07-MHR-223]** **(5) New Emission Unit(s) (P31, P32, P33, P34, and P35).** Once constructed and initially operating, each Process P31, P32, P33, P34, and P35 shall operate under the conditions in Section I.K-O of the construction permit 07-MHR-223 (equivalent to Sections B., D. and K-M of operation permit #436020530-P10). **[s. NR 439.03(1), Wis. Adm. Code; Permit 07-MHR-223]** **(6) Malfunction Prevention and Abatement Plan.** The permittee shall update the facility's Malfunction Prevention and Abatement Plan to include the operation and maintenance of the control equipment associated with the new emission units (P31, P32, P33, P34, and P35). **[s. NR 439.11, Wis. Adm. Code; Permit 07-MHR-223]**	(5) **Submittal of Compliance Testing Information and other updates.** The permittee shall submit to the department any updates of the permit application. Updates are required if any changes occur which are not specified or described in the plans and specifications dated August 8, 2007, and October 5, 2007. The updates shall be made within 60 days of the date of the change. Other information to be submitted shall include the notification requirements and stack tests results. The continued operation of the modified and new emission units addressed in this construction permit is prohibited once the authorization to construct expires per Condition ZZZ.6.a.(4), unless any required updates have been submitted and the permittee has satisfied the notification requirements of Condition ZZZ.6.b.(1). **[s. NR 439.04(1)(d), Wis. Adm. Code; Permit 07-MHR-223]** (6) **Submittal of Malfunction Prevention and Abatement Plan.** The permittee shall update the facility's Malfunction Prevention and Abatement Plan to include the operation and maintenance of the control equipment associated with any new emission units. **[s. NR 439.04(1)(d), Wis. Adm. Code; Permit 07-MHR-223]** (7) All submittals described in this permit shall be made in writing and include the name of the facility, the facility's address, the construction permit number and a description of the affected emission units. **[s. NR 439.04(1)(d), Wis. Adm. Code; Permit 07-MHR-223]**

ZZZ. Conditions Applicable to the Entire Facility		
CONDITION TYPE	**a. CONDITIONS**	**b. COMPLIANCE DEMONSTRATION, REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
6. Construction Permit 07-MHR-223 Transitional Language (Continued)	(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]** **(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]**	
7. **40 CFR Part 63, Subpart ZZZZ:** National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines	(1)(a) An affected source that is a new or reconstructed stationary spark ignition reciprocating internal combustion engine (RICE) located at an area source must meet the requirements of 40 CFR part 60 Subpart JJJJ. Except as provided in ZZZ.7.a.(1)(b), the permittee shall comply with the requirements of 40 CFR Part 60 Subpart JJJJ for all new or reconstructed stationary RICE. New and reconstructed stationary RICE are defined in 40 CFR§63.6590(a)(2)(iii) and 40 CFR§63.6590(a)(3)(iii). [s. 285.65(13), Wis. Stats.; 40 CFR §63.6590(c)] (b) The requirements of Subpart JJJJ do not apply to owners and operators of lean burn spark ignition internal combustion engines with a maximum engine power greater than or equal to 500 HP and less than 1350 HP, that were manufactured before January 1, 2008. [s. 285.65(13), Wis. Stats.; 40 CFR §60.4230(a)(4)(ii)]	(1) The permittee shall keep records of the date that each RICE was manufactured. [s. NR 439.04(1)(d), Wis. Adm. Code]

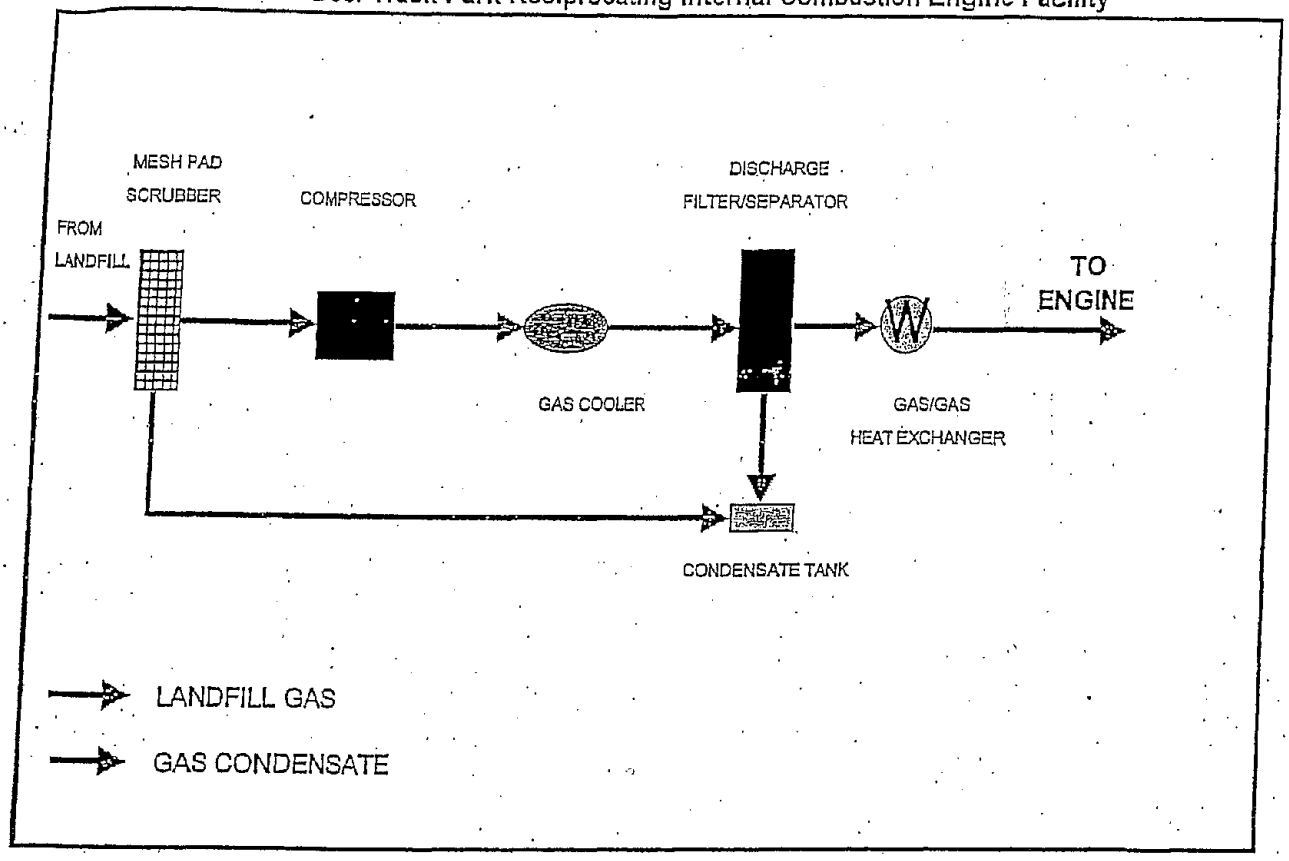
ZZZ. Conditions Applicable to the Entire Facility		
CONDITION TYPE	**a. CONDITIONS**	**b. COMPLIANCE DEMONSTRATION, REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
8. Alternate Operating Scenario: Use of raw materials not included in the permit application	(1) If the permittee has 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: (a) The source has continuously had such design capability to burn or use the raw material. (b) The use will not cause or exacerbate the violation of an ambient air quality standard or an ambient air increment. (c) The use is not prohibited by any permit, plan approval or special order applicable to the source. (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. (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]	(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]
9. *NR 445 Reporting, Recordkeeping and Compliance Requirements	(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] (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]	(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] (2) *To meet the requirements of Condition ZZZ.9.a.(2), the permittee shall, at a minimum, keep records of the following: (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. (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]

Appendix A – Landfill Gas Treatment System Description

Diagram 1

FUEL GAS COMPRESSOR FLOW DIAGRAM

Deer Track Park Reciprocating Internal Combustion Engine Facility



PROCESS DESCRIPTION

Landfill gas (LFG) enters the fuel gas compressor through the Mesh Pad Scrubber where liquids are knocked out of the gas stream.

The LFG is then compressed up to the working pressure required by the engines (approximately 6 psig). During compression, the temperature of the gas is raised to above the dew point.

After the gas has been compressed, it is cooled in an air-exchange cooler, in order to reduce the amount of water vapor present.

Next, particulates are knocked out by the discharge filter/ separator. The filter size is 5 microns. Liquids are removed at this point and sent to a condensate storage tank.

After liquids and other impurities have been removed, the LFG passes through a Gas/Gas Heat Exchanger. The gas is reheated in the exchanger to approximately 20 °F above its dew point in order to prevent condensation of liquids in the piping or engine fuel system.

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, $year^{-1}$

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

3.6×10^{-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_O 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.

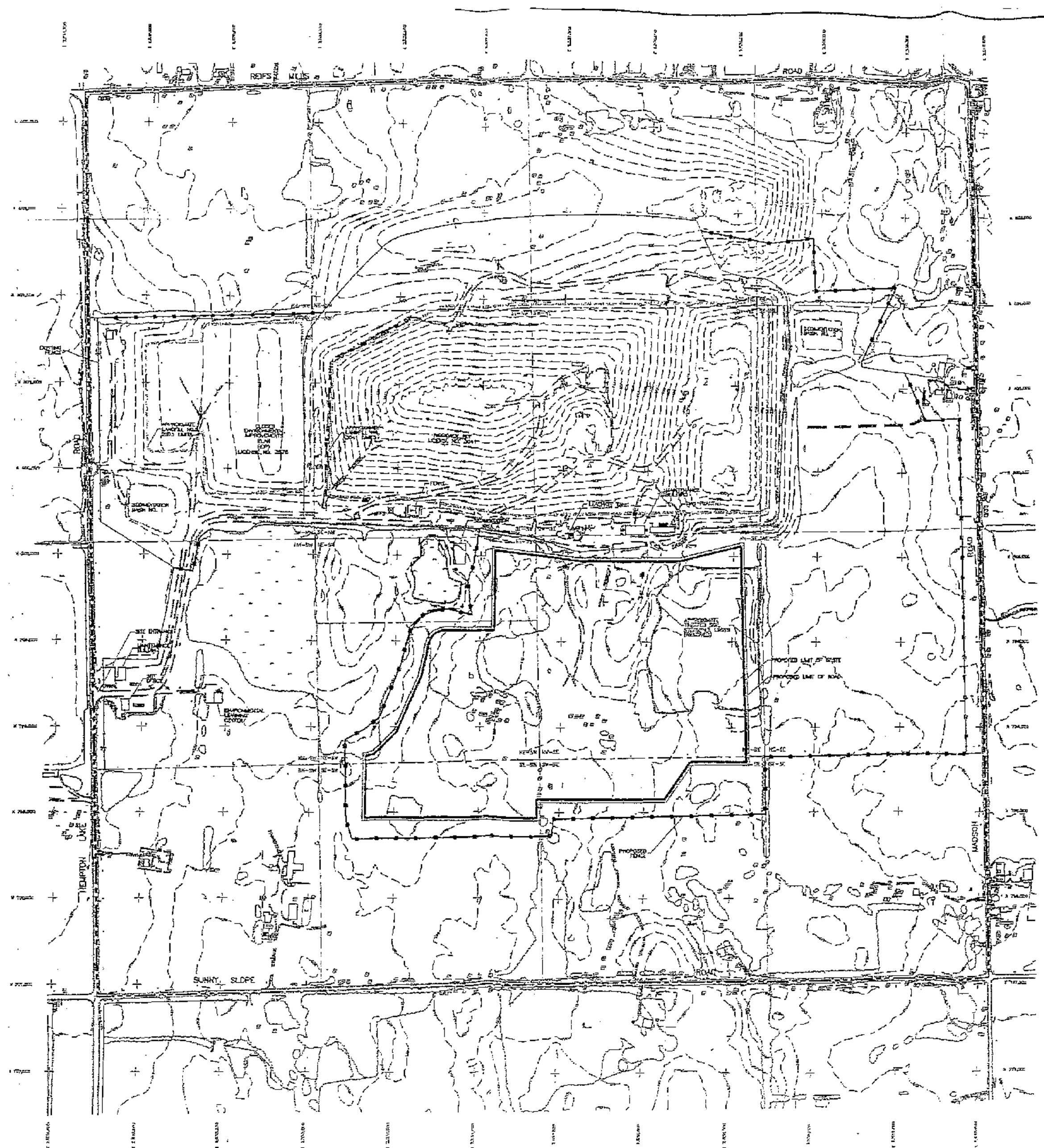
(3) Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed 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).

Figure 1: Property Boundaries and Fence Locations



LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- APPROXIMATE SECTIONAL LINES
- GROUND SURFACE CONTOUR
- EXISTING FENCE
- EXISTING ROAD
- PROPOSED LIMIT OF WASTE
- PROPOSED FENCE
- EXISTING STRUCTURE
- EXISTING POWER POLE
- EXISTING PRIVATE WELL
- EXISTING TREES AND/OR BRUSH
- M-14 SURVEY MONUMENT

NOTES:

1.) THIS MAPPING HAS BEEN PRODUCED ACCORDING TO PROCEDURES THAT HAVE BEEN DEMONSTRATED TO COMPLY WITH THE NATIONAL STANDARD FOR SPATIAL DATA ACCURACY (NSSDA) FOR A TARGET HORIZONTAL SCALE OF 1"=100' AND A SPECIFIED CONTOUR INTERVAL OF TWO FEET. FIELD CHECKING OF THIS MAP IS RECOMMENDED BEFORE USE.

2.) TWO FOOT CONTOUR INTERVAL BASED ON MEAN SEA LEVEL DATUM. HORIZONTAL DATUM BASED ON WISCONSIN STATE PLANE SOUTH (NAD 83).

3.) DASHED CONTOURS INDICATE APPROXIMATE ELEVATIONS AS DEFINED IN PARAGRAPH 7.1.3.5 OF THE MANUAL OF PHOTOGRAMMETRY, 4TH EDITION.

4.) AERO-METRIC, INC. PROJECT NO. 1020606 AND 1040210, DATE OF PHOTOGRAPHY: 9-26-02

5.) TO CONVERT TO PREVIOUS LOCAL GRID: [illegible]

6.) APPROXIMATE WASTE LIMITS FOR THE HORIZONTAL EXPANSION ARE FROM APPROVED RIDGEVIEW REGIONAL SANITARY LANDFILL ADDENDUM NO. 1 TO THE MODIFICATION TO THE PLAN OF OPERATION COMPOSITE LINER SYSTEM, 11/25/90. PREPARED BY FOTH AND VAN DYKE AND ASSOCIATES, INC., GREEN BAY, WI.

7.) APPROXIMATE WASTE LIMITS FOR ENVIRONMENTAL IMPROVEMENTS PLAN ARE FROM APPROVED RIDGEVIEW SANITARY LANDFILL ENVIRONMENTAL IMPROVEMENTS PLAN, FEASIBILITY REPORT/PLAN OF OPERATION, JUNE, 1982. PREPARED BY FOTH AND VAN DYKE AND ASSOCIATES, INC., GREEN BAY, WI.

FENCE NOTES:

1.) PROPOSED AND EXISTING FENCE SUBJECT TO PERIODIC CHANGE DUE TO SOLID WASTE PERMITTING, SITE OPERATIONS, CONSTRUCTION ACTIVITIES AND LOCAL REQUIREMENTS.

2.) FENCE MAY BE INSTALLED FURTHER AWAY FROM THE LANDFILLS AT WASTE MANAGEMENT'S DISCRETION.

RIDGEVIEW RDF – WASTE MANAGEMENT OF WISCONSIN, INC.
SOUTHERN EXPANSION – AIR PERMIT FILE
MANITOWOC COUNTY, WISCONSIN

PROPERTY AND PROPOSED/EXISTING FENCE LOCATIONS

DRAWN BY J.L.C.	DATE 03/05	
CHECKED BY U.G.R.	DATE 03/06	
APPROVED BY U.G.R.	DATE 03/06	

REVISION NO.	DESCRIPTION	DATE	BY

STS Consultants Ltd.
Consulting Engineers

STS PROJECT NUMBER 26539
STS PROJECT FILE
SCALE 1"=200'
SHEET NUMBER

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

1. 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]

2. 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]:

   a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, or construction operations.

   b. 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. Installation and use of hoods, fans and air cleaning devices to enclose and vent the areas where dusty materials are handled.

   d. Covering or securing of materials likely to become airborne while being moved on public roads, railroads, or navigable waters.

   e. Conduct of agricultural practices such as tilling of land or application of fertilizers in such manner as not to create air pollution.

   f. The paving or maintenance of roadway areas so as not to create air pollution.

3. 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]

4. 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]

5. 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]

6. 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]

7. 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]

8. 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]

9. 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*]

10. Open burning is prohibited except as provided in s. NR 429.04, Wis. Adm. Code. [s. NR 429.04, Wis. Adm. Code*]

11. 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]

12. 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: [s. NR 439.055(3), Wis. Adm. Code]

    a. The temperature monitoring device shall have an accuracy of 0.5% of the temperature being measured in degrees Fahrenheit or ±5°F of the temperature being measured, or the equivalent in degrees Celsius (centigrade), whichever is greater.

    b. The pressure drop monitoring device shall be accurate to within 5% of the pressure drop being measured or within ±1 inch of water column, whichever is greater.

    c. The current, voltage, flow or pH monitoring device shall be accurate to within 5% of the specific variable being measured.

13. 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. [s. NR 439.055(4), Wis. Adm. Code]

14. 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 1 to 5 of s. NR 445.04, Wis. Adm. Code. [s. NR 445.03, Wis. Adm. Code*]

15. 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]

16. Accidental Release Prevention Requirements

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:

a. June 21, 1999;

b. Three years after the date on which a regulated substance is first listed under 40 CFR 68.130; or

c. The date on which a regulated substance is first present above a threshold quantity in a process.

[40 CFR 68.10]

D. Reporting Requirements

1. The Department shall be notified of the following events:

Event	Timing
a. Hazardous substance air spill	Immediate call: 1-800-943-0003
b. Malfunction or other unscheduled event which causes or may cause any emission limitation to be exceeded (except certain visible emission limit exceedences - see s. NR 439.03(4), 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
c. Deviation from any other condition specified in this permit.	Notification by next business dayidentifying the deviation, cause, duration and steps taken to prevent recurrence.

[ss. 292.11(2) and 285.65(9), Wis. Stats., and ss. NR 439.03(4) and NR 445.08, Wis. Adm. Code]

2. 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. [ss. NR 439.03(2)(b) and (6), Wis. Adm. Code]

3. 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]

4. 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. In addition, the responsible official shall certify that, based on information and belief formed after reasonable inquiry, the statements and information in the documentare true, accurate, and complete. [s. 285.17(2), Wis. Stats., and s. NR 439.03(1)(b) and (10), Wis. Adm. Code]

5. Any document required under this permit and any document submitted to the Department, including reports, shall contain a certification by a responsible corporate official that meets the requirements of s. NR 407.05(4)(j), Wis. Adm. Code. [ss. NR 439.03(10) and (11), and NR 407.09(4)(a)1., Wis. Adm. Code]

6. 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.]

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

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(4m), 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 NR407.16, Wis. Adm. Code.

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

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.]

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, P. O. Box 7921, Madison, WI 53707, Attention: Permit Application Forms

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

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]

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]

L. Civil/Criminal Liability

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(9)(b), Wis. Stats., are applicable. [s. 285.62(9)(a), Wis. Stats.]

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]

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

   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]

   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]

   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]

   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

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

   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:

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

      2) The dates the analyses were performed.

3) The company or entity that performed the analysis.

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.

5) The results of the analyses.

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

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;

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

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

2. The owner or operator of a source not subject to s. NR 445.05(6), Wis. Adm. Code, shall maintain the following records in writing at the source, as appropriate:

a. The hazardous air contaminants in Table 5 of s. NR 445.04 the source is capable of emitting.

b. The allowable emissions for each hazardous air contaminant identified in a. above for each emissions unit.

c. The methods used to calculate allowable emissions under b. above, including:

1) All calculations which show the dimensional units for all values used.

2) Emission factors used and references to stack tests, mass balance calculations or EPA documents that each emission factor is based on.

3) Information to support exemption claims including fuels used, laboratory status or downwash minimization stack height calculations as appropriate. [s. NR 445.05(4r)(c), Wis. Adm. Code*]

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]

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]

N. Compliance Certification

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]

a. 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]

b. The certification shall include the following:

1) Identification of each permit term or condition that is the basis of the certification;

2) The compliance status of the source with respect to each term or condition identified in 1);

3) Whether compliance was continuous or intermittent;

4) Method(s) used for determining the compliance status, currently and over the previous 12 month period;

5) 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.

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

2. 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. [sNR 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

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

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

      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.

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

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

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

   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:

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

      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.

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

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

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

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.

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.

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 HCFG22 refrigerant.

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.]

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

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(2r)(a), Wis. Stats.*]

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(2r)(am), Wis. Stats.*]

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

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

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

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*]

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

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

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

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

EXEMPTION: 1) and 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*]

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*]