

217/782-2113

CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT

PERMITTEE:

Saline County Landfill, Inc.
Attn: Allen Steinkamp, Environmental Manager
13570 St. Charles Rock Road
Bridgeton, Missouri 63044

I.D. No.: 165808AAB
Application No.: 06060084

Date Received: June 6, 2007
Date Issued: August 21, 2008
Expiration Date¹: August 21, 2013

Operation of: Saline County Landfill Inc., Municipal Waste Landfill
Source Location: 5000 Whitesville Road, Harrisburg, Illinois 62946, Saline
County
Responsible Official: Brian Hardman, General Manager

This permit is hereby granted to the above-designated Permittee to OPERATE a municipal waste landfill, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

If you have any questions concerning this permit, please contact Mike Davidson at 217/782-2113.

Edwin C. Bakowski, P.E.
Acting Manager, Permit Section
Division of Air Pollution Control

ECB:MED:jws

cc: Illinois EPA, FOS, Region 3
CES
Lotus Notes
Operator's address as shown in Section 1.0

¹ Except as provided in Conditions 1.5 and 8.7 of this permit.

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1.0 SOURCE IDENTIFICATION

1.1 Source

Saline County Landfill, Inc.
5000 Whitesville Road
Harrisburg, Illinois 62946

I.D. No.: 165808AAB
County: Saline
Standard Industrial Classification: 4953, Refuse Systems

1.2 Owner/Parent Company

Saline County Landfill, Inc.
13570 St. Charles Rock Rd
Bridgeton, Missouri 63044

1.3 Operator

Saline County Landfill, Inc.
5000 Whitesville Road
Harrisburg, Illinois 62946

Allen Steinkamp, Environmental Manager
314/739-5099 Ext. 4464

1.4 Source Description

The source is a municipal solid waste (MSW) landfill which 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, non-hazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste.

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).

At the time of issuance of this permit, a landfill gas collection and control system (flare) has been installed at the site.

Other emissions at the source include: particulate matter emissions (fugitive dust) generated from roads and excavation activities; VOM emissions from the leachate/condensate storage tank; and combustion emissions from the landfill gas flare.

Note: This narrative description is for informational purposes only and is not enforceable.

1.5 Title I Conditions

As generally identified below, this CAAPP permit contains certain conditions for emission units at this source that address the applicability of permitting programs for the construction and modification of sources, which programs were established pursuant to Title I of the Clean Air Act (CAA) and regulations thereunder. These programs include PSD and MSSCAM, and are implemented by the Illinois EPA pursuant to Sections 9, 9.1, 39(a) and 39.5(7)(a) of the Illinois Environmental Protection Act (Act). These conditions continue in effect, notwithstanding the expiration date specified on the first page of this permit, as their authority derives from Titles I and V of the CAA, as well as Titles II and X of the Act. (See also Condition 8.7.)

- a. This permit contains "Title I conditions" that reflect Title I requirements established in permits previously issued for this source, which conditions are specifically designated as "T1."

2.0 LIST OF ABBREVIATIONS AND ACRONYMS COMMONLY USED

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
ATU	Allotment Trading Unit
BACT	Best Available Control Technology
BAT	Best Available Technology
bhp	Brake Horsepower
BOA	Bureau of Air (Illinois EPA)
BOL	Bureau of Land (Illinois EPA)
Btu	British thermal unit
Btu/scf	British thermal unit per standard cubic feet
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CAM	Compliance Assurance Monitoring
CAS	Chemical Abstract Service
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CFR	Code of Federal Regulations
CMS	Continuous Monitoring System
dscf	dry standard cubic feet
ERMS	Emissions Reduction Market System
ft ³	Cubic Feet
gal	Gallon
g/bhp-hr	grams per braking horsepower hour
GCCS	gas collection and control system
HAP	Hazardous Air Pollutant
hr	Hour
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
ILCS	Illinois Compiled Statutes
Illinois EPA	Illinois Environmental Protection Agency
°K	Degrees Kelvin
kPa	Kilopascals
kg	Kilograms
kW	Kilowatts
l	Liters
LAER	Lowest Achievable Emission Rate
lb	Pound
ILCS	Illinois Compiled Statutes
LFG	Landfill Gas
MACT	Maximum Achievable Control Technology
MSSCAM	Major Stationary Sources Construction and Modification (35 IAC 203, New Source Review for non-attainment areas)
Mg	Megagrams

MW	Megawatts
MWe	Megawatts electricity
mmBtu	Million British Thermal Units
mmBtu/hr	Million British Thermal Units per hour
mmHg	Millimeters of Mercury
mmcf	Million cubic feet
mmscf	Million standard cubic feet
MSW	Municipal Solid Waste
NMOC	Nonmethane Organic Compound
mo	Month
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO _x	Nitrogen Oxides
NSPS	New Source Performance Standards
psia	pounds per square inch absolute
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
PM _{2.5}	Particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 microns as measured by applicable test or monitoring methods
ppm	parts per million
ppmv	parts per million volume
PSD	Prevention of Significant Deterioration (40 CFR 52.21, New Source Review for attainment areas)
RMP	Risk Management Plan
scf	standard cubic feet
scfm	standard cubic feet per minute
scm	standard cubic meters
SIP	State Implementation Plan
SSM	Startup, Shutdown, and Malfunction
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
VOL	Volatile Organic Liquid
VOM	Volatile Organic Material
yr	Year

3.0 CONDITIONS FOR 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:

Leachate Storage Tank (SCLF-AST1 - 15,000 gallons)
Leachate Storage Tank (SCLF-AST2 - 15,000 gallons)

- 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:

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)].

- 3.1.4 Activities that are considered insignificant activities pursuant to 35 IAC 201.210(b). Note: These activities are not required to be individually listed.

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 5.3.2), the Permittee shall comply with the following requirements, as applicable:

- 3.2.1 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 (see Attachment 2) and 35 IAC Part 266. 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.
- 3.2.2 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, which requires that organic material emissions not exceed 8.0

pounds per hour or, if no odor nuisance exists, do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.

3.2.3 For each open burning activity, the Permittee shall comply with 35 IAC Part 237, including the requirement to obtain a permit for open burning in accordance with 35 IAC 237.201, if necessary.

3.2.4 For each storage tank that has a storage capacity greater than 946 liters (250 gallons) and, if no odor nuisance exists, that stores an organic material with a vapor pressure exceeding 2.5 psia at 70°F, the Permittee shall comply with the applicable requirements of 35 IAC 215.122, which requires use of a permanent submerged loading pipe, submerged fill, or a vapor recovery system.

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).

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
MSW Landfill	MSW Landfill	Commenced Construction Prior to September 15, 1983 Modification (Expansion) October 15, 2004 (BOA Application No. 04070007)	Landfill Gas Collection And Control System (Open Flare)

5.0 OVERALL SOURCE CONDITIONS

5.1 Applicability of Clean Air Act Permit Program (CAAPP)

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) of the CAA for which USEPA requires a CAAPP permit, pursuant to 40 CFR 70.3(a)(2) [Section 39.5(2)(a)(ii) of the Act]. Specifically, this source is subject to the NSPS for Municipal Solid Waste Landfills, 40 CFR Part 60 Subpart WWW.

5.1.2 This permit is issued based on the source being a natural minor and area source for HAPs.

5.2 Area Designation

This permit is issued based on the source being located in an area that, as of the date of permit issuance, is designated attainment or unclassifiable for the National Ambient Air Quality Standards for all criteria pollutants (CO, lead, NO₂, ozone, PM_{2.5}, PM₁₀, SO₂).

5.3 Source-Wide Applicable Provisions and Regulations

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

5.3.2 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. Pursuant to 35 IAC 212.123(a), 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, except as allowed by 35 IAC 212.123(b) and 212.124.

5.3.3 Ozone Depleting Substances

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.

5.3.4 Risk Management Plan (RMP)

Should this stationary source, as defined in 40 CFR 68.3, become subject to the federal regulations for Chemical Accident Prevention in 40 CFR Part 68, then the owner or operator shall submit the items below. This condition is imposed in this permit pursuant to 40 CFR 68.215(a)(2)(i) and (ii).

- a. A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or
- b. A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the RMP, as part of the annual compliance certification required by Condition 9.8.

5.3.5 Future Emission Standards

- a. Should this stationary source become subject to a new or revised regulation under 40 CFR Parts 60, 61, 62, or 63, or 35 IAC Subtitle B 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 Condition 9.8. This permit may also have to be revised or reopened to address such new or revised regulations (see Condition 9.12.2).
- b. This permit and the terms and conditions herein do not affect the Permittee's past and/or continuing obligation with respect to statutory or regulatory requirements governing major source construction or modification under Title I of the CAA
- c. This stationary source will be subject to 40 CFR 63, Subpart AAAA – National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills (See Attachment 5), if the source meets the applicability criteria shown in 40 CFR 63.1935. Upon becoming applicable, the Permittee shall comply with the applicable

requirements of these regulation by the date(s) specified in 40 CFR 63.1945 and shall certify compliance with the applicable requirements of such regulation as part of the annual compliance certification required by Condition 9.8 beginning in the year that compliance is required under a final and effective rule. The Permittee shall submit an application to revise and reopen the CAAPP permit to address such new regulations (see Condition 9.12.2).

The source is defined as an new affected source based upon the criteria shown 40 CFR 63.1940(b).

Therefore, predicated upon the landfill being required to install a collection and control system by 40 CFR 60.752(b)(2) of 40 CFR Part 60 Subpart WWW (See Section 7.0), the source must comply with the requirements of 40 CFR 63.1955(b) and 63.1960 through 63.1980 by the date the MSW landfill is required to install a collection and control system by 40 CFR 60.752(b)(2) of 40 CFR Part 60 Subpart WWW (See Section 7.0). [40 CFR 63.1945(c) and 63.1945(e)]

These requirements include but are not limited to the following:

- i. Compliance with the requirements of 40 CFR Part 60, Subpart WWW [40 CFR 63.1955(a)(1)].
- ii. Compliance with the requirements in 40 CFR 63.1960 through 63.1985 and with the general provisions specified in Table 1 of 40 CFR 63, Subpart AAAA [40 CFR 63.1955(b)].
- iii. For approval of collection and control systems that include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions, you must follow the procedures in 40 CFR 60.752(b)(2). If alternatives have already been approved under 40 CFR part 60 subpart WWW or the Federal plan, or EPA approved and effective State or tribal plan, these alternatives can be used to comply with this subpart, except that all affected sources must comply with the Startup, Shutdown, and Malfunction (SSM) requirements in 40 CFR 63 Subpart A of this part as specified in Table 1 of the NESHAP and all affected sources must submit compliance reports every 6 months as specified in §63.1980(a) and (b), including information on all deviations that occurred during the 6-month reporting period. Deviations for continuous emission monitors or numerical continuous parameter monitors must be determined using a 3 hour monitoring block average [40 CFR 63.1955(c)].

- iv. Compliance is determined in the same way it is determined for 40 CFR part 60, subpart WWW, including performance testing, monitoring of the collection system, continuous parameter monitoring, and other credible evidence. In addition, continuous parameter monitoring data, collected under 40 CFR 60.756(b)(1), (c)(1), and (d) of 40 CFR Subpart WWW, are used to demonstrate compliance with the operating conditions for control systems. If a deviation occurs, you have failed to meet the control device operating conditions described in this subpart and have deviated from the requirements of this subpart. Finally, you must develop and implement a written SSM plan according to the provisions in 40 CFR 63.6(e)(3). A copy of the SSM plan must be maintained on site. Failures to write, implement, or maintain a copy of the SSM plan is a deviation from the requirements of this subpart [40 CFR 63.1960].

At all times, including periods of startup, shutdown, and malfunction, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the owner or operator reduce emissions from the affected source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Illinois EPA and/or USEPA which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in 40 CFR 63.6(e)(3)), review of operation and maintenance records, and inspection of the source [40 CFR 63.6(e)(1)].

- v. A deviation is defined in 40 CFR 63.1990. For the purposes of the landfill monitoring and SSM plan

requirements, deviations include the items in 40 CFR 63.1965(a) through (c). These include:

- A. A deviation occurs when the control device operating parameter boundaries described in 40 CFR 60.758(c)(1) of subpart WWW are exceeded [40 CFR 63.1965(a)].
 - B. A deviation occurs when 1 hour or more of the hours during the 3-hour block averaging period does not constitute a valid hour of data. A valid hour of data must have measured values for at least three 15-minute monitoring periods within the hour [40 CFR 63.1965(b)].
 - C. A deviation occurs when a SSM plan is not developed, implemented, or maintained on site [40 CFR 63.1965(c)].
- vi. Keep records and reports as specified in 40 CFR part 60 Subpart WWW, whichever applies to your landfill, with one exception: You must submit the annual report described in 40 CFR 60.757(f) every 6 months [40 CFR 63.1980(a)].
 - vii. You must also keep records and reports as specified in the general provisions of 40 CFR Part 60 and 63 as shown in Table 1 of 40 CFR 63, Subpart AAAA. Applicable records in the general provisions include items such as SSM plans and the SSM plan reports [40 CFR 63.1980(b)].

5.4 Source-Wide Non-Applicability of Regulations of Concern

Source-wide non-applicability of regulations of concern is not set for this source.

5.5 Source-Wide Control Requirements and Work Practices

Source-wide control requirements and work practices are not set for this source. However, there are requirements for unit specific control requirements and work practices set forth in Section 7 and 9 of this permit.

5.6 Source-Wide Production and Emission Limitations

5.6.1 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 5.6.1) are set for the purpose of establishing fees and are not federally enforceable (see Section 39.5(18) of the Act).

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	6.77
Sulfur Dioxide (SO ₂)	2.20
Particulate Matter (PM)	20.10
Nitrogen Oxides (NO _x)	8.90
HAP, not included in VOM or PM	3.40
Total	41.37

5.6.2 Emissions of Hazardous Air Pollutants

Pursuant to Section 39.5(7)(a) of the Act, the emissions of HAPs from the source shall be less than 10 tons/year for each individual HAP and 25 tons/year for all HAPs combined. 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). This condition is being imposed so that the source is not a major source of HAP emissions.

Compliance with these limits are based upon the recordkeeping , reporting, and compliance procedures in Conditions 7.1.9, 7.1.10, and 7.1.12, respectively.

5.6.3 Other Source-Wide Production and Emission Limitations

Other source-wide emission limitations are not set for this source pursuant to the federal rules for PSD, state rules for MSSCAM, or Section 502(b)(10) of the CAA.

5.7 Source-Wide Testing Requirements

5.7.1 Pursuant to 35 IAC 201.282 and Section 4(b) of the Act, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:

- a. Testing by Owner or Operator: The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Illinois EPA shall have the

right to observe all aspects of such tests [35 IAC 201.282(a)].

- b. Testing by the Illinois EPA: The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary [35 IAC 201.282(b)].
- c. Any such tests are also subject to the Testing Procedures of Condition 8.5 set forth in the General Permit Conditions of Section 8.

5.8 Source-Wide Monitoring Requirements

Source-wide monitoring requirements are not set for this source.

5.9 Source-Wide Recordkeeping Requirements

5.9.1 Annual Emission Records

The Permittee shall maintain records of total annual emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions for Specific Emission Units) of this permit to demonstrate compliance with Condition 5.6.1, pursuant to Section 39.5(7)(b) of the Act.

5.9.2 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.

5.10 Source-Wide Reporting Requirements

5.10.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the source with the permit

requirements within 30 days, 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. There are also reporting requirements for unit specific emission units set forth in Section 7 of this permit.

5.10.2 Annual Emissions Report

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

5.11 Source-Wide Operational Flexibility/Anticipated Operating Scenarios

Source-wide operational flexibility is not set for this source.

5.12 Source-Wide Compliance Procedures

5.12.1 Procedures for Calculating Emissions

Except as provided in Condition 9.1.3, compliance with the source-wide emission limits specified in Condition 5.6 shall be addressed by the recordkeeping and reporting requirements of Conditions 5.9 and 5.10, and compliance procedures in Section 7 (Unit Specific Conditions for Specific Emission Units) of this permit.

6.0 CONDITIONS FOR EMISSIONS CONTROL PROGRAMS

This section is reserved for emissions control programs. As of the date of issuance of this permit, there are no such programs applicable to this source.

7.0 UNIT SPECIFIC CONDITIONS FOR SPECIFIC EMISSION UNITS

7.1 Municipal Solid Waste Landfill

7.1.1 Description

The Saline County Landfill has been operating since September 15, 1983 and is classified as a MSW landfill. The latest expansion of the landfill was approved by the Illinois EPA Bureau of Land on August 19, 2004, See Application Log No. 2003-113, and the Bureau of Air on October 15, 2004, See Application No. 04070007, respectively.

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.

MSW is delivered at the source by waste hauling and collection trucks. These trucks deliver the waste to the active area of the landfill where it is graded and compacted by heavy equipment. Prior to the end of the business day, the equipment is then used cover the waste with a layer of daily cover as per the requirements of 35 IAC Subtitle G: Waste Disposal.

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 which includes either a geomembrane or other approved material and an overlay of soil which is then planted with vegetation.

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).

At the time of issuance of this permit, a landfill gas collection and control system (flare) has been installed at the site.

Other emissions at the source include: particulate matter emissions (fugitive dust) generated from roads and excavation activities and combustion emissions from the landfill gas flare.

Note: This narrative description is for informational purposes only and is not enforceable.

7.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Significant Dates	Emission Control Equipment
MSW Landfill	MSW Landfill	Commenced Construction Prior to September 15, 1983 Modification (Expansion) October 15, 2004 (BOA Application No. 04070007)	Landfill Gas Collection And Control System (Open Flare)

7.1.3 Applicable Provisions and Regulations

- a. The "affected MSW landfill" for the purpose of these unit-specific conditions, is the MSW landfill described in Conditions 7.1.1 and 7.1.2.
- b. The affected MSW landfill is subject to the NSPS for Municipal Solid Waste Landfills, 40 CFR 60 Subparts A and WWW (See Attachment 5), because the 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.

Therefore, the Permittee is required to comply with the requirements of the NSPS for Municipal Solid Waste Landfills, 40 CFR 60 Subparts A and WWW, and/or any amendments promulgated by 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 40 CFR 61 Subparts A and M – National Emission Standard for Asbestos, because the landfill is a source that is listed in the NESHAP and because it accepts asbestos-containing waste material (See Attachment 5) [40 CFR 61.140].

Specifically, portions of the affected landfill meet the definition of an active waste disposal site as defined in 40 CFR 61.141, i.e., the landfill receives or has received asbestos-containing waste material generated from demolition and renovation activity (See 40 CFR 61.145 and 61.150).

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.

Note: The primary asbestos-containing waste materials deposited at the site are wastes generated during demolition or renovation activities, as defined in 40 CFR Part 61 Subpart M.

- d. 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.

7.1.4 Non-Applicability of Regulations of Concern

- a. The affected MSW 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 MSW 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). Specifically, the MSW landfill was constructed or modified commenced after May 30, 1991. Pursuant to 35 IAC 220.200(b), any MSW landfill that commenced construction, reconstruction or modification on or after May 30, 1991, is subject to the requirements of 40 CFR 60, Subpart WWW, in lieu of the requirements of 35 IAC Part 220.
- c. This permit is issued based on the affected MSW Landfill not being subject to 40 CFR 63, Subpart AAAA – National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills, because at the time of issuance of the this permit, the MSW landfill does not meet the applicability criteria shown in 40 CFR 63.1935. Specifically, the landfill's current estimated uncontrolled emissions of NMOC are less than 50 megagrams per year (Mg/yr) [40 CFR 63.1935(a)(3)].
- d. 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 and Work Practices

NSPS 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfills:

- a. The Permittee shall either comply with 40 CFR 60.752(b)(2) or calculate an NMOC emission rate for the landfill using the procedures specified in 40 CFR 60.754 (See Section 7.1.7) and the reporting requirements of 40 CFR 60.757 (See Condition 7.1.10(b)). The NMOC emission rate shall be recalculated annually, except as provided in 40 CFR 60.757(b)(1)(ii) [40 CFR 60.752].
 - i. If the calculated NMOC emission rate is less than 50 megagrams per year, the owner or operator shall [40 CFR 60.752(b)(1)]:
 - A. Submit an annual emission report to the Illinois EPA, except as provided for in Condition 7.1.5(a)(i)(B) and 40 CFR 60.757(b)(1)(ii) [40 CFR 60.752(b)(1)(i)]; and
 - B. Recalculate the NMOC emission rate annually using the procedures specified in Condition 7.1.7(a) and 40 CFR 60.754(a)(1) until such time as the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, or the landfill is closed [40 CFR 60.752(b)(1)(ii)].
 1. If the NMOC emission rate, upon recalculation, is equal to or greater than 50 megagrams per year, the owner or operator shall install a collection and control system in compliance with Condition 7.1.5(a)(ii) and 40 CFR 60.752(b)(2).
 2. If the landfill is permanently closed, a closure notification shall be submitted to the Illinois EPA as provided for in Condition 7.1.10(b)(iii) and 40 CFR 60.757(d).
 - ii. If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, the owner or operator shall [40 CFR 60.752(b)(2)]:
 - A. 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 but is not limited to

the information required below [40 CFR 60.752(b)(2)(i)]:

1. The collection and control system as described in the plan shall meet the design requirements of Condition 7.1.5(a)(ii)(B) and 40 CFR 60.752(b)(2)(ii) [40 CFR 60.752(b)(2)(i)(A)].
2. The collection and control system design plan shall include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of Conditions 7.1.7 through 7.1.10 and 40 CFR 60.753 through 60.758 proposed by the owner or operator [40 CFR 60.752(b)(2)(i)(B)].
3. The collection and control system design plan shall either conform with specifications for active collection systems in 40 CFR 60.759 or include a demonstration to the IEPA's satisfaction of the sufficiency of the alternative provisions to 40 CFR 60.759 [40 CFR 60.752(b)(2)(i)(C)].

The Illinois EPA must approve all modifications or revisions of the NMOC GCCS design plan.

- B. Installation of a collection and control system that captures the gas generated within the landfill, as required by Conditions 7.1.5(a)(ii)(A)(1) or (2) and 7.1.5(a)(ii)(C) and 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 Conditions 7.1.7(a)(iii)(b) and (c) and 40 CFR 60.754(a)(3) and (4), respectively, demonstrates that the emission rate is less than 50 megagrams per year, as specified in Conditions 7.1.10(b)(ii)(A) or (B) and 40 CFR 60.757(c)(1) or (2) [40 CFR 60.752(b)(2)(ii)].

The landfill gas collection and control system (GCCS) shall include but is not limited to the following:

1. An active collection system shall [40 CFR 60.752(b)(2)(ii)(A)]:
 - I. Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment [40 CFR 60.752(b)(2)(ii)(A)(1)];
 - II. Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of [40 CFR 60.752(b)(2)(ii)(A)(2)]:
 - (a). 5 years or more if active; or
 - (b). 2 years or more if closed or at final grade.
 - III. Collect gas at a sufficient extraction rate [40 CFR 60.752(b)(2)(ii)(A)(3)];
 - IV. Be designed to minimize off-site migration of subsurface gas [40 CFR 60.752(b)(2)(ii)(A)(4)].
 2. A passive collection system shall [40 CFR 60.752(b)(2)(ii)(B)]:
 - I. Comply with the provisions specified in Condition 7.1.5(ii)(A)(1)(I), (II), and (IV) and 40 CFR 60.752(b)(2)(ii)(A)(1), (2), and (2)(ii)(A)(4) (See Above).
 - II. Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall be installed as required under 40 CFR 258.40.
- C. Routing of all collected landfill gas to a control system that complies with either of the following requirements [40 CFR 60.752(b)(2)(iii)].
1. An open flare designed and operated in accordance with 40 CFR 60.18 [40 CFR 60.752(b)(2)(iii)(A)];

2. 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 Condition 7.1.7(d) and 40 CFR 60.754(d) [40 CFR 60.752(b)(2)(iii)(B)].
 - I. 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)].
 - II. 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)].
3. 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 Condition 7.1.5(a)(ii)(C)(1) or (2), and 40 CFR 60.752(b)(2)(iii)(A) or (B) [40 CFR 60.752(b)(2)(iii)(C)].
 - D. Operate the collection and control device installed to comply with 40 CFR 60 Subpart WWW in accordance with the provisions of Condition 7.1.5(b); 7.1.8(a), 7.1.9(b)(vi), and 7.1.12(c and d), and 40 CFR 60.753, 60.755 and 60.756 [40 CFR 60.752(b)(2)(iv)].
 - E. The collection and control system may be capped or removed provided that all the following and the requirements of 40 CFR

60.752(b)(2)(b)(2)(v) (A), (B), and (C) are met [40 CFR 60.752(b)(2)(v)].

1. The landfill shall be a closed landfill as defined in 40 CFR 60.751. A closure report shall be submitted to the Illinois EPA BOA Compliance Section as provided in Condition 7.1.10(b)(iii) and 40 CFR 60.757(d);
 2. The collection and control system shall have been in operation a minimum of 15 years; and
 3. Following the procedures specified in Condition 7.1.7(b) and 40 CFR 60.754(b), the calculated NMOC gas produced by the landfill shall be less than 50 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.
- b. Upon installation of a gas collection and control system used to comply with the provisions of Condition 7.1.5(a) and 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 following conditions [40 CFR 60.753(b)]:
 - A. A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided Condition 7.1.10 and 40 CFR 60.757(f)(1) [40 CFR 60.753(b)(1)];
 - B. Use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan [40 CFR 60.753(b)(2)];

- C. A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Illinois EPA and/or USEPA [40 CFR 60.753(b)(3)].

- 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)].
 - 1. The nitrogen level shall be determined using Method 3C, unless an alternative test method is established as allowed by Condition 7.1.5(a)(i) and 40 CFR 60.752(b)(2)(i) [40 CFR 60.753(c)(1)].
 - 2. Unless an alternative test method is established as allowed by Condition 7.1.5(a)(i) and 40 CFR 60.752(b)(2)(i) of this subpart, the oxygen shall be determined by an oxygen meter using Method 3A or 3C except that [40 CFR 60.753(c)(2)]:
 - A. The span shall be set so that the regulatory limit is between 20 and 50 percent of the span;
 - B. A data recorder is not required;
 - C. Only two calibration gases are required, a zero and span, and ambient air may be used as the span;
 - D. A calibration error check is not required;
 - E. The allowable sample bias, zero drift, and calibration drift are ±10 percent.

- 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 Condition 7.1.5(a)(iii) and 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)].
- 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 Condition 7.1.5(b)(ii), (iii) or (iv) and 40 CFR 60.753(b), (c), or (d) are not met, corrective action shall be taken as specified in Conditions 7.1.12(c)(iii) through (v) or 7.1.8(a)(i) and 40 CFR 60.755(a)(3) through (5) or 40 CFR 60.755(c). If corrective actions are taken as specified in Conditions 7.1.12(c)(iii) through (v) or 7.1.8(a)(i) and 40 CFR 60.755, the monitored exceedance is not a violation of the operational requirements in Condition 7.1.5(b) and 40 CFR 60.753 [40 CFR 60.753(g)].

In addition, the monitored exceedance is not considered to be a reportable "deviation" pursuant to Condition 5.10.1 and 7.1.10 where the corrective action specified in 40 CFR 60.755(a)(3) through (d), 40 CFR 60.755(c) or where a request for an alternative timeline to perform corrective action and achieve the operational requirements has been submitted to the Illinois EPA. An explanation for the alternative timeline and timetable for corrective action must be included with the request for an alternative timeline.

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

i. Active Waste Disposal Sites [40 CFR 61.154]:

A. 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 following requirements:

1. Either there must be no visible emissions to the outside air from any active waste disposal site where asbestos-containing waste material has been deposited, or the requirements of 40 CFR 61.154(c) or (d) must be met [40 CFR 61.154(a)].
2. Unless a natural barrier adequately deters access by the general public, either warning signs and fencing must be installed and maintained as shown in 40 CFR 61.154(b), or the requirements of 40 CFR 61.154(c)(1) must be met [40 CFR 61.154(b)].

If applicable, upon Illinois EPA request, the Permittee shall supply appropriate information that will allow the Illinois EPA to determine whether a fence or a natural barrier adequately deters access by the general public [40 CFR 61.154(b)(3)].

3. Rather than meet the no visible emission requirement of Condition 7.1.5(c) and 40 CFR 61.154(a), at the end of each operating day, or at least once every 24-hour period while the site is in continuous operation, the asbestos-containing waste material that has been deposited at the site during the operating day or previous 24-hour period shall be covered as shown in 40 CFR 61.154(c) [40 CFR 61.154(c)]:

- I. Be covered with at least 15 centimeters (6 inches) of compacted nonasbestos-containing material, or
- II. Be covered with a resinous or petroleum-based dust suppression agent that effectively binds dust

and controls wind erosion. Such an agent shall be used in the manner and frequency recommended for the particular dust by the dust suppression agent manufacturer to achieve and maintain dust control. Other equally effective dust suppression agents may be used upon prior approval by the USEPA. For purposes of this paragraph, any used, spent, or other waste oil is not considered a dust suppression agent.

4. Rather than meet the no visible emission requirement of Condition 7.1.5(c) and 40 CFR 61.154(a), use an alternative emissions control method that has received prior written approval by the Illinois EPA and/or USEPA according to the procedures described in 40 CFR 61.149(c)(2) [40 CFR 61.154(d)].

- B. Upon closure of an affected active waste disposal site, the Permittee shall comply with the requirements of 40 CFR 61.151 [40 CFR 61.154(g)].

d. Fugitive Dust Program

- i. The Permittee shall implement a program to monitor and control fugitive dust emissions from the landfill due to 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. In accordance with the above, the Permittee shall carry out monitoring, inspection, and control measures for fugitive dust in accordance with a written control program maintained by the Permittee. The monitoring program shall be implemented based upon the procedures shown in Condition 7.1.7(e) and 35 IAC 212.301. Further, the program shall set forth the measures being implemented to demonstrate compliance with Conditions 5.3.2(a), 7.1.5(d), and 7.1.6(a), respectively, i.e., the control of visible fugitive dust and the control of particulate emissions from each area of the landfill with the potential to generate significant quantities of fugitive dust. This program shall include:

- A. A map or diagram showing the location of all fugitive emission units controlled, including the location, identification, length, and width of roadways, and volume and nature of expected traffic or other activity;
 - B. Estimated dust emissions control technique (e.g., water spray surfactant spray, water flushing, or sweeping); and
 - C. Triggers for additional control, e.g., observation of extended dust plumes following passage of vehicles.
- iii. No monitoring or 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 Conditions 5.3.2(a), 7.1.5(d), and 7.1.6(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.
 - iv. Monitoring and/or corrective action shall not be required during periods of excess wind as defined in 35 IAC 212.314. Specifically, monitoring and/or corrective action "shall not be required when the wind speed is greater than 40.2 km/hr (25 mph). Determination of wind speed shall be by a one-hour average or hourly recorded value at the nearest official station of the U.S. Weather Bureau or by wind speed instruments operated on the site. In cases where the duration of operations subject to the above is less than one hour, wind speed may be averaged over the duration of the operations on the basis of on-site wind speed instrument measurements.
 - v. 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.
 - vi. 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.

- vii. The Permittee shall submit a copy of a revised fugitive dust control program to the Illinois EPA for review within 90 days of a request from the Illinois EPA for a revision to the program to address observed deficiencies in the control program.
- e. Open Flare Operational Requirements
- i. The open flare shall be designed and operated in accordance with 40 CFR 60.18. This includes but is not limited to the following:
 - A. 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)].
 - B. 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)].
 - C. 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)].
 - D. 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)].
 - E. The open flare shall be operated at all times when landfill gasses may be vented to them. [40 CFR 60.18(e)]
 - F. 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)].

- G. 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)].
- H. 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:

HT = 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

$$\left(\frac{\text{g - mole}}{\text{scm}} \right) \text{ is } 20^\circ\text{C}$$

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.

- I. 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)].

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

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

Where:

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).

- ii. The open flare shall be designed and operated in accordance with 40 CFR 60.18. This includes but is not limited to the following:

7.1.6 Production and Emission Limitations

In addition to Condition 5.3.2 and the source-wide emission limitations in Condition 5.6, the affected MSW landfill is subject to the following:

- a. i. Emissions of particulate matter (PM) from the landfill, considering both existing operations and new operations associated with the expansion shall not exceed 16.0 tons/year, as determined by the use of the compliance procedures in Condition 7.1.12 for estimating emissions of fugitive dust.
- ii. This permit is issued based on minimal emissions of PM from flaring.
- iii. The above limitations were established in Permit 04070007, 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].
- b. i. The affected flare shall not exceed a maximum inlet landfill gas flow rate of 1,000 scfm [T1N].

- ii. Emissions from the affected flare shall not exceed the following limits:

	Tons/month	Tons/year
NO _x	0.89	8.94
CO	4.86	48.62
SO ₂	0.22	2.20
PM	0.21	2.10
VOM	0.03	0.30
NMOC	0.07	0.70

These limits are based on the maximum landfill gas flow rate shown in the application and the compliance procedures in Condition 7.1.12, respectively.

- iii. 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) [T1N].
 - iv. The above limitations are being established in this permit pursuant to Title I of the CAA, specifically 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The source has requested that the Illinois EPA establish emission limitations and other appropriate terms and conditions in this permit that limit the emissions of each regulated pollutant addressed by PSD from the affected MSW landfill below the levels that would trigger the applicability of these rules, consistent with the information provided in the CAAPP application [T1N].
- c. i. The MSW landfill design capacity shall not exceed 2.88 million megagrams and 4.04 million cubic meters. The above limits are based upon the maximum design capacity shown in the application and the design capacity which was reported pursuant to 40 CFR 60.757(a)(3). Further, these limits are the basis for determining potential emissions for the landfill and landfill gas control system [T1N].
- ii. The above limits shall not supersede any design capacity limitations set in permits issued by the Illinois EPA's Bureau of Land (BOL) under 35 IAC Subtitle G: Waste Disposal [T1N].
 - iii. The above limitations are being established in this permit pursuant to Title I of the CAA, specifically 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The source has requested that the Illinois EPA establish emission limitations and other appropriate terms and conditions in this permit that limit the emissions of each regulated pollutant addressed by PSD from the affected MSW landfill below

the levels that would trigger the applicability of these rules, consistent with the information provided in the CAAPP application [T1N].

7.1.7 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. The Permittee shall calculate the NMOC emission rate, using either the equation provided in Condition 7.1.7(a)(i) and 40 CFR 60.754(a)(1)(i) or the equation provided in Condition 7.1.7(a)(ii) and 40 CFR 60.754(a)(1)(ii). Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in Condition 7.1.7(a)(i) and 40 CFR 60.754(a)(1)(i), for part of the life of the landfill and the actual year-to-year solid waste acceptance rate is unknown, as specified in Condition 7.1.7(a)(ii) and 40 CFR 60.754(a)(1)(ii), for part of the life of the landfill. The values to be used in both equations are 0.05 per year for k, 170 cubic meters per megagram for L₀, and 4,000 parts per million by volume as hexane for the CNMOC. For landfills located in geographical areas with a thirty year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorologic site, the k value to be used is 0.02 per year [40 CFR 60.754(a)].
- i. The following equation shall be used if the actual year-to-year solid waste acceptance rate is known [40 CFR 60.754(a)(1)(i)].

$$M_{\text{NMOC}} = \sum_{i=1}^n 2kL_0M_i(e^{-kt_i}) (C_{\text{NMOC}}) (3.6 \times 10^{-9})$$

Where:

M_{NMOC} = Mass emission rate of NMOC, megagrams per year

L₀ = Methane generation potential, cubic meters per megagram solid waste

R = Average annual acceptance rate, megagrams per year

k = Methane generation rate constant, year⁻¹

t = Age of landfill, years

C_{NMOC} = Concentration of NMOC, parts per million by volume as hexane

c = Time since closure, years; for active landfill $c = 0$ and $e^{-kc} = 1$

3.6×10^{-9} = Conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for M_i if documentation of the nature and amount of such wastes is maintained.

- ii. The following equation shall be used if the actual year-to-year solid waste acceptance rate is unknown [40 CFR 60.754(a)(1)(ii)].

$$M_{\text{NMOC}} = 2L_o R \left(e^{-kc} - e^{-kt} \right) \left(C_{\text{NMOC}} \right) \left(3.6 \times 10^{-9} \right)$$

Where:

M_{NMOC} = Mass emission rate of NMOC, megagrams per year

L_o = Methane generation potential, cubic meters per megagram solid waste

R = Average annual acceptance rate, megagrams per year

k = Methane generation rate constant, year⁻¹

t = Age of landfill, years

C_{NMOC} = Concentration of NMOC, parts per million by volume as hexane

c = Time since closure, years; for active landfill $c = 0$ and $e^{-kc} = 1$

3.6×10^{-9} = Conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value of R , if documentation of the nature and amount of such wastes is maintained.

- iii. (a) *Tier 1.* The Permittee shall compare the calculated NMOC mass emission rate to the standard of 50 megagrams per year [40 CFR 60.754(a)(2)].

- A. If the NMOC emission rate calculated in Condition 7.1.7(a) and 40 CFR 60.754(a)(1) is less than 50 megagrams per year, then the Permittee shall submit an emission rate report as provided in Condition 7.1.10(b)(i)(A) and 40 CFR 60.757(b)(1), and shall recalculate the NMOC mass emission rate annually as required under Condition 7.1.10(b)(i)(A)(1) and 40 CFR 60.752(b)(1) [40 CFR 60.754(a)(2)(i)].
 - B. If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, then the Permittee shall either comply with Condition 7.1.5(a)(i) and 40 CFR 60.752(b)(2), or determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the procedures provided in Condition 7.1.7(a)(iii)(b) and 40 CFR 60.754(a)(3) [40 CFR 60.754(a)(2)(ii)].
- (b). *Tier 2.* The Permittee shall determine the NMOC concentration using the following sampling procedure. The Permittee shall install at least two sample probes per hectare of landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The sample probes should be located to avoid known areas of nondegradable solid waste. The Permittee shall collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25C of Appendix A of 40 CFR Part 60 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). If composite sampling is used, equal volumes shall be taken from each sample probe. If more than the required number of samples are taken, all samples shall be used in the analysis. The Permittee shall divide the NMOC concentration from Method 25C of Appendix A of 40 CFR Part 60 by six to convert from CNMOC as carbon to CNMOC as hexane [40 CFR 60.754(a)(3)].
- A. The Permittee shall recalculate the NMOC mass emission rate using the equations provided in Conditions 7.1.7(a)(i) and (ii) and 40 CFR 60.754(a)(1)(i) and (ii)

and using the average NMOC concentration from the collected samples instead of the default value in the equation provided in Condition 7.1.7(a) and 40 CFR 60.754(a)(1) [40 CFR 60.754(a)(3)(i)].

B. If the resulting mass emission rate calculated using the site-specific NMOC concentration is equal to or greater than 50 megagrams per year, then the Permittee shall either comply with Condition 7.1.5(a)(ii) and 40 CFR 60.752(b)(2), or determine the site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the procedure specified in Condition 7.1.7(a)(iii)(c) and 40 CFR 60.754(a)(4) [40 CFR 60.754(a)(3)(ii)].

C. If the resulting NMOC mass emission rate is less than 50 megagrams per year, the Permittee shall submit a periodic estimate of the emission rate report as provided in Condition 7.1.10(b)(i)(A)(1) and 40 CFR 60.752(b)(1) and retest the site-specific NMOC concentration every 5 years using the methods specified in Condition 7.1.7(a) and 40 CFR 60.754 [40 CFR 60.754(a)(3)(iii)].

(c). *Tier 3.* The site-specific methane generation rate constant shall be determined using the procedures provided in Method 2E of Appendix A of 40 CFR Part 60. The Permittee shall estimate the NMOC mass emission rate using equations in Conditions 7.1.7(a)(i) and (ii) and 40 CFR 60.754(a)(1)(i) and (ii) and using a site-specific methane generation rate constant k , and the site-specific NMOC concentration as determined in Tier 2 instead of the default values provided in Condition 7.1.7(a) and 40 CFR 60.754(a)(1). The Permittee shall compare the resulting NMOC mass emission rate to the standard of 50 megagrams per year [40 CFR 60.754(a)(4)].

A. If the NMOC mass emission rate as calculated using the site-specific methane generation rate and concentration of NMOC is equal to or greater than 50 megagrams per year, the Permittee shall comply with Condition 7.1.5(a)(ii) and 40

CFR 60.752(b)(2) [40 CFR 60.754(a)(4)(i)].

B. If the NMOC mass emission rate is less than 50 megagrams per year, then the Permittee shall submit a periodic emission rate report as provided in Condition 7.1.10(b)(i)(A) and 40 CFR 60.757(b)(1) and shall recalculate the NMOC mass emission rate annually, as provided in Condition 7.1.10(b)(i)(A) and 40 CFR 60.757(b)(1) using the equations in Conditions 7.1.7(a)(i) and (ii) and 40 CFR 60.754(a)(1) using the site-specific methane generation rate constant and NMOC concentration obtained in Condition 7.1.7(a)(iii)(b) and 40 CFR 60.754(a)(3). The calculation of the methane generation rate constant is performed only once, and the value obtained from this test shall be used in all subsequent annual NMOC emission rate calculations [40 CFR 60.754(a)(4)(ii)].

(d). The Permittee may use other methods to determine the NMOC concentration or a site-specific k as an alternative to the methods required in Condition 7.1.7(a)(iii)(b) and (c) and 40 CFR 60.754(a)(3) and (a)(4) if the method has been approved by the USEPA [40 CFR 60.754(a)(5)].

b. After the installation of a collection and control system in compliance with Condition 7.1.12(c) and 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 Condition 7.1.5(a)(ii)(E) and 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)].
- c. 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)].
- d. For the performance test required in Condition 7.1.5(a)(ii)(C)(2) and 40 CFR 60.752(b)(2)(iii)(B), Method 25, 25A, 25C or Method 18 of Appendix A of 40 CFR Part 60 (or any other Method approved by the Illinois EPA or USEPA) 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 Condition 7.1.5(a)(ii)(A)(2) and 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)]:

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

Where:

$NMOC_{in}$ = Mass of NMOC entering control device

$NMOC_{out}$ = Mass of NMOC exiting control device

- e. 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.
- f. An annual performance test must be performed on the open (utility) flare. These tests shall include visible emission readings, landfill gas heat content determination, flow rate or bypass flow rate measurements based upon gas flow rate measuring device required in Condition 7.1.8, and exit velocity, required under 40 CFR 60.18. The Permittee is allowed to use the results of the testing required in Condition 7.1.5(e) as part of these tests [35 IAC 201.282].

7.1.8 Monitoring Requirements

- a. Upon being subject to the control requirements of 40 CFR 60 Subpart WWW, the Permittee shall comply with the following as applicable:
 - i. The following procedures shall be used for compliance with the surface methane operational standard as provided in Condition 7.1.5(b)(iv) and 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 Condition 7.1.8(a)(ii) and 40 CFR 60.755(d) [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 Condition 7.1.9(b)(vi) shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of Condition 7.1.5(b)(iv) and 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. Each Permittee seeking to comply with the provisions in Condition 7.1.8(a)(i) and 40 CFR 60.755(c) shall comply with the instrumentation specifications and procedures for surface emission monitoring devices in 40 CFR 60.755(d) (See below) [40 CFR 60.755(d)].
- A. The portable analyzer shall meet the instrument specifications provided in section 3 of Method 21 of appendix A of this part, except that "methane" shall replace all references to VOC [40 CFR 60.755(d)(1)].
 - B. The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air [40 CFR 60.755(d)(2)].
 - C. To meet the performance evaluation requirements in section 3.1.3 of Method 21 of appendix A of this part, the instrument evaluation procedures of section 4.4 of Method 21 of appendix A of this part shall be used [40 CFR 60.755(d)(3)].
 - D. The calibration procedures provided in section 4.2 of Method 21 of appendix A of this part shall be followed immediately before commencing

a surface monitoring survey [40 CFR 60.755(d)(4)].

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 Condition 7.1.5(a)(ii)(A)(2) and 40 CFR 60.752(b)(2)(i)(B):

A. Each Permittee seeking to comply with Condition 7.1.5(a)(ii)(B)(1) and 40 CFR 60.752(b)(2)(ii)(A) for an active gas collection system shall install a sampling port and a thermometer, 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 Condition 7.1.12(c)(iii) and 40 CFR 60.755(a)(3) [40 CFR 60.756(a)(1)]; and
2. Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in Condition 7.1.12(c)(v) and 40 CFR 60.755(a)(5) [40 CFR 60.756(a)(2)]; and
3. Monitor temperature of the landfill gas on a monthly basis as provided in Condition 7.1.12(c)(v) and 40 CFR 60.755(a)(5) [40 CFR 60.756(a)(3)].

B. Each Permittee seeking to comply with Condition 7.1.3(c)(ii)(C) using an enclosed combustor 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 [40 CFR 60.756(b)(2)(i)]; or
 - 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)].

C. If the Permittee seeks to demonstrate compliance with Condition 7.1.5(a)(iii) and 40 CFR 60.752(b)(2)(iii) using an open flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment [40 CFR 60.756(c)]:

1. 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)].
2. A device that records flow to or bypass of the flare. The Permittee shall either [40 CFR 60.756(c)(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 [40 CFR 60.756(c)(2)(i)]; or
 - 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(c)(2)(ii)].

- D. If the Permittee seeks to demonstrate compliance with Condition 7.1.5(a)(iii) and 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)].
- E. 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)].
- F. If the Permittee seeks to demonstrate compliance with Condition 7.1.8(a)(i) and 40 CFR 60.755(c), the Permittee shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in Condition 7.1.8(b)(ii). 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)].

- b. The Permittee shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment [35 Ill. Adm. Code 201.281]:
 - i. A gas flow rate measuring device(s) that shall record the flow to the open flare at least every 15 minutes;
 - ii. A gas flow rate measuring device(s) that provides a measurement of gas flow to or bypass of the control system. 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; 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. In order to assure compliance with the fugitive dust limitation in Conditions 5.3.2(a) and 7.1.3(d) and in conjunction with the fugitive dust minimization program required in Conditions 7.1.5(d), the Permittee shall determine whether fugitive dust emissions are visible across the source's property line. Observations 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 and 212.314].

7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected MSW landfill to demonstrate compliance with Conditions 5.6.1 and 7.1.5 through 7.1.8, pursuant to Section 39.5(7)(b) of the Act:

- a. General Records:
 - i. Site-specific NMOC emission rate(s) and/or methane generation rate constant(s) (k) used to determine MSW landfill emissions (megagrams/yr).

- ii. Copies of USEPA or Illinois EPA correspondence approving alternative testing, monitoring, and compliance procedures in Conditions 7.1.8, 7.1.9 and 7.1.12.
- iii. 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.
- vi. 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.
- v. Waste Acceptance

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. 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.
- vi. Fugitive Dust Emissions
 - A. Records of the maximum aggregate annual emissions of fugitive PM from the source estimated based on the applicable emission factors and formulas specified by Condition 7.1.12, with supporting calculations, so as to demonstrate compliance with the limits in Conditions 5.6.1 and 7.1.6(a).

- B. Records of construction of additional roadways or parking areas or other permanent change to the source or source operations, which alters the maximum aggregate emissions of PM.
- C. The Permittee shall keep these written procedures shown in Condition 7.1.5(d) on record for the life of the affected source, to be made available for inspection, upon request, by the Illinois EPA. If the fugitive particulate matter evaluation plan is revised, the Permittee shall keep previous (i.e., superseded) versions of the plan on record to be made available for inspection, upon request, by the Illinois EPA, for a period of 5 years after each revision to the plan.
- D. Records of all observations made pursuant to the visible emissions monitoring required under Condition 7.1.5(d) and 7.1.8(c) 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, etc.). These include but are not limited to the following:
 - 1. The date of each inspection or observation, where it was determined by the Permittee that it was necessary to implement the control measures in the Fugitive Dust Control Program.
 - 2. The dates the control measures were implemented.
 - 3. A log recording incidents when control measures were not carried out as scheduled or were not fully implemented and incidents when additional control measures were carried out, with description of each such incident and explanation. This log shall address any adjustments to the scheduling of control measures made by the Permittee due to weather conditions that either acted to reduce or increase the level of potential dust, such as precipitation or extended periods of dry weather.
- vii. A maintenance and repair log for the affected emission unit and/or control equipment, listing each activity performed with date. This requirement includes the landfill cover inspection and repair requirement in Condition 7.1.7(f).

viii. Flare Operation

- A. 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 7.1.12, that may be conducted during the normal operation of the gas collection system.
 - B. Up-to-date, readily accessible continuous records of the landfill gas flow to the control system(s) (Monthly and annual), and all periods of operation in which control system(s) was bypassed and landfill gas is directly vented to the atmosphere. Annual landfill gas usage shall be determined each month based on the current month of record's usage plus the usage for the preceding 11 months.
- ix. Monthly and aggregate annual NMOC, VOM, PM, PM₁₀, NO_x, CO and SO₂ emissions from the affected MSW landfill and associated control system(s), calculated based on the compliance procedures in Condition 7.1.12, with supporting calculations.
- b. NSPS 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfills:
- i. Except as provided in Condition 7.1.5(a)(ii)(A)(2) and 40 CFR 60.752(b)(2)(i)(B), if the MSW landfill becomes subject to the provisions of Condition 7.1.5(a) and 40 CFR 60.752(b), the Permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered Condition 7.1.5(a) and 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. Except as provided in Condition 7.1.5(a)(ii)(A)(2) and 40 CFR 60.752(b)(2)(i)(B), if the MSW landfill becomes subject to the control requirements under Condition 7.1.5(a)(ii) and 40 CFR 60.752(b)(2)(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) (See below) 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 Condition 7.1.5(a)ii) and 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 Condition 7.1.12(d)(i). 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 Condition 7.1.5(c)(iii) and 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 Condition 7.1.5(c)(iii)(B) and 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 compliance with Condition 7.1.5(c)(iii)(A) and 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. Except as provided in Condition 7.1.5(a)(ii)(A)(2) and 40 CFR 60.752(b)(2)(i)(B), if the MSW landfill becomes subject to the control requirements under 40 CFR 60 Subpart WWW, the Permittee shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in Condition 7.1.8(a)(iv) and 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 Condition 7.1.40 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 Condition 7.1.3(c)(ii)(C) was determined [40 CFR 60.758(c)(1)(i)].

B. If the MSW landfill becomes subject to the control requirements under 40 CFR 60 Subpart WWW, 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 Condition 7.1.8(b)(iv) [40 CFR 60.758(c)(2)].

C. If the MSW landfill becomes subject to the control requirements under 40 CFR 60 Subpart WWW and the Permittee seeks to comply through the use of an open flare, the Permittee shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under Condition 7.1.8(b)(iv)(B)(3) and 40 CFR 60.756(c), and up-to-date, readily accessible records of all

periods of operation in which the flame or flare pilot flame is absent [40 CFR 60.758(c)(4)].

- iv. Except as provided in Condition 7.1.5(a)(ii)(A)(2) and 40 CFR 60.752(b)(2)(i)(B), if the MSW landfill becomes subject to the control requirements under 40 CFR 60 Subpart WWW, 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 Condition 7.1.12(e) and 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. Except as provided in Condition 7.1.5(a)(ii)(A)(2) and 40 CFR 60.752(b)(2)(i)(B), if the MSW landfill becomes subject to the control requirements under 40 CFR 60 Subpart WWW, 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 Condition 7.1.5(b) and 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)].
- vi. 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 below and in 40 CFR 60.755(c)(4)(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 Condition 7.1.5(b)(iv) and 40 CFR 60.753(d) [40 CFR 60.755(c)(4)].
 - A. The location of each monitored exceedance shall be marked and the location recorded [40 CFR 60.755(c)(4)(i)].

- B. Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance [40 CFR 60.755(c)(4)(ii)].
 - C. If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in Condition 7.1.9(b)(vi)(E) and 40 CFR 60.755(c)(4)(v) shall be taken, and no further monitoring of that location is required until the action specified in paragraph Condition 7.1.9(b)(vi)(E) and 40 CFR 60.755(c)(4)(v) has been taken [40 CFR 60.755(c)(4)(iii)].
 - D. Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in Condition 7.1.9(b)(iv)(B) or (C) and 40 CFR 60.755(c)(4)(ii) or (iii) shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in Condition 7.1.9(b)(iv)(C) or (E) and 40 CFR 60.755(c)(4)(iii) or (v) shall be taken [40 CFR 60.755(c)(4)(iv)].
 - E. For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Illinois EPA for approval [40 CFR 60.755(c)(4)(v)].
- c. NESHAP 40 CFR 61 Subpart M: Handling Procedures and Control Measures for the Disposal of ACWM

- i. For all asbestos-containing waste material received, the owner or operator of the active waste disposal site shall 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)(i)]:
 - A. The name, address, and telephone number of the waste generator.
 - B. The name, address, and telephone number of the transporter(s).
 - C. The quantity of the asbestos-containing waste material in cubic meters (cubic yards).
 - D. The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers.
 - E. The date of the receipt.
- ii. 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)].

7.1.10 Reporting Requirements

a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, 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, and any corrective actions or preventive measures taken:

- i. Operation of the affected MSW landfill in excess of the limits specified in Conditions 7.1.5 and 7.1.6 within 30 days of such occurrence.
 - A. Identification of the limit that may have been exceeded.
 - B. Duration of the possible exceedance.
 - C. An estimate of the amount of emissions in excess of the applicable standard.
 - D. A description of the cause of the possible exceedance.

E. When compliance was reestablished.

b. General Reporting

The Permittee shall submit the following information along with its annual emission report:

- i. A summary of exceedances of the limits in Conditions 7.1.5 and 7.1.6, if any, which require notification to the Compliance Section in accordance with Condition 7.1.10(a).
- ii. All surface or subsurface landfill fires and/or significant landfill subsurface oxidation events shall be reported to Illinois EPA CES by telephone within 24 hours.

Reportable conditions that may be characteristic of a reportable event includes, but is not limited, to the following:

- A. Substantial landfill settlement over a short period of time that is not indicative of subsurface erosion.
- B. Visual emissions of smoke or vapor from the landfill or detection of a smoldering odor emanating from the gas extraction system or landfill.
- C. Elevated levels of CO in excess of 500 parts per million (ppm).
- D. Combustion residue in extraction wells or headers.
- E. Increase in gas temperature in the extraction system (above 140°F).
- D. Subsurface temperatures in excess of 170°F.
- E. Melting or failure of landfill gas extraction system components due to elevated temperatures.

The telephone report should be followed by a written report within seven days. The report shall include a report of conditions at the landfill that may be indicative of a significant landfill subsurface oxidation event; planned follow-up (i.e., additional sampling, monitoring, etc...), planned corrective action if warranted; and copies of all records indicating temperature, methane, oxygen, and carbon dioxide levels temperature and CO levels in gas

collection wells surrounding the area of the suspected significant landfill subsurface oxidation event or landfill fire.

c. NSPS 40 CFR 60 Subpart WWW:

The Permittee shall fulfill the reporting requirements pursuant to NSPS 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfills:

Except as provided in Condition 7.1.5(a)(ii)(A)(2) and 40 CFR 60.752(b)(2)(i)(B),

i. The Permittee shall submit an NMOC emission rate report to the Illinois EPA initially and annually thereafter, except as provided for in 40 CFR 60.757(b)(1)(ii) or (b)(3) (See below). The Illinois EPA may request such additional information as may be necessary to verify the reported NMOC emission rate [40 CFR 60.757(b)].

A. The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in Condition 7.1.7(a) or (b) and 40 CFR 60.754(a) or (b), as applicable [40 CFR 60.757(b)(1)].

1. The NMOC emission rate reports shall be submitted as part of the annual emission report, as required by 35 IAC Part 254 (See Condition 9.7), except as provided for in 60.757(b)(1)(ii) and (b)(3) [40 CFR 60.757(b)(1)(i)].

2. If the estimated NMOC emission rate as reported in the annual report to the Illinois EPA is less than 50 megagrams per year in each of the next 5 consecutive years, the Permittee may elect to submit an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based shall be provided to the Illinois EPA. This estimate shall be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any

year reported in the 5-year estimate, a revised 5-year estimate shall be submitted to the Illinois EPA. The revised estimate shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate [40 CFR 60.757(b)(1)(ii)].

- B. The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions [40 CFR 60.757(b)(2)].
 - C. The Permittee is exempted from the requirements of 40 CFR 60.757(b)(1) and (2), after the installation of a collection and control system in compliance with Condition 7.1.3(c)(ii), during such time as the collection and control system is in operation and in compliance with 40 CFR 60.753 and 60.755 [40 CFR 60.757(b)(3)].
- ii. Upon becoming subject to the provisions of Condition 7.1.3(c)(ii)(A), the Permittee shall submit a collection and control system design plan to the Illinois EPA, Division of Air Pollution Control, Permit Section within 1 year of the first report required under 40 CFR 60.757(b) in which the emission rate equals or exceeds 50 megagrams per year, except as follows [40 CFR 60.757(c)]:
- A. If the Permittee elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in 40 CFR 60.754(a)(3) and the resulting rate is less than 50 megagrams per year, annual periodic reporting shall be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than 50 megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated emission rate based on NMOC sampling and analysis, shall be submitted within 180 days of the first calculated exceedance of 50 megagrams per year [40 CFR 60.757(c)(1)].
 - B. If the Permittee elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant (k), as provided in Tier 3 in 40 CFR 60.754(a)(4), and the resulting NMOC emission rate is less than 50 Mg/yr, annual periodic reporting shall be

resumed. The resulting site-specific methane generation rate constant (k) shall be used in the emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions of 40 CFR 60.754(a)(4) (Tier 3) and the resulting site-specific methane generation rate constant (k) shall be submitted to the Illinois EPA, Division of Air Pollution Control within 1 year of the first calculated emission rate exceeding 50 megagrams per year [40 CFR 60.757(c)(2)].

The collection and control system design plan shall contain the information required under Condition 7.1.3(c)(ii) and such other additional information outlined in the USEPA guidance document Municipal Solid Waste Landfills, Volume 1: Summary of the Requirements for New Source Performance Standards and Emission Guidelines for Municipal Solid Waste Landfills (See <http://www.epa.gov/ttn/oarpg>). The collection and control system design plan shall be submitted as part of a construction permit application for a CAAPP source and a request for "Administrative Amendment" or "Minor Permit Modification" of the CAAPP permit (See Attachment 3 (Section 10.3 of this permit)).

- iii. The Permittee shall submit a closure report to the Illinois EPA BOA, Compliance Section within 30 days of waste acceptance cessation. The Illinois EPA BOA, 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 BOA, 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)].
- d. 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 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(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 a 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 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)]:
 - A. Scheduled starting and completion dates.
 - B. Reason for disturbing the waste.
 - C. 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.

- D. Location of any temporary storage site and the final disposal site.

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected MSW landfill without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

- 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 particulate matter limitations cited in Condition 5.3.2.
- 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.

7.1.12 Compliance Procedures

- a. Landfill Operations PM emissions shall be calculated based upon the following emission factors and operating data:
 - i. Landfill operation PM emissions shall be calculated based on operating data and the emission factors from the most updated version of AP-42, or approved alternative methodology.
 - ii. For the purpose of estimating fugitive PM 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.
 - iii. For the purpose of estimating fugitive PM 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.

- b. i. Compliance with the limits in Conditions 5.6.1, 5.6.2, and 7.1.6 shall be based upon the testing, monitoring, recordkeeping, and reporting requirements in Conditions 7.1.7, 7.1.8, 7.1.9, and 7.1.10, respectively, respectively, and the emission factors and formulas listed below:
- ii. For the purpose of estimating un-controlled methane, NMOC, VOM, and HAP emissions from the landfill, the USEPA Landfill Gas Emissions Model (<http://www.epa.gov/ttn/chief> and AP-42, Chapter 2.4 (See Appendix 5)) shall be used. The Permittee is allowed to use site-specific NMOC concentration and/or methane generation rate constant (k) determined through the procedures shown in Condition 7.1.7. Further, the Permittee is allowed to use 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 HAP 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.

For the purpose of determining monthly emissions, the annual emissions total, calculated with the above procedure, shall be divided by 12 months.

- iii. For the purpose of estimating monthly and aggregate annual NMOC, VOM, PM, PM₁₀, NO_x, CO and SO₂ emissions from the open flare, the Permittee shall be based upon the emission factors and procedures in AP-42, Chapter 2.4 (See Appendix 5). These include but are not limited to the following:

A. AP-42 Ch. 13.5: Table 13.5-1

	lb/10 ⁶ BTU
NO _x	0.068
CO	0.37

Where:

Flare Emissions (lb) = (Landfill Gas Vented to the Flare, dscfm) x (The Appropriate Emission Factor, lb/10⁶ BTU x 60 minutes/hour x Landfill Gas heat content

Landfill Gas heat content determined by the results of the testing required in Condition 7.1.7(e).

- B. AP-42, Chapter 2.4: Table 2.4-5 (Flare)

	lb/10 ⁶ dscf Methane
PM	17

Where:

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%

- C. SO₂, NMOC, and VOM

<u>SO₂</u>	Emission factor shall be based upon the sulfur content determined by the results of the testing required in Condition 7.1.7(e) and equations and calculation procedures in AP-42 Section 2.4 (Table 2.4-5.)
<u>NMOC</u>	Emission factor shall be based upon the results of the testing required in Condition 7.1.7 and equations and calculation procedures in AP-42 Section 2.4 (Table 2.4-5.)
<u>VOM</u>	Emission factor shall be based upon the results of the testing required in Condition 7.1.7 and equations and calculation procedures in 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)/1,000,000 x 60 minutes/hour

- C. Landfill gas methane shall be determined by the results of the testing required in Condition 7.1.7(e); and
- D. Landfill gas flow shall be based upon the monitoring and recordkeeping requirements in Conditions 7.1.8 and 7.1.9.
- c. Compliance with 40 CFR 60 Subpart WWW - Standards of Performance for Municipal Solid Waste Landfills:
- i. Except as provided in Condition 7.1.5(a)(ii)(A)(2) and 40 CFR 60.752(b)(2)(i)(B), the specified methods in Condition 7.1.12(d) shall be used to determine

whether the gas collection system is in compliance with 40 CFR 60.752(b)(2)(ii) [40 CFR 60.755(a)].

A. For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with Condition 7.1.5(a)(ii)(B)(1)(I) and 40 CFR 60.752(b)(2)(ii)(A)(1), one of the following equations shall be used. The k and L_o kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site specific values demonstrated to be appropriate and approved by the Illinois EPA. If k has been determined as specified in Condition 7.1.7(a)(iii)(c) and 40 CFR 60.754(a)(4) (Tier 3), the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure [40 CFR 60.755(a)(1)].

1. For sites with unknown year-to-year solid waste acceptance rate [40 CFR 60.755(a)(1)(i)]:

$$Q_m = 2L_o R (e^{-kc} - e^{-kt})$$

Where:

Q_m = Maximum expected gas generation flow rate, cubic meters per year

L_o = Methane generation potential, cubic meters per megagram solid waste

R = Average annual acceptance rate, megagrams per year

k = Methane generation rate constant, year⁻¹

t = Age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure, it is the age of the landfill at installation, years

c = Time since closure, years (for an active landfill c = 0 and $e^{-kc} = 1$)

2. For sites with known year-to-year solid waste acceptance rate [40 CFR 60.755(a)(1)(ii)]:

$$Q_m = \sum_{i=1}^n 2kL_oM_i(e^{-kt_i})$$

Where:

Q_m = Maximum expected gas generation flow rate, cubic meters per year

k = Methane generation rate constant, year⁻¹

L_o = Methane generation potential, cubic meters per megagram solid waste

M_i = Mass of solid waste in the ith section, megagrams

t_i = Age of the ith section, years

3. If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in Condition 7.1.12(c)(i)(A)(1) and (2) and 40 CFR 60.755(a)(1)(i) and (ii). If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equations in Condition 7.1.12(c)(i)(A)(1) and (2) and 40 CFR 60.755(a)(1)(i) and (ii) or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment [40 CFR 60.755(a)(1)(iii)].

- ii. For the purposes of determining sufficient density of gas collectors for compliance with Condition 7.1.5(a)(ii)(B)(II) and 40 CFR 60.752(b)(2)(ii)(A)(2), the owner or operator shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Illinois EPA, capable of controlling and extracting gas from all portions of the landfill

sufficient to meet all operational and performance standards [40 CFR 60.755(a)(2)].

- iii. For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with Condition 7.1.5(a)(ii)(B)(III) and 40 CFR 60.752(b)(2)(ii)(A)(3), the owner or operator shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under Condition 7.1.5(b)(ii) and 40 CFR 60.753(b). If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Illinois EPA and/or USEPA for approval [40 CFR 60.755(a)(3)].
- iv. Owners or operators are not required to expand the system as required in Condition 7.1.12(c)(iii) and 40 CFR 60.755(a)(3) during the first 180 days after gas collection system startup [40 CFR 60.755(a)(4)].
- v. For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or oxygen as provided in Condition 7.1.5(b)(iii) and 40 CFR 60.753(c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Illinois EPA and/or USEPA for approval [40 CFR 60.755(a)(5)].
- vi. An owner or operator seeking to demonstrate compliance with Condition 7.1.5(a)(ii)(B)(IV) and 40 CFR 60.752(b)(2)(ii)(A)(4) through the use of a collection system not conforming to the specifications provided in 40 CFR 60.759 [Specifications for Active Collection Systems] shall

provide information satisfactory to the Illinois EPA and/or USEPA as specified in Condition 7.1.5(a)(ii)(A)(3) and 40 CFR 60.752(b)(2)(i)(C) demonstrating that off-site migration is being controlled [40 CFR 60.755(a)(6)].

- d. For purposes of compliance with Condition 7.1.5(b)(i) and 40 CFR 60.753(a), each owner or operator of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in Condition 7.1.5(a)(ii)(A) and 40 CFR 60.752(b)(2)(i). Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of [40 CFR 60.755(b)]:
 - i. 5 years or more if active [40 CFR 60.755(b)(1)]; or
 - ii. 2 years or more if closed or at final grade [40 CFR 60.755(b)(2)].

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 June 16, 2008 (the date of issuance of the proposed 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].

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 if applicable test methods are not specified by the applicable regulations or otherwise identified in the conditions of this permit.

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 Conditions 8.6.3 and 8.6.4.

8.6 Reporting Requirements

8.6.1 Monitoring Reports

Reports summarizing required monitoring as specified in the conditions of this permit shall be submitted to the Illinois EPA

every six months as follows, unless more frequent submittal of such reports is required in Sections 5 or 7 of this permit [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 determinations of emissions and operation that are intended to be made, including sampling and monitoring locations;
- e. The test method(s) that 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. Unless otherwise specified in the particular provision of this permit or in the written instructions distributed by the Illinois EPA for particular reports, reports and notifications shall be sent to the Illinois EPA - Air Compliance Unit with a copy sent to the Illinois EPA - Air Regional Field Office.
- b. As of the date of issuance of this permit, the addresses of the offices that should generally be utilized for the submittal of reports and notifications are as follows:

- i. Illinois EPA - Air Compliance Unit

Illinois Environmental Protection Agency
Bureau of Air
Compliance & Enforcement Section (MC 40)
P.O. Box 19276
Springfield, Illinois 62794-9276

- ii. Illinois EPA - Air Quality Planning Section

Illinois Environmental Protection Agency
Bureau of Air
Air Quality Planning Section (MC 39)
P.O. Box 19276
Springfield, Illinois 62794-9276

iii. Illinois EPA - Air Regional Field Office

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234

iv. USEPA Region 5 - Air Branch

USEPA (AR - 17J)
Air & Radiation Division
77 West Jackson Boulevard
Chicago, Illinois 60604

- c. Permit applications should be addressed to the Air Permit Section. As of the date of issuance of this permit, the address of the Air Permit Section is as follows:

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

8.7 Title I Conditions

Notwithstanding the expiration date on the first page of this CAAPP permit, Title I conditions in this permit, which are identified by a T1, T1N, or T1R designation, remain in effect until such time as the Illinois EPA takes action to revise or terminate them in accordance with applicable procedures for action on Title I conditions. This is because these conditions either: (a) incorporate conditions of earlier permits that were issued by the Illinois EPA pursuant to authority that includes authority found in Title I of the CAA (T1 conditions), (b) were newly established in this CAAPP permit pursuant to authority that includes such Title I authority (T1N conditions), or (c) reflect a revision or combination of conditions established in this CAAPP permit (T1R conditions). (See also Condition 1.5.)

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.

9.1.2 In particular, this permit does not alter or affect the following [Section 39.5(7)(j)(iv) of the Act]:

- 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, pursuant to Section 39.5(7)(j) and (p) of the Act, 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, or 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 this permit provides for such continued operation consistent with the Act and applicable Illinois Pollution Control Board regulations [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 as may be required by law and in accordance with constitutional limitations, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Sections 4 and 39.5(7)(a) and (p)(ii) of the Act]:

- 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 applicable requirements; 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 regulated 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. At 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 including any logs, plans, procedures, or instructions required to be kept 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, Air Quality Planning 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 Unit, 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 and applicable regulations [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as Attachment 1 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 [Section 39.5(7)(k) of the Act]:

- 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.

Note: For this purpose, emergency means a situation arising from sudden and reasonably unforeseeable events beyond the control of the source, as further defined by Section 39.5(7)(k)(iv) of the Act.

- 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 [Section 39.5(7)(k)(iv) of the Act].

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, revoked, reopened and reissued, or terminated for cause in accordance with applicable provisions of Section 39.5 of the Act. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, 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 that inaccurate statements were made in establishing the emission standards or limitations, or other terms or conditions of this permit.

- d. The Illinois EPA or USEPA determines that this permit must be revised or revoked to ensure compliance with the applicable requirements.

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 and reissuance under Section 39.5(15) of the Act, pursuant to Sections 39.5(5)(e) and (i) 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. In the event of a challenge to any portion of the permit, other portions of the permit may continue to be in effect. Should any portion of this permit be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected and 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

Upon the expiration of this permit, if the source is operated, it shall be deemed to be operating without a permit unless a timely and complete CAAPP application has been submitted for renewal of this permit. However, if a timely and complete application to renew this CAAPP permit has been submitted, the terms and all conditions of this CAAPP permit will remain in effect until the issuance of a renewal permit [Section 39.5(5)(l) and (o) of the Act].

Note: Pursuant to Sections 39.5(5)(h) and (n) of the Act, upon submittal of a timely and complete renewal application, the permitted source may continue to operate until final action is taken by the Illinois EPA on the renewal application, provided, however, that this protection shall cease if the applicant fails to submit any additional information necessary to evaluate or take final action on the renewal

application as requested by the Illinois EPA in writing. For a renewal application to be timely, it must be submitted no later than 9 months prior to the date of permit expiration.

9.15 General Authority for the Terms and Conditions of this Permit

The authority for terms and conditions of this permit that do not include a citation for their authority is Section 39.5(7)(a) of the Act, which provides that the Illinois EPA shall include such provisions in a CAAPP permit as are necessary to accomplish the purposes of the Act and to assure compliance with all applicable requirements. Section 39.5(7)(a) of the Act is also another basis of authority for terms and conditions of this permit that do include a specific citation for their authority.

Note: This condition is included in this permit pursuant to Section 39.5(7)(n) of the Act.

10.0 ATTACHMENTS

Attachment 1 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: _____

Attachment 2 Emissions of Particulate Matter from Process Emission Units

- a. New Process Emission Units for Which Construction or Modification Commenced On or After April 14, 1972 [35 IAC 212.321].
- i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 [35 IAC 212.321(a)].
- ii. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.321(b)]:

$$E = A(P)^B$$

where:

P = Process weight rate; and
E = Allowable emission rate; and,

A. Up to process weight rates of 408 Mg/hr (450 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	1.214	2.54
B	0.534	0.534

B. For process weight rate greater than or equal to 408 Mg/hr (450 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	11.42	24.8
B	0.16	0.16

iii. Limits for Process Emission Units For Which Construction or Modification Commenced On or After April 19, 1972 [35 IAC 212.321(c)]:

Metric P <u>Mg/hr</u>	E <u>kg/hr</u>	English P <u>T/hr</u>	E <u>lb/hr</u>
0.05	0.25	0.05	0.55
0.1	0.29	0.10	0.77
0.2	0.42	0.2	1.10
0.3	0.64	0.30	1.35
0.4	0.74	0.40	1.58
0.5	0.84	0.50	1.75
0.7	1.00	0.75	2.40
0.9	1.15	1.00	2.60
1.8	1.66	2.00	3.70
2.7	2.1	3.00	4.60
3.6	2.4	4.00	5.35
4.5	2.7	5.00	6.00
9.0	3.9	10.00	8.70
13.0	4.8	15.00	10.80
18.0	5.7	20.00	12.50
23.0	6.5	25.00	14.00
27.0	7.1	30.00	15.60
32.0	7.7	35.00	17.00
36.0	8.2	40.00	18.20
41.0	8.8	45.00	19.20
45.0	9.3	50.00	20.50
90.0	13.4	100.00	29.50
140.0	17.0	150.00	37.00
180.0	19.4	200.00	43.00
230.0	22.0	250.00	48.50
270.0	24.0	300.00	53.00
320.0	26.0	350.00	58.00
360.0	28.0	400.00	62.00
408.0	30.1	450.00	66.00
454.0	30.4	500.00	67.00

b. Existing Process Emission Units for Which Construction or Modification Prior to April 14, 1972 [35 IAC 212.322].

i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 [35 IAC 212.322(a)].

ii. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.322(b)]:

$$E = C + A(P)^B$$

where:

P = Process weight rate; and
E = Allowable emission rate; and,

A. Up to process weight rates up to 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	1.985	4.10
B	0.67	0.67
C	0	0

B. For process weight rate in excess of 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	25.21	55.0
B	0.11	0.11
C	- 18.4	- 40.0

iii. Limits for Process Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972 [35 IAC 212.322(c)]:

Metric P <u>Mg/hr</u>	E <u>kg/hr</u>	English P <u>T/hr</u>	E <u>lb/hr</u>
0.05	0.27	0.05	0.55
0.1	0.42	0.10	0.87
0.2	0.68	0.2	1.40
0.3	0.89	0.30	1.83
0.4	1.07	0.40	2.22
0.5	1.25	0.50	2.58
0.7	1.56	0.75	3.38
0.9	1.85	1.00	4.10
1.8	2.9	2.00	6.52
2.7	3.9	3.00	8.56
3.6	4.7	4.00	10.40
4.5	5.4	5.00	12.00
9.0	8.7	10.00	19.20
13.0	11.1	15.00	25.20
18.0	13.8	20.00	30.50
23.0	16.2	25.00	35.40
27.2	18.15	30.00	40.00
32.0	18.8	35.00	41.30
36.0	19.3	40.00	42.50
41.0	19.8	45.00	43.60
45.0	20.2	50.00	44.60
90.0	23.2	100.00	51.20
140.0	25.3	150.00	55.40
180.0	26.5	200.00	58.60
230.0	27.7	250.00	61.00
270.0	28.5	300.00	63.10
320.0	29.4	350.00	64.90
360.0	30.0	400.00	66.20
400.0	30.6	450.00	67.70
454.0	31.3	500.00	69.00

Attachment 3 Compliance Assurance Monitoring (CAM) Plan

There are no specific emission units that require a CAM plan as identified in the Monitoring Requirements of Subsection 8 for each Section 7, Unit Specific Conditions for Specific Emission Units.

Attachment 4 Guidance

The Illinois has prepared guidance for sources on the Clean Air Act Permit Program (CAAPP) that is available on the Internet site maintained by the Illinois EPA, www.epa.state.il.us. This guidance includes instructions on applying for a revision or renewal of the CAAPP permit.

Guidance On Revising A CAAPP Permit:

www.epa.state.il.us/air/caapp/caapp-revising.pdf

Guidance On Renewing A CAAPP Permit:

www.epa.state.il.us/air/caapp/caapp-renewing.pdf

The application forms prepared by the Illinois EPA for the CAAPP are also available from the Illinois EPA's Internet site:

www.epa.state.il.us/air/caapp/index.html

These CAAPP application forms should also be used by a CAAPP source when it applies for a construction permit. For this purpose, the appropriate CAAPP application forms and other supporting information, should be accompanied by a completed Application For A Construction Permit form (199-CAAPP) and Fee Determination for Construction Permit Application form (197-FEE):

www.epa.state.il.us/air/caapp/199-caapp.pdf

www.epa.state.il.us/air/permits/197-fee.pdf

MED:psj

Attachment 5 Guidance On Relevant Regulations and other Information
Referenced In The Permit

- Links to relevant regulations are available from Illinois EPA's Internet site:

<http://www.epa.state.il.us/regulations.html>

- Illinois Regulations are shown on the Illinois Pollution Control Boards Internet Site:

<http://www.ipcb.state.il.us/SLR/IPCBandIEPAEnvironmentalRegulations-Title35.asp>

- Links to USEPA Regulations are shown on the USEPA Internet Site:

<http://www.epa.gov/epahome/rules.html>

Other Information and Guidance:

- Rule and Implementation Information for Standards of Performance for Municipal Solid Waste Landfills (40 CFR 60 Subpart WWW):

<http://www.epa.gov/ttn/atw/landfill/landflpg.html>

- NESHAP Rule and Implementation Information for Municipal Solid Waste Landfills (40 CFR 63 Subpart AAAA):

<http://www.epa.gov/ttn/atw/landfill/lndfillpg.html>

- USEPA Region 4 Guidance on the Asbestos NESHAP

<http://www.epa.gov/region4/air/asbestos/>

- AP-42 - Section 2.4 - Municipal Solid Waste Landfills

<http://www.epa.gov/ttn/chief/ap42/ch02/final/c02s04.pdf>

- Landfill Gas Emissions Model (LandGEM), version 3.02. XLS file is the LandGEM Model (MS Excel Spreadsheet); 2kb file is ReadMe First file; and 1365kb PDF file is the User's Guide (EPA-600/R-05/047)

<http://www.epa.gov/ttn/catc/products.html#software>