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1.0 SOURCE IDENTIFICATION

1.1 Source

Prairie Hill RDF/Whiteside County Landfill
18762 Lincoln Road
Morrison, Illinois 61270

I.D. No.: 195814AAF
Standard Industrial Classification: 4953, Refuse Systems

1.2 Owner/Parent Company

Whiteside County
Highway Department
18819 Lincoln Road
Morrison, Illinois 61270

Peter Petrowsky (County Engineer)
815/772-7651

1.3 Operator(s)

Whiteside County Landfill

Whiteside County
Highway Department
18819 Lincoln Road
Morrison, Illinois 61270

Prairie Hill RDF

Waste Management of Illinois, Inc.
18762 Lincoln Road
Morrison, Illinois 61270

Peter Petrowsky (County Engineer)
815/772-7651

Ian Johnson - Engineer
630/232-7664

1.4 General Source Description

The Prairie Hill RDF and Whiteside County Landfill are located at 18762 Lincoln Road near Morrison, Illinois. The Prairie Hill RDF is owned by Whiteside County and operated by Waste Management of Illinois, Inc. while the Whiteside County Landfill is both owned and operated by Whiteside County. Currently waste operations have ceased at the Whiteside County Landfill while the Prairie Hill RDF is still accepting wastes. Both disposal sites comprise a single MSW landfill.

A MSW landfill is defined as an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. An MSW landfill may also receive other types of RCRA Subtitle D wastes (40 CFR 257.2) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste.

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Landfill gas emissions from the source are generated from the decomposition of putrescible materials deposited in the landfill. Landfill gas is composed primarily of methane and carbon dioxide. A small percentage of other constituents present in the gas include hydrogen sulfide and nonmethane organic compound(s) (NMOC).

Other emissions at the source include: particulate matter emissions (fugitive dust) generated from roads and excavation activities; VOM emissions from the leachate and gasoline storage tanks; and combustion emissions (NO_x , CO, SO_2 , PM/PM₁₀, and VOM) from the landfill control system (i.e., onsite open flare owned and operated by Whiteside County).

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2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

ACWM	Asbestos-Containing Waste Material
ACMA	Alternative Compliance Market Account
Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]
a.k.a.	Also known as
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711
AST	Aboveground Storage Tank
ATU	Allotment Trading Unit
bcy	Bank cubic yards
bhp	Brake Horsepower
Btu	British thermal unit
BOA	Bureau of Air (Illinois EPA)
BOL	Bureau of Land (Illinois EPA)
°C	Degrees Celsius or centigrade
C _{NMOC}	Average NMOC Concentration
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CFR	Code of Federal Regulations
CO	Carbon Monoxide
dscf	Dry standard cubic feet
dscfm	Dry standard cubic feet per minute
ERMS	Emissions Reduction Market System
°F	Degrees Fahrenheit
gal	Gallon
HAP	Hazardous Air Pollutant
HCl	Hydrogen Chloride
hr	hour
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
IEPA	Illinois EPA
ILCS	Illinois Compiled Statutes
Illinois EPA	Illinois Environmental Protection Agency
kW	kilowatts
kPa	kiloPascal
lb	pound
lb/cy	Pound per cubic yard
m ³	cubic meters
mmBtu	Million British thermal units
MSW	Municipal Solid Waste
NESHAP	National Emission Standards for Hazardous Air Pollutants
NMOC	Nonmethane Organic Compounds
NO _x	Nitrogen Oxides

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NSPS	New Source Performance Standards
NSR	New Source Review (35 IAC 203)
PM	Particulate Matter
PM ₁₀	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
ppm	parts per million
psia	pounds per square inch absolute
PSD	Prevention of Significant Deterioration (40 CFR 52.21)
RDF	Recycling and Disposal Facility
RMP	Risk Management Plan
scfm	Standard cubic feet per minute
SO ₂	Sulfur Dioxide
T1	Title I - identifies Title I conditions that have been carried over from an existing permit
T1N	Title I New - identifies Title I conditions that are being established in this permit
T1R	Title I Revised - identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VOL	Volatile Organic Liquid
VOM	Volatile Organic Material

3.0 INSIGNIFICANT ACTIVITIES

3.1 Identification of Insignificant Activities

The following activities at the source constitute insignificant activities as specified in 35 IAC 201.210:

- 3.1.1 Activities determined by the Illinois EPA to be insignificant activities, pursuant to 35 IAC 201.210(a)(1) and 201.211, as follows:

None

- 3.1.2 Activities that are insignificant activities based upon maximum emissions, pursuant to 35 IAC 201.210(a)(2) or (a)(3), as follows:

None

- 3.1.3 Activities that are insignificant activities based upon their type or character, pursuant to 35 IAC 201.210(a)(4) through (18), as follows:

Direct combustion units designed and used for comfort heating purposes and fuel combustion emission units as follows: (A) Units with a rated heat input capacity of less than 2.5 mmBtu/hr that fire only natural gas, propane, or liquefied petroleum gas; (B) Units with a rated heat input capacity of less than 1.0 mmBtu/hr that fire only oil or oil in combination with only natural gas, propane, or liquefied petroleum gas; and (C) Units with a rated heat input capacity of less than 200,000 Btu/hr which never burn refuse, or treated or chemically contaminated wood [35 IAC 201.210(a)(4)].

Storage tanks of organic liquids with a capacity of less than 10,000 gallons and an annual throughput of less than 100,000 gallons per year, provided the storage tank is not used for the storage of gasoline or any material listed as a HAP pursuant to Section 112(b) of the CAA [35 IAC 201.210(a)(10)].

Storage tanks of any size containing virgin or re-refined distillate oil, hydrocarbon condensate from natural gas pipeline or storage systems, lubricating oil, or residual fuel oils [35 IAC 201.210(a)(11)].

Gas turbines and stationary reciprocating internal combustion engines of less than 112 kW (150 horsepower) power output [35 IAC 201.210(a)(15)].

Gas turbines and stationary reciprocating internal combustion engines of between 112 kW and 1,118 kW (150 and 1,500 horsepower) power output that are emergency or standby units [35 IAC 201.210(a)(16)].

- 3.1.4 Activities that are considered insignificant activities pursuant to 35 IAC 201.210(b).

3.2 Compliance with Applicable Requirements

Insignificant activities are subject to applicable requirements notwithstanding status as insignificant activities. In particular, in addition to regulations of general applicability, such as 35 IAC 212.301 and 212.123 (Condition 5.2.2), the Permittee shall comply with the following requirements, as applicable:

- 3.2.1 For each cold cleaning degreaser, the Permittee shall comply with the applicable equipment and operating requirements of 35 IAC 215.182, 218.182, or 219.182.
- 3.2.2 For each particulate matter process emission unit, the Permittee shall comply with the applicable particulate matter emission limit of 35 IAC 212.321 or 212.322. For example, the particulate matter emissions from a process emission unit shall not exceed 0.55 pounds per hour if the emission unit's process weight rate is 100 pounds per hour or less, pursuant to 35 IAC 266.110.
- 3.2.3 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 215.301, 218.301, or 219.301, which requires that organic material emissions not exceed 8.0 pounds per hour or do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.

3.3 Addition of Insignificant Activities

- 3.3.1 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type that is identified in Condition 3.1, until the renewal application for this permit is submitted, pursuant to 35 IAC 201.212(a).

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- 3.3.2 The Permittee must notify the Illinois EPA of any proposed addition of a new insignificant activity of a type addressed by 35 IAC 201.210(a) and 201.211 other than those identified in Condition 3.1, pursuant to Section 39.5(12)(b) of the Act.
- 3.3.3 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type identified in 35 IAC 201.210(b).

4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

Emission Unit	Description	Significant Dates	Emission Control Equipment
01	Prairie Hill RDF ¹ (LF1)	Commenced Construction April 1996 Operation August 1996	Open Flare ²
02	Whiteside County Landfill ³ (LF2)	Commenced Construction 1968 Closed 1992	Open Flare ²
03	560 Gallon Gasoline Storage Tank	----	Submerged Fill Pipe and Vapor Control
04	50,000 Gallon Leachate Storage Tank	----	None

¹ Active landfill area owned by Whiteside County and operated by Waste Management of Illinois, Inc.

² Open flare owned and operated by Whiteside County (Condition 7.3)

³ Closed landfill area owned and operated by Whiteside County

5.0 OVERALL SOURCE CONDITIONS

5.1 Source Description

5.1.1 This permit is issued based on the source requiring a CAAPP permit because the source is subject to a standard, limitation, or other requirement under Section 111 (NSPS) or Section 112 (HAPs) of the CAA for which USEPA requires a CAAPP permit, or because the source is in a source category designated by the USEPA, pursuant to 40 CFR 70.3(a)(2), (3), and (5) (40 CFR 70.3 Applicability) [Section 39.5(2)(a)(iii) and (iv) of the Act].

5.1.3 This permit is issued based on the source not being a major source of HAPs.

5.2 Applicable Regulations

5.2.1 Specific emission units at this source are subject to particular regulations as set forth in Section 7 (Unit-Specific Conditions) of this permit.

5.2.2 In addition, emission units at this source are subject to the following regulations of general applicability:

- a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.
- b. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.
- c. No person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 946 l (250 gal), unless such tank is equipped with a permanent submerged loading pipe, submerged fill or an equivalent device approved by the Illinois EPA. [35 IAC 215.122(b)]

If no odor nuisance exists the limitations of the above shall only apply to the loading of volatile organic liquid with a vapor pressure of 17.24 kPa (2.5 psia) or greater of 294.3°K (70°F). [35 IAC 215.122(c)]

"Submerged loading pipe", for purposes of the above is defined in 35 IAC 211.6470(a).

- 5.2.3 The Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:
- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
 - c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.
- 5.2.4 Future Rule Applicability
- a. Should this stationary source become subject to a regulation under 40 CFR Parts 60, 61, or 63, or 35 IAC after the date issued of this permit, then the owner or operator shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by 40 CFR Part 70 or 71.
 - b. No later than upon the submittal for renewal of this permit, the owner or operator shall submit, as part of an application, the necessary information to address either the non-applicability of, or demonstrate compliance with all applicable requirements of any potentially applicable regulation which was promulgated after the date issued of this permit.

c. This stationary source will be subject to 40 CFR 63, Subpart AAAA – National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills, when such rule becomes final and effective. The Permittee shall comply with the applicable requirements of such regulation by the date(s) specified in such regulation and shall certify compliance with the applicable requirements of such regulation as part of the annual compliance certification required by 40 CFR Part 70 or 71 beginning in the year that compliance is required under a final and effective rule.

5.3 Non-Applicability of Regulations of Concern

None

5.4 Source-Wide Operational and Production Limits and Work Practices

In addition to the source-wide requirements in the Standard Permit Conditions in Section 9, the Permittee shall fulfill the following source-wide operational and production limitations and/or work practice requirements:

None

5.5 Source-Wide Emission Limitations

5.5.1 Permitted Emissions for Fees

The annual emissions from the source, not considering insignificant activities as addressed by Section 3.0 of this permit, shall not exceed the following limitations. The overall source emissions shall be determined by adding emissions from all emission units. Compliance with these limits shall be determined on a calendar year basis. These limitations (Condition 5.5.1) are set for the purpose of establishing fees and are not federally enforceable.

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	1.62
Sulfur Dioxide (SO ₂)	3.27
Particulate Matter (PM)	65.59
Nitrogen Oxides (NO _x)	7.07
HAP, not included in VOM or PM	----
Total	77.55

5.5.2 Emissions of Hazardous Air Pollutants

This permit is issued based on the emissions of HAPs as listed in Section 112(b) of the CAA not being equal to or exceeding 10 tons per year of a single HAP or 25 tons per year of any combination of such HAPs, so that this source is considered a minor source for HAPs.

5.5.3 Other Source-Wide Emission Limitations

Other source-wide emission limitations are not set for this source pursuant to either the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21, Illinois EPA rules for Major Stationary Sources Construction and Modification, 35 IAC Part 203, or Section 502(b)(10) of the CAA. However, there may be unit specific emission limitations set forth in Section 7 of this permit pursuant to these rules.

5.6 General Recordkeeping Requirements

5.6.1 Emission Records

The Permittee shall maintain records of the following items for the source to demonstrate compliance with Condition 5.5.1, pursuant to Section 39.5(7)(b) of the Act:

Total annual emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions) of this permit.

5.6.2 Retention and Availability of Records

- a. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.
- b. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for records during the course of a source inspection.

5.7 General Reporting Requirements

5.7.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the source with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

5.7.2 Annual Emissions Report

The annual emissions report required pursuant to Condition 9.7 shall contain emissions information for the previous calendar year.

5.8 General Operational Flexibility/Anticipated Operating Scenarios

N/A

5.9 General Compliance Procedures

Compliance with the source-wide emission limits specified in Condition 5.5 shall be based on the recordkeeping and reporting requirements of Conditions 5.6 and 5.7, and compliance procedures in Section 7 (Unit Specific Conditions) of this permit.

5.9.1 General Procedures for Calculating Tank Emissions

For the purpose of estimating VOM emissions from tanks, Versions 3.1 or 4.0 of the TANKS program or either the Water8 or Water9 model, as applicable, are acceptable..

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6.0 NOT APPLICABLE TO THIS PERMIT

7.0 UNIT SPECIFIC CONDITIONS

7.1 Unit 01: Prairie Hill RDF
Control 01: Open Flare

7.1.1 Description

The Prairie Hill RDF is classified as a MSW landfill. The landfill is owned by Whiteside County and operated under contract by Waste Management of Illinois, Inc. It is currently being operated under a solid waste permit issued by Illinois EPA BOL as per the requirements of 35 IAC Subtitle G: Waste Disposal. The landfill's footprint area encompasses approximately 423 acres with approximately 229 acres permitted for the landfilling of non-hazardous solid waste. Landfill construction commenced in April of 1996 with the subsequent initial waste disposal operations beginning in August of 1996.

A MSW landfill is defined as an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. An MSW landfill may also receive other types of RCRA Subtitle D wastes (40 CFR 257.2) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. This includes asbestos-containing waste material.

The landfill is developed in phases. Phase development includes site preparation of the landfill base grades and construction of the liner and leachate/condensate drainage/collection systems. Once a phase has been filled to near capacity, the next phase is constructed. Areas that are filled at their final elevation are covered with a final cover. The final cover includes a geomembrane overlain with at least 3 feet of soil. The final cover surface is then planted with vegetation.

Landfill gas emissions from the source are generated from the decomposition of putrescible materials deposited in the landfill. Landfill gas is composed primarily of methane and carbon dioxide. A small percentage of other constituents present in the gas include hydrogen sulfide and nonmethane organic compound(s) (NMOC).

An active landfill gas collection and control system has been installed on the landfill site in 2000 in order to control landfill gas emissions and to minimize landfill gas migration. The gas transmission piping system includes condensate collection sumps and knockouts to prevent pipe blockage. The landfill also has a leachate collection system.

Other emissions at the source include: particulate matter emissions (fugitive dust) generated from roads and excavation activities; and combustion emissions (NO_x, CO, SO₂, PM/PM₁₀, and VOM) from the landfill gas collection and control system (See Condition 7.3).

7.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Significant Dates	Emission Control Equipment
01	Prairie Hill RDF1 (LF1)	Commenced Construction April 1996 Initiated Waste Disposal Operations August 1996	Open Flare ²

¹ Active landfill area owned by Whiteside County and operated by Waste Management of Illinois, Inc.

² Open flare owned and operated by Whiteside County (See Condition 7.3)

7.1.3 Applicability Provisions and Applicable Regulations

- a. The "affected landfill" for the purpose of these unit-specific conditions, is a landfill described in Conditions 7.1.1 and 7.1.2.
- b. The affected landfill is subject to the NSPS for Municipal Solid Waste Landfills, 40 CFR 60 Subparts A and WWW, because the affected landfill commenced construction, reconstruction or modification or began accepting waste on or after May 30, 1991. The Illinois EPA administers the NSPS for subject sources in Illinois pursuant to a delegation agreement with USEPA.

At all times, the Permittee shall maintain and operate the MSW landfill, including air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions, as required by the NSPS, 40 CFR 60.11(d).

- c. The affected landfill is subject to the NESHAP for Asbestos, 40 CFR 61 Subparts A and M, because the affected landfill is a source that is listed in the NESHAP. [40 CFR 61.140]

Specifically, portions of the affected landfill meet the definition of both an active and inactive waste disposal site as defined in 40 CFR 61.141, i.e., the landfill receives or has received asbestos-containing waste material.

- i. For any closed active waste disposal site previously subject to the requirements of 40 CFR 61.154, the Permittee shall comply with the requirements of 40 CFR 61.151 [40 CFR 61.154(g)].
- ii. For any active waste disposal site that receives asbestos-containing waste material from a source covered under 40 CFR 61.149, 61.150, or 61.155, the Permittee must comply with the requirements of 40 CFR 61.154.

7.1.4 Non-Applicability of Regulations of Concern

- a. The affected landfill is not subject to the requirements of 35 IAC 212.321, Emissions of Particulate Matter from Process Emission Units, because due to the unique nature of this process, such rules cannot reasonably be applied.
- b. The affected landfill is not subject to the requirements of 35 IAC Part 220, Non-Methane Organic Compounds, because the landfill does not meet the applicability criteria listed in 35 IAC 220.200(a).
- c. This permit is issued based on the affected MSW Landfill not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected MSW landfill is subject to a NSPS proposed after November 15, 1990, pursuant to 40 CFR 64.2(b)(1)(i).

7.1.5 Control Requirements

- a. The Permittee is required to comply with the requirements of the NSPS 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfills and/or any amendments promulgated by USEPA. These requirements include but are limited to the following:

- i. Submittal of a NMOC collection and control system design plan prepared by a professional engineer to the Illinois EPA, Division of Air Pollution Control, Permit Section within 1 year. The NMOC collection and control system design plan shall include the information required under 40 CFR 60.752(b)(2)(i)(A), (B) and (C). [40 CFR 60.752(b)(2)(i)]:
 - A. The Illinois EPA finds that the Landfill Gas Collection and Control System Design Plan, dated July 5, 2000, submitted under Permit No. 00070014, pursuant to 40 CFR 60.752(b)(2)(i), excluding those alternatives shown in Condition 7.1.5(a)(i)(B), to be acceptable and that it meets the requirements of 40 CFR 60.752(b)(2)(i)(A), (B), and (C). Deviations from or modifications to the plan must be approved by the Illinois EPA.
 - B. This permit is issued based upon the following alternatives for the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of 40 CFR 60.753 through 60.758 proposed in the Landfill Gas Collection And Control System Design Plan pursuant to 40 CFR 60.752(b)(2)(i)(B), not being approved by Illinois EPA (See Permit No. 00070014):
 - 1. The proposal to use the USEPA Method 3C as opposed to USEPA Method 3A; and
 - 2. The proposal requesting that cover integrity monitoring be performed on a quarter basis instead of monthly.
 - C. This permit is issued based upon the following alternatives for the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting

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provisions of 40 CFR 60.753 through 60.758 proposed in the Landfill Gas Collection And Control System Design Plan pursuant to 40 CFR 60.752(b)(2)(i)(B), being approved by Illinois EPA (See Permit No. 00070014):

1. The proposal to modify the requirements to continuously monitor and record the flare flame temperature and landfill gas flow monitoring. [40 CFR 60.756(c)]

The approved changes include:

- I. Recording and maintain a log of flare startup and shutdown times (date and time); and
 - II. Recording flare run times on a monthly, based upon the flare blower hour meter.
2. Submittal of the annual report required by the 40 CFR 60.757(f) within 180 days of construction permit issued date or April 13, 2001.
 3. The proposal to install wells at the landfill within 18 months of the date that Prairie Hill facility Tire II calculation for NMOC and Whiteside County actual data show that combined MNOC emissions are greater than 50 Mg/year;

The Illinois EPA must approve all modifications or revisions of the NMOC collection and control system design plan.

- ii. Installation of a collection and control system that captures the gas generated within the landfill, as required by 40 CFR 60.752(b)(2)(ii)(A) or (B) and 40 CFR 60.752(b)(2)(iii), within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 NMOC sampling and

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analysis, as provided in 40 CFR 60.754(a) (3) and (4), respectively, demonstrates that the emission rate is less than 50 Megagrams per year, as specified in 40 CFR 60.757(c) (1) or (2). [40 CFR 60.752(b) (2) (ii)]

- iii. Routing of all collected landfill gas to a control system that complies with the requirements in either paragraph 40 CFR 60.752(b) (2) (iii) (A), (B) or (C). [40 CFR 60.752(b) (2) (iii)]
 - A. An open flare designed and operated in accordance with 40 CFR 60.18; [40 CFR 60.752(b) (2) (iii) (A)]
 - B. A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in 40 CFR 60.754(d). [40 CFR 60.752(b) (2) (iii) (B)]
 - 1. If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone. [40 CFR 60.752(b) (2) (iii) (B) (1)]
 - 2. The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in 40 CFR 60.756; [40 CFR 60.752(b) (2) (iii) (B) (2)]

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- C. Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of 40 CFR 60.752(b)(2)(iii) (A) or (B). [40 CFR 60.752(b)(2)(iii)(C)]
- iv. Operation of the collection and control device installed to comply with 40 CFR 60 Subpart WWW in accordance with the provisions of 40 CFR 60.753, 60.755 and 60.756. [40 CFR 60.752(b)(2)(iv)]
- v. The collection and control system may be capped or removed provided that all the conditions of 60.752(b)(2)(v) (A), (B), and (C) are met. [40 CFR 60.752(b)(2)(v)]

In this case, the above and other operating conditions for the landfill gas collection and control system are also covered under Condition 7.3.

- b. NESHAP 40 CFR 61 Subpart M: Handling Procedures and Control Measures for the Disposal of ACWM

As applicable for each site, the Permittee shall comply with one of the following:

- i. Inactive Waste Disposal Sites [40 CFR 61.151]:
 - A. The Permittee must comply with one of the following:
 - 1. Either discharge no visible emissions to the outside air from an inactive waste disposal site where ACWM has been deposited [40 CFR 61.151(a)(1)]; or
 - 2. The ACWAM shall be covered with at least 15 centimeters (6 inches) of compacted nonasbestos-containing material, and the Permittee shall grow and maintain a cover of vegetation on the area adequate to prevent exposure of the ACWM [40 CFR 61.151(a)(2)]; or

3. The Permittee shall cover the asbestos-containing waste material with at least 60 centimeters (2 feet) of compacted nonasbestos-containing material, and maintain it to prevent exposure of the asbestos-containing waste. [40 CFR 61.151(a)(3)]

B. Unless a natural barrier adequately deters access by the general public, install and maintain warning signs and fencing as required in 40 CFR 61.151(b), or comply with 40 CFR 61.151(a)(2) or (a)(3). [40 CFR 61.151(b)]

C. The Permittee may use an alternative control method that has received prior approval of the Illinois EPA rather than comply with the requirements of 40 CFR 61.151(a) or (b). [40 CFR 61.151(c)]

7.1.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected MSW landfill is subject to the following:

a. Total design capacity of the landfill is limited to 19,810,000 tons and is based upon the permitted gross airspace capacity limit of 28,300,000 bcy permitted in the BOL Permit 1999-428-LF (BOL I.D. No. 1950350014) and the estimate waste density. This limit is the basis for determining potential emissions for the landfill. The maximum landfill waste capacity includes all adjacent and contiguous landfill areas (i.e., all active and inactive sites).

7.1.7 Operating Requirements

The Permittee is required to comply with the requirements of the NSPS 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfills and/or any amendments promulgated by USEPA. These requirements include but are limited to the following:

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- a. Upon installation of a gas collection and control system used to comply with the provisions of 40 CFR 60.752(b)(2)(ii), the Permittee shall operate the collection system in accordance with the provisions of 40 CFR 60.753. These requirements include but are not limited to the following:
 - i. Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for: [40 CFR 60.753(a)]
 - A. 5 years or more if active; or
 - B. 2 years or more if closed or at final grade.
 - ii. Operate the collection system with negative pressure at each wellhead except under the conditions shown 40 CFR 60.753(b); [40 CFR 60.753(b)]
 - iii. Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 °C and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The Permittee may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens. Nitrogen or oxygen levels shall be determined based upon the applicable methods and or procedures shown in 40 CFR 60.753(c)(1) or (2). [40 CFR 60.753(c)]
 - iv. Operate the collection system so that the methane concentration is less than 500 parts per million above background 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 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 60.753(d)]

- v. Operate the system such that all collected gases are vented to a control system designed and operated in compliance with 40 CFR 60.752(b)(2)(iii). In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour; [40 CFR 60.753(e)] and
- vi. Operate the control or treatment system at all times when the collected gas is routed to the system. [40 CFR 60.753(f)]
- vii. If monitoring demonstrates that the operational requirements in 40 CFR 60.753(b), (c), or (d) are not met, corrective action shall be taken as specified in 40 CFR 60.755(a)(3) through (5) or 40 CFR 60.755(c). If corrective actions are taken as specified in 40 CFR 60.755, the monitored exceedance is not a violation of the operational requirements in 40 CFR 60.753. . In addition, the monitored exceedance is not considered to be a reportable "deviation" pursuant to Condition 5.7.1 and 7.1.11. However, this exclusion does not exclude the Permittee from complying with the recordkeeping requirements specified in Condition 7.1.10(a). [40 CFR 60.753(g)]

In this case, the above and other operating conditions for the landfill gas collection and control system are also covered under Condition 7.3.

7.1.8 Testing Requirements

The Permittee is required to comply with the requirements of the NSPS 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfills and/or any amendments promulgated by USEPA. These requirements include but are limited to the following:

- a. After the installation of a collection and control system in compliance with 40 CFR 60.755, the Permittee shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in 40 CFR 60.752(b)(2)(v), using the equation in 40 CFR 60.754(b) (See below). [40 CFR 60.754(b)]:

$$M_{\text{NMOC}} = 1.89 \times 10^{-3} Q_{\text{LFG}} C_{\text{NMOC}}$$

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

- i. 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 control device using a gas flow measuring device calibrated according to the provisions of section 4 of Method 2E of Appendix A of 40 CFR Part 60. [40 CFR 60.754(b)(1)]
- ii. 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 Part 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 Part 60, by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane. [40 CFR 60.754(b)(2)]

- iii. The Permittee may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the USEPA. [40 CFR 60.754(b)(3)]
- b. When calculating emissions for PSD purposes, the Permittee of each MSW landfill subject to the provisions of 40 CFR 60 Subpart WWW shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in 35 IAC 203 (40 CFR 51.166) or 40 CFR 52.21 using AP-42 or other approved measurement procedures. [40 CFR 60.754(c)]
- c. Compliance with the fugitive dust limitation in Conditions 5.2.2(a) shall be based upon the observations of an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour). Fugitive dust emissions from the source shall be monitored at least once per week and the observing period shall be at the discretion of the observer, but not less than one minute. [35 IAC 212.301]

7.1.9 Inspection and Monitoring Requirements

a. Fugitive Dust

Compliance with the fugitive dust limitation in Conditions 5.2.2(a), shall be based upon the following [35 IAC 201.161]:

- i. The Permittee shall implement a program to monitor and control wind erosion on the landfill surfaces, particulate matter re-entrainment during landfill activities and fugitive particulate matter emissions from any roadway or parking area on at least a weekly basis.

- ii. No inspection shall be necessary for wind erosion from the surface the landfill when the landfill is covered with snow and/or ice and for any landfill activity if precipitation has occurred that is sufficient for that day to ensure compliance with the requirements of Condition 5.2.2(a). Any required inspection that is not performed due to any of the above identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.
 - iii. Corrective action shall be implemented pursuant to a course of action outlined in the program. Such corrective action may include but is not limited to the application of a protective cover on landfill surfaces, the spraying of surfactant solution or water on a regular basis, or other equivalent treatment methods.
 - iv. If the fugitive particulate matter program fails to address or inadequately addresses an event that meets the characteristics of a wind erosion, particulate matter re-entrainment, or fugitive event but was not included in the program at the time the Permittee developed the plan, the Permittee shall revise the program within 45 days after the event to include detailed procedures for operating, monitoring, and maintaining the source during similar events and a program of corrective action for similar events. The Illinois EPA may require the Permittee to make changes to the program if the Illinois EPA finds that the program does not adequately address a wind erosion, re-entrainment, or fugitive event.
- b. The Permittee is required to comply with the requirements of the NSPS 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfills and/or any amendments promulgated by USEPA. These requirements include but are limited to the following:

- i. The following procedures shall be used for compliance with the surface methane operational standard as provided in 40 CFR 60.753(d). [40 CFR 60.755(c)]
 - A. After installation of the collection system, the Permittee shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in paragraph (d) of this section. [40 CFR 60.755(c)(1)]
 - 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. [40 CFR 60.755(c)(2)]
 - C. Surface emission monitoring shall be performed in accordance with section 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. [40 CFR 60.755(c)(3)]
 - 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 40 CFR 60.755(c)(i) through (v) shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of 40 CFR 60.753(d). [40 CFR 60.755(c)(4)]

- E. The Permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis. [40 CFR 60.755(c) (5)]
 - ii. The Permittee shall comply with the instrumentation specifications and procedures for surface emission monitoring devices in 40 CFR 60.755(d). [40 CFR 60.755(d)]
 - iii. The gas collection and control requirements of 40 CFR 60 Subpart WWW shall apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices. [40 CFR 60.755(e)]
 - iv. Except as provided in 40 CFR 60.752(b) (2) (i) (B),
 - A. The Permittee shall install a sampling port and a thermometer, or other temperature measuring device, or an access port for temperature measurements at each wellhead and: [40 CFR 60.756(a)]
 - 1. Measure the gauge pressure in the gas collection header on a monthly basis as provided in 40 CFR 60.755(a) (3); and [40 CFR 60.756(a) (1)]
 - 2. Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in 40 CFR 60.755(a) (5); and [40 CFR 60.756(a) (2)]
 - 3. Monitor temperature of the landfill gas on a monthly basis as provided in 40 CFR 60.755(a) (5). [40 CFR 60.756(a) (3)]
 - B. If the Permittee elects to comply with 40 CFR 60.752(b) (2) (iii) using an enclosed combustor, the Permittee shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment. [40 CFR 60.756(b)]

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1. A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ± 1 percent of the temperature being measured expressed in degrees Celsius or ± 0.5 degrees Celsius, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts. [40 CFR 60.756(b) (1)]
2. A device that records flow to or bypass of the control device. The Permittee shall either: [40 CFR 60.756(b) (2)]
 - I. Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or [40 CFR 60.756(b) (2) (i)]
 - II. 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 the gas flow is not diverted through the bypass line. [40 CFR 60.756(b) (2) (ii)]
3. If the Permittee elects to comply with 40 CFR 60.752(b) (2) (iii) using an open flare, the Permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment: [40 CFR 60.756(c)]

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- I. 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. [40 CFR 60.756(c) (1)]

- II. A device that records flow to or bypass of the flare. The Permittee shall either: [40 CFR 60.756(c) (2)]
 - a. Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or [40 CFR 60.756(c) (2) (i)]

 - b. 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 the gas flow is not diverted through the bypass line. [40 CFR 60.756(c) (2) (ii)]

- 4. If the Permittee elects to comply with 40 CFR 60.752(b) (2) (iii) using a device other than an open flare or an enclosed combustor, the Permittee shall provide information satisfactory to the Illinois EPA or USEPA as provided in 40 CFR 60.752(b) (2) (i) (B) describing the operation of the control device,

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the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Illinois EPA or USEPA shall review the information and either approve it, or request that additional information be submitted. The Illinois EPA or USEPA may specify additional appropriate monitoring procedures. [40 CFR 60.756(d)]

5. If the Permittee seeks to install a collection system that does not meet the specifications in 40 CFR 60.759 or seeking to monitor alternative parameters to those required by 40 CFR 60.753 through 40 CFR 60.756, the Permittee shall provide information satisfactory to the Illinois EPA or USEPA as provided in 40 CFR 60.752(b)(2)(i)(B) and (C) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Illinois EPA or USEPA may specify additional appropriate monitoring procedures. [40 CFR 60.756(e)]
6. If the Permittee seeks to demonstrate compliance with 40 CFR 60.755(c), the Permittee shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in 40 CFR 60.755(d). Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring. [40 CFR 60.756(f)]

In this case, the above and other operating conditions for the landfill gas collection and control system are also covered under Condition 7.3.

7.1.10 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected landfill to demonstrate compliance with conditions 5.5.1 and 7.1.6, pursuant to Section 39.5(7)(b) of the Act:

- a. The Permittee shall maintain and retain the following general records:
 - i. Copies of any landfill gas analyses and net heating value determinations, including those required under Conditions 7.1.5 and 7.1.8 or as a part of a compliance determination under Condition 7.1.13, that may be conducted during the normal operation of the gas collection system;
 - ii. A summary of exceedances of the limits in Conditions 5.2.2(a), 7.1.5, 7.1.6 and 7.1.7, as applicable, which require notification to the Compliance Section in accordance with Condition 7.1.11(a).
 - iii. Copies of USEPA or Illinois EPA approval of alternative testing, monitoring, and compliance procedures in Conditions 7.1.5, 7.1.8, 7.1.9 and 7.1.13.
 - iv. As installed records of the landfill gas collection and control system including the following:
 - A. As built diagrams and drawings of the collection system;
 - B. Identification of the make, model, specifications and manufacture of blower and enclosed flare;
 - C. Identification of the as built specifications of the gas collection system; and

- D. Copies of all records required pursuant to the requirements of 35 IAC Subtitle G.
- v. Any operating parameters that are continuously monitored and recorded that are associated with proper operation of the affected emission units and/or control equipment including those parameters recorded pursuant to Condition 7.1.9.
- vi. Records of any periods of operation during which the control system exceeded the operating parameters preset by the flare manufacture or those established by the most recent performance test at which compliance with 40 CFR 60.752(b)(2)(iii) was determined. These incidents shall also be reported under 40 CFR 60.757(f).
- vii. Copies of all waste acceptance records required to be maintained under 35 IAC Subtitle G (i.e., daily, monthly, and quarterly solid waste records and summaries). At a minimum these records shall include
 - A. Daily and monthly records of the amount of waste accepted;
 - B. The year-by-year waste acceptance rate, with calculations; and
 - C. The total amount of waste in-place;
- viii. A maintenance and repair log for the affected emission unit and/or control equipment, listing each activity performed with date. This requirement includes but is not limited to: replacement and repair of landfill gas collection and control system components; corrective actions undertaken to correct monitored operational exceedances as per 40 CFR 60.755 pursuant to 40 CFR 60.753; and the landfill cover inspection and repair requirement in Condition 7.1.9.
- ix. Records of all observations made pursuant to the visible emissions monitoring required under Condition 7.1.8(f and g) and records of

any corrective action taken to control visible emissions (i.e., application of water spray or dust suppressants to roadways and dusty areas, flare adjustments, etc.).

- x. Inspections as per Condition 7.1.9:
 - A. The date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
 - B. The date of each inspection where it was determined by the Permittee that it was necessary to implement the control measures;
 - C. The dates the control measures were implemented; and
 - D. On a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

- xi. Records for each startup of the control system that, as a minimum, shall include:
 - A. Duration of the startup, i.e. start time and time startup discontinued or normal operation achieved, i.e., stable operation;
 - B. Startups aborted due to control system malfunction;
 - C. The nature of visible emissions, i.e., severity and duration, during the startup and the nature of opacity at the conclusion of startup, if above normal; and
 - D. Whether exceedance of Condition 7.1.5(b) may have occurred during startup, with explanation and estimated duration (minutes).

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- xii. Aggregate annual NMOC, VOM, PM and PM₁₀ landfill emissions calculated based on the compliance procedures in Condition 7.1.13, with supporting calculations;

- b. The Permittee is required to comply with the requirements of the NSPS 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfills and/or any amendments promulgated by USEPA. These requirements include but are limited to the following:
 - i. The Permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered 40 CFR 60.752(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable. [40 CFR 60.758(a)]

 - ii. The Permittee shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in 40 CFR 60.758(b)(1) through (b)(4) as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal. [40 CFR 60.758(b)]

- A. Records to demonstrate compliance with 40 CFR 60.752(b)(2)(ii) shall include: [40 CFR 60.758(b)(1)]
 - 1. The maximum expected gas generation flow rate as calculated in 40 CFR 60.755(a)(1). The Permittee may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Illinois EPA or USEPA. [40 CFR 60.758(b)(1)(i)]

 - 2. The density of wells, horizontal collectors, surface collectors, or

other gas extraction devices
determined using the procedures
specified in 40 CFR 60.759(a) (1).
[40 CFR 60.758(b) (1) (ii)]

- B. Records to demonstrate compliance with 40 CFR 60.752(b) (2) (iii) through the use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts shall include: [40 CFR 60.758(b) (2)]
1. The average combustion temperature measured at least every 15 minutes and averaged over the same time period of the performance test. [40 CFR 60.758(b) (2) (i)]
 2. The percent reduction of NMOC determined as specified in 40 CFR 60.752(b) (2) (iii) (B) achieved by the control device. [40 CFR 60.758(b) (2) (ii)]
- C. Records to demonstrate compliance with 40 CFR 60.752(b) (2) (iii) (B) (1) through use of a boiler or process heater of any size shall include: a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing. [40 CFR 60.758(b) (3)]
- D. Records to demonstrate compliance with compliance with 40 CFR 60.752(b) (2) (iii) (A) through use of an open flare shall include: the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations

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during which the pilot flame of the flare
flame is absent. [40 CFR 60.758(b)(4)]

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- iii. The Permittee shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in 40 CFR 60.756 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. [40 CFR 60.758(c)]
 - A. The following constitute exceedances that shall be recorded and reported under 40 CFR 60.757(f): [40 CFR 60.758(c)(1)]
 - 1. For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28°C below the average combustion temperature during the most recent performance test at which compliance with 40 CFR 60.752(b)(2)(iii) was determined. [40 CFR 60.758(c)(1)(i)]
 - 2. For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under paragraph (b)(3) of this section. [40 CFR 60.758(c)(1)(ii)]
 - B. The Permittee shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under 40 CFR 60.756. [40 CFR 60.758(c)(2)]
- iv. The Permittee shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and

planned collector in the system and providing a unique identification location label for each collector. These shall include: [40 CFR 60.758(d)]

- A. Up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under 40 CFR 60.755(b). [40 CFR 60.758(d)(1)]
 - B. Readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in 40 CFR 60.759(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in 40 CFR 60.759(a)(3)(ii). [40 CFR 60.758(d)(2)]
- v. The Permittee shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in 40 CFR 60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance. [40 CFR 60.758(e)]
- c. NESHAP 40 CFR 61 Subpart M: Handling Procedures and Control Measures for the Disposal of ACWM
- Active Waste Disposal Sites [40 CFR 61.154]:
- i. For all asbestos-containing waste material received, the Permittee shall: [40 CFR 61.154(e)]
 - A. Maintain waste shipment records, using a form similar to that shown in Figure 4 of 40 CFR 61 Subpart M, and include the following information: [40 CFR 61.154(e)(1)]
 - 1. The name, address, and telephone number of the waste generator. [40 CFR 61.154(e)(1)(i)]

2. The name, address, and telephone number of the transporter(s). [40 CFR 61.154(e) (1) (ii)]
 3. The quantity of the asbestos-containing waste material in cubic meters (cubic yards). [40 CFR 61.154(e) (1) (iii)]
 4. The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers. [40 CFR 61.154(e) (1) (iv)]
 5. The date of the receipt. [40 CFR 61.154(e) (1) (v)]
- B. Maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area. [40 CFR 61.154(f)]

In this case, the data gathered pursuant to the Condition 7.3 requirements may be used to satisfy the requirements for the landfill gas collection and control system referenced above.

7.1.11 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected MSW landfill with the permit requirements as follows, pursuant to Section 39.5(7) (f) (ii) of the Act. Reports shall describe the probable cause of such deviations, any corrective actions or preventive measures taken; emissions released in accordance with recordkeeping requirements; and a copy of the relevant records.
- b. NESHAP 40 CFR 61 Subpart M: Handling Procedures and Control Measures for the Disposal of ACWM
 - i. Report in writing to the Illinois EPA, Compliance Section and, if different, the local, State, or EPA Regional office

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responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), by the following working day, the presence of improperly enclosed or uncovered ACWM, or any asbestos-containing waste material not sealed in leak-tight containers. A copy of the waste shipment records, required under 40 CFR 61.154(e) (1) (See Condition 7.1.10(c) (i)), shall be submitted along with the report. [40 CFR 61.154(e) (1) (iv)]

- ii. As soon as possible and no longer than 30 days after receipt of the waste, send a copy of the signed waste shipment record to the waste generator. [40 CFR 61.154(e) (2)]
- iii. Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received, attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, immediately report in writing to the Illinois EPA, Compliance Section and, if different, the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record). The report shall describe the discrepancy and attempts to reconcile it, and it shall include copy of the waste shipment records, required under 40 CFR 61.154(e) (1) (See Condition 7.1.10(b) (i)). [40 CFR 61.154(e) (3)]
- iv. Submit to the Illinois EPA, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities. [40 CFR 61.154(h)]
- v. Notify the Illinois EPA in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the

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Illinois EPA at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice: [40 CFR 61.151(d) or 40 CFR 61.154(j)]

1. Scheduled starting and completion dates.
 2. Reason for disturbing the waste.
 3. Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed necessary, the Illinois EPA or USEPA may require changes in the emission control procedures to be used.
 4. Location of any temporary storage site and the final disposal site.
- c. The Permittee is required to comply with the requirements of the NSPS 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfills and/or any amendments promulgated by USEPA. These requirements include but are limited to the following:

Except as provided in 40 CFR 60.752(b)(2)(i)(B),

- i. The Permittee shall submit a landfill closure report to the Illinois EPA, Compliance Section within 30 days of waste acceptance cessation. The Illinois EPA, Compliance Section may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the Illinois EPA, Compliance Section no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 60.7(a)(4). [40 CFR 60.757(d)]

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In this case, landfill closure refers to the cessation of waste acceptance at the source and not the closing of individual cells or areas at the source.

- ii. The Permittee shall submit an equipment removal report to the Illinois EPA 30 days prior to removal or cessation of operation of the control equipment. [40 CFR 60.757(e)]
 - A. The equipment removal report shall contain all of the following items [40 CFR 60.757(e)(1)]:
 - 1. A copy of the closure report submitted in accordance with paragraph (d) of this section;
 - 2. A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and
 - 3. Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year.
 - B. The Illinois EPA may request such additional information as may be necessary to verify that all of the conditions for removal in 40 CFR 60.752(b)(2)(v) have been met. [40 CFR 60.757(e)(2)]
- iii. The Permittee shall submit, to the Illinois EPA, annual reports of the recorded information in 40 CFR 60.757(f)(1) through (f)(6). The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under 40 CFR 60.8. For enclosed combustion devices and flares, reportable exceedances are defined under 40 CFR 60.758(c). [40 CFR 60.757(f)]

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- A. Value and length of time for exceedance of applicable parameters monitored under 40 CFR 60.756(a), (b), (c), and (d). [40 CFR 60.757(f) (1)]
- B. Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under §60.756. [40 CFR 60.757(f) (2)]
- C. Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating. [40 CFR 60.757(f) (3)]
- D. All periods when the collection system was not operating in excess of 5 days. [40 CFR 60.757(f) (4)]
- E. The location of each exceedance of the 500 parts per million methane concentration as provided in 40 CFR 60.753(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. [40 CFR 60.757(f) (5)]
- F. The date of installation and the location of each well or collection system expansion added pursuant to 40 CFR 60.755(a) (3), (b), and (c) (4). [40 CFR 60.757(f) (6)]

The above referenced reports may be submitted in conjunction with the annual emission report referenced in Condition 9.7.

- iv. The Permittee shall include the following information with the initial performance test report required under 40 CFR 60.8: [40 CFR 60.757(g)]
 - A. A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other

gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion; [40 CFR 60.757(g) (1)]

- B. The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based; [40 CFR 60.757(g) (2)]
- C. The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material; [40 CFR 60.757(g) (3)]
- D. The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area; [40 CFR 60.757(g) (4)]
- E. The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; [40 CFR 60.757(g) (5)] and
- F. The provisions for the control of off-site migration. [40 CFR 60.757(g) (6)]

In this case, the data gathered pursuant to the Condition 7.3 requirements may be used to satisfy the requirements for the landfill gas collection and control system referenced above.

7.1.12 Operational Flexibility/Anticipated Operating Scenarios

- a. The Permittee is authorized to change disposal locations and the location of service and haul roads within the permitted landfill area and to perform maintenance upon landfill cover and the above

referenced service and haul roads provided that the Permittee complies with the applicable requirements of 35 IAC Subtitle G: Waste Disposal and the requirements listed in this permit.

- b. The Permittee is authorized to implement alternative waste disposal practices (e.g., compaction methods, cover systems, etc...) provided that the Permittee complies with the applicable requirements of 35 IAC Subtitle G: Waste Disposal, the requirements of this permit, any applicable air regulations, and provided that these practices do not meet the definition of a "modification" as defined in 35 IAC 201.102. The above authorization does not exclude the Permittee from complying with the requirements of 35 IAC 201.142.
- c. The Permittee is authorized to install collection wells, piping and other such components as necessary to collect and transport landfill gas to the appropriate control devices, as designated in this permit, used to control landfill gas emissions at this source and to comply with the other provisions of this section, provided that the installation of such components do not cause the source to exceed an applicable regulation or permitted emission limit established by this permit.

7.1.13 Compliance Procedures

Compliance with the limits in Conditions 5.5.1 and 7.1.6 shall be based on the recordkeeping requirements in Condition 7.1.10 and the emission factors and formulas listed below:

- a. For the purpose of estimating methane, NMOC, VOM, and HAP (compliance with limitations shown in Condition 5.5.2) emissions, emissions may be calculated based upon the monitoring, recordkeeping, and reporting requirements in Conditions 7.1.8, 7.1.9, and 7.1.10; the USEPA Landfill Gas Emissions Model (See <http://www.epa.gov/ttn/chief> and AP-42, Chapter 2.4) and the control equipment efficiencies shown in AP-42, Chapter 2.4. The Permittee is allowed to use site-specific NMOC concentration and/or methane generation rate constant (k) determined through the procedures shown 40 CFR 60.754(a). In addition, the Permittee is allowed to use site specific HAP and SO₂ (i.e., sulfur concentration) emissions data recorded

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during landfill gas testing provided that full documentation and emissions calculations data is provided as part of the emission report. It should be noted that approval must be made in writing for any changes made to standard USEPA methods.

Default factor values are as follows:

Sulfur Concentration	46.9 ppm
Methane Concentration	55%
NMOC Concentration	766 ppm
Percent NMOC Reduction	99.2%

- b. Landfill Operations PM and PM₁₀ emissions shall be calculated based upon the following emission factors and operating data:
- i. For the purpose of estimating fugitive PM and PM₁₀ emissions from the paved roadways at the source, the emission factors and formulas in Sections 13.2.1 of AP-42, Volume I, Fifth Edition, Supplement D, October, 1997 are acceptable.
 - ii. For the purpose of estimating fugitive PM and PM₁₀ emissions from the unpaved roadways at the source, the emission factors and formulas in Sections 13.2.2 of AP-42, Volume I, Fifth Edition, Supplement E, September, 1998 are acceptable.
 - iii. For the purpose of estimating fugitive PM and PM₁₀ emissions from grading, compaction, and daily and final cover activities at the source, the emission factors and formulas in Sections 13.2.3 of AP-42, Volume I, Fifth Edition, are acceptable. Annual emissions shall be determined from the total of 12 months of data.

$$EF = \frac{5.7 (s)^{1.2}}{(M)^{1.3}} = 3.94 \text{ lb/hr}$$

Where:

EF = Emission Factor

M = Material moisture content (%)
(Default 7.9%)

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s = Material silt content (%)
(Default 6.9%)

PM and PM₁₀ (tons/month) = EF x (1-Control%)

Control% = Percent Control

7.2 Unit 02: Whiteside County Landfill
Control 01: Open Flare

7.2.1 Description

The Whiteside County Landfill is classified as a MSW landfill. Currently the landfill area is closed pursuant to the solid waste permit requirements of 35 IAC Subtitle G: Waste Disposal which is administrated by the Illinois EPA BOL.

A MSW landfill is defined as an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. An MSW landfill may also receive other types of RCRA Subtitle D wastes (40 CFR 257.2) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste.

Disposal operations at the site began in 1969 as a trench and fill landfill. The site ceased to accept waste in September of 1992. The landfill's footprint area encompasses approximately 80 acres of which 71 acres were landfilled. It is estimated that approximately 2,615,500 cubic yards of municipal and industrial waste is reported to have been landfilled at the site. The landfill is divided by a drainage swale, which serves to divide the landfill into two units, referred to as the North and South Parcels.

Landfill gas emissions from the source are generated from the decomposition of putrescible materials deposited in the landfill. Landfill gas is composed primarily of methane and carbon dioxide. A small percentage of other constituents present in the gas include hydrogen sulfide and nonmethane organic compound(s) (NMOC).

An active landfill gas collection and control system has been installed on the landfill in 1998/1999 in order to control landfill gas emissions and to minimize landfill gas migration. The gas transmission piping system includes condensate collection sumps and knockouts to prevent pipe blockage. The landfill also has a leachate collection system.

Other emissions at the source include: particulate matter emissions (fugitive dust) generated from roads; and combustion emissions (NO_x, CO, SO₂, PM/PM₁₀, and VOM) from the landfill control system.

7.2.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Significant Dates	Emission Control Equipment
02	Whiteside County Landfill ¹ (LF2)	Commenced Construction 1968 Closed 1992	Open Flare ²

¹ Closed landfill area owned and operated by Whiteside County

² Open flare owned and operated by Whiteside County (Condition 7.3)

7.2.3 Applicability Provisions and Applicable Regulations

- a. The "affected landfill" for the purpose of these unit-specific conditions, is a landfill described in Conditions 7.2.1 and 7.2.2.
- b. The affected landfill is subject to the NSPS for Municipal Solid Waste Landfills, 40 CFR 60 Subparts A and WWW, because the affected landfill commenced construction, reconstruction or modification or began accepting waste on or after May 30, 1991. The Illinois EPA administers the NSPS for subject sources in Illinois pursuant to a delegation agreement with USEPA.

At all times, the Permittee shall maintain and operate the MSW landfill, including air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions, as required by the NSPS, 40 CFR 60.11(d).

- c. The affected landfill is subject to the NESHAP for Asbestos, 40 CFR 61 Subparts A and M, because the affected landfill is a source that is listed in the NESHAP. [40 CFR 61.140]

Specifically, portions of the affected landfill meet the definition of an inactive waste disposal site as defined in 40 CFR 61.141, i.e., has received asbestos-containing waste material.

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- i. For any closed active waste disposal site previously subject to the requirements of 40 CFR 61.154, the Permittee shall comply with the requirements of 40 CFR 61.151 [40 CFR 61.154(g)].
- ii. For any active waste disposal site that receives asbestos-containing waste material from a source covered under 40 CFR 61.149, 61.150, or 61.155, the Permittee must comply with the requirements of 40 CFR 61.154.

7.2.4 Non-Applicability of Regulations of Concern

- a. The affected landfill is not subject to the requirements of 35 IAC 212.321, Emissions of Particulate Matter from Process Emission Units, because due to the unique nature of this process, such rules cannot reasonably be applied.
- b. The affected landfill is not subject to the requirements of 35 IAC Part 220, Non-Methane Organic Compounds, because the landfill does not meet the applicability criteria listed in 35 IAC 220.200(a).
- c. This permit is issued based on the affected MSW Landfill not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected MSW landfill is subject to a NSPS proposed after November 15, 1990, pursuant to 40 CFR 64.2(b)(1)(i).

7.2.5 Control Requirements

- a. The Permittee is required to comply with the requirements of the NSPS 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfills and/or any amendments promulgated by USEPA. These requirements include but are limited to the following:
 - i. Submittal of a NMOC collection and control system design plan prepared by a professional engineer to the Illinois EPA, Division of Air Pollution Control, Permit Section within 1 year. The NMOC collection and control system design plan shall include the information required under 40 CFR 60.752(b)(2)(i)(A), (B) and (C). [40 CFR 60.752(b)(2)(i)]:

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- A. The Illinois EPA finds that the Landfill Gas Collection and Control System Design Plan, dated July 5, 2000, submitted under Permit No. 00070014, pursuant to 40 CFR 60.752(b)(2)(i), excluding those alternatives shown in Condition 7.2.5(a)(i)(B), to be acceptable and that it meets the requirements of 40 CFR 60.752(b)(2)(i)(A), (B), and (C). Deviations from or modifications to the plan must be approved by the Illinois EPA.
- B. This permit is issued based upon the following alternatives for the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of 40 CFR 60.753 through 60.758 proposed in the Landfill Gas Collection And Control System Design Plan pursuant to 40 CFR 60.752(b)(2)(i)(B), not being approved by Illinois EPA (See Permit No. 00070014):
1. The proposal to use the USEPA Method 3C as opposed to USEPA Method 3A; and
 2. The proposal requesting that cover integrity monitoring be performed on a quarter basis instead of monthly.
- C. This permit is issued based upon the following alternatives for the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of 40 CFR 60.753 through 60.758 proposed in the Landfill Gas Collection And Control System Design Plan pursuant to 40 CFR 60.752(b)(2)(i)(B), being approved by Illinois EPA (See Permit No. 00070014):
1. The proposal to modify the requirements to continuously monitor and record the flare flame temperature and landfill gas flow monitoring. [40 CFR 60.756(c)]

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The approved changes include:

- I. Recording and maintain a log of flare startup and shutdown times (date and time); and
 - II. Recording flare run times on a monthly, based upon the flare blower hour meter.
2. Submittal of the annual report required by the 40 CFR 60.757(f) within 180 days of construction permit issued date or April 13, 2001.
 3. The proposal to install wells at the landfill within 18 months of the date that Prairie Hill facility Tire II calculation for NMOC and Whiteside County actual data show that combined MNOC emissions are greater than 50 Mg/year;

The Illinois EPA must approve all modifications or revisions of the NMOC collection and control system design plan.

- ii. Installation of a collection and control system that captures the gas generated within the landfill, as required by 40 CFR 60.752(b)(2)(ii)(A) or (B) and 40 CFR 60.752(b)(2)(iii), within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 NMOC sampling and analysis, as provided in 40 CFR 60.754(a)(3) and (4), respectively, demonstrates that the emission rate is less than 50 Megagrams per year, as specified in 40 CFR 60.757(c)(1) or (2). [40 CFR 60.752(b)(2)(ii)]
- iii. Routing of all collected landfill gas to a control system that complies with the requirements in either paragraph 40 CFR 60.752(b)(2)(iii)(A), (B) or (C). [40 CFR 60.752(b)(2)(iii)]

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- A. An open flare designed and operated in accordance with 40 CFR 60.18; [40 CFR 60.752(b) (2) (iii) (A)]

- B. A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in 40 CFR 60.754(d). [40 CFR 60.752(b) (2) (iii) (B)]
 - 1. If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone. [40 CFR 60.752(b) (2) (iii) (B) (1)]

 - 2. The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in 40 CFR 60.756. [40 CFR 60.752(b) (2) (iii) (B) (2)]

- C. Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of 40 CFR 60.752(b) (2) (iii) (A) or (B). [40 CFR 60.752(b) (2) (iii) (C)]

- iv. Operation of the collection and control device installed to comply with 40 CFR 60 Subpart WWW in accordance with the provisions of 40 CFR 60.753, 60.755 and 60.756. [40 CFR 60.752(b) (2) (iv)]

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- v. The collection and control system may be capped or removed provided that all the conditions of 60.752(b)(2)(b)(2)(v)(A), (B), and (C) are met. [40 CFR 60.752(b)(2)(v)]

In this case, the above and other operating conditions for the landfill gas collection and control system are also covered under Condition 7.3.

- b. NESHAP 40 CFR 61 Subpart M: Handling Procedures and Control Measures for the Disposal of ACWM

As applicable for each site, the Permittee shall comply with one of the following:

- i. Inactive Waste Disposal Sites [40 CFR 61.151]:

- A. The Permittee must comply with one of the following:

- 1. Either discharge no visible emissions to the outside air from an inactive waste disposal site where ACWM has been deposited [40 CFR 61.151(a)(1)]; or
- 2. The ACWAM shall be covered with at least 15 centimeters (6 inches) of compacted nonasbestos-containing material, and the Permittee shall grow and maintain a cover of vegetation on the area adequate to prevent exposure of the ACWM [40 CFR 61.151(a)(2)]; or
- 3. The Permittee shall cover the asbestos-containing waste material with at least 60 centimeters (2 feet) of compacted nonasbestos-containing material, and maintain it to prevent exposure of the asbestos-containing waste. [40 CFR 61.151(a)(3)]

- B. Unless a natural barrier adequately deters access by the general public, install and maintain warning signs and fencing as required in 40 CFR 61.151(b), or comply with 40 CFR 61.151(a)(2) or (a)(3). [40 CFR 61.151(b)]

- C. The Permittee may use an alternative control method that has received prior approval of the Illinois EPA rather than comply with the requirements of 40 CFR 61.151(a) or (b). [40 CFR 61.151(c)]

7.2.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected MSW landfill is subject to the following:

- a. This permit is issued based upon the landfill being closed to all waste operation as per the applicable requirements of 35 IAC Subtitle G. Therefore, the Permittee is prohibited from accepting any waste at the landfill without the written approval of the Illinois EPA BOA Permit Section.
- b. Total design capacity of the landfill is limited to 2,615,500 cubic yards based upon the permitted gross airspace capacity in previous issued BOL Permits (BOL I.D. No. 1958140001 and 1958140003. This limit is the basis for determining potential emissions for the landfill. The maximum landfill waste capacity includes all adjacent and contiguous landfill areas (i.e., all active and inactive sites).

7.2.7 Operating Requirements

- a. Upon installation of a gas collection and control system used to comply with the provisions of 40 CFR 60.752(b)(2)(ii), the Permittee shall operate the collection system in accordance with the provisions of 40 CFR 60.753. These requirements include but are not limited to the following:
 - i. Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for: [40 CFR 60.753(a)]
 - A. 5 years or more if active; or
 - B. 2 years or more if closed or at final grade;

- ii. Operate the collection system with negative pressure at each wellhead except under the conditions shown 40 CFR 60.753(b); [40 CFR 60.753(b)]
- iii. Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 °C and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The Permittee may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens. Nitrogen or oxygen levels shall be determined based upon the applicable methods and or procedures shown in 40 CFR 60.753(c) (1) or (2). [40 CFR 60.753(c)]
- iv. Operate the collection system so that the methane concentration is less than 500 parts per million above background 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 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 60.753(d)]
- v. Operate the system such that all collected gases are vented to a control system designed and operated in compliance with 40 CFR 60.752(b) (2) (iii). In the event the collection or control system is inoperable,

the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour; [40 CFR 60.753(e)] and

- vi. Operate the control or treatment system at all times when the collected gas is routed to the system. [40 CFR 60.753(f)]
- vii. If monitoring demonstrates that the operational requirements in 40 CFR 60.753(b), (c), or (d) are not met, corrective action shall be taken as specified in 40 CFR 60.755(a) (3) through (5) or 40 CFR 60.755(c). If corrective actions are taken as specified in 40 CFR 60.755, the monitored exceedance is not a violation of the operational requirements in 40 CFR 60.753. . In addition, the monitored exceedance is not considered to be a reportable "deviation" pursuant to Condition 5.7.1 and 7.2.11. However, this exclusion does not exclude the Permittee from complying with the recordkeeping requirements specified in Condition 7.2.10(a). [40 CFR 60.753(g)]

In this case, the above and other operating conditions for the landfill gas collection and control system are also covered under Condition 7.3.

7.2.8 Testing Requirements

The Permittee is required to comply with the requirements of the NSPS 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfills and/or any amendments promulgated by USEPA. These requirements include but are limited to the following:

- a. After the installation of a collection and control system in compliance with 40 CFR 60.755, the Permittee shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in 40 CFR 60.752(b) (2) (v), using the equation in 40 CFR 60.754(b) (See below). [40 CFR 60.754(b)]:

$$M_{\text{NMOC}} = 1.89 \times 10^{-3} Q_{\text{LFG}} C_{\text{NMOC}}$$

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

- i. 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 control device using a gas flow measuring device calibrated according to the provisions of section 4 of Method 2E of Appendix A of 40 CFR Part 60. [40 CFR 60.754(b)(1)]
 - ii. 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 Part 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 Part 60, by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane. [40 CFR 60.754(b)(2)]
 - iii. The Permittee may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the USEPA. [40 CFR 60.754(b)(3)]
- b. When calculating emissions for PSD purposes, the Permittee of each MSW landfill subject to the provisions of 40 CFR 60 Subpart WWW shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in 35 IAC 203 (40 CFR 51.166) or 40 CFR 52.21 using AP-42 or other approved measurement procedures. [40 CFR 60.754(c)]

- c. Compliance with the fugitive dust limitation in Conditions 5.2.2(a) shall be based upon the observations of an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour). Fugitive dust emissions from the source shall be monitored at least once per week and the observing period shall be at the discretion of the observer, but not less than one minute. [35 IAC 212.301]

7.2.9 Inspection and Monitoring Requirements

a. Fugitive Dust

Compliance with the fugitive dust limitation in Conditions 5.2.2(a), shall be based upon the following [35 IAC 201.161]:

- i. The Permittee shall implement a program to monitor and control wind erosion on the landfill surfaces, particulate matter re-entrainment during landfill activities and fugitive particulate matter emissions from any roadway or parking area on at least a weekly basis.
- ii. No inspection shall be necessary for wind erosion from the surface the landfill when the landfill is covered with snow and/or ice and for any landfill activity if precipitation has occurred that is sufficient for that day to ensure compliance with the requirements of Condition 5.2.2(a). Any required inspection that is not performed due to any of the above identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.
- iii. Corrective action shall be implemented pursuant to a course of action outlined in the program. Such corrective action may include but is not limited to the application of a protective cover on landfill surfaces, the spraying of surfactant solution or water on a regular basis, or other equivalent treatment methods.

- iv. If the fugitive particulate matter program fails to address or inadequately addresses an event that meets the characteristics of a wind erosion, particulate matter re-entrainment, or fugitive event but was not included in the program at the time the Permittee developed the plan, the Permittee shall revise the program within 45 days after the event to include detailed procedures for operating, monitoring, and maintaining the source during similar events and a program of corrective action for similar events. The Illinois EPA may require the Permittee to make changes to the program if the Illinois EPA finds that the program does not adequately address a wind erosion, re-entrainment, or fugitive event.

- b. The Permittee is required to comply with the requirements of the NSPS 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfills and/or any amendments promulgated by USEPA. These requirements include but are limited to the following:
 - i. The following procedures shall be used for compliance with the surface methane operational standard as provided in 40 CFR 60.753(d). [40 CFR 60.755(c)]
 - A. After installation of the collection system, the Permittee shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in paragraph (d) of this section. [40 CFR 60.755(c)(1)]
 - 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. [40 CFR 60.755(c)(2)]

- C. Surface emission monitoring shall be performed in accordance with section 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. [40 CFR 60.755(c) (3)]
- 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 40 CFR 60.755(c) (i) through (v) shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of 40 CFR 60.753(d). [40 CFR 60.755(c) (4)]
- E. The Permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis. [40 CFR 60.755(c) (5)]
- ii. The Permittee shall comply with the instrumentation specifications and procedures for surface emission monitoring devices in 40 CFR 60.755(d). [40 CFR 60.755(d)]
- iii. The gas collection and control requirements of 40 CFR 60 Subpart WWW shall apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices. [40 CFR 60.755(e)]
- iv. Except as provided in 40 CFR 60.752(b) (2) (i) (B),
 - A. The Permittee shall install a sampling port and a thermometer, or other temperature measuring device, or an access port for temperature measurements at each wellhead and: [40 CFR 60.756(a)]

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1. Measure the gauge pressure in the gas collection header on a monthly basis as provided in 40 CFR 60.755(a)(3); and [40 CFR 60.756(a)(1)]
 2. Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in 40 CFR 60.755(a)(5); and [40 CFR 60.756(a)(2)]
 3. Monitor temperature of the landfill gas on a monthly basis as provided in 40 CFR 60.755(a)(5). [40 CFR 60.756(a)(3)]
- B. If the Permittee elects to comply with 40 CFR 60.752(b)(2)(iii) using an enclosed combustor, the Permittee shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment. [40 CFR 60.756(b)]
1. A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ± 1 percent of the temperature being measured expressed in degrees Celsius or ± 0.5 degrees Celsius, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts. [40 CFR 60.756(b)(1)]
 2. A device that records flow to or bypass of the control device. The Permittee shall either: [40 CFR 60.756(b)(2)]
 - I. Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or [40 CFR 60.756(b)(2)(i)]

- II. 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 the gas flow is not diverted through the bypass line. [40 CFR 60.756(b)(2)(ii)]
3. If the Permittee elects to comply with 40 CFR 60.752(b)(2)(iii) using an open flare, the Permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment: [40 CFR 60.756(c)]
- I. 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. [40 CFR 60.756(c)(1)]
 - II. A device that records flow to or bypass of the flare. The Permittee shall either: [40 CFR 60.756(c)(2)]
 - a. Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or [40 CFR 60.756(c)(2)(i)]
 - b. Secure the bypass line valve in the closed position with a car-

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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 the gas flow is
not diverted through
the bypass line. [40
CFR 60.756(c) (2) (ii)]

4. If the Permittee elects to comply with 40 CFR 60.752(b) (2) (iii) using a device other than an open flare or an enclosed combustor, the Permittee shall provide information satisfactory to the Illinois EPA or USEPA as provided in 40 CFR 60.752(b) (2) (i) (B) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Illinois EPA or USEPA shall review the information and either approve it, or request that additional information be submitted. The Illinois EPA or USEPA may specify additional appropriate monitoring procedures. [40 CFR 60.756(d)]

5. If the Permittee seeks to install a collection system that does not meet the specifications in 40 CFR 60.759 or seeking to monitor alternative parameters to those required by 40 CFR 60.753 through 40 CFR 60.756, the Permittee shall provide information satisfactory to the Illinois EPA or USEPA as provided in 40 CFR 60.752(b) (2) (i) (B) and (C) describing the design and operation of the collection system, the

operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Illinois EPA or USEPA may specify additional appropriate monitoring procedures. [40 CFR 60.756(e)]

6. If the Permittee seeks to demonstrate compliance with 40 CFR 60.755(c), the Permittee shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in 40 CFR 60.755(d). Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring. [40 CFR 60.756(f)]

In this case, the above and other operating conditions for the landfill gas collection and control system are also covered under Condition 7.3.

7.2.10 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected landfill to demonstrate compliance with conditions 5.5.1 and 7.2.6, pursuant to Section 39.5(7)(b) of the Act:

- a. The Permittee shall maintain and retain the following general records:
 - i. Copies of any landfill gas analyses and net heating value determinations, including those required under Conditions 7.2.5 and 7.2.8 or as a part of a compliance determination under Condition 7.2.13, that may be conducted during the normal operation of the gas collection system;

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- ii. A summary of exceedances of the limits in Conditions 5.2.2(a), 7.2.5, 7.2.6 and 7.2.7, as applicable, which require notification to the Compliance Section in accordance with Condition 7.2.11(a).
- iii. Copies of USEPA or Illinois EPA approval of alternative testing, monitoring, and compliance procedures in Conditions 7.2.5, 7.2.8, 7.2.9 and 7.2.13.
- iv. As installed records of the landfill gas collection and control system including the following:
 - A. As built diagrams and drawings of the collection system;
 - B. Identification of the make, model, specifications and manufacture of blower and enclosed flare;
 - C. Identification of the as built specifications of the gas collection system; and
 - D. Copies of all records required pursuant to the requirements of 35 IAC Subtitle G.
- v. Any operating parameters that are continuously monitored and recorded that are associated with proper operation of the affected emission units and/or control equipment including those parameters recorded pursuant to Condition 7.2.9.
- vi. Records of any periods of operation during which the control system exceeded the operating parameters preset by the flare manufacture or those established by the most recent performance test at which compliance with 40 CFR 60.752(b)(2)(iii) was determined. These incidents shall also be reported under 40 CFR 60.757(f).
- vii. A maintenance and repair log for the affected emission unit and/or control equipment, listing each activity performed with date.

This requirement includes but is not limited to: replacement and repair of landfill gas collection and control system components; corrective actions undertaken to correct monitored operational exceedances as per 40 CFR 60.755 pursuant to 40 CFR 60.753; and the landfill cover inspection and repair requirement in Condition 7.2.9.

- viii. Records of all observations made pursuant to the visible emissions monitoring required under Condition 7.2.8(f and g) and records of any corrective action taken to control visible emissions (i.e., application of water spray or dust suppressants to roadways and dusty areas, flare adjustments, etc.).
- ix. Inspections as per Condition 7.2.9:
 - A. The date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
 - B. The date of each inspection where it was determined by the Permittee that it was necessary to implement the control measures;
 - C. The dates the control measures were implemented; and
 - D. On a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.
- x. Records for each startup of the control system, that, as a minimum, shall include:
 - A. Duration of the startup, i.e. start time and time startup discontinued or normal operation achieved, i.e., stable operation;

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- B. Startups aborted due to control system malfunction;
 - C. The nature of visible emissions, i.e., severity and duration, during the startup and the nature of opacity at the conclusion of startup, if above normal; and
 - D. Whether exceedance of Condition 7.2.5(b) may have occurred during startup, with explanation and estimated duration (minutes).
- xi. Aggregate annual NMOC, VOM, PM and PM₁₀ landfill emissions calculated based on the compliance procedures in Condition 7.2.13, with supporting calculations;
- b. The Permittee is required to comply with the requirements of the NSPS 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfills and/or any amendments promulgated by USEPA. These requirements include but are limited to the following:
- i. The Permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered 40 CFR 60.752(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable. [40 CFR 60.758(a)]
 - ii. The Permittee shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in 40 CFR 60.758(b)(1) through (b)(4) as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal. [40 CFR 60.758(b)]

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- A. Records to demonstrate compliance with 40 CFR 60.752(b)(2)(ii) shall include: [40 CFR 60.758(b)(1)]
1. The maximum expected gas generation flow rate as calculated in 40 CFR 60.755(a)(1). The Permittee may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Illinois EPA or USEPA. [40 CFR 60.758(b)(1)(i)]
 2. The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 40 CFR 60.759(a)(1). [40 CFR 60.758(b)(1)(ii)]
- B. Records to demonstrate compliance with 40 CFR 60.752(b)(2)(iii) through the use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts shall include: [40 CFR 60.758(b)(2)]
1. The average combustion temperature measured at least every 15 minutes and averaged over the same time period of the performance test. [40 CFR 60.758(b)(2)(i)]
 2. The percent reduction of NMOC determined as specified in 40 CFR 60.752(b)(2)(iii)(B) achieved by the control device. [40 CFR 60.758(b)(2)(ii)]
- C. Records to demonstrate compliance with 40 CFR 60.752(b)(2)(iii)(B)(1) through use of a boiler or process heater of any size shall include: a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing. [40 CFR 60.758(b)(3)]

- D. Records to demonstrate compliance with compliance with 40 CFR 60.752(b)(2)(iii)(A) through use of an open flare shall include: the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent. [40 CFR 60.758(b)(4)]
- iii. The Permittee shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in 40 CFR 60.756 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. [40 CFR 60.758(c)]
- A. The following constitute exceedances that shall be recorded and reported under 40 CFR 60.757(f): [40 CFR 60.758(c)(1)]
1. For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28°C below the average combustion temperature during the most recent performance test at which compliance with 40 CFR 60.752(b)(2)(iii) was determined. [40 CFR 60.758(c)(1)(i)]
 2. For boilers or process heaters, whenever there is a change in the

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location at which the vent stream is introduced into the flame zone as required under paragraph (b) (3) of this section. [40 CFR 60.758(c) (1) (ii)]

- B. The Permittee shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under 40 CFR 60.756. [40 CFR 60.758(c) (2)]

- iv. The Permittee shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector. These shall include: [40 CFR 60.758(d)]
 - A. Up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under 40 CFR 60.755(b). [40 CFR 60.758(d) (1)]

 - B. Readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in 40 CFR 60.759(a) (3) (i) as well as any nonproductive areas excluded from collection as provided in 40 CFR 60.759(a) (3) (ii). [40 CFR 60.758(d) (2)]

- v. The Permittee shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in 40 CFR 60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance. [40 CFR 60.758(e)]

In this case, the data gathered pursuant to the Condition

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7.3 requirements may be used to satisfy the requirements
for the landfill gas collection and control system
referenced above.

7.2.11 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected MSW landfill with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, any corrective actions or preventive measures taken; emissions released in accordance with recordkeeping requirements; and a copy of the relevant records.
- b. NESHAP 40 CFR 61 Subpart M: Handling Procedures and Control Measures for the Disposal of ACWM
 - i. Report in writing to the Illinois EPA, Compliance Section and, if different, the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), by the following working day, the presence of a significant amount of improperly enclosed or uncovered waste. A copy of the waste shipment records, required under 40 CFR 61.154(e)(1) (See Condition 7.2.10(b)(i)), shall be submitted along with the report. [40 CFR 61.154(e)(1)(iv)]
 - ii. As soon as possible and no longer than 30 days after receipt of the waste, send a copy of the signed waste shipment record to the waste generator. [40 CFR 61.154(e)(2)]
 - iii. Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received, attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, immediately report in writing to the Illinois EPA, Compliance Section and, if different, the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record). The report shall describe the discrepancy and attempts to reconcile it, and it shall include copy of the waste shipment

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records, required under 40 CFR 61.154(e) (1)
(See Condition 7.2.10(b) (i)). [40 CFR
61.154(e) (3)]

- iv. Submit to the Illinois EPA, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities. [40 CFR 61.154(h)]

- v. Notify the Illinois EPA in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Illinois EPA at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice: [40 CFR 61.151(d) or 40 CFR 61.154(j)]
 - 1. Scheduled starting and completion dates.
 - 2. Reason for disturbing the waste.
 - 3. Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed necessary, the Illinois EPA or USEPA may require changes in the emission control procedures to be used.
 - 4. Location of any temporary storage site and the final disposal site.

- c. The Permittee is required to comply with the requirements of the NSPS 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfills and/or any amendments promulgated by USEPA. These requirements include but are limited to the following:

Except as provided in 40 CFR 60.752(b) (2) (i) (B),

- i. The Permittee shall submit a closure report to the Illinois EPA, Compliance Section within 30 days of waste acceptance cessation. The Illinois EPA, Compliance Section may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the Illinois EPA, Compliance Section no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 60.7(a)(4). [40 CFR 60.757(d)]

In this case, landfill closure refers to the cessation of waste acceptance at the source and not the closing of individual cells or areas at the source.

- ii. The Permittee shall submit an equipment removal report to the Illinois EPA 30 days prior to removal or cessation of operation of the control equipment. [40 CFR 60.757(e)]

A. The equipment removal report shall contain all of the following items [40 CFR 60.757(e)(1)]:

1. A copy of the closure report submitted in accordance with paragraph (d) of this section;
2. A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and
3. Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year.

B. The Illinois EPA may request such additional information as may be necessary to verify that all of the conditions for removal in 40 CFR 60.752(b)(2)(v) have been met. [40 CFR 60.757(e)(2)]

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- iii. The Permittee shall submit to the Illinois EPA annual reports of the recorded information in 40 CFR 60.757(f)(1) through (f)(6). The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under 40 CFR 60.8. For enclosed combustion devices and flares, reportable exceedances are defined under 40 CFR 60.758(c). [40 CFR 60.757(f)]
- A. Value and length of time for exceedance of applicable parameters monitored under 40 CFR 60.756(a), (b), (c), and (d). [40 CFR 60.757(f)(1)]
- B. Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under §60.756. [40 CFR 60.757(f)(2)]
- C. Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating. [40 CFR 60.757(f)(3)]
- D. All periods when the collection system was not operating in excess of 5 days. [40 CFR 60.757(f)(4)]
- E. The location of each exceedance of the 500 parts per million methane concentration as provided in 40 CFR 60.753(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. [40 CFR 60.757(f)(5)]
- F. The date of installation and the location of each well or collection system expansion added pursuant to 40 CFR 60.755(a)(3), (b), and (c)(4). [40 CFR 60.757(f)(6)]

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The above referenced reports may be submitted in conjunction with the annual emission report referenced in Condition 9.7.

- iv. The Permittee shall include the following information with the initial performance test report required under 40 CFR 60.8: [40 CFR 60.757(g)]
 - A. A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion; [40 CFR 60.757(g) (1)]
 - B. The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based; [40 CFR 60.757(g) (2)]
 - C. The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material; [40 CFR 60.757(g) (3)]
 - D. The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area; [40 CFR 60.757(g) (4)]
 - E. The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; [40 CFR 60.757(g) (5)] and

F. The provisions for the control of off-site migration. [40 CFR 60.757(g) (6)]

7.2.12 Operational Flexibility/Anticipated Operating Scenarios

- a. The Permittee is authorized to change the location of service and haul roads within the permitted landfill area and to perform maintenance upon landfill cover and the above referenced service and haul roads provided that the Permittee complies with the applicable requirements of 35 IAC Subtitle G: Waste Disposal and the particulate matter limitations cited in Condition 5.2.2 and 5.4.
- b. The Permittee is authorized to install collection wells, piping and other such components as necessary to collect and transport landfill gas to the appropriate control devices, as designated in this permit, used to control landfill gas emissions at this source and to comply with the other provisions of this section, provided that the installation of such components do not cause the source to exceed an applicable regulation or permitted emission limit established by this permit.

7.2.13 Compliance Procedures

Compliance with the limits in Conditions 5.5.1 and 7.2.6 shall be based on the recordkeeping requirements in Condition 7.2.10 and the emission factors and formulas listed below:

- a. For the purpose of estimating methane, NMOC, VOM, and HAP (compliance with limitations shown in Condition 5.5.2) emissions, emissions may be calculated based upon the monitoring, recordkeeping, and reporting requirements in Conditions 7.2.8, 7.2.9, and 7.2.10; the USEPA Landfill Gas Emissions Model (See <http://www.epa.gov/ttn/chief> and AP-42, Chapter 2.4) and the control equipment efficiencies shown in AP-42, Chapter 2.4. The Permittee is allowed to use site-specific NMOC concentration and/or methane generation rate constant (k) determined through the procedures shown 40 CFR 60.754(a). In addition, the Permittee is allowed to use site specific HAP and SO₂ (i.e., sulfur concentration) emissions data recorded during landfill gas testing provided that full documentation and emissions calculations data is provided as part of the emission report. It should be noted that approval must be made in writing for any changes made to standard USEPA methods.

Default factor values are as follows:

Sulfur Concentration	46.9 ppm
Methane Concentration	55%
NMOC Concentration	766 ppm
Percent NMOC Reduction	99.2%

b. Landfill Operations PM and PM₁₀ emissions shall be calculated based upon the following emission factors and operating data:

- i. For the purpose of estimating fugitive PM and PM₁₀ emissions from the paved roadways at the source, the emission factors and formulas in Sections 13.2.1 of AP-42, Volume I, Fifth Edition, Supplement D, October, 1997 are acceptable.
- ii. For the purpose of estimating fugitive PM and PM₁₀ emissions from the unpaved roadways at the source, the emission factors and formulas in Sections 13.2.2 of AP-42, Volume I, Fifth Edition, Supplement E, September, 1998 are acceptable.
- iii. For the purpose of estimating fugitive PM and PM₁₀ emissions from grading, compaction, and daily and final cover activities at the source, the emission factors and formulas in Sections 13.2.3 of AP-42, Volume I, Fifth Edition, are acceptable. Annual emissions shall be determined from the total of 12 months of data.

$$EF = \frac{5.7 (s)^{1.2}}{(M)^{1.3}} = 3.94 \text{ lb/hr}$$

Where:

EF = Emission Factor

M = Material moisture content (%)
(Default 7.9%)

s = Material silt content (%)
(Default 6.9%)

PM and PM₁₀ (tons/month) = EF x (1-Control%)

Control% = Percent Control

7.3 Control 01: Open Flare

7.3.1 Description

Landfill gas is collected from both the active Prairie Hill RDF and the inactive Whiteside County Landfill through a landfill gas collection system. Collected landfill gas is then burned in an open flare (Control 01) owned and operated by Whiteside County.

The active landfill gas collection and control system is designed to control the offsite migration of methane from the landfills and for compliance with the regulations referenced in the permit.

Landfill gas emissions from the source are generated from the decomposition of materials deposited in the landfill. Landfill gas is composed primarily of methane and carbon dioxide. A small percentage of other constituents present in the gas include hydrogen sulfide and nonmethane organic compound(s) (NMOC).

The landfill gas collection includes condensate collection sumps and knockouts to prevent pipe blockage. The landfill also has a leachate collection system.

7.3.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Significant Dates	Emission Control Equipment
01	Prairie Hill RDF ¹ (LF1)	Commenced Construction April 1996 Initiated Waste Disposal Operations August 1996	Control 01 - Open Flare ³
02	Whiteside County Landfill ² (LF2)	Commenced Construction 1968 Closed 1992	Control 01 - Open Flare ³

- ¹ Active landfill area owned by Whiteside County and operated by Waste Management of Illinois, Inc.
- ² Closed landfill area owned and operated by Whiteside County
- ³ Open flare (Control 01) owned and operated by Whiteside County

7.3.3 Applicability Provisions and Applicable Regulations

- a. The "affected open flare and landfill gas collection system" for the purpose of these unit-specific conditions, is the open flare and landfill gas collection system described in Conditions 7.3.1 and 7.3.2.
- b. The above referenced landfills are subject to the NSPS for Municipal Solid Waste Landfills, 40 CFR 60 Subparts A and WWW, because the landfills commenced construction, reconstruction or modification or began accepting waste on or after May 30, 1991. The Illinois EPA administers the NSPS for subject sources in Illinois pursuant to a delegation agreement with USEPA.

The affected open flare and landfill gas collection system are subject to the NSPS because they are being used to control emissions covered under the NSPS.

At all times, the Permittee shall maintain and operate the MSW landfill, including air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions, as required by the NSPS, 40 CFR 60.11(d).

- c. The affected fuel burning emission units including air pollution control equipment are subject to 35 IAC 214.301, which provides that:

No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to exceed 2000 ppm [35 IAC 214.301].

Compliance with this requirement is assured by the inherent nature of operations at this source, as demonstrated by historical operation (i.e., the total sulfur content of the landfill gas).

7.3.4 Non-Applicability of Regulations of Concern

- a. The affected open flare and landfill gas collection system is not subject to the requirements of 35 IAC 212.321, Emissions of Particulate Matter from Process Emission Units, because due to the unique nature of this process, such rules cannot reasonably be applied.

7.3.5 Control Requirements

- a. The Permittee is required to comply with the requirements of the NSPS 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfills and/or any amendments promulgated by USEPA. These requirements include but are limited to the following:
 - i. Submittal of a NMOC collection and control system design plan prepared by a professional engineer to the Illinois EPA, Division of Air Pollution Control, Permit Section within 1 year. The NMOC collection and control system design plan shall include the information required under 40 CFR 60.752(b)(2)(i)(A), (B) and (C). [40 CFR 60.752(b)(2)(i)]:
 - A. The Illinois EPA finds that the Landfill Gas Collection and Control System Design Plan, dated July 5, 2000, submitted under Permit No. 00070014, pursuant to 40 CFR 60.752(b)(2)(i), excluding those alternatives shown in Condition 7.2.5(a)(i)(B), to be acceptable and that it meets the requirements of 40 CFR 60.752(b)(2)(i)(A), (B), and (C). Deviations from or modifications to the plan must be approved by the Illinois EPA.
 - B. This permit is issued based upon the following alternatives for the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of 40 CFR 60.753 through 60.758 proposed in the Landfill Gas Collection And Control System Design Plan pursuant to 40 CFR 60.752(b)(2)(i)(B), not being approved by Illinois EPA (See Permit No. 00070014):

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1. The proposal to use the USEPA Method 3C as opposed to USEPA Method 3A; and
 2. The proposal requesting that cover integrity monitoring be performed on a quarter basis instead of monthly.
- C. This permit is issued based upon the following alternatives for the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of 40 CFR 60.753 through 60.758 proposed in the Landfill Gas Collection And Control System Design Plan pursuant to 40 CFR 60.752(b)(2)(i)(B), being approved by Illinois EPA (See Permit No. 00070014):

1. The proposal to modify the requirements to continuously monitor and record the flare flame temperature and landfill gas flow monitoring. [40 CFR 60.756(c)]

The approved changes include:

- I. Recording and maintain a log of flare startup and shutdown times (date and time); and
 - II. Recording flare run times on a monthly, based upon the flare blower hour meter.
2. Submittal of the annual report required by the 40 CFR 60.757(f) within 180 days of construction permit issued date or April 13, 2001.
 3. The proposal to install wells at the landfill within 18 months of the date that Prairie Hill facility Tire II calculation for NMOC and Whiteside County actual data show that combined MNOC emissions are greater than 50 Mg/year;

The Illinois EPA must approve all modifications or revisions of the NMOC collection and control system design plan.

- ii. Installation of a collection and control system that captures the gas generated within the landfill, as required by 40 CFR 60.752(b)(2)(ii)(A) or (B) and 40 CFR 60.752(b)(2)(iii), within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 NMOC sampling and analysis, as provided in 40 CFR 60.754(a)(3) and (4), respectively, demonstrates that the emission rate is less than 50 Megagrams per year, as specified in 40 CFR 60.757(c)(1) or (2). [40 CFR 60.752(b)(2)(ii)]
- iii. Routing of all collected landfill gas to a control system that complies with the requirements in either paragraph 40 CFR 60.752(b)(2)(iii)(A), (B) or (C). [40 CFR 60.752(b)(2)(iii)]
 - A. An open flare designed and operated in accordance with 40 CFR 60.18; [40 CFR 60.752(b)(2)(iii)(A)]
 - B. A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in 40 CFR 60.754(d). [40 CFR 60.752(b)(2)(iii)(B)]
 - 1. If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone. [40 CFR 60.752(b)(2)(iii)(B)(1)]

2. The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in 40 CFR 60.756; [40 CFR 60.752(b)(2)(iii)(B)(2)]
- C. Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of 40 CFR 60.752(b)(2)(iii)(A) or (B). [40 CFR 60.752(b)(2)(iii)(C)]
- iv. Operation of the collection and control device installed to comply with 40 CFR 60 Subpart WWW in accordance with the provisions of 40 CFR 60.753, 60.755 and 60.756. [40 CFR 60.752(b)(2)(iv)]
- v. The collection and control system may be capped or removed provided that all the conditions of 60.752(b)(2)(b)(2)(v)(A), (B), and (C) are met. [40 CFR 60.752(b)(2)(v)]

7.3.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected MSW landfill is subject to the following:

- a. Enclosed Flare
 - i. This permit is issued based upon the control system being used to control emissions of landfill gas including NMOC emissions.
 - ii. A. The landfill utility gas flare shall be operated and maintained for effective combustion of landfill gas. Flame monitor(s) shall be installed, operated, and maintained on the landfill utility gas flare to confirm the presence of a flame when landfill gas is being fed.

B. The landfill gas flow rate to the landfill gas utility flare shall not exceed 500 scfm.

iii. Emissions nitrogen oxide (NO_x), sulfur dioxide (SO₂), volatile organic material (OM), carbon monoxide (CO) and particulate matter (PM) of control system shall not exceed the following:

<u>Pollutants</u>	<u>(Lb/Hr)</u>	<u>(Tons/Yr)</u>	
NO _x	1.61	7.07	T1
SO ₂	0.75	3.27	T1
CO	6.47	28.35	T1
PM/PM ₁₀	0.04	0.18	T1
VOM	0.32	1.42	T1

In this case particulate matter is assumed to be 100% PM₁₀.

These limits are based on the PM-10, CO, and NO_x; VOM and SO₂ emissions factors calculated based on the constituents present in landfill gas and engineering estimates; and maximum operating hours. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

The above limitations on were established in Permit 99090067, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

7.3.7 Operating Requirements

The Permittee is required to comply with the requirements of the NSPS 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfills and/or any amendments promulgated by USEPA. These requirements include but are limited to the following:

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- a. Upon installation of a gas collection and control system used to comply with the provisions of 40 CFR 60.752(b)(2)(ii), the Permittee shall operate the collection system in accordance with the provisions of 40 CFR 60.753. These requirements include but are not limited to the following:
 - i. Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for: [40 CFR 60.753(a)]
 - A. 5 years or more if active; or
 - B. 2 years or more if closed or at final grade.
 - ii. Operate the collection system with negative pressure at each wellhead except under the conditions shown 40 CFR 60.753(b); [40 CFR 60.753(b)]
 - iii. Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 °C and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The Permittee may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens. Nitrogen or oxygen levels shall be determined based upon the applicable methods and or procedures shown in 40 CFR 60.753(c)(1) or (2). [40 CFR 60.753(c)]
 - iv. Operate the collection system so that the methane concentration is less than 500 parts per million above background 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 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 60.753(d)]

- v. Operate the system such that all collected gases are vented to a control system designed and operated in compliance with 40 CFR 60.752(b)(2)(iii). In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour; [40 CFR 60.753(e)] and
 - vi. Operate the control or treatment system at all times when the collected gas is routed to the system. [40 CFR 60.753(f)]
 - vii. If monitoring demonstrates that the operational requirements in 40 CFR 60.753(b), (c), or (d) are not met, corrective action shall be taken as specified in 40 CFR 60.755(a)(3) through (5) or 40 CFR 60.755(c). If corrective actions are taken as specified in 40 CFR 60.755, the monitored exceedance is not a violation of the operational requirements in 40 CFR 60.753. In addition, the monitored exceedance is not considered to be a reportable "deviation" pursuant to Condition 5.7.1 and 7.3.11. However, this exclusion does not exclude the Permittee from complying with the recordkeeping requirements specified in Condition 7.3.10(a)(ix). [40 CFR 60.753(g)]
- b. Open Flare Operational Requirements

The open flare shall be designed and operated in accordance with 40 CFR 60.18 (See Condition

7.1.5(a)(iii)(A)). [40 CFR 60.752(b)(2)(iii)(A)] At all times, while landfill gas is vented to the flare, the Permittee shall maintain and operate the open flare, in a manner consistent with good air pollution control practices for minimizing emissions. This includes but is not limited to the following:

- i. The open flare shall be designed for and operated with no visible emissions as determined by the methods specified in 40 CFR 60.18(f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. [40 CFR 60.18(c)(1)]
- ii. The open flare shall be operated with a flame present at all times while landfill gasses are being vented to it, as determined by the methods specified in 40 CFR 60.18(f). [40 CFR 60.18(c)(2)]
- iii. The Permittee has the choice of adhering to either the heat content specifications in 40 CFR 60.18(c)(3)(ii) and the maximum tip velocity specifications in 40 CFR 60.18(c)(4), or adhering to the requirements in 40 CFR 60.18(c)(3)(i). [40 CFR 60.18(c)(3)]
- iv. The Permittee shall monitor the open flare to ensure that they are operated and maintained in conformance with their designs. [40 CFR 60.18(d)]
- v. The open flare shall be operated at all times when landfill gasses may be vented to them. [40 CFR 60.18(e)]
- vi. Reference Method 22 shall be used to determine the compliance of open flare with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22. [40 CFR 60.18(f)(1)]
- vii. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. [40 CFR 60.18(f)(2)]

- viii. The net heating value of the gas being combusted in the open flare shall be calculated using the following equation: [40 CFR 60.18(f)(3)]

$$H_T = K \sum_{i=1}^n C_i H_i$$

Where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25°C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20°C;

K = Constant,

$$1.740 \times 10^7 \left(\frac{1}{\text{ppm}} \right) \left(\frac{\text{gmole}}{\text{scm}} \right) \left(\frac{\text{MJ}}{\text{Kcal}} \right)$$

Where the Standard Temperature for $\left(\frac{\text{g - mole}}{\text{scm}} \right)$ is 20°C

C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 (Incorporated by reference as specified in §60.17); and

H_i = Net heat of combustion of sample component i , kcal/g mole at 25°C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 (incorporated by reference as specified in §60.17) if published values are not available or cannot be calculated.

- ix. The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference

Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip. [40 CFR 60.18(f)(4)]

- x. The maximum permitted velocity, V_{max} , for a flare shall be determined by the following equation. [40 CFR 60.18(f)(6)]

$$V_{max} = 8.706 + 0.7084 (H_T)$$

V_{max} = Maximum permitted velocity, m/sec

8.706 = Constant

0.7084 = Constant

H_T = The net heating value as determined in accordance with 40 CFR 60.18(f)(3).

7.3.8 Testing Requirements

The Permittee is required to comply with the requirements of the NSPS 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfills and/or any amendments promulgated by USEPA. These requirements include but are limited to the following:

- a. After the installation of a collection and control system in compliance with 40 CFR 60.755, the Permittee shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in 40 CFR 60.752(b)(2)(v), using the equation in 40 CFR 60.754(b) (See below). [40 CFR 60.754(b)]:

$$M_{NMOC} = 1.89 \times 10^{-3} Q_{LFG} C_{NMOC}$$

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

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- i. 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 control device using a gas flow measuring device calibrated according to the provisions of section 4 of Method 2E of Appendix A of 40 CFR Part 60. [40 CFR 60.754(b) (1)]
 - ii. 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 Part 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 Part 60, by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane. [40 CFR 60.754(b) (2)]
 - iii. The Permittee may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the USEPA. [40 CFR 60.754(b) (3)]
- b. When calculating emissions for PSD purposes, the Permittee of each MSW landfill subject to the provisions of 40 CFR 60 Subpart WWW shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in 35 IAC 203 (40 CFR 51.166) or 40 CFR 52.21 using AP-42 or other approved measurement procedures. [40 CFR 60.754(c)]
 - c. For the performance test required in 40 CFR 60.752(b) (2) (iii) (B), Method 25, 25C, or Method 18 of Appendix A of 40 CFR Part 60 shall be used to determine compliance with 98 weight-percent efficiency or the 20 ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the USEPA or Illinois EPA as provided by 40 CFR 60.752(b) (2) (i) (B). 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 following equation shall be used to calculate efficiency: [40 CFR 60.754(d)]

$$\text{Control Efficiency} = (\text{NMOC}_{\text{in}} - \text{NMOC}_{\text{out}})$$

Where:

NMOC_{in} = Mass of NMOC entering control device

NMOC_{out} = Mass of NMOC exiting control device

- d. The Permittee shall sample and analyze the landfill gas entering the control system(s) at least once per year. This analyses shall include determinations for heat value and composition which shall include at least: methane, sulfur compounds, nonmethane organic content, and nonmethane organic compound (NMOC) content, if USEPA Method 18 is used 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 Permittee is allowed to use landfill gas analyses performed by an independent company. The Permittee is required to make the above determinations based upon the average of three consecutive test runs. Written notification of testing or submittal of a formal testing protocol is not required for these tests. [35 IAC 201.282]
- e. Within 90 days of a written request from the Illinois EPA, the Permittee shall perform such other emissions and/or performance tests specified by the Illinois EPA. [40 CFR 60.8(a) and 35 Ill. Adm. Code 201.282] The 90 day time period will automatically be extended for an additional 60 days upon written request by the Permittee. The Illinois EPA may provide additional time for the performance of these tests upon written request by the Permittee.

7.3.9 Inspection and Monitoring Requirements

- a. The Permittee shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment: [35 Ill. Adm. Code 201.281]

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- i. A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ± 1 percent of the temperature being measured expressed in degrees Celsius or ± 0.5 degrees Celsius, whichever is greater. ;
- ii. Flare hours of operation, based upon a flare blower hour meter or other time measurement device or method.
- iii. A gas flow rate measuring device(s) that provides a measurement of gas flow to and/or bypass of the flare. The owner or operator shall either:
 - A. Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control system at least every 15 minutes; and/or
 - B. Secure the bypass line valve(s) 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(s) are maintained in the closed position and that the gas flow is not diverted through the bypass line(s).
- c. The Permittee is required to comply with the requirements of the NSPS 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfills and/or any amendments promulgated by USEPA. These requirements include but are limited to the following:
 - i. The following procedures shall be used for compliance with the surface methane operational standard as provided in 40 CFR 60.753(d). [40 CFR 60.755(c)]
 - A. After installation of the collection system, the Permittee shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis

using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in paragraph (d) of this section. [40 CFR 60.755(c) (1)]

- 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. [40 CFR 60.755(c) (2)]
- C. Surface emission monitoring shall be performed in accordance with section 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. [40 CFR 60.755(c) (3)]
- 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 40 CFR 60.755(c) (i) through (v) shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of 40 CFR 60.753(d). [40 CFR 60.755(c) (4)]

As indicated in Condition 7.3.5(a) (i) (C) (1), the 10-day period, for landfill cover corrective action and surface re-monitoring specified in 40 CFR 60.755(c) (4) (ii) and (iii) will automatically be extended upon submittal of a timely written notification to the Illinois EPA by the Permittee, if immediate corrective action would risk damage to the final landfill cover or threaten the integrity of the landfill and during periods of adverse weather conditions. Illinois EPA must approve any extension that exceeds 15 days. Subsequent corrective action and surface

re-monitoring must be expeditiously completed. In addition, an explanation for the extension and a timetable for corrective action and surface re-monitoring must be included with the notification. Any other extension must be subject to prior approval by the Illinois EPA in accordance with 40 CFR 60.752(b)(2)(i)(B) and/or 60.755(c)(4)(v). [40 CFR 60.755(c)(4)]

- E. The Permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis. [40 CFR 60.755(c)(5)]

- ii. The Permittee shall comply with the instrumentation specifications and procedures for surface emission monitoring devices in 40 CFR 60.755(d). [40 CFR 60.755(d)]

- iii. The gas collection and control requirements of 40 CFR 60 Subpart WWW shall apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices. [40 CFR 60.755(e)]

- iv. Except as provided in 40 CFR 60.752(b)(2)(i)(B),
 - A. The Permittee shall install a sampling port and a thermometer, or other temperature measuring device, or an access port for temperature measurements at each wellhead and: [40 CFR 60.756(a)]
 - 1. Measure the gauge pressure in the gas collection header on a monthly basis as provided in 40 CFR 60.755(a)(3); and [40 CFR 60.756(a)(1)]
 - 2. Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in 40 CFR 60.755(a)(5); and [40 CFR 60.756(a)(2)]

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3. Monitor temperature of the landfill gas on a monthly basis as provided in 40 CFR 60.755(a)(5). [40 CFR 60.756(a)(3)]
- B. If the Permittee elects to comply with 40 CFR 60.752(b)(2)(iii) using an enclosed combustor, the Permittee shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment. [40 CFR 60.756(b)]
1. A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ± 1 percent of the temperature being measured expressed in degrees Celsius or ± 0.5 degrees Celsius, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts. [40 CFR 60.756(b)(1)]
 2. A device that records flow to or bypass of the control device. The Permittee shall either: [40 CFR 60.756(b)(2)]
 - I. Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or [40 CFR 60.756(b)(2)(i)]
 - II. 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 the

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gas flow is not diverted
through the bypass line. [40
CFR 60.756(b) (2) (ii)]

3. If the Permittee elects to comply with 40 CFR 60.752(b) (2) (iii) using an open flare, the Permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment: [40 CFR 60.756(c)]

I. 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. [40 CFR 60.756(c) (1)]

II. A device that records flow to or bypass of the flare. The Permittee shall either: [40 CFR 60.756(c) (2)]

a. Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or [40 CFR 60.756(c) (2) (i)]

b. 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 the gas flow is

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not diverted through
the bypass line. [40
CFR 60.756(c) (2) (ii)]

4. If the Permittee elects to comply with 40 CFR 60.752(b) (2) (iii) using a device other than an open flare or an enclosed combustor, the Permittee shall provide information satisfactory to the Illinois EPA or USEPA as provided in 40 CFR 60.752(b) (2) (i) (B) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Illinois EPA or USEPA shall review the information and either approve it, or request that additional information be submitted. The Illinois EPA or USEPA may specify additional appropriate monitoring procedures. [40 CFR 60.756(d)]
5. If the Permittee seeks to install a collection system that does not meet the specifications in 40 CFR 60.759 or seeking to monitor alternative parameters to those required by 40 CFR 60.753 through 40 CFR 60.756, the Permittee shall provide information satisfactory to the Illinois EPA or USEPA as provided in 40 CFR 60.752(b) (2) (i) (B) and (C) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Illinois EPA or USEPA may specify additional appropriate monitoring procedures. [40 CFR 60.756(e)]
6. If the Permittee seeks to demonstrate compliance with 40 CFR 60.755(c), the Permittee shall

monitor surface concentrations of methane according to the instrument specifications and procedures provided in 40 CFR 60.755(d). Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring. [40 CFR 60.756(f)]

7.3.10 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected landfill to demonstrate compliance with conditions 5.5.1 and 7.3.6, pursuant to Section 39.5(7)(b) of the Act:

- a. The Permittee shall maintain and retain the following general records:
 - i. Copies of any landfill gas analyses and net heating value determinations, including those required under Conditions 7.3.5 and 7.3.8 or as a part of a compliance determination under Condition 7.3.13, that may be conducted during the normal operation of the gas collection system;
 - ii. A summary of exceedances of the limits in Conditions 5.2.2(a), 7.3.5, 7.3.6 and 7.3.7, as applicable, which require notification to the Compliance Section in accordance with Condition 7.3.11(a).
 - iii. Copies of USEPA or Illinois EPA approval of alternative testing, monitoring, and compliance procedures in Conditions 7.3.5, 7.3.8, 7.3.9 and 7.3.13.
 - iv. As installed records of the landfill gas collection and control system including the following:

- A. As built diagrams and drawings of the collection system;
 - B. Identification of the make, model, specifications and manufacture of blower and enclosed flare;
 - C. Identification of the as built specifications of the gas collection system; and
 - D. Copies of all records required pursuant to the requirements of 35 IAC Subtitle G.
- v. Any operating parameters that are continuously monitored and recorded that are associated with proper operation of the affected emission units and/or control equipment including those parameters recorded pursuant to Condition 7.3.9.
- vi. Records of any periods of operation during which the control system exceeded the operating parameters preset by the flare manufacture or those established by the most recent performance test at which compliance with 40 CFR 60.752(b)(2)(iii) was determined. These incidents shall also be reported under 40 CFR 60.757(f).
- vii. Monthly and aggregate annual NMOC, VOM, PM, PM₁₀, NO_x, and SO₂ emissions from the affected MSW landfill and associated control system(s), (i.e., both controlled and uncontrolled emissions), calculated based on the compliance procedures in Condition 7.3.13, with supporting calculations;
- viii. A maintenance and repair log for the affected emission unit and/or control equipment, listing each activity performed with date. This requirement includes: replacement and repair of landfill gas collection and control system components; corrective actions undertaken to correct monitored operational exceedances as per 40 CFR 60.755 pursuant to 40 CFR 60.753; and the landfill cover inspection and repair requirement in Condition 7.3.9.

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- ix. Records for each startup of the control system that, as a minimum, shall include:
 - A. Duration of the startup, i.e. start time and time startup discontinued or normal operation achieved, i.e., stable operation;
 - B. Startups aborted due to control system malfunction;
 - C. The nature of visible emissions, i.e., severity and duration, during the startup and the nature of opacity at the conclusion of startup, if above normal; and
 - D. Whether exceedance of Conditions 7.3.5(a) (iii) and/or 7.3.6 may have occurred during startup, with explanation and estimated duration (minutes).

- b. The Permittee is required to comply with the requirements of the NSPS 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfills and/or any amendments promulgated by USEPA. These requirements include but are limited to the following:
 - i. The Permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered 40 CFR 60.752(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable. [40 CFR 60.758(a)]

 - ii. The Permittee shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in 40 CFR 60.758(b)(1) through (b)(4) as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal. [40 CFR 60.758(b)]

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- A. Records to demonstrate compliance with 40 CFR 60.752(b)(2)(ii) shall include: [40 CFR 60.758(b)(1)]
1. The maximum expected gas generation flow rate as calculated in 40 CFR 60.755(a)(1). The Permittee may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Illinois EPA or USEPA. [40 CFR 60.758(b)(1)(i)]
 2. The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 40 CFR 60.759(a)(1). [40 CFR 60.758(b)(1)(ii)]
- B. Records to demonstrate compliance with 40 CFR 60.752(b)(2)(iii) through the use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts shall include: [40 CFR 60.758(b)(2)]
1. The average combustion temperature measured at least every 15 minutes and averaged over the same time period of the performance test. [40 CFR 60.758(b)(2)(i)]
 2. The percent reduction of NMOC determined as specified in 40 CFR 60.752(b)(2)(iii)(B) achieved by the control device. [40 CFR 60.758(b)(2)(ii)]
- C. Records to demonstrate compliance with 40 CFR 60.752(b)(2)(iii)(B)(1) through use of a boiler or process heater of any size shall include: a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing. [40 CFR 60.758(b)(3)]

- D. Records to demonstrate compliance with compliance with 40 CFR 60.752(b)(2)(iii)(A) through use of an open flare shall include: the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent. [40 CFR 60.758(b)(4)]
- iii. The Permittee shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in 40 CFR 60.756 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. [40 CFR 60.758(c)]
- A. The following constitute exceedances that shall be recorded and reported under 40 CFR 60.757(f): [40 CFR 60.758(c)(1)]
 - 1. For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28°C below the average combustion temperature during the most recent performance test at which compliance with 40 CFR 60.752(b)(2)(iii) was determined. [40 CFR 60.758(c)(1)(i)]
 - 2. For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone

as required under paragraph (b) (3)
of this section. [40 CFR
60.758(c) (1) (ii)]

- B. The Permittee shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under 40 CFR 60.756. [40 CFR 60.758(c) (2)]
- iv. The Permittee shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector. These shall include: [40 CFR 60.758(d)]
 - A. Up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under 40 CFR 60.755(b). [40 CFR 60.758(d) (1)]
 - B. Readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in 40 CFR 60.759(a) (3) (i) as well as any nonproductive areas excluded from collection as provided in 40 CFR 60.759(a) (3) (ii). [40 CFR 60.758(d) (2)]
- v. The Permittee shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in 40 CFR 60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance. [40 CFR 60.758(e)]

7.3.11 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected MSW landfill with the permit requirements as follows, pursuant to Section 39.5(7) (f) (ii) of the Act.

Reports shall describe the probable cause of such deviations, any corrective actions or preventive measures taken; emissions released in accordance with recordkeeping requirements; and a copy of the relevant records.

- b. The Permittee is required to comply with the requirements of the NSPS 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfills and/or any amendments promulgated by USEPA. These requirements include but are limited to the following:

Except as provided in 40 CFR 60.752(b)(2)(i)(B),

- i. The Permittee shall submit a landfill closure report to the Illinois EPA, Compliance Section within 30 days of waste acceptance cessation. The Illinois EPA, Compliance Section may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the Illinois EPA, Compliance Section no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 60.7(a)(4). [40 CFR 60.757(d)]

In this case, landfill closure refers to the cessation of waste acceptance at the source and not the closing of individual cells or areas at the source.

- ii. The Permittee shall submit an equipment removal report to the Illinois EPA 30 days prior to removal or cessation of operation of the control equipment. [40 CFR 60.757(e)]
 - A. The equipment removal report shall contain all of the following items [40 CFR 60.757(e)(1)]:
 - 1. A copy of the closure report submitted in accordance with paragraph (d) of this section;

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2. A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired; and
 3. Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year.
- B. The Illinois EPA may request such additional information as may be necessary to verify that all of the conditions for removal in 40 CFR 60.752(b)(2)(v) have been met. [40 CFR 60.757(e)(2)]
- iii. The Permittee shall submit, to the Illinois EPA, annual reports of the recorded information in 40 CFR 60.757(f)(1) through (f)(6). The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under 40 CFR 60.8. For enclosed combustion devices and flares, reportable exceedances are defined under 40 CFR 60.758(c). [40 CFR 60.757(f)]
- A. Value and length of time for exceedance of applicable parameters monitored under 40 CFR 60.756(a), (b), (c), and (d). [40 CFR 60.757(f)(1)]
 - B. Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under §60.756. [40 CFR 60.757(f)(2)]
 - C. Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating. [40 CFR 60.757(f)(3)]

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- D. All periods when the collection system was not operating in excess of 5 days. [40 CFR 60.757(f) (4)]
- E. The location of each exceedance of the 500 parts per million methane concentration as provided in 40 CFR 60.753(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. [40 CFR 60.757(f) (5)]
- F. The date of installation and the location of each well or collection system expansion added pursuant to 40 CFR 60.755(a) (3), (b), and (c) (4). [40 CFR 60.757(f) (6)]

The above referenced reports may be submitted in conjunction with the annual emission report referenced in Condition 9.7.

- iv. The Permittee shall include the following information with the initial performance test report required under 40 CFR 60.8: [40 CFR 60.757(g)]
 - A. A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion; [40 CFR 60.757(g) (1)]
 - B. The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based; [40 CFR 60.757(g) (2)]
 - C. The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material; [40 CFR 60.757(g) (3)]

- D. The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area; [40 CFR 60.757(g) (4)]
- E. The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; [40 CFR 60.757(g) (5)] and
- F. The provisions for the control of off-site migration. [40 CFR 60.757(g) (6)]

7.3.12 Operational Flexibility/Anticipated Operating Scenarios

None

7.3.13 Compliance Procedures

Compliance with the limits in Conditions 5.5.1 and 7.3.6 shall be based on the recordkeeping requirements in Condition 7.3.10 and the emission factors and formulas listed below:

- a. Controlled and uncontrolled CO, NO_x, PM/PM₁₀, SO₂, methane, NMOC, VOM, and HAP emissions shall be calculated based upon the monitoring, recordkeeping, and reporting requirements in Conditions 7.3.8, 7.3.9, and 7.3.10; the USEPA Landfill Gas Emissions Model (See <http://www.epa.gov/ttn/chief> and AP-42, Chapter 2.4) and the landfill gas collection and control equipment efficiencies shown in AP-42, Chapter 2.4. The Permittee is allowed to use site-specific NMOC concentration and/or methane generation rate constant (k) determined through the procedures shown 40 CFR 60.754(a) and/or NMOC concentration, methane generation rate constant (k) and/or methane generation potential (Lo) approved by USEPA or Illinois EPA. In addition, the Permittee is allowed to use site specific emissions data recorded during landfill gas testing, provided that full documentation of the data and emissions calculations is provided as part of the emission report. It should be noted that approval must be made in writing for any changes made to standard USEPA methods.

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Default factor values are as follows:

Sulfur Concentration	46.9 ppm
Methane Concentration	55%
NMOC Concentration	766 ppm
Percent NMOC Reduction	98%

- b. Flare Emissions shall be calculated based upon the following emission factors and emission calculation equation; and the monitoring, recordkeeping, and reporting requirements in Conditions 7.3.8, 7.3.9, and 7.3.10:

CO, NO_x and PM/PM₁₀

<u>Pollutant</u>	<u>Emission Factor</u>	<u>Note</u>
CO	750 lb/10 ⁶ dscf methane	1
NO _x	40 lb/10 ⁶ dscf methane	1
PM/PM ₁₀	17 lb/10 ⁶ dscf methane	1

Notes:

- 1 Emission factor based upon AP-42 Section 2.4 (Table 2.4-5.);

Flare Emissions (lb) = (Landfill Gas Vented to the Flare, dscfm) x (The Appropriate Emission Factor, lb/dscf methane)/1,000,000 x 60 minutes/hour x Landfill Gas Methane Concentration (Percent)/100%)

SO₂ and VOM

<u>Pollutant</u>	<u>Emission Factor</u>	<u>Note</u>
SO ₂	7.79 lb/10 ⁶ dscf	1
NMOC	2.66 lb/10 ⁶ dscf	1
VOM	1.04 lb/10 ⁶ dscf	1

Notes:

1. Emission factor based upon the default sulfur concentration and AP-42 Section 2.4 (Table 2.4-5.) equations and calculation procedures;

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2. Emission factor based upon the default NMOC concentration and flare control efficiencies; and AP-42 Section 2.4 (Table 2.4-5.) equations and calculation procedures;
3. Emission factor based upon the default VOM and NMOC concentrations and flare control efficiencies; and AP-42 Section 2.4 (Table 2.4-5.) equations and calculation procedures;

Flare Emissions (lb) = (Landfill Gas Vented to the Flare, dscfm) x (The Appropriate Emission Factor, lb/dscf)/1,000,000 x 60 minutes/hour

7.4 Unit 03: 560 Gallon Gasoline Storage Tank
 Control: Submerged Fill Pipe and Vapor Control

7.4.1 Description

560-gallon storage tank used for the storage of gasoline that is dispensed to motor vehicles.

7.4.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
03	560 Gallon Gasoline	Submerged Fill Pipe and Vapor Control

7.4.3 Applicability Provisions and Applicable Regulations

- a. The "affected emission unit" for the purpose of these unit-specific conditions, is the Gasoline Tank described in Conditions 7.4.1 and 7.4.2.
- b. No person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 946 l (250 gal), unless such tank is equipped with a permanent submerged loading pipe or an equivalent device approved by the Illinois EPA according to the provisions of 35 IAC 201, or unless such tank is a pressure tank as described in 35 IAC 215.121(a) or is fitted with a recovery system as described in 35 IAC 215.121(b) (2) [35 IAC 215.122(b)].

If noodor nuisance exists the limitations of the above shall only apply to the loading of volatile organic liquid with a vapor pressure of 17.24 kPa (2.5 psia) or greater of 294.3°K (70°F). [35 IAC 215.122(c)]

Note: At the time of issuance of this permit, gasoline was the only volatile organic liquid loaded at the source.

"Submerged loading pipe", for purposes of the above is defined in 35 IAC 211.6470(a).

- c. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided

in 35 IAC 215.302, 215.303, or 215.304 and the following exemption: If no odor nuisance exists the limitation of 35 IAC 215 Subpart G shall only apply to photochemically reactive material [35 IAC 215.301].

- d. Pursuant to 35 IAC 215.583(a), no person shall cause or allow the transfer of gasoline from any delivery vessel into any stationary storage tank at a gasoline dispensing operation unless:
 - i. The tank is equipped with a submerged loading pipe [35 IAC 215.583(a)(1)]; and

As defined in 35 IAC 211.2590; a "Gasoline dispensing operation" or "Gasoline dispensing facility" means any site where gasoline is transferred from a stationary storage tank to a motor vehicle gasoline tank used to provide fuel to the engine of that motor vehicle

7.4.4 Non-Applicability of Regulations of Concern

- a. The affected tank is not subject to the NSPS for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984, 40 CFR 60 Subpart Kb, because the affected tank was constructed prior to 1984.
- b. The affected tank is not subject to the requirements of 35 IAC 215.123, Petroleum Liquid Storage Tanks, pursuant to 35 IAC 215.123(a)(2), which exempts storage tanks with a capacity less than 151.42 m³.
- c. The affected emission unit is not subject to the control and operational requirements listed in 35 IAC 215.583(a)(2), (c), and (d), because the applicability criteria in 35 IAC 215.583(b) exempts tanks with a capacity of less than 575 gallons.

7.4.5 Operational and Production Limits and Work Practices

- a. The affected tank shall only be used for the storage of gasoline.

- b. The affected gasoline tank shall be loaded via a permanent submerged loading pipe or equivalent device approved by the Illinois EPA. [35 IAC 215.583(a)(1)]

7.4.6 Emission Limitations

There are no specific emission limitations for this unit, however, there are source wide emission limitations in Condition 5.5 that include this unit.

7.4.7 Testing Requirements

None

7.4.8 Monitoring Requirements

None

7.4.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected tank to demonstrate compliance with Conditions 5.5.1, 7.4.3, and 7.4.5, pursuant to Section 39.5(7)(b) of the Act:

- a. Design information for the tank showing the presence of a permanent submerged loading pipe;
- b. Maintenance and repair records for the tank, as related to the repair or replacement of the loading pipe;
- c. The throughput of the affected tank, gal/yr; and
- d. The aggregate annual VOM emissions from the affected tank based on the material stored, the tank throughput, and the applicable emission factors and formulas with supporting calculations.

7.4.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected tank with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- a. Any storage of VOL in an affected tank that is not in compliance with the requirements of Conditions 7.4.3(b) and (d)(i) (see also 35 IAC 215.122(b) and 215.583(a)(1)), e.g., no "permanent submerged loading

pipe," within five days of becoming aware of the non-compliance status. This notification shall include a description of the event, the cause for the non-compliance, actions taken to correct the non-compliance, and the steps taken to avoid future non-compliance.

- b. Any storage of VOL in an affected tank that is out of compliance with the requirements of Conditions 7.4.3(b) and (d) (i) (see also 35 IAC 215.122(b) and 215.583(a) (1)) due to damage, deterioration, or other condition of the loading pipe, within 30 days of becoming aware of the non-compliance status. This notification shall include a description of the event, the cause for the non-compliance, actions taken to correct the non-compliance, and the steps to be taken to avoid future non-compliance.
- c. The storage of any VOL or VPL other than the material specified in Condition 7.4.5(a) within 30 days of becoming aware of the non-compliance status. This notification shall include a description of the event, the cause for the non-compliance, actions taken to correct the non-compliance, and the steps to be taken to avoid future non-compliance.

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.4.12 Compliance Procedures

- a. Compliance with Condition 7.4.3(c) is assured as long as the Permittee meets the operating requirements of Condition 7.4.5.
- b. Compliance with Condition 5.5 shall be determined using the recordkeeping requirements of Condition 7.4.9 and the following emission factors:

For the purpose of estimating VOM emissions from the affected tanks to determine compliance with Conditions 5.5.1 and 7.4.3(c), Versions 3.1 or 4.0 or the most recent version of the TANKS program as published by the USEPA are acceptable.

7.5 Unit: 50,000 Gallon Leachate Storage Tank
 Control: None

7.5.1 Description

Leachate storage tank used to store landfill leachate collected onsite.

7.5.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
02	50,000 Gallon Leachate Storage Tank	None

7.5.3 Applicability Provisions and Applicable Regulations

- a. The "affected emission unit" for the purpose of these unit-specific conditions, is the leachate/condensate storage tank described in Conditions 7.5.1 and 7.5.2.
- b. The affected tanks is subject to the NSPS for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984, 40 CFR 60 Subpart Kb, because the affected tank has a capacity greater than or equal to 40 m³ (10,566 gallons) and is used to store Volatile organic liquids (VOLs) for which construction, reconstruction, or modification is commenced after July 23, 1984. [40 CFR 60.110b(a)]

As per 40 CFR 60.111b(k), Volatile organic liquid (VOL) means any organic liquid which can emit volatile organic compounds into the atmosphere except those VOLs that emit only those compounds which the USEPA has determined do not contribute appreciably to the formation of ozone. These compounds are identified in USEPA statements on ozone abatement policy for SIP revisions (42 FR 35314, 44 FR 32042, 45 FR 32424, and 45 FR 48941).

7.5.4 Non-Applicability of Regulations of Concern

- a. Except as provided in Condition 7.5.9(a) (see also 40 CFR 60.116b(c)), the affected emission unit is exempt from the General Provisions of the NSPS and from the provisions of 40 CFR 60 Subpart Kb because the affected emission unit has a design capacity greater

151 m³ (39,900 gal.) storing a liquid with a maximum true vapor pressure less than 3.5 kPa (0.51 psia).
[40 CFR 60.110b(c)]

- b. The affected tank is not subject to the limitations of 35 IAC 215.121, Storage Containers, because the material stored in the affected tank has a maximum true vapor pressure of less than 2.5 psia.
- c. The affected tank is not subject to the requirements of 35 IAC 215.123 - Petroleum Liquid Storage Tanks, pursuant to 35 IAC 215.123(a)(6), which exempts stationary storage tanks in which volatile petroleum liquid is not stored. Landfill leachate/condensate is not included in the definition of VPL, pursuant to 35 IAC 211.4610 and 211.7170.
- d. The affected tank is not subject to the requirements of 35 IAC 215.122, Loading Operations, because pursuant to 35 IAC 215.122(c), if no odor nuisance exists the limitations of 35 IAC 215.122 shall only apply to the loading of VOL with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F).

7.5.5 Operational and Production Limits and Work Practices

The affected tanks shall only be used for the storage of landfill leachate and condensates collected onsite from the landfill gas and leachate collection system(s).

7.5.6 Emission Limitations

There are no specific emission limitations for this unit; however, there are source wide emission limitations in Condition 5.5 that include this unit.

7.5.7 Testing Requirements

None

7.5.8 Monitoring Requirements

None

7.5.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected emission unit to demonstrate compliance with Conditions 5.5.1 and 7.5.3 pursuant to Section 39.5(7)(b) of the Act:

- a. Readily accessible records showing the dimension of the storage vessels and an analysis showing the capacity of the storage vessels. This record shall be kept for the life of the source [40 CFR 60.110b(a) and (c), 60.116b(a), and 60.116b(b)].
- b. The throughput of the affected tanks (gal/yr); and
- c. Copies of all analyses, throughput records...etc. required to be maintained under 35 IAC Subtitle C: Water Pollution and/or Subtitle G: Waste Disposal.
- d. The annual VOM emissions from the affected emission unit based on the material stored, the tank throughput, and the applicable emission factors and formulas with supporting calculations.

7.5.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected tank with the permit requirements as follows pursuant to Section 39.5(7)(f)(iii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

The storage of anything other than the material specified in Condition 7.5.5 within 30 days of becoming aware of the non-compliance status. This notification shall include a description of the event, the cause for the non-compliance, actions taken to correct the non-compliance, and the steps to be taken to avoid future non-compliance.

7.5.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.5.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.5.9 and the emission factors and formulas listed below:

For the purpose of estimating VOM emissions from the affected tanks to determine compliance with Conditions 5.5.1, USEPA's emission calculation programs TANKS (either Versions 3.1 or 4.0), WATER8 or WATER9 are acceptable.

8.0 GENERAL PERMIT CONDITIONS

8.1 Permit Shield

Pursuant to Section 39.5(7)(j) of the Act, the Permittee has requested and has been granted a permit shield. This permit shield provides that compliance with the conditions of this permit shall be deemed compliance with applicable requirements which were applicable as of the date the proposed permit for this source was issued, provided that either the applicable requirements are specifically identified within this permit, or the Illinois EPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to this source and this determination (or a concise summary thereof) is included in this permit.

This permit shield does not extend to applicable requirements which are promulgated after _____ **{insert public notice start date}** (the date of issuance of the draft permit) unless this permit has been modified to reflect such new requirements.

8.2 Applicability of Title IV Requirements (Acid Deposition Control)

This source is not an affected source under Title IV of the CAA and is not subject to requirements pursuant to Title IV of the CAA.

8.3 Emissions Trading Programs

No permit revision shall be required for increases in emissions allowed under any USEPA approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for elsewhere in this permit and that are authorized by the applicable requirement [Section 39.5(7)(o)(vii) of the Act].

As of the date of issuance of this permit, there are no such economic incentive, marketable permit or emission trading programs that have been approved by USEPA.

8.4 Operational Flexibility/Anticipated Operating Scenarios

8.4.1 Changes Specifically Addressed by Permit

Physical or operational changes specifically addressed by the Conditions of this permit that have been identified as not requiring Illinois EPA notification may be implemented without prior notice to the Illinois EPA.

8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes that contravene express permit terms without applying for or obtaining an amendment to this permit, provided that [Section 39.5(12) (a) (i) of the Act]:

- a. The changes do not violate applicable requirements;
- b. The changes do not contravene federally enforceable permit terms or conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements;
- c. The changes do not constitute a modification under Title I of the CAA;
- d. Emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change; and
- e. The Permittee provides written notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change. This notice shall:
 - i. Describe the physical or operational change;
 - ii. Identify the schedule for implementing the physical or operational change;
 - iii. Provide a statement of whether or not any New Source Performance Standard (NSPS) is applicable to the physical or operational change and the reason why the NSPS does or does not apply;
 - iv. Provide emission calculations which demonstrate that the physical or operational change will not result in a modification; and
 - v. Provide a certification that the physical or operational change will not result in emissions greater than authorized under the Conditions of this permit.

8.5 Testing Procedures

Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods. Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of any tests conducted as required by this permit or as the result of a request by the Illinois EPA shall be submitted as specified in Condition 8.6.

8.6 Reporting Requirements

8.6.1 Monitoring Reports

If monitoring is required by any applicable requirements or conditions of this permit, a report summarizing the required monitoring results, as specified in the conditions of this permit, shall be submitted to the Air Compliance Section of the Illinois EPA every six months as follows [Section 39.5(7)(f) of the Act]:

<u>Monitoring Period</u>	<u>Report Due Date</u>
January - June	September 1
July - December	March 1

All instances of deviations from permit requirements must be clearly identified in such reports. All such reports shall be certified in accordance with Condition 9.9.

8.6.2 Test Notifications

Unless otherwise specified elsewhere in this permit, a written test plan for any test required by this permit shall be submitted to the Illinois EPA for review at least 60 days prior to the testing pursuant to Section 39.5(7)(a) of the Act. The notification shall include at a minimum:

- a. The name and identification of the affected unit(s);
- b. The person(s) who will be performing sampling and analysis and their experience with similar tests;
- c. The specific conditions under which testing will be performed, including a discussion of why these

conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;

- d. The specific determination of emissions and operation which are intended to be made, including sampling and monitoring locations;
- e. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods;
- f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification; and
- g. Any proposed use of an alternative test method, with detailed justification.

8.6.3 Test Reports

Unless otherwise specified elsewhere in this permit, the results of any test required by this permit shall be submitted to the Illinois EPA within 60 days of completion of the testing. The test report shall include at a minimum [Section 39.5(7) (e) (i) of the Act]:

- a. The name and identification of the affected unit(s);
- b. The date and time of the sampling or measurements;
- c. The date any analyses were performed;
- d. The name of the company that performed the tests and/or analyses;
- e. The test and analytical methodologies used;
- f. The results of the tests including raw data, and/or analyses including sample calculations;
- g. The operating conditions at the time of the sampling or measurements; and
- h. The name of any relevant observers present including the testing company's representatives, any Illinois EPA or USEPA representatives, and the representatives of the source.

8.6.4 Reporting Addresses

- a. The following addresses should be utilized for the submittal of reports, notifications, and renewals:
- i. Illinois EPA - Air Compliance Section
Illinois Environmental Protection Agency
Bureau of Air
Compliance Section (MC 40)
P.O. Box 19276
Springfield, Illinois 62794-9276
 - ii. Illinois EPA - Air Regional Field Office
Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016
 - iii. Illinois EPA - Air Permit Section
Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section (MC 11)
P.O. Box 19506
Springfield, Illinois 62794-9506
 - iv. USEPA Region 5 - Air Branch
USEPA (AE - 17J)
Air and Radiation Division
77 West Jackson Boulevard
Chicago, Illinois 60604
- b. Unless otherwise specified in the particular provision of this permit, reports shall be sent to the Illinois EPA - Air Compliance Section with a copy sent to the Illinois EPA - Air Regional Field Office.

8.7 Obligation to Comply with Title I Requirements

Any term, condition, or requirement identified in this permit by T1, T1R, or T1N is established or revised pursuant to 35 IAC Part 203 or 40 CFR 52.21 ("Title I provisions") and incorporated into this permit pursuant to both Section 39.5 and Title I provisions. Notwithstanding the expiration date on the first page of this permit, the Title I conditions remain in effect pursuant to Title I provisions until the Illinois EPA deletes or revises them in accordance with Title I procedures.

9.0 STANDARD PERMIT CONDITIONS

9.1 Effect of Permit

- 9.1.1 The issuance of this permit does not release the Permittee from compliance with State and Federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or applicable ordinances, except as specifically stated in this permit and as allowed by law and rule [Section 39.5(7)(j)(iv) of the Act].
- 9.1.2 In particular, this permit does not alter or affect the following:
- a. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section;
 - b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
 - c. The applicable requirements of the acid rain program consistent with Section 408(a) of the CAA; and
 - d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.
- 9.1.3 Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

9.2 General Obligations of Permittee

9.2.1 Duty to Comply

The Permittee must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act, and is grounds for any or all of the following: enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application [Section 39.5(7)(o)(i) of the Act].

The Permittee shall meet applicable requirements that become effective during the permit term in a timely manner unless an alternate schedule for compliance with the applicable requirement is established.

9.2.2 Duty to Maintain Equipment

The Permittee shall maintain all equipment covered under this permit in such a manner that the performance or operation of such equipment shall not cause a violation of applicable requirements.

9.2.3 Duty to Cease Operation

No person shall cause, threaten or allow the continued operation of any emission unit during malfunction or breakdown of the emission unit or related air pollution control equipment if such operation would cause a violation of an applicable emission standard, regulatory requirement, ambient air quality standard or permit limitation unless such malfunction or breakdown is allowed by a permit condition [Section 39.5(6)(c) of the Act].

9.2.4 Disposal Operations

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated there under.

9.2.5 Duty to Pay Fees

The Permittee must pay fees to the Illinois EPA consistent with the fee schedule approved pursuant to Section 39.5(18) of the Act, and submit any information relevant thereto [Section 39.5(7)(o)(vi) of the Act]. The check should be payable to "Treasurer, State of Illinois" and sent to: Fiscal Services Section, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, Illinois 62794-9276.

9.3 Obligation to Allow Illinois EPA Surveillance

Upon presentation of proper credentials and other documents, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Section 39.5(7)(a) and (p)(ii) of the Act and 415 ILCS 5/4]:

- a. Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated equipment, operation, or activity is located or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- d. Sample or monitor any substances or parameters at any location:
 - i. At reasonable times, for the purposes of assuring permit compliance; or
 - ii. As otherwise authorized by the CAA, or the Act.
- e. Obtain and remove samples of any discharge or emission of pollutants authorized by this permit; and
- f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source authorized by this permit.

9.4 Obligation to Comply with Other Requirements

The issuance of this permit does not release the Permittee from applicable State and Federal laws and regulations, and applicable local ordinances addressing subjects other than air pollution control.

9.5 Liability

9.5.1 Title

This permit shall not be considered as in any manner affecting the title of the premises upon which the permitted source is located.

9.5.2 Liability of Permittee

This permit does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the sources.

9.5.3 Structural Stability

This permit does not take into consideration or attest to the structural stability of any unit or part of the source.

9.5.4 Illinois EPA Liability

This permit in no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the source.

9.5.5 Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege [Section 39.5(7) (o) (iv) of the Act].

9.6 Recordkeeping

9.6.1 Control Equipment Maintenance Records

A maintenance record shall be kept on the premises for each item of air pollution control equipment. As a minimum, this record shall show the dates of performance and nature of preventative maintenance activities.

9.6.2 Records of Changes in Operation

A record shall be kept describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes [Section 39.5(12) (b) (iv) of the Act].

9.6.3 Retention of Records

- a. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit [Section 39.5(7) (e) (ii) of the Act].

- b. Other records required by this permit shall be retained for a period of at least 5 years from the date of entry unless a longer period is specified by a particular permit provision.

9.7 Annual Emissions Report

The Permittee shall submit an annual emissions report to the Illinois EPA, Compliance Section no later than May 1 of the following year, as required by 35 IAC Part 254.

9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7)(p)(v) of the Act, the Permittee shall submit annual compliance certifications. The compliance certifications shall be submitted no later than May 1 or more frequently as specified in the applicable requirements or by permit condition. The compliance certifications shall be submitted to the Air Compliance Section, Air Regional Field Office, and USEPA Region 5 - Air Branch. The addresses for the submittal of the compliance certifications are provided in Condition 8.6.4 of this permit.

- a. The certification shall include the identification of each term or condition of this permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.
- b. All compliance certifications shall be submitted to USEPA Region 5 in Chicago as well as to the Illinois EPA.
- c. All compliance reports required to be submitted shall include a certification in accordance with Condition 9.9.

9.9 Certification

Any document (including reports) required to be submitted by this permit shall contain a certification by a responsible official of the Permittee that meets the requirements of Section 39.5(5) of the Act [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as an attachment to this permit.

9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit [Section 39.5(7)(o)(ii) of the Act].

9.10.2 Emergency Provision

- a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technology-based emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:
 - i. An emergency occurred as provided in Section 39.5(7)(k) of the Act and the Permittee can identify the cause(s) of the emergency. Normally, an act of God such as lightning or flood is considered an emergency;
 - ii. The permitted source was at the time being properly operated;
 - iii. The Permittee submitted notice of the emergency to the Illinois EPA within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and
 - iv. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.
- b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations.

9.11 Permanent Shutdown

This permit only covers emission units and control equipment while physically present at the indicated source location(s). Unless this permit specifically provides for equipment relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

9.12 Reopening and Reissuing Permit for Cause

9.12.1 Permit Actions

This permit may be modified, reopened, and reissued, for cause pursuant to Section 39.5(15) of the Act. The filing of a request by the Permittee for a permit modification, revocation, and reissuance, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition [Section 39.5(7)(o)(iii) of the Act].

9.12.2 Reopening and Revision

This permit must be reopened and revised if any of the following occur [Section 39.5(15)(a) of the Act]:

- a. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit;
- b. Additional requirements become applicable to an affected source for acid deposition under the acid rain program;
- c. The Illinois EPA or USEPA determines that this permit contains a material mistake or inaccurate statement when establishing the emission standards or limitations, or other terms or conditions of this permit; and
- d. The Illinois EPA or USEPA determines that this permit must be revised to ensure compliance with the applicable requirements of the Act.

9.12.3 Inaccurate Application

The Illinois EPA has issued this permit based upon the information submitted by the Permittee in the permit application. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation under Section 39.5(15)(b) of the Act.

9.12.4 Duty to Provide Information

The Permittee shall furnish to the Illinois EPA, within a reasonable time specified by the Illinois EPA any information that the Illinois EPA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Illinois EPA copies of records required to be kept by this permit, or for information claimed to be confidential, the Permittee may furnish such records directly to USEPA along with a claim of confidentiality [Section 39.5(7)(o)(v) of the Act].

9.13 Severability Clause

The provisions of this permit are severable, and should any one or more be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected. The rights and obligations of the Permittee shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements underlying these provisions shall remain in force [Section 39.5(7)(i) of the Act].

9.14 Permit Expiration and Renewal

The right to operate terminates on the expiration date unless the Permittee has submitted a timely and complete renewal application. For a renewal to be timely it must be submitted no later than 9 and no sooner than 12 months prior to expiration. The equipment may continue to operate during the renewal period until final action is taken by the Illinois EPA, in accordance with the original permit conditions [Section 39.5(5)(1), (n), and (o) of the Act].

10.0 ATTACHMENTS

10.1 Attachment 1 - Summary of Emission Units

Emission Unit	Description	Significant Dates	Emission Control Equipment
01	Prairie Hill RDF ¹ (LF1)	Commenced Construction April 1996 Initiated Waste Disposal Operations August 1996	Open Flare ³
02	Whiteside County Landfill ² (LF2)	Commenced Construction 1968 Closed 1992	Open Flare ³
03	560 Gallon Gasoline		Submerged Fill Pipe and Vapor Control
04	50,000 Gallon Leachate Aboveground Storage Tank	----	None

¹ Active landfill owned by Whiteside County and operated by Waste Management of Illinois, Inc.

² Closed landfill owned and operated by Whiteside County

³ Open flare (Control 01) owned and operated by Whiteside County

10.2 Attachment 2 - Example Certification by a Responsible Official

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____

Name: _____

Official Title: _____

Telephone No.: _____

Date Signed: _____

10.3 Attachment 3 - Guidance on Revising This Permit

The Permittee must submit an application to the Illinois EPA using the appropriate revision classification in accordance with Sections 39.5(13) and (14) of the Act and 35 IAC 270.302. Specifically, there are currently three classifications for revisions to a CAAPP permit. These are:

1. Administrative Permit Amendment;
2. Minor Permit Modification; and
3. Significant Permit Modification.

The Permittee must determine, request, and submit the necessary information to allow the Illinois EPA to use the appropriate procedure to revise the CAAPP permit. A brief explanation of each of these classifications follows.

1. Administrative Permit Amendment
 - Corrects typographical errors;
 - Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at the source;
 - Requires more frequent monitoring or reporting by the Permittee;
 - Allows for a change in ownership or operational control of the source where no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new Permittees has been submitted to the Illinois EPA;
 - Incorporates into the CAAPP permit a construction permit, provided the conditions of the construction permit meet the requirements for the issuance of CAAPP permits; or
 - Incorporates into the CAAPP permit revised limitations or other requirements resulting from the application of an approved economic incentives rule, marketable permits rule, or generic emissions trading rule.

2. Minor Permit Modification

- Do not violate any applicable requirement;
- Do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;
- Do not require a case-by-case determination of an emission limitation or other standard, or a source-specific determination of ambient impacts, or a visibility or increment analysis;
- Do not seek to establish or change a permit term or condition for which there is no corresponding underlying requirement and which avoids an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
 - A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the CAA; and
 - An alternative emissions limit approved pursuant to regulations promulgated under Section 112(i)(5) of the CAA.
- Are not modifications under any provision of Title I of the CAA; and
- Are not required to be processed as a significant permit modification.

An application for a minor permit modification shall include the following:

- A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
- The source's suggested draft permit/conditions;
- Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and

- Information as contained on form 271-CAAPP for the Illinois EPA to use to notify USEPA and affected States.

3. Significant Permit Modification

- Applications that do not qualify as either minor permit modifications or as administrative permit amendments;
- Applications requesting a significant change in existing monitoring permit terms or conditions;
- Applications requesting a relaxation of reporting or recordkeeping requirements; and
- Cases in which, in the judgment of the Illinois EPA, action on an application for modification would require decisions to be made on technically complex issues.

An application for a significant permit modification shall include the following:

- A detailed description of the proposed change(s), including all physical changes to equipment, changes in the method of operation, changes in emissions of each pollutant, and any new applicable requirements which will apply as a result of the proposed change. Note that the Permittee need only submit revised forms for equipment and operations that will be modified.

The Illinois EPA requires the information on the following appropriate forms to be submitted in accordance with the proper classification:

- Form 273-CAAPP, REQUEST FOR ADMINISTRATIVE PERMIT AMENDMENT FOR CAAPP PERMIT; or
- Form 271-CAAPP, MINOR PERMIT MODIFICATION FOR CAAPP PERMIT; or
- Form 200-CAAPP, APPLICATION FOR CAAPP PERMIT (for significant modification).

Application forms can be obtained from the Illinois EPA website at <http://www.epa.state.il.us/air/forms>.

FINAL DRAFT/PROPOSED CAAPP PERMIT
Prairie Hill RDF/Whiteside County Landfill
I.D. Number: 195814AAF
Application No.: 98120018
July 18, 2003

Note that the request to revise the permit must be certified for truth, accuracy, and completeness by a responsible official.

Note that failure to submit the required information may require the Illinois EPA to deny the application. The Illinois EPA reserves the right to require that additional information be submitted as needed to evaluate or take final action on applications pursuant to Section 39.5(5)(g) of the Act and 35 IAC 270.305.



Illinois Environmental Protection Agency
 Division Of Air Pollution Control -- Permit Section
 P.O. Box 19506
 Springfield, Illinois 62794-9506

Application For Construction Permit (For CAAPP Sources Only)	For Illinois EPA use only
	I.D. number:
	Permit number:
Date received:	

This form is to be used by CAAPP sources to supply information necessary to obtain a construction permit. Please attach other necessary information and completed CAAPP forms regarding this construction/modification project.

Source Information		
1. Source name:		
2. Source street address:		
3. City:	4. Zip code:	
5. Is the source located within city limits? <input type="checkbox"/> Yes <input type="checkbox"/> No		
6. Township name:	7. County:	8. I.D. number:

Owner Information		
9. Name:		
10. Address:		
11. City:	12. State:	13. Zip code:

Operator Information (if different from owner)		
14. Name		
15. Address:		
16. City:	17. State:	18. Zip code:

Applicant Information	
19. Who is the applicant? <input type="checkbox"/> Owner <input type="checkbox"/> Operator	20. All correspondence to: (check one) <input type="checkbox"/> Owner <input type="checkbox"/> Operator <input type="checkbox"/> Source
21. Attention name and/or title for written correspondence:	
22. Technical contact person for application:	23. Contact person's telephone number:

This Agency is authorized to require and you must disclose this information under 415 ILCS 5/39. Failure to do so could result in the application being denied and penalties under 415 ILCS 5 et seq. It is not necessary to use this form in providing this information. This form has been approved by the forms management center.

Summary Of Application Contents	
24. Does the application address whether the proposed project would constitute a new major source or major modification under each of the following programs: a) Non-attainment New Source Review – 35 IAC Part 203; b) Prevention of Significant Deterioration (PSD) – 40 CFR 52.21; c) Hazardous Air Pollutants: Regulations Governing Constructed or Reconstructed Major Sources – 40 CFR Part 63?	<input type="checkbox"/> Yes <input type="checkbox"/> No
25. Does the application identify and address all applicable emissions standards, including those found in the following: a) Board Emission Standards – 35 IAC Chapter I, Subtitle B; b) Federal New Source Performance Standards – 40 CFR Part 60; c) Federal Standards for Hazardous Air Pollutants – 40 CFR Parts 61 and 63?	<input type="checkbox"/> Yes <input type="checkbox"/> No
26. Does the application include a process flow diagram(s) showing all emission units and control equipment, and their relationship, for which a permit is being sought?	<input type="checkbox"/> Yes <input type="checkbox"/> No
27. Does the application include a complete process description for the emission units and control equipment for which a permit is being sought?	<input type="checkbox"/> Yes <input type="checkbox"/> No
28. Does the application include the information as contained in completed CAAPP forms for all appropriate emission units and air pollution control equipment, listing all applicable requirements and proposed exemptions from otherwise applicable requirements, and identifying and describing any outstanding legal actions by either the USEPA or the Illinois EPA? Note: The use of "APC" application forms is not appropriate for applications for CAAPP sources. CAAPP forms should be used to supply information.	<input type="checkbox"/> Yes <input type="checkbox"/> No
29. If the application contains TRADE SECRET information, has such information been properly marked and claimed, and have two separate copies of the application suitable for public inspection and notice been submitted, in accordance with applicable rules and regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable, No TRADE SECRET information in this application

Note 1: Answering "No" to any of the above may result in the application being deemed incomplete.

Signature Block	
This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete.	
30. I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate and complete. Authorized Signature:	
_____ AUTHORIZED SIGNATURE	_____ TITLE OF SIGNATORY
_____ TYPED OR PRINTED NAME OF SIGNATORY	_____ / _____ / _____ DATE

Note 2: An operating permit for the construction/modification permitted in a construction permit must be obtained by applying for the appropriate revision to the source's CAAPP permit, if necessary.

10.5 Attachment 5 - Guidance on Renewing This Permit

Timeliness - Pursuant to Section 39.5(5)(n) of the Act and 35 IAC 270.301(d), a source must submit to the Illinois EPA a complete CAAPP application for the renewal of a CAAPP permit not later than 9 months before the date of permit expiration of the existing CAAPP permit in order for the submittal to be deemed timely. Note that the Illinois EPA typically sends out renewal notices approximately 18 months prior to the expiration of the CAAPP permit.

The CAAPP application must provide all of the following information in order for the renewal CAAPP application to be deemed complete by the Illinois EPA:

1. A completed renewal application form 200-CAAPP, APPLICATION FOR CAAPP PERMIT.
2. A completed compliance plan form 293-CAAPP, COMPLIANCE PLAN/SCHEDULE OF COMPLIANCE FOR CAAPP PERMIT.
3. A completed compliance certification form 296-CAAPP, COMPLIANCE CERTIFICATION, signed by the responsible official.
4. Any applicable requirements that became effective during the term of the permit and that were not included in the permit as a reopening or permit revision.
5. If this is the first time this permit is being renewed and this source has not yet addressed CAM, the application should contain the information on form 464-CAAPP, COMPLIANCE ASSURANCE MONITORING (CAM) PLAN.
6. Information addressing any outstanding transfer agreement pursuant to the ERMS.
7. a. If operations of an emission unit or group of emission units remain unchanged and are accurately depicted in previous submittals, the application may contain a letter signed by a responsible official that requests incorporation by reference of existing information previously submitted and on file with the Illinois EPA. This letter must also include a statement that information incorporated by reference is also being certified for truth and accuracy by the responsible official's signing of the form 200-CAAPP, APPLICATION FOR CAAPP PERMIT and the form 296-CAAPP, COMPLIANCE CERTIFICATION. The boxes should be marked yes on form 200-CAAPP, APPLICATION FOR CAAPP PERMIT, as existing information is being incorporated by reference.

FINAL DRAFT/PROPOSED CAAPP PERMIT
Prairie Hill RDF/Whiteside County Landfill
I.D. Number: 195814AAF
Application No.: 98120018
July 18, 2003

- b. If portions of current operations are not as described in previous submittals, then in addition to the information above for operations that remain unchanged, the application must contain the necessary information on all changes, e.g., discussion of changes, new or revised CAAPP forms, and a revised fee form 292-CAAPP, FEE DETERMINATION FOR CAAPP PERMIT, if necessary.
8. Information about all off-permit changes that were not prohibited or addressed by the permit to occur without a permit revision and the information must be sufficient to identify all applicable requirements, including monitoring, recordkeeping, and reporting requirements, for such changes.
9. Information about all changes made under 40 CFR 70.4(b)(12)(i) and (ii) that require a 7-day notification prior to the change without requiring a permit revision.

The Illinois EPA will review all applications for completeness and timeliness. If the renewal application is deemed both timely and complete, the source shall continue to operate in accordance with the terms and conditions of its CAAPP permit until final action is taken on the renewal application.

Notwithstanding the completeness determination, the Illinois EPA may request additional information necessary to evaluate or take final action on the CAAPP renewal application. If such additional information affects your allowable emission limits, a revised form 292-CAAPP, FEE DETERMINATION FOR CAAPP PERMIT must be submitted with the requested information. The failure to submit to the Illinois EPA the requested information within the time frame specified by the Illinois EPA, may force the Illinois EPA to deny your CAAPP renewal application pursuant to Section 39.5 of the Act.

Application forms may be obtained from the Illinois EPA website at <http://www.epa.state.il.us/air/forms.html>.

If you have any questions regarding this matter, please contact a permit analyst at 217/782-2113.

Mail renewal applications to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section (MC 11)
P.O. Box 19506
Springfield, Illinois 62794-9506

MED:jar

I. INTRODUCTION

This source has applied for a Clean Air Act Permit Program (CAAPP) operating permit for its existing operation. The CAAPP is the program established in Illinois for the operating permits for significant stationary sources required by the federal Clean Air Act, as amended in 1990. The conditions in a CAAPP permit are enforceable by both the Illinois Environmental Protection Agency (Illinois EPA) and the USEPA.

The Prairie Hill RDF and Whiteside County Landfill are located at 18762 Lincoln Road near Morrison, Illinois. The Prairie Hill RDF is owned by Whiteside County and operated by Waste Management of Illinois, Inc. while the Whiteside County Landfill is both owned and operated by Whiteside County. Currently waste operations have ceased at the Whiteside County Landfill while the Prairie Hill RDF is still accepting wastes. Both disposal sites comprise a single MSW landfill.

A MSW landfill is defined as an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. An MSW landfill may also receive other types of RCRA Subtitle D wastes (40 CFR 257.2) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste.

Landfill gas emissions from the source are generated from the decomposition of putrescible materials deposited in the landfill. Landfill gas is composed primarily of methane and carbon dioxide. A small percentage of other constituents present in the gas include hydrogen sulfide and nonmethane organic compound(s) (NMOC).

Other emissions at the source include: particulate matter emissions (fugitive dust) generated from roads and excavation activities; VOM emissions from the leachate and gasoline storage tanks; and combustion emissions (NO_x, CO, SO₂, PM/PM₁₀, and VOM) from the landfill control system (i.e., onsite open flare owned and operated by Whiteside County).

II. EMISSION UNITS

Significant emission units at this source are as follows:

Emission Unit	Description	Significant Dates	Emission Control Equipment
01	Prairie Hill RDF ¹ (LF1)	Commenced Construction April 1996 Operation August 1996	Open Flare ²

Emission Unit	Description	Significant Dates	Emission Control Equipment
02	Whiteside County Landfill ³ (LF2)	Commenced Construction 1968 Closed 1992	Open Flare ²
03	560 Gallon Gasoline Storage Tank	----	Submerged Fill Pipe and Vapor Control
04	50,000 Gallon Leachate Storage Tank	----	None

¹ Active landfill area owned by Whiteside County and operated by Waste Management of Illinois, Inc.

² Open flare owned and operated by Whiteside County (Condition 7.3)

³ Closed landfill area owned and operated by Whiteside County

III. EMISSIONS

This source is required to have a CAAPP permit since it is a major source of emissions.

For purposes of fees, the source is allowed the following emissions:

Pollutant	Tons/Year
Volatile Organic Material (VOM)	1.62
Sulfur Dioxide (SO ₂)	3.27
Particulate Matter (PM)	65.59
Nitrogen Oxides (NO _x)	7.07
HAP, not included in VOM or PM	----
Total	77.55

This permit is a combined Title I/CAAPP permit that may contain terms and conditions which address the applicability, and compliance if determined applicable, of Title I of the Clean Air Act and regulations promulgated thereunder, including 40 CFR 52.21 - federal Prevention of Significant Deterioration (PSD) and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within the permit by T1, T1R, or T1N. The source has requested that the Illinois EPA establish or revise such conditions in a Title I permit, consistent with the information provided in the CAAPP application. Any conditions established in a construction permit pursuant to Title I and not revised or deleted in this permit, remain in effect pursuant to Title I provisions until such time that the Illinois EPA revises or deletes them.

IV. APPLICABLE EMISSION STANDARDS

All emission sources in Illinois must comply with the Illinois Pollution Control Board's emission standards. The Board's emission standards represent the basic requirements for sources in Illinois.

All emission sources in Illinois must comply with the federal New Source Performance Standards (NSPS). The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.

All emission sources in Illinois must comply with the federal National Emission Standards for Hazardous Air Pollutants (NESHAP). The Illinois EPA is administering NESHAP in Illinois on behalf of the United States EPA under a delegation agreement.

V. PROPOSED PERMIT

CAAPP

A CAAPP permit contains all conditions that apply to a source and a listing of the applicable state and federal air pollution control regulations that are the origin of the conditions. The permit also contains emission limits and appropriate compliance procedures. The appropriate compliance procedures may include inspections, work practices, monitoring, record keeping, and reporting to show compliance with these requirements. The Permittee must carry out these procedures on an on-going basis.

Title I

A combined Title I/CAAPP permit contains terms and conditions established by the Illinois EPA pursuant to authority found in Title I provisions, e.g., 40 CFR 52.21 - federal Prevention of Significant Deterioration (PSD) and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Notwithstanding the expiration date on the first page of the permit, the Title I conditions remain in effect pursuant to Title I provisions until the Illinois EPA deletes or revises them in accordance with Title I procedures.

VI. REQUEST FOR COMMENTS

It is the Illinois EPA's preliminary determination that this source's permit application meets the standards for issuance of a CAAPP permit. The Illinois EPA is therefore proposing to issue a CAAPP permit, subject to the conditions proposed in the draft permit.

Comments are requested on this proposed action by the Illinois EPA and the proposed conditions on the draft permit. If substantial public interest is shown in this matter, the Illinois EPA will consider holding a public hearing in accordance with 35 Ill. Adm. Code Part 166.