217/782-2113

TITLE V - CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT
and
TITLE I PERMIT[1]

PERMITTEE

Tazewell Recycling and Disposal Facility
Attn: Bernadette Sarmiento
3550 East Washington Street
East Peoria, Illinois 61611

Application No.: 99100098
I.D. No.: 179806AAB
Applicant's Designation:
Date Received: October 29, 1999
Operation of: MSW Landfill
Date Issued: October 23, 2002
Expiration Date[2]: October 23, 2007
Source Location: 3550 E. Washington St., East Peoria, Tazewell County, IL 61611
Responsible Official: Steve Harenberg/Division Vice President

This permit is hereby granted to the above-designated Permittee to operate a Municipal Solid Waste Landfill and a gas-to-energy facility, 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 Michael Haggitt at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:MVH:psj

cc: Illinois EPA, FOS, Region 2
USEPA

[1] This permit may contain terms and conditions which address the applicability, and compliance if determined applicable, of Title I of the CAA and regulations promulgated thereunder, including 40 CFR 52.21 – federal PSD and 35 IAC Part 203 – Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within this permit.

[2] Except as provided in Condition 8.7 of this permit.

TABLE OF CONTENTS

		PAGE
1.0	SOURCE IDENTIFICATION	4
	1.1 Source	
	1.2 Owner/Parent Company	
	1.3 Operator	
	1.4 General Source Description	
2.0	LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT	5
3.0	INSIGNIFICANT ACTIVITIES	7
	3.1 Identification of Insignificant Activities	
	3.2 Compliance with Applicable Requirements	
	3.3 Addition of Insignificant Activities	
4.0	SIGNIFICANT EMISSION UNITS AT THIS SOURCE	9
5.0	OVERALL SOURCE CONDITIONS	10
	5.1 Source Description	
	5.2 Applicable Regulations	
	5.3 Non-Applicability of Regulations of Concern	
	5.4 Source-Wide Operational and Production Limits and Work Practices	
	5.5 Source-Wide Emission Limitations	
	5.6 General Recordkeeping Requirements	
	5.7 General Reporting Requirements	
	5.8 General Operational Flexibility/Anticipated Operating Scenarios	
	5.9 General Compliance Procedures	
6.0	[NOT APPLICABLE TO THIS PERMIT]	16
7.0	UNIT SPECIFIC CONDITIONS	17
	7.1 MSW Landfill Control – Flare and/or Engines	
	7.2 Engines/Generators	
	7.3 Solidification Process	
8.0	GENERAL PERMIT CONDITIONS	74
	8.1 Permit Shield	
	8.2 Applicability of Title IV Requirements	
	8.3 Emissions Trading Programs	
	8.4 Operational Flexibility/Anticipated Operating Scenarios	
	8.5 Testing Procedures	
	8.6 Reporting Requirements	
	8.7 Obligation to Comply with Title I Requirements	

PAGE

9.0 STANDARD PERMIT CONDITIONS 79

9.1 Effect of Permit
9.2 General Obligations of Permittee
9.3 Obligation to Allow Illinois EPA Surveillance
9.4 Obligation to Comply with Other Requirements
9.5 Liability
9.6 Recordkeeping
9.7 Annual Emissions Report
9.8 Requirements for Compliance Certification
9.9 Certification
9.10 Defense to Enforcement Actions
9.11 Permanent Shutdown
9.12 Reopening And Reissuing Permit For Cause
9.13 Severability Clause
9.14 Permit Expiration and Renewal

10.0 ATTACHMENTS

10.1 Attachment 1 - Summary of Emission Units 1-1
10.2 Attachment 2 - Emissions of Particulate Matter from New Process Emission Units 2-1
10.3 Attachment 4 - Example Certification by a Responsible Official 3-1
10.4 Attachment 5 – Guidance on Revising This Permit 4-1
10.5 Attachment 6 - Form 199-CAAPP, Application For Construction Permit (For CAAPP Sources Only) 5-1
10.6 Attachment 7 – Guidance on Renewing This Permit 6-1

1.0 SOURCE IDENTIFICATION

1.1 Source

Tazewell Recycling and Disposal Facility
3550 East Washington Street
East Peoria, Illinois 61611
309/694-8772

I.D. No.: 179806AAB
Standard Industrial Classification: 4953, Refuse Systems
4911, Electric Services

1.2 Owner/Parent Company

Waste Management of Illinois, Inc.
3550 East Washington Street
East Peoria, Illinois 61611

1.3 Operator

Waste Management of Illinois, Inc.
3550 East Washington Street
East Peoria, Illinois 61611

Bernadette Sarmiento/Engineer
309/694-8772

1.4 General Source Description

The Tazewell Recycling and Disposal Facility is located at 3550 East Washington Street near East Peoria. The source is a Municipal Solid Waste Landfill. A MSW landfill is defined as an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. An MSW landfill may also receive other types of RCRA Subtitle D wastes (40 CFR 257.2) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. The MSW Landfill has an active gas collection and control system that is routed to either engines and/or a enclosed flare.

2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]
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
Btu	British thermal unit
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
CO	Carbon Monoxide
CFR	Code of Federal Regulations
ERMS	Emissions Reduction Market System
Ft^3	Cubic Feet
Gal	Gallon
HAP	Hazardous Air Pollutant
hr	hour
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
Illinois EPA	Illinois Environmental Protection Agency
°K	Degrees Kelvin
kPa	Kilopascals
kg	Kilograms
kW	Kilowatts
l	liters
lb	Pound
ILCS	Illinois Compiled Statutes
MBtu	Million British thermal units
Mg	Megagrams
MW	Megawatts
mmHg	Millimeters of Mercury
mmscf	Million standard cubic feet
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
ppm	parts per million
PSD	Prevention of Significant Deterioration

RMP	Risk Management Plan
SIP	State Implementation Plan
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 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:

10,000-Gallon Leachate Tank

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:

Crankcase Breather Vents
3,000-Gallon Condensate Tank
5,000-Gallon Condensate Tank
15,000-Gallon Condensate Tank

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

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

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

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

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

3.2 Compliance with Applicable Requirements

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

3.2.1 For each cold cleaning degreaser, the Permittee shall comply with the applicable equipment and operating requirements of 35 IAC 215.182, 218.182, or 219.182.

3.2.2 For each particulate matter process emission unit, the Permittee shall comply with the applicable particulate matter emission limit of 35 IAC 212.321 or 212.322. For example, the particulate matter emissions from a process emission unit shall not exceed 0.55 pounds per hour if the emission unit’s process weight rate is 100 pounds per hour or less, pursuant to 35 IAC 266.110.

3.2.3 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 215.301, 218.301, or 219.301, which requires that organic material emissions not exceed 8.0 pounds per hour or do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.

3.3 Addition of Insignificant Activities

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

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	Date Constructed	Emission Control Equipment
MSW Landfill	Tazewell 1: Closed MSW Landfill with a gas collection and control system. Tazewell 2: Active MSW Landfill with a gas collection and control system.	Commenced Construction: 1974 Last Modification: N/A	Engines and/or Enclosed flare
Engine/ Generator 1	Caterpillar 3516 Reciprocating Engine used for generation of electricity.	January 1989	None
Engine/ Generator 2	Caterpillar 3516 Reciprocating Engine used for generation of electricity.	January 1989	None
Engine/ Generator 3	Caterpillar 3508 Reciprocating Engine used for generation of electricity.	January 1989	None
Engine/ Generator 4	Caterpillar 3516 Reciprocating Engine used for generation of electricity.	N/A	None
Solidification Process	Solidification of non-hazardous wastes	October 1994	None

5.0 OVERALL SOURCE CONDITIONS

5.1 Source Description

5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of CO emissions.

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

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

5.2 Applicable Regulations

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

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

a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.

b. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.

5.2.3 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.

5.2.4 Risk Management Plan

Should this stationary source, as defined in 40 CFR Section 68.3, become subject to the Accidental Release Prevention regulations in 40 CFR Part 68, then the owner or operator shall submit [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 Risk Management Plan (RMP), as part of the annual compliance certification required by 40 CFR Part 70 or 71.

5.2.5 a. Should this stationary source become subject to a regulation under 40 CFR Parts 60, 61, or 63, or 35 IAC after the date issued of this permit, then the owner or operator shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by 40 CFR Part 70 or 71.

b. No later than upon the submittal for renewal of this permit, the owner or operator shall submit, as part of an application, the necessary information to address either the non-applicability of, or demonstrate compliance with all applicable requirements of any potentially applicable regulation which was promulgated after the date issued of this permit.

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

5.2.6 Episode Action Plan

a. If the source is required to have an episode action plan pursuant to 35 IAC 244.142, the Permittee shall maintain at the source and have on file with the Illinois EPA a written episode action plan (plan) for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures. The plan shall contain the information specified in 35 IAC 244.144.

b. The Permittee shall immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared.

c. If a change occurs at the source which requires a revision of the plan (e.g., operational change, change in the source contact person), a copy of the revised plan shall be submitted to the Illinois EPA for review within 30 days of the change. Such plans shall be further revised if disapproved by the Illinois EPA.

d. For sources required to have a plan pursuant to 35 IAC 244.142, a copy of the original plan and any subsequent revisions shall be sent to:

i. Illinois EPA, Compliance Section; and

ii. For sources located in Cook County and outside of the city of Chicago: Cook County Department of Environmental Control; or

iii. For sources located within the city of Chicago: Chicago Department of Environmental Control.

5.3 Non-Applicability of Regulations of Concern

5.3.1 This permit is issued based on the source not being subject to 40 CFR Part 64, Compliance Assurance Monitoring

(CAM) for Major Stationary Sources, because the source is subject to a NSPS proposed after November 15, 1990, pursuant to 40 CFR 64.2(b)(1)(i).

5.4 Source-Wide Operational and Production Limits and Work Practices

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

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

No inspection shall be necessary for wind erosion from the surface the landfill when the landfill is covered with snow and/or ice and for any landfill activity if precipitation has occurred that is sufficient for that day to ensure compliance with the requirements of Condition 5.2.2(a). Any required inspection that is not performed due to any of the above identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.

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.

If the fugitive particulate matter program fails to address or inadequately addresses an event that meets the characteristics of a wind erosion, reentrainment, 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, reentrainment, or fugitive event.

5.5 Source-Wide Emission Limitations

5.5.1 Permitted Emissions for Fees

The annual emissions from the source, not considering insignificant activities as addressed by Section 3.0 of

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

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	7.28
Sulfur Dioxide (SO_2)	76.09
Particulate Matter (PM)	41.67
Nitrogen Oxides (NO_x)	89.10
HAP, not included in VOM or PM	-----
TOTAL	214.14

5.5.2 Emissions of Hazardous Air Pollutants

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

5.5.3 Other Source-Wide Emission Limitations

a. The volume of waste deposited in MSW Landfill shall not exceed the maximum design capacity set in the latest Developmental Permit(s), issued by the Illinois EPA's Bureau of Land (BOL), for the source. The capacity of the landfill shall not exceed 7,500,000 cubic yards, which is the basis for determining potential emissions for the landfill.

5.6 General Recordkeeping Requirements

5.6.1 Emission Records

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

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

5.6.2 Records for Operating Scenarios

N/A

5.6.3 Retention and Availability of Records

a. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.

b. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for records during the course of a source inspection.

5.7 General Reporting Requirements

5.7.1 General Source-Wide Reporting Requirements

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

5.7.2 Annual Emissions Report

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

5.8 General Operational Flexibility/Anticipated Operating Scenarios

N/A

5.9 General Compliance Procedures

5.9.1 General Procedures for Calculating Emissions

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

6.0 [NOT APPLICABLE TO THIS PERMIT]

7.0 UNIT SPECIFIC CONDITIONS

7.1.1 Description

Active MSW Landfill that has a gas collection and control system which routes landfill gas to a flare for combustion.

7.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
MSW Landfill	Tazewell 1: Closed MSW Landfill with a gas collection and control system. Tazewell #2: Active MSW Landfill with a gas collection and control system.	Engines and/or enclosed flare

7.1.3 Applicability Provisions and Applicable Regulations

a. The “affected landfill” for the purpose of these unit-specific conditions, is the MSW Landfill described in Condition 7.1.1 and 7.1.2.

b. The affected landfill is subject to the emission limits identified in Condition 5.2.2.

c. The affected landfill is subject to 35 IAC Part 220, Non-methane Organic Compounds, because construction or modification of the affected landfill commenced before May 30, 1991 and has accepted waste since November 8, 1987, pursuant to 35 IAC 220.200(a).

35 IAC 220.210 - Compliance Requirements and Schedule:

i. Each owner or operator of an MSW landfill having a design capacity less than 2.5 million Mg by mass or 2.5 million m^3 by volume shall submit an initial design capacity report to the Illinois EPA as provided in Condition 7.1.10(a). The owner or operator may calculate design capacity in either Mg or m^3 for comparison with the exemption values. Any density conversions shall be documented and submitted with the report. If the landfill is subsequently modified, then the owner or operator shall submit to the Illinois EPA an amended design capacity report as provided for in Condition 7.1.10(a)(ii). Submittal of an

initial design capacity report and, if applicable, an amended design capacity report shall fulfill the requirements of this Subpart. Pursuant to Section 220.200(b) of 35 IAC 220, modification of an MSW landfill will subject it to the requirements of 40 CFR 60, Subpart WWW. [35 IAC 220.210(a)]

ii. An owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million Mg and 2.5 million m^3 shall submit an initial design capacity report and initial emissions rate report to the Illinois EPA, as provided in Condition 7.1.10(a) and (b), and comply with either Condition 7.1.3(iii) or (iv). [35 IAC 220.210(b)]

iii. For MSW landfills with an NMOC emissions rate less than 50 Mg/yr, the owner or operator shall [35 IAC 220.210(c)]:

A. Submit an emission rate report, as provided by Condition 7.1.10(b), to the Illinois EPA; and [35 IAC 220.210(c)(1)]

B. Recalculate the NMOC emission rate using the procedures specified in Condition 7.1.7(a) until such time as the calculated NMOC emission rate is equal to or greater than 50 Mg/yr, at which time the provisions of Condition 7.1.3(d)(iv) shall apply, or the landfill is inactive. [35 IAC 220.210(c)(2)]

iv. For MSW landfills with emissions equal to or greater than 50 Mg/yr, calculated pursuant to Condition 7.1.7(a), within 30 months after the date when the first annual NMOC emission rate report equals or exceeds 50 Mg/yr, an owner or operator shall [35 IAC 220.210(d)]:

A. Install and operate [35 IAC 220.210(d)(1)]:

1. A gas collection and control system meeting the gas collection system and control requirements of 35 IAC 220.220 and 220.230 (Below); or [35 IAC 220.210(d)(1)(A)]

2. An alternate gas collection and control system using alternate procedures for gas collection and control, determining compliance,

monitoring, operation, testing, recordkeeping, or reporting instead of those provided for in this Subpart, as approved by the Illinois EPA or Board, as meeting the requirements in Condition 7.1.3(h) or (i), or Condition 7.1.3(j)(iv) or (v). Such alternate system shall be effective only when included in a federally enforceable permit or approved as a SIP revision. [35 IAC 220.210(d)(1)(B)]

3. The Permittee tested over the 50 Mg/yr limit and submitted a design plan approved in Permit 99110005.

B. Certify compliance: Within 6 months of initial startup or upon change in method of compliance the owner or operator of an MSW landfill subject to the control requirements of Condition 7.1.3 must certify compliance with the requirements of Condition 7.1.3 by submitting to the Illinois EPA the following [35 IAC 220.210(d)(2)]:

1. A description of the gas collection and control system used; [35 IAC 220.210(d)(2)(A)]

2. The date the system was installed; and [35 IAC 220.210(d)(2)(B)]

3. A demonstration that the control system meets the requirements of Condition 7.1.3(j): [35 IAC 220.210(d)(2)(C)]

I. For active collection systems: the reduction efficiency or ppmv must be established by a performance test using the test methods required pursuant to Condition 7.1.7(d); or [35 IAC 220.210(d)(2)(C)(i)]

II. For open flares: compliance with the requirements of 40 CFR 60.18, incorporated by reference in 35 IAC 220.130,

must be established. [35 IAC 220.210(d)(2)(C)(ii)]

d. Gas Collection System Requirements - 35 IAC 220.220:

Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million Mg and 2.5 million m^3, and a calculated NMOC emission rate equal to or greater than 50 Mg/yr, must install and operate a gas collection system that meets the requirements of either 35 IAC 220.220(b), (c), (d), or (e) (Below) and: [35 IAC 220.220(a)]

i. Handles maximum expected gas flow rate from the entire area of the MSW landfill that warrants control pursuant to Condition 7.1.3(f)(i)(D) for the period required in Condition 7.1.5(h), as calculated pursuant to Condition 7.1.12(a); [35 IAC 220.220(a)(1)]

ii. Collects 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: [35 IAC 220.220(a)(2)]

A. 5 years or more, if active; or [35 IAC 220.220(a)(2)(A)]

B. 2 years or more if closed or at final grade; [35 IAC 220.220(a)(2)(B)]

iii. Is designed to minimize off-site migration of subsurface gas; [35 IAC 220.220(a)(3)]

iv. Routes all the collected gas to a control system that complies with the requirements in Condition 7.1.3(j); and [35 IAC 220.220(a)(4)]

v. Collects and treats gas in accordance with the applicable requirements of 35 IAC Subtitle G. [35 IAC 220.220(a)(5)]

e. Active Collection Systems [35 IAC 220.220(b)]:

i. Active collection wells, horizontal collectors, surface collectors, or other extraction devices shall be sited at a sufficient density throughout all gas producing areas using the following procedures: [35 IAC 220.220(b)(1)]

A. The collection devices within the interior and along the perimeter areas

shall be designed to achieve comprehensive control of surface gas emissions. [35 IAC 220.220(b)(1)(A)]

B. The sites for gas collection devices, as determined in 35 IAC 220.220(b)(i)(A) (Above), shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior. [35 IAC 220.220(b)(1)(B)]

C. Collect gas at a sufficient extraction rate, as defined at 35 IAC 220.110. [35 IAC 220.220(b)(1)(C)]

D. The placement of gas collection devices determined in 35 IAC 220.220(b)(i)(A) (Above) shall control all gas producing areas, except as provided below. [35 IAC 220.220(b)(1)(D)]

1. Any segregated area of asbestos or nondegradable material may be excluded from collection, if documented as provided under Condition 7.1.10(f). The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and shall be provided to the Illinois EPA upon request. [35 IAC 220.220(b)(1)(D)(i)]

2. Any nonproductive area of the landfill may be excluded from control provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material shall be documented and provided to the Illinois EPA upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill, as calculated pursuant to Condition 7.1.7. Emissions from each section

shall be computed using the following equation: [35 IAC 220.220(b)(1)(D)(ii)]

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

Where:

Q_i = NMOC emission rate from the ith section, Mg/yr

k = Methane generation rate constant, yr^{-1}

L_o = Methane generation potential, m^3 per Mg solid waste

M_i = Mass of degradable solid waste in the ith section, Mg

t_i = Age of the solid waste in the ith section, years

C_{NMOC} = Concentration of NMOC, ppmv

3.6×10^{-9} = Conversion factor

The values for k and C_{NMOC} determined in field testing shall be used, if field testing has been performed in determining the NMOC emission rate or the radii of influence (the distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for k, L_o, and C_{NMOC} provided in Condition 7.1.7(a) shall be used. The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions, provided the nature, location, age and amount of the nondegradable material is documented. [35 IAC 220.220(b)(1)(D)(ii)]

ii. The gas collection devices shall be constructed using the following equipment or procedures: [35 IAC 220.220(b)(2)]:

A. The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards. Collection devices, such as wells and horizontal collectors, shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration. [35 IAC 220.220(b)(2)(A)]

B. Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover, refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations. [35 IAC 220.220(b)(2)(B)]

C. Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness. [35 IAC 220.220(b)(2)(C)]

iii. The landfill gas shall be conveyed to a gas control system through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected for the period of intended use pursuant to Condition 7.1.5(h) using the following procedures: [35 IAC 220.220(b)(3)]

A. For existing gas collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in 35 IAC 220.220(b)(3)(B) (Below) shall be used. [35 IAC 220.220(b)(3)(A)]

B. For new gas collection systems, the maximum flow rate shall be in accordance with Condition 7.1.12(a). [35 IAC 220.220(b)(3)(B)]

f. Passive Collection Systems [35 IAC 220.220(c)]:

i. A passive collection system shall be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall meet all requirements specified in 35 IAC 811.306. [35 IAC 220.220(c)(1)]

ii. The collection and control system shall either conform with the specifications for active collection systems in 35 IAC 220.220(a) or the owner or operator must obtain the Illinois EPA's approval for alternate provisions as provided for in 35 IAC 220.220(d) (Below). [35 IAC 220.220(c)(2)]

g. Alternate Collection Systems [35 IAC 220.220(d)]:

An owner or operator seeking to install an alternate gas collection system shall demonstrate to the Illinois EPA that such collection system is capable of capturing the maximum expected gas flow rate from the entire area of the MSW landfill, for the period required in Condition 7.1.5(h), as calculated pursuant to Condition 7.1.12(a), and in an equivalent manner to that required by 35 IAC 220. Any alternate gas collection system must be approved by the Illinois EPA. Such alternate shall be effective only when included in a federally enforceable permit or approved as a SIP revision. The alternate shall include any alternate procedures for collection, control, compliance, monitoring, operation, testing, reporting, and recordkeeping that are appropriate. [35 IAC 220.220(d)]

h. Alternate Emissions Standard [35 IAC 220.220(e)]:

Pursuant to Section 28.1 of the Act [415 ILCS 5/28.1], and in accordance with 35 IAC 106, Subpart G, provisions for adjusted standards, adjusted standards for alternate emissions standards or alternate emissions standards with an alternate compliance schedule shall be granted by the Board, to the extent consistent with federal law. An owner or operator seeking an alternate emissions standard or an alternate emissions standard with an alternate compliance schedule must demonstrate to the Board that, with respect to the MSW landfill, the control requirements meet one or more of the criteria listed in this subsection (e) pursuant to 40 CFR 60.24(f). Any such request must be approved by the Board. Such alternate shall be effective only when included in a federally enforceable permit or approved as a SIP revision. Any alternate shall include any procedures for collection, control, compliance, monitoring, operation, testing, reporting and recordkeeping that are appropriate and a demonstration that the control requirements, as contained in this Subpart, as they apply to the MSW landfill, meet one or more of the following criteria:

i. Unreasonable cost of control resulting from plant age, location, or basic process design; [35 IAC 220.220(e)(1)]

ii. Physical impossibility of installing necessary control equipment; or [35 IAC 220.220(e)(2)]

iii. Other factors specific to the MSW landfill that support an alternate emissions standard or alternate emissions standard with final compliance date. [35 IAC 220.220(e)(3)]

i. Gas Control System Requirements [35 IAC 220.230]:

Each owner and operator of an MSW landfill subject to the control requirements of Condition 7.1.3 must install and operate a gas collection system that routes all the collected gas to a gas control system that complies with the requirements in 35 IAC 220.230(f) and either install a gas control system, as described in either 35 IAC 220.230(a), (b), or (c), or obtain approval of and install an alternate gas control system pursuant to 35 IAC 220.230(d) or (e) (Below).

i. An open flare(s) designed and operated in accordance with 40 CFR 60.18, incorporated by

reference in 35 IAC 220.130. [35 IAC 220.230(a)]

ii. 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 ppmv, dry basis as hexane at 3 percent oxygen. The reduction efficiency or ppmv must be established by an initial performance test required pursuant to Condition 7.1.3(d)(iv)(B), using the test methods required under Condition 7.1.7(d): [35 IAC 220.230(b)]

A. If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone. [35 IAC 220.230(b)(1)]

B. 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 Condition 7.1.8. The initial performance test must be performed within 6 months after startup or by October 31, 2001, whichever is later. [35 IAC 220.230(b)(2)]

iii. 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 35 IAC 220.230(b) (Above). [35 IAC 220.230(c)]

iv. An alternate gas control system approved by the Illinois EPA. An owner or operator seeking to install an alternate gas control system shall demonstrate to the Illinois EPA that such collection system is capable of control equivalent to 35 IAC 220.230(b) (Above). Such alternate shall be effective only when included in a federally enforceable permit or approved as a SIP revision. The alternate shall include any alternate procedures for collection, control, compliance, monitoring, operation, testing, reporting, and recordkeeping that are appropriate. [35 IAC 220.230(d)]

v. Pursuant to Section 28.1 of the Act [415 ILCS 5/28.1], and in accordance with 35 IAC 106, Subpart G, provisions for adjusted standards, adjusted standards for alternate emissions standards or alternate emissions standards with an alternate compliance schedule shall be granted by the Board, to the extent consistent with federal law. An owner or operator seeking an alternate emissions standard or an alternate emissions standard with an alternate compliance schedule must demonstrate to the Board that, with respect to the MSW landfill, the control requirements meet one or more of the criteria listed in this subsection (e), pursuant to 40 CFR 60.24(f). Any such request must be approved by the Board. Such alternate shall be effective only when included in a federally enforceable permit or approved as a SIP revision. Any alternate shall include any procedures for collection, control, compliance, monitoring, operation, testing, reporting, and recordkeeping that are appropriate and a demonstration that the control requirements as contained in this Subpart, as they apply to the MSW landfill, meet one or more of the following criteria: [35 IAC 220.230(e)]

A. Unreasonable cost of control resulting from plant age, location, or basic process design; [35 IAC 220.230(e)(1)]

B. Physical impossibility of installing necessary control equipment; or [35 IAC 220.230(e)(2)]

C. Other factors specific to the MSW landfill that support an alternate emissions standard or alternate emissions standard with final compliance date. [35 IAC 220.230(e)(3)]

vi. Gas control systems must be operated in accordance with a permit issued pursuant to the applicable requirements of 35 IAC Subtitle G. [35 IAC 220.230(f)]

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

The affected landfill meets 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.

i. 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.

ii. For any closed active waste disposal site previously subject to the requirements of 40 CFR 61.154, the Permittee shall comply with the requirements of 40 CFR 61.151 [40 CFR 61.154(g)].

k. This permit is issued based upon the following alternatives for the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of 35 IAC Part 220 proposed in the Landfill Gas Collection and Control System Design Plan (Permit 99110006), being approved by the Illinois EPA. These alternatives are addressed in subsequent Special Conditions.

i. Exclusion of dangerous areas such as road, the active area, truck traffic, and steep sloped areas with a grade equal to 4:1 from the surface monitoring plan.

ii. The proposal to use USEPA Method 3C as opposed to USEPA Method 3A.

iii. Submittal of the annual report required by the 35 IAC 220.280(c) shall be submitted within 180 days after the gas collection and control system is determined to be in compliance.

iv. Exclusion of the engines from the requirement to install a temperature monitoring device equipped with a continuous recorder.

v. The proposal to monitor landfill gas flow on a continuous basis, to record an hourly flow average within the flow meter software, and to report flow to the engines on a monthly basis using a monthly average of the hourly data.

vi. Exclusion from the requirement to keep and maintain records of engine combustion temperatures.

vii. Exclusion from the requirement to keep and maintain records exceedances of engine based upon 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.

ix. Exclusion of the from the requirement to keep and maintain records of flare pilot or flare flame monitoring records.

l. This permit is issued based upon the following alternatives for the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of 35 IAC Part 220 proposed in the Landfill Gas Collection and Control System Design Plan (Permit 99110006) <u>not being approved</u>:

i. The proposal to install landfill gas collection wells in areas, cell, or group of cells once the site has reached final grade;

ii. The proposal to use the alternative surface monitoring procedure regarding the placement of the flame ionization detector probe;

iii. The proposal to do surface monitoring only between April 1 through November 1;

iv. The proposal to use Method TO-14 as opposed to USEPA Method 18;

v. The request for waiver of the initial performance test requirements.

7.1.4 Non-Applicability of Regulations of Concern

a. This permit is issued based on the affected landfill not being subject to 40 CFR 60 Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills, because the landfill commenced construction, reconstruction or modification before May 30, 1991 [40 CFR 60.750 (a)].

b. This permit is issued based on the affected landfill not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected landfill is subject to a NSPS proposed after November 15, 1990, pursuant to 40 CFR 64.2(b)(1)(i).

c. This permit is issued based on the affected landfill not being subject to the requirements of 35 IAC 212.321, Emissions of Particulate Matter from Process Emission Units, because due to the unique nature of

this process, such rules cannot reasonably be applied.

7.1.5 Operational and Production Limits and Work Practices

Each owner or operator of an MSW landfill with a gas collection and control system shall: [35 IAC 220.250]

a. Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which the initial solid waste has been in place for: [35 IAC 220.250(a)]

   i. 5 years or more if active; or [35 IAC 220.250(a)(1)]

   ii. 2 years or more if closed or at final grade. [35 IAC 220.250(a)(2)]

b. Operate the collection system with negative pressure at each wellhead except under the following conditions: [35 IAC 220.250(b)]

   i. 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 in Condition 7.1.10(e)(i). [35 IAC 220.250(b)(1)]

   ii. Use of a geomembrane or synthetic cover. The owner or operator shall develop pressure limits associated with such a cover that must be approved by the Illinois EPA. [35 IAC 220.250(b)(2)]

   iii. 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. [35 IAC 220.250(b)(3)]

c. Operate each interior wellhead in the collection system with a landfill gas temperature less than 55°C (131°F) and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration that provides supporting data to show that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methagens must be approved by the Illinois EPA before such higher operating value may be used.

Operating values shall be determined as follows: [35 IAC 220.250(c)]

i. The nitrogen level shall be determined using Method 3C, Appendix A, 40 CFR 60, incorporated by reference in 35 IAC 220.130. [35 IAC 220.250(c)(1)]

ii. The oxygen level shall be determined by an oxygen meter using Method 3A, Appendix A, 40 CFR 60, incorporated by reference in 35 IAC 220.130, except that: [35 IAC 220.250(c)(2)]

A. The span shall be set so that the regulatory limit is between 20 and 50 percent of the span; [35 IAC 220.250(c)(2)(A)]

B. A data recorder is not required; [35 IAC 220.250(c)(2)(B)]

C. Only two calibration gases are required, a zero and span, and ambient air may be used as the span; [35 IAC 220.250(c)(2)(C)]

D. A calibration error check is not required; and [35 IAC 220.250(c)(2)(D)]

E. The allowable sample bias, zero drift, and calibration drift are plus or minus 10 percent. [35 IAC 220.250(c)(2)(E)]

d. Operate the collection system so that the methane concentration is less than 500 ppm above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator 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. An initial surface monitoring design plan shall be developed and included as part of the operating permit application (e.g., a CAAPP permit application) 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. The monitoring plan shall be updated as necessary. Updated copies must be sent to the Illinois EPA and kept on-site at the MSW landfill. [35 IAC 220.250(d)]

e. Operate the gas collection and control system such that all collected gases are vented to a control system designed and operated in compliance with Condition 7.1.3(j), 7.1.5 and 7.1.8. 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. [35 IAC 220.250(e)]

f. Operate the gas collection and control or treatment system at all times, except during shutdown or malfunction, provided that the duration of start-up, shutdown, or malfunction must not exceed 5 days for collection systems and must not exceed 1 hour for treatment or control devices. [35 IAC 220.250(f)]

g. If monitoring demonstrates that the operational requirements in Condition 7.1.5(b), (c), or (d) are not met, take corrective action as specified in Condition 7.1.12(a)(iii), (a)(v), or (c)(iv). If such corrective actions are taken as specified in Section Condition 7.1.12(a)(iii), (a)(v), or (c)(iv), the monitored exceedence is not a violation of the operational requirements in Condition 7.1.5. [35 IAC 220.250(g)]

h. The collection and control system may be capped or removed provided: [35 IAC 220.250(h)]

   i. The landfill is no longer accepting solid waste; [35 IAC 220.250(h)(1)]

   ii. A system removal report has been submitted to the Illinois EPA, as provided in Condition 7.1.10(d); [35 IAC 220.250(h)(2)]

   iii. The collection and control system has been operating a minimum of 15 years; [35 IAC 220.250(h)(3)]

   iv. The calculated NMOC gas produced by the landfill is less than 50 Mg/yr on three successive test dates, pursuant to the procedures specified in Condition 7.1.7(b). The test dates shall be no less than 90 days apart, and no more than 180 days apart; and [35 IAC 220.250(h)(4)]

   v. The system is not required to satisfy any applicable requirement of 35 IAC Subtitle G. [35 IAC 220.250(h)(5)]

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

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

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

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

1. Either discharge no visible emissions to the outside air from an inactive waste disposal site where ACWM has been deposited [40 CFR 61.151(a)(1)]; or

2. The ACWM shall be covered with at least 15 centimeters (6 inches) of compacted nonasbestos-containing material, and the Permittee shall grow and maintain a cover of vegetation on the area adequate to prevent exposure of the ACWM [40 CFR 61.151(a)(2)]; or

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

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

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

ii. 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 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)]

4. Rather than meet the no visible emission requirement of 40 CFR 61.154(a), use an alternative emissions control method that has received prior written approval by the Illinois EPA 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)]

7.1.6 Emission Limitations

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

a. Controlled emissions from the affected landfill's enclosed flare shall not exceed the following limits:

Pollutant	Emissions	
	(lb/day)	(Ton/yr)
CO	134.9	24.6
NO_x	24.7	4.52
PM	0.96	0.19
SO_2	119.52	21.82
VOM	24.5	4.47

The above limitations were established in Permit 95090033, 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].

These limits are based on maximum burning rates of landfill gas and standard emission factors. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

b. Uncontrolled emissions from the affected landfill, not considering insignificant activities as addressed by Section 3.0 of this permit, shall not exceed the following limitations:

Pollutant	Emissions (Tons/yr)
VOM	2.6

These limits are based on the maximum MSW landfill design capacity, as limited in Condition 5.5.3(b), Earth Tech model calculated gas generation rate, and the minimum landfill gas collection system collection efficiency of 75% as indicated in the application [T1N].

The above limitations are being established in this permit pursuant to Title I of the CAA 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The Illinois EPA is establishing emission limitations and other appropriate terms and conditions in this permit that limit the VOM emissions from the affected 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 subject to the requirements of 35 IAC 220.260 - Testing Methods and Procedures:

a. The landfill owner or operator shall calculate the NMOC emission rate using the equation provided in either Condition 7.1.7(a)(i)(A) or (a)(i)(B) (Below) and make a determination that the emission rate is less than 50 Mg/yr, pursuant to Condition 7.1.7(a)(ii), (iii), (iv), or 7.1.7(e), or install a gas collection and control system pursuant to Condition 7.1.3(e) through (f). However, both equations may be used if the actual year-to-year solid waste acceptance rate is known pursuant to Condition 7.1.7(a)(i)(A), for part of the life of the landfill and the actual year-to-year solid waste acceptance rate is unknown, pursuant to Condition 7.1.7(a)(i)(B), for part of the life of the landfill. If the NMOC emission rate calculated in this subsection is less than 50 Mg/yr, then the landfill owner shall submit an emission rate report as provided in Condition 7.1.7(b), and shall recalculate the NMOC mass emission rate as required under Condition 7.1.3(d)(iii). [35 IAC 220.260(a)]

The values to be used in both equations are 0.05/yr for k, 170 m^3 per Mg for L_o, and 4,000 ppmv as hexane for the C_{NMOC}. [35 IAC 220.260(a)(1)]

The following equation shall be used if the actual year-to-year solid waste acceptance rate is known: [35 IAC 220.260(a)(1)(A)]

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

Where:

M_{NMOC} = Total NMOC emission rate from the landfill, Mg/yr

k = Methane generation rate constant, yr^{-1}

L_o = Methane generation potential, m^3 per Mg solid waste

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

t_i = Age of the solid waste in the ith section, years

C_{NMOC} = Concentration of NMOC, ppmv as hexane

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. [35 IAC 220.260(a)(1)(A)]

The following equation shall be used if the actual year-to-year solid waste acceptance rate is unknown: [35 IAC 220.260(a)(1)(B)]

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

Where:

M_{NMOC} = Total NMOC emission rate from the landfill, Mg/yr

L_o = Methane generation potential, m^3 per Mg solid waste

R = Average annual acceptance rate, Mg/yr

k = Methane generation rate constant, $year^{-l}$

t = Age of landfill, years

C_{NMOC} = Concentration of NMOC, ppmv 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 average annual acceptance rate when calculating a value for R, if documentation of the nature and amount of such wastes is maintained. [35 IAC 220.260(a)(1)(B)]

Tier 1. The landfill owner or operator shall calculate the NMOC mass emission rate using the equations provided in Condition 7.1.7(a)(i)(A) or (a)(i)(B) (Above). The owner or operator shall compare the calculated NMOC mass emission rate to the standard of 50 Mg/yr using the default values for the NMOC mass emission rate and the methane generation rate constant. [35 IAC 220.260(a)(2)]

Tier 2. The landfill owner or operator shall calculate the NMOC mass emission rate using the equations provided in Condition 7.1.7(a)(i)(A) or (a)(i)(B) (Above) using the average NMOC concentration from the collected samples instead of the default value in the equations provided in Condition 7.1.7(a). The landfill owner or operator shall determine the NMOC concentration using the following sampling procedure: The landfill owner or operator shall install at least 2 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 owner or operator shall collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25C or Method 18 of Appendix A, 40 CFR 60, incorporated by reference in 35 IAC 220.130. If using Method 18, the minimum list of compounds to be tested shall be those published in the Compilation of Air Pollutant Emission Factors (AP-42), incorporated by reference in 35 IAC 220.130. 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. Divide the NMOC concentration from Method 25C by 6 to convert from C_{NMOC} as carbon to C_{NMOC} as hexane. The owner or operator shall retest the site-specific NMOC concentration every 5 years using the methods specified in this Section. [35 IAC 220.260(a)(3)]

Tier 3. The landfill owner or operator shall estimate the NMOC mass emission rate using equations in Condition 7.1.7(a)(i)(A) or (a)(i)(B) (Above) 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). The site-specific methane generation rate constant shall be determined using the procedures provided in Method 2E, Appendix A, 40 CFR 60, incorporated by reference in 35 IAC 220.130. The calculation of the methane generation rate constant is performed only once, and the value

obtained is used in all subsequent annual NMOC emission rate calculations. In addition, pursuant to *Tier 2*, the owner or operator shall retest the site-specific NMOC concentration every 5 years using the methods specified in that subsection. [35 IAC 220.260(a)(4)]

b. After the installation of a collection and control system in compliance with Condition 7.1.3(d), the owner or operator shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in Condition 7.1.5(h), using the following equation: [35 IAC 220.260(b)]

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

Where:

M_{NMOC} = Mass emission rate of NMOC (Mg/yr)

Q_{LFG} = Flow rate of landfill gas (m^3/minute)

C_{NMOC} = NMOC concentration (ppmv 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, Appendix A, 40 CFR 60, incorporated by reference in 35 IAC 220.130. [35 IAC 220.260(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, Appendix A, 40 CFR 60, incorporated by reference in 35 IAC 220.130. If using Method 18, the minimum list of compounds to be tested shall be those published in the Compilation of Air Pollutant Emission Factors (AP-42), incorporated by reference in 35 IAC 220.130. The sample location on the common header pipe shall be before any condensate removal or other gas refining units. The landfill owner or operator shall divide the NMOC concentration from Method 25C by 6 to convert C_{NMOC} as carbon to C_{NMOC} as hexane. [35 IAC 220.260(b)(2)]

c. If the gas collection system complies with the provisions in Condition 7.1.3(e) through (i) and is

already installed, the owner or operator shall estimate the NMOC emission rate using the procedures provided in Condition 7.1.7(b) (Above). For areas of the landfill where the owner or operator has not been required to install a well yet, he/she may select an appropriate method from Condition 7.1.7(a) (Above) to estimate emissions. [35 IAC 220.260(c)]

d. For the performance test required in Condition 7.1.3(d)(iv)(B), Method 25C or Method 18, Appendix A, 40 CFR 60, incorporated by reference in 35 IAC 220.130, 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 Illinois EPA as provided by Condition 7.1.3(j)(iv). If using Method 18, the minimum list of compounds to be tested shall be those published in the Compilation of Air Pollutant Emission Factors (AP-42), incorporated by reference in 35 IAC 220.130. The following equation shall be used to calculate efficiency: [35 IAC 220.260(d)]

$$\text{Control efficiency} = (NMOC_{in} - NMOC_{out})/(NMOC_{in})$$

Where:

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

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

e. The owner or operator may use other methods to determine the NMOC concentration, site-specific k, or landfill gas flow rate, as an alternate to the methods required in *Tier 2* and *Tier 3*, if the method has been approved by the Illinois EPA, as provided for in Condition 7.1.3(d). [35 IAC 220.260(e)]

f. The owner or operator may use the procedures described in AP-42, Compilation of Air Pollutant Emission Factors, incorporated by reference in 35 IAC 220.130, to estimate emissions pursuant to the annual emission report required in 35 IAC 210.302(a). The most recent values for k, L_o, and NMOC concentration reported in AP-42 shall be used to calculate emissions. To determine applicability of or compliance with the requirements of 35 IAC 220, the owner or operator must use the tiered emission estimates provided in Condition 7.1.7(a). [35 IAC 220.260(f)]

g. Upon a request by the Illinois EPA, the owner or operator of an MSW landfill shall at his own expense demonstrate compliance with the applicable

requirements of 35 IAC 220 using the appropriate test method. [35 IAC 220.260(g)(1)]

An owner or operator planning to conduct a test to demonstrate compliance with 35 IAC 220 shall notify the Illinois EPA of that intent not less than 30 days before the planned initiation of the tests so that the Illinois EPA may observe the test. [35 IAC 220.260(g)(2)]

7.1.8 Monitoring Requirements

a. Active gas collection systems. Each owner or operator of 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: [35 IAC 220.270(a)]

i. Measure the gauge pressure in the gas collection header on a monthly basis, as provided in Condition 7.1.12(a)(iii); and [35 IAC 220.270(a)(1)]

ii. Monitor the temperature and nitrogen or oxygen concentration in the landfill gas on a monthly basis, as provided in Condition 7.1.12(a)(v). [35 IAC 220.270(a)(2)]

b. Enclosed combustors. Each owner or operator of an enclosed combustor shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment: [35 IAC 220.270(b)]

i. A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of plus or minus 1 percent of the temperature being measured, expressed in degrees Celsius, or plus or minus 0.5°C, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity greater than 44 MW. [35 IAC 220.270(b)(1)]

ii. A device that records flow to or bypass of the control device. The owner or operator shall either [35 IAC 220.270(b)(2)]:

A. Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device

every 15 minutes; or [35 IAC 220.270(b)(2)(A)]

B. Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line. [35 IAC 220.270(b)(2)(B)]

c. Open flare(s). Each owner or operator of an open flare(s) shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment: [35 IAC 220.270(c)]

i. A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame. [35 IAC 220.270(c)(1)]

ii. A device that records flow to or bypass of the flare(s). The owner or operator shall either: [35 IAC 220.270(c)(2)]

A. Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or [35 IAC 220.270(c)(2)(A)]

B. Secure the bypass line valve in the closed position with a car-seal or 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. [35 IAC 220.270(c)(2)(B)]

d. Each owner or operator seeking to install a collection or control system that does not meet the specifications in Condition 7.1.3(f) and (g), shall provide information satisfactory to the Illinois EPA as provided in Condition 7.1.3(h) and (j)(iv), describing the design and operation of the collection system, the operating parameters that would indicate

proper performance, and appropriate monitoring procedures. [35 IAC 220.270(d)]

e. Each owner or operator shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in Condition 7.1.12(c) and (d). Any inactive landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods must resume annual monitoring. Any methane reading of 500 ppm or more above the background detected during the annual monitoring returns the monitoring frequency for that landfill to quarterly. [35 IAC 220.270(e)]

f. General Requirements

i. The Permittee shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment, pursuant to 35 IAC 201.281:

A. A gas flow rate measuring device that shall record the flow to the control system(s) (e.g., the gas flow to utility (open) flare(s) and/or turbines) at least every 15 minutes [35 IAC 201.281];

B. A gas flow rate measuring device that provides a measurement of gas flow to or bypass of the control system. The owner or operator shall either [35 IAC 201.281]:

1. 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

2. 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).

ii. The Permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected landfill to demonstrate compliance with Conditions 5.5.1, 5.5.3, 7.1.3 and 7.1.6, pursuant to Section 39.5(7)(b) of the Act:

Each owner or operator of an MSW landfill shall keep for at least 5 years, unless another time period is specified in Condition 7.1.9, up-to-date, readily accessible, on-site records of the following: [35 IAC 220.290]

a. For the life of the landfill, the design capacity report in which the landfill became equal to or greater than 2.5 million Mg and 2.5 million m^3, 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. [35 IAC 220.290(a)]

b. For the life of the control equipment, the data listed in Condition 7.1.9(b)(i) through (iv) as measured during the initial performance test or compliance determination. Records of the control device vendor specifications shall be maintained until removal. [35 IAC 220.290(b)]

i. Active collection systems: [35 IAC 220.290(b)(1)]

A. The maximum expected gas generation flow rate as calculated in Condition 7.1.12(a). The owner or operator may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Illinois EPA. [35 IAC 220.290(b)(1)(A)]

B. The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in Condition 7.1.3(f)(i)(A). [35 IAC 220.290(b)(1)(B)]

ii. Enclosed combustion device other than a boiler or process heater with a design heat input

capacity greater 44 MW: [35 IAC 220.290(b)(2)]

A. The combustion temperature measured at least every 15 minutes and averaged over the same time period as the performance test. [35 IAC 220.290(b)(2)(A)]

B. The percent reduction of NMOC determined as specified in Condition 7.1.3(j)(ii) achieved by the control device. [35 IAC 220.290(b)(2)(B)]

iii. Boilers or process heaters of any size: a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period as the performance testing. [35 IAC 220.290(b)(3)]

iv. Open flare(s): the flare(s) 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, incorporated by reference in 35 IAC 220.130 of this Part; continuous records of the flare(s) pilot flame or flare(s) flame monitoring and records of all periods of operations during which the flare(s) pilot flame or the flare(s) flame is absent. [35 IAC 220.290(b)(4)]

c. Continuous records of the equipment operating parameters specified to be monitored in Condition 7.1.8 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. [35 IAC 220.290(c)]

i. The following constitute exceedances that shall be recorded and reported under Condition 7.1.10(e): [35 IAC 220.290(c)(1)]

A. For enclosed combustors, except for boilers and process heaters with design heat input of 44 MW (150 mmBtu/hr) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28°C (82°F) below the average combustion temperature during the most recent performance test

at which compliance with Condition 7.1.3(j)(ii) was determined. [35 IAC 220.290(c)(1)(A)]

B. For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone, as required pursuant to Condition 7.1.9(b)(2)(A). [35 IAC 220.290(c)(1)(B)]

ii. 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 pursuant to Condition 7.1.8. [35 IAC 220.290(c)(2)]

iii. For boilers or process heaters with a design heat input capacity of 44 MW or greater, records of all periods of operation of boiler or process heater. (Examples of such records include records of steam use, fuel use, or monitoring data collected pursuant to State, local, or federal regulatory requirements.) [35 IAC 220.290(c)(3)]

iv. For open flares, records of the flame or flare(s) pilot flame monitoring specified under Condition 7.1.8(c), and all periods of operation in which the flare(s) pilot flame or the flare(s) flame is absent. [35 IAC 220.290(c)(4)]

d. For the life of the collection system, a plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector, including: [35 IAC 220.290(d)]

i. The location of all newly installed collectors as specified under Condition 7.1.12(b). [35 IAC 220.290(d)(1)]

ii. The nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection, as provided in Condition 7.1.3(f)(i)(D)(1), as well as any nonproductive areas excluded from collection, as provided in Condition 7.1.3(f)(i)(D)(2). [35 IAC 220.290(c)(2)]

e. All collection and control system exceedances of the operational standards in Condition 7.1.5, the reading

the subsequent month whether or not the second reading is an exceedence, and the location of each exceedence. [35 IAC 220.290(e)]

f. Owners or operators who convert design capacity from volume to mass or mass to volume to demonstrate that landfill design capacity is less than 2.5 million Mg or 2.5 million m^3, as provided in the definition of "design capacity", shall keep records of the annual recalculation of site-specific density, design capacity, and the supporting documentation. [35 IAC 220.290(f)]

g. The Permittee shall maintain and retain the following 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. Records of the monthly and aggregate annual CO, VOM, PM, NO_x and SO_2 emissions from the affected MSW landfills associated control system, calculated based on procedures in Condition 7.1.12, with supporting calculations (tons/mo and ton/yr);

   iii. Inspections:

      A. The date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;

      B. The date of each inspection where it was determined by the Permittee that it was necessary to implement the control measures;

      C. The dates the control measures were implemented.

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

   Active Waste Disposal Sites [40 CFR 61.154]:

   i. For all asbestos-containing waste material received, the Permittee shall: [40 CFR 61.154(e)]

A. Maintain waste shipment records, using a form similar to that shown in Figure 4 of 40 CFR 61 Subpart M, and include the following information: [40 CFR 61.154(e)(1)]

1. The name, address, and telephone number of the waste generator. [40 CFR 61.154(e)(1)(i)]

2. The name, address, and telephone number of the transporter(s). [40 CFR 61.154(e)(1)(ii)]

3. The quantity of the asbestos-containing waste material in cubic meters (cubic yards). [40 CFR 61.154(e)(1)(iii)]

4. The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers. [40 CFR 61.154(e)(1)(iv)]

5. The date of the receipt. [40 CFR 61.154(e)(1)(v)]

B. Maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area. [40 CFR 61.154(f)]

7.1.10 Reporting Requirements

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

a. Each owner and operator shall submit a design capacity report to the Illinois EPA. [35 IAC 220.280(a)]

i. The initial design capacity report shall be submitted no later October 29, 1998. [35 IAC 220.280(a)(1)]

ii. The initial design capacity report shall contain the following information: [35 IAC 220.280(a)(2)]

A. A map or plot of the landfill providing the size and location of the landfill and identifying all areas where solid waste may be land filled according to the provisions of the State or RCRA construction or operating permit. [35 IAC 220.280(a)(2)(A)]

B. The maximum design capacity of the landfill. If the maximum design capacity is specified in a State construction or RCRA permit, a copy of the permit specifying the maximum design capacity of the landfill shall be provided. If the maximum design capacity of the landfill is not specified in a permit, the maximum design capacity shall be calculated using good engineering practices. The calculations shall be provided, along with the relevant parameters (e.g., depth of solid waste, solid waste acceptance rate, and compaction practices, as applicable), as part of the report. The Illinois EPA may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill. [35 IAC 220.280(a)(2)(B)]

iii. An amended design capacity report shall be submitted to the Illinois EPA providing notification of an increase in the design capacity of the landfill within 90 days after an increase in the maximum design capacity of the landfill to or above 2.5 million Mg and 2.5 million m^3. This increase in design capacity may result from an increase in the permitted volume or an increase in the density of the landfill as documented in the annual recalculation required in Condition 7.1.9. [35 IAC 220.280(a)(3)]

b. Each owner and operator with a total design capacity equal to or greater than 2.5 million Mg and 2.5 million m^3 shall submit an NMOC emission rate report to the Illinois EPA initially and by June 1 annually thereafter, except as provided for in Condition 7.1.10(b)(i) through (iv) (Below). The Illinois EPA may request such additional information as may be necessary to verify the reported NMOC emission rate. The NMOC emission rate report shall contain an annual

or 5-year estimate of the NMOC emission rate calculated using the formula and procedures in Condition 7.1.7(a), as applicable. The annual NMOC emission rate report required by Condition 7.1.3(d) must be submitted with the annual emissions report required pursuant to 35 IAC 201.302(a). [35 IAC 220.280(b)]

i. The initial NMOC emission rate report may be combined with the initial design capacity report required in Condition 7.1.10(a). The first NMOC emission report shall be filed with the Illinois EPA by October 29, 1998. Subsequent NMOC emission reports shall be filed with the Illinois EPA by June 1 of the subsequent year, except as provided for in Condition 7.1.10(b)(ii). [35 IAC 220.280(b)(1)]

ii. Using *Tier 1*, if the estimated NMOC emission rate as reported in the annual report to the Illinois EPA is less than 50 Mg/yr in each of the next 5 consecutive years, the owner or operator 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. [35 IAC 220.280(b)(2)]

iii. The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions. [35 IAC 220.280(b)(3)]

iv. All owners and operators of MSW landfills with a total design capacity of 2.5 million Mg and 2.5 million m^3 are required to submit an annual emissions report pursuant to 35 IAC 201.302(a). MSW landfills that have installed a gas collection and control system that meets

the requirements of 35 IAC 220 are not required to submit an annual NMOC emission rate report but are required to submit an annual emissions report pursuant to 35 IAC 201.302(a). Further, owners or operators filing a 5-year estimate of NMOC emissions pursuant to Condition 7.1.10(b)(ii) may use a 5-year estimate for NMOC, so long as they file an annual emission report and meet the requirements of Condition 7.1.10(b)(ii). [35 IAC 220.280(b)(4)]

c. Each owner or operator subject to the provisions of Condition 7.1.3(e) shall submit an application for a construction permit containing the information listed in Condition 7.1.10(c)(iii) (Below) to the Illinois EPA within 1 year after the first report, required under Condition 7.1.10(b), in which the emission rate exceeds 50 Mg/yr, except as follows: [35 IAC 220.280(c)]

i. If the owner or operator elects to recalculate the NMOC emission rate after *Tier 2* NMOC sampling and analysis as provided in Condition 7.1.7(a)(iii) and the resulting rate is less than 50 Mg/yr, 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 Mg/yr or the landfill is inactive. The revised NMOC emission rate report, with the recalculated emission rate based on NMOC sampling and analysis, shall be submitted within 1 year after the first calculated exceedence of 50 Mg/yr. [35 IAC 220.280(c)(1)]

ii. If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant k, as provided in *Tier 3* in Condition 7.1.7(a)(iv), and the resulting emission rate is less than 50 Mg/yr, annual periodic reporting shall be resumed or the landfill is inactive. The resulting site-specific methane generation rate constant k shall be used in the emission rate calculation until such time as the emission rate calculation results in an exceedence. The revised NMOC emission rate report based on the provisions of *Tier 3* and the resulting site-specific methane generation rate constant k shall be submitted to the Illinois EPA within 1 year after the first

calculated emission rate exceeding 50 Mg/yr. [35 IAC 220.280(c)(2)]

iii. In addition to the information required by 35 IAC 201.152, the following shall be included in the construction permit application for the collection system required pursuant to Condition 7.1.10(c): depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closed landfill end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat. [35 IAC 220.280(c)(3)]

d. Each owner or operator of a controlled landfill shall submit the information required by Condition 7.1.10(d) (Below) to the Illinois EPA 30 days prior to removal or cessation of operation of the control equipment. The Illinois EPA may request such additional information as may be necessary to verify that all of the conditions for removal of equipment in accordance with Section Condition 7.1.5(h) have been met. [35 IAC 220.280(d)]

i. Certification that the operation of the collection and control system is no longer required pursuant to 35 IAC Subtitle G; [35 IAC 220.280(d)(1)]

ii. Documentation demonstrating that the 15-year minimum control period has expired; and [35 IAC 220.280(d)(2)]

iii. Dated copies of the 3 successive NMOC emission rate reports, as provided for in Condition 7.1.5(h), demonstrating that the landfill is no longer producing 50 Mg/yr or greater of NMOC, pursuant to Condition 7.1.7(b). [35 IAC 220.280(d)(3)]

Upon becoming subject to the landfill gas collection requirements in Condition 7.1.3 (35 IAC 220.220 and 220.230), the Permittee shall become subject to the requirements of Conditions 7.1.10(e) through (g): 35 IAC 220.280 - Reporting Requirements:

e. Each owner or operator of a landfill shall submit to the Illinois EPA annual reports of the recorded information in Condition 7.1.10(e)(i) through (vi) (Below). The initial annual report shall be

submitted within 180 days after installation and start-up of the collection and control system, and may be included with the report of the initial performance test required pursuant to Condition 7.1.3(d)(iv)(B). For enclosed combustion devices and flares, reportable exceedances are defined under Condition 7.1.9(c). [35 IAC 220.280(e)]

i. Value and length of time for exceedence of applicable parameters monitored under Condition 7.1.8(a) through (d). [35 IAC 220.280(e)(1)]

ii. Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under Condition 7.1.8. [35 IAC 220.280(e)(2)]

iii. Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating. [35 IAC 220.280(e)(3)]

iv. All periods when the collection system was not operating in excess of 5 days. [35 IAC 220.280(e)(4)]

v. The location of each exceedence of the 500 ppm methane concentration, as provided in Condition 7.1.5(d), and the concentration recorded at each location for which an exceedence was recorded in the previous month. [35 IAC 220.280(e)(5)]

vi. The date of installation and the location of each well or collection system expansion added pursuant to Condition 7.1.12(a)(iii), (b) and (c)(iv). [35 IAC 220.280(e)(6)]

f. Each owner or operator shall include the following information with the initial performance test report and any subsequent performance tests required pursuant to Condition 7.1.3(d)(iv)(B). [35 IAC 220.280(f)]

i. A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the

future collection system expansion; [35 IAC 220.280(f)(1)]

ii. The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based; [35 IAC 220.280(f)(2)]

iii. The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material; [35 IAC 220.280(f)(3)]

iv. The sum of gas generation flow rates for all areas from which collection wells have been excluded based on no productivity and the calculations of gas generation flow rate for each excluded area; [35 IAC 220.280(f)(4)]

v. Provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and [35 IAC 220.280(f)(5)]

vi. The provisions for the control of off-site migration of gas. [35 IAC 220.280(f)(6)]

g. The Permittee shall notify the Illinois EPA within 30 days of an exceedance of the limits in Conditions 7.1.3, 7.1.5, or 7.1.6. The notification shall include:

i. Identification of the limit that may have been exceeded.

ii. Duration of the possible exceedance.

iii. An estimate of the amount of emissions in excess of the applicable standard.

iv. A description of the cause of the possible exceedance.

v. When compliance was reestablished.

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

i. A summary of exceedances of the limits in Conditions 7.1.3 and 7.1.6, if any, which require notification to the Compliance Section in accordance with Condition 7.1.10(g).

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 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:

None

7.1.12 Compliance Procedures

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

a. The methods specified in Condition 7.1.12(a)(i) through (vi) (Below) shall be used to determine whether the gas collection system is in compliance with Condition 7.1.3(e) through (i). [35 IAC 220.240(a)]

i. To calculate the maximum expected gas generation flow rate from the MSW landfill, one of the following equations shall be used. The k and L_o kinetic factors shall be those published in the Compilation of Air Pollutant Emission Factors (AP-42) incorporated by reference in 35 IAC 220.130, or other site-specific emission factors approved by the Illinois EPA. If k has been determined as specified in Condition 7.1.7(a)(iv), 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 variable t. The active life of the landfill is the age of the landfill plus the estimated number of years until closure. [35 IAC 220.240(a)(1)]

A. For sites with unknown year-to-year solid waste acceptance rate: [35 IAC 220.240(a)(1)(A)]

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

Where:

Q_m = Maximum expected gas generation flow rate, m^3/yr

L_o = Methane generation potential, m^3 per Mg solid waste

R = Average annual acceptance rate, Mg/yr

k = Methane generation rate constant, yr^{-1}

t = Age in years of the landfill at equipment installation plus 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, t in years is the age of the landfill at installation

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

B. For sites with known year-to-year solid waste acceptance rates: [35 IAC 220.240(a)(1)(B)]

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

Where:

Q_m = Maximum expected gas generation flow rate, m^3/yr

k = Methane generation rate constant, yr^{-1}

L_o = Methane generation potential, m^3 per Mg solid waste

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

t_i = Age of the ith section, yr

C. If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas

generation flow rate instead of, or in conjunction with, the equations in Condition 7.1.12(a)(i)(A) and (B). If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations made using the equations in Condition 7.1.12(a)(i)(A) or (B) or other methods shall be used to predict the maximum gas generation rate over the intended period of use of the gas control system equipment. [35 IAC 220.240(a)(1)(C)]

ii. For the purpose of determining the sufficient number of gas collectors, the owner or operator shall design a system of vertical wells, horizontal collectors, or other type of collection device, capable of controlling and extracting gas from all portions of the landfill sufficient to meet the operational and performance standards of Condition 7.1.3(e) through (i), 7.1.5 and 7.1.12. Such design must be approved by the Illinois EPA as part of an air construction permit or a CAAPP permit, if the gas collection system was installed prior to July 31, 1998. [35 IAC 220.240(a)(2)]

iii. For the purpose of demonstrating whether the gas collection system flow rate of an active collection system is sufficient, the owner or operator shall measure gauge pressure in the gas collection header at each individual well monthly. If positive pressure exists, action shall be initiated to correct the exceedence within 5 calendar days, except for the three conditions allowed under Condition 7.1.5(b). If negative pressure cannot be achieved without excess air infiltration within 15 calendar days after the first measurement, the gas collection system shall be expanded to correct the exceedence within 120 days after the initial measurement of positive pressure. Any attempted corrective measure must not cause exceedances of other operational or performance standards. An alternate timeline for correcting the exceedence may be submitted to the Illinois EPA for approval. [35 IAC 220.240(a)(3)]

iv. Owners or operators are not required to expand the system, as required in Condition 7.1.12(a)(iii), during the first 180 days

after gas collection system startup. [35 IAC 220.240(a)(4)]

v. For purposes of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well on a monthly basis for temperature and nitrogen or oxygen, as provided in Condition 7.1.5(c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedence within 5 calendar days. If correction of the exceedence cannot be achieved within 15 calendar days after the first measurement, the gas collection system shall be expanded to correct the exceedence within 120 days after the initial exceedence. An alternate timeline for correcting the exceedence may be submitted to the Illinois EPA for approval. [35 IAC 220.240(a)(5)]

vi. An owner or operator using a collection system that does not conform to the specifications provided in Condition 7.1.3(f) and (g) shall provide information satisfactory to the Illinois EPA, as specified in Condition 7.1.3(h), demonstrating that off-site migration is being controlled. [35 IAC 220.240(a)(6)]

b. To comply with the operational standards in Condition 7.1.5(a), each owner or operator of a controlled landfill shall install each well or design component as specified in a construction permit issued by the Illinois EPA. 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: [35 IAC 220.240(b)]

i. 5 years or more if active; or [35 IAC 220.240(b)(1)]

ii. 2 years or more if closed or at final grade. [35 IAC 220.240(b)(2)]

c. The following procedures shall be used for compliance with the surface methane operational standard as provided in Condition 7.1.5(d). [35 IAC 220.240(c)]

i. After installation of the collection system, the owner or operator 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 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 7.1.12(d). [35 IAC 220.240(c)(1)]

ii. 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. [35 IAC 220.240(c)(2)]

iii. Surface emission monitoring shall be performed in accordance with section 4.3.1 of Method 21 of Appendix A, 40 CFR 60, incorporated by reference in 35 IAC 220.130, except that the probe inlet shall be placed within 5 to 10 cm of the ground. Monitoring shall be performed during typical meteorological conditions. [35 IAC 220.240(c)(3)]

iv. Any reading of 500 ppm or more above background at any location shall be recorded as a monitored exceedence and the actions specified in Condition 7.1.12(c)(iv)(A) through (E) (Below) shall be taken. As long as the actions specified below are taken, the exceedence is not a violation of the operational requirements of Condition 7.1.5(d). [35 IAC 220.240(c)(4)]

A. The location of each monitored exceedence shall be marked and the location recorded. [35 IAC 220.240(c)(4)(A)]

B. Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedence shall be made and the location shall be remonitored within 10 calendar days after detecting the exceedence. [35 IAC 220.240(c)(4)(B)]

C. If the remonitoring of the location shows a second exceedence, additional corrective action shall be taken and the location shall be monitored again within 10 days after the second exceedence. If the remonitoring shows a third exceedence for the same location, the action specified in Condition 7.1.12(c)(iv)(E)

(Below) shall be taken. No further monitoring of that location is required until the action specified in Condition 7.1.12(c)(iv)(E) has been taken. [35 IAC 220.240(c)(4)(C)]

D. If the remonitoring of the location does not show an exceedence, as specified by Condition 7.1.12(c)(iv)(B) or (C), the location shall be remonitored 1 month from the initial exceedence. If the 1 month remonitoring shows a concentration less than 500 ppm above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1 month remonitoring shows an exceedence, the actions specified in Condition 7.1.12(c)(iv)(C) or (E), as appropriate, shall be taken. [35 IAC 220.240(c)(4)(D)]

E. For any location where there are three monitored exceedances within a quarterly period, a new well or other collection device shall be installed within 120 calendar days after the initial exceedence. An alternate remedy to the exceedence, 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. [35 IAC 220.240(c)(4)(E)]

v. The owner or operator shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis. [35 IAC 220.240(c)(5)]

d. The following instrumentation specifications and procedures for surface emission monitoring devices apply to the monitoring required by Condition 7.1.12(c): [35 IAC 220.240(d)]

i. The portable analyzer shall meet the instrument specifications provided in Section 3, Method 21, Appendix A, 40 CFR 60, incorporated by reference in 35 IAC 220.130, except that methane shall replace all references to VOC. [35 IAC 220.240(d)(1)]

ii. The calibration gas shall be methane, diluted to a nominal concentration of 500 ppm in air. [35 IAC 220.240(d)(2)]

iii. To meet the performance evaluation requirements in Section 3.1.3, Method 21, Appendix A, 40 CFR 60, incorporated by reference in 35 IAC 220.130, the instrument evaluation procedures of Section 4.4 of Method 21, Appendix A, 40 CFR 60, incorporated by reference in 35 IAC 220.130, shall be used. [35 IAC 220.240(d)(3)]

iv. The calibration procedures provided in Section 4.2, Method 21, Appendix A, 40 CFR 60, incorporated by reference in 35 IAC 220.130, shall be followed immediately before commencing a surface monitoring survey. [35 IAC 220.240(d)(4)]

e. The MSW landfill owners or operators are required to comply with the provisions of 35 IAC 220 at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction must not exceed 5 days for collection systems and must not exceed 1 hour for treatment or control devices. [35 IAC 220.240(e)]

f. For the purpose of estimating controlled methane, NMOC, and speciated emissions can be calculated from the MSW landfill operating data and the *USEPA Landfill Gas Emissions Model* (See http://www.epa.gov/ttn/chief and AP-42, Chapter 2.4).

g. Enclosed flare emissions shall be calculated based upon the following representative emission factors:

Pollutant	Emission Factor (lb/hr)	Notes
CO	5.62	1
NO_x	1.03	1
PM	0.04	2
SO_2	4.98	3
VOM	1.02	1

1. Based on AP-42 Emission Factors Table 13.5-1.

2. Particulate emission factor based upon nominal values of 0.01 gr/scf @ 720,000 scfd with 506 Btu/scf LHV.

3. Sulfur dioxide emission factor is based upon nominal values 1000 ppm H_2S and 506 Btu/scf LHV.

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

i. For the purpose of estimating fugitive PM emissions from the paved and unpaved roadways at the source, the emission factors and formulas in the latest version of AP-42 are acceptable.

7.2 Engines/Generators

7.2.1 Description

Landfill gas supplied by the active gas collection system is fired in the reciprocating engines for the production of electricity.

7.2.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Engine/ Generator 1	Caterpillar 3516 Reciprocating Engine used for generation of electricity.	None
Engine/ Generator 2	Caterpillar 3516 Reciprocating Engine used for generation of electricity.	None
Engine/ Generator 3	Caterpillar 3508 Reciprocating Engine used for generation of electricity.	None
Engine/ Generator 4	Caterpillar 3516 Reciprocating Engine used for generation of electricity.	None

7.2.3 Applicability Provisions and Applicable Regulations

a. The “affected engines” for the purpose of these unit-specific conditions, are the reciprocating engines described in Condition 7.2.1 and 7.2.2.

b. The affected engines are subject to the emission limits identified in Condition 5.2.2.

c. The affected engines are subject to 35 IAC 214.301, which provides that:

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

d. Each affected engines are subject to 35 IAC 215.301, which provides that:

   No person shall cause or allow the discharge of more than 3.6 Kg/Hr (8 Lb/Hr) of organic material into the atmosphere from any emission unit, except as provided in the following exception: If no odor nuisance exists the limitation of this Condition shall apply only to photochemically reactive material [35 IAC 215.301].

e. The affected engines are subject to 35 IAC 220 Nonmethane Organic Compounds for air emissions from Municipal Solid Waste Landfills: (See also Condition 5.1.3)

i. For purposes of compliance with the 35 IAC 220, the affected engines are considered to be a control system utilizing enclosed combustor type control devices, as defined under 40 CFR 60.751.

ii. This permit is issued based upon the affected engines either alone or in combination with those emission units in Section 7.1, reducing NMOC emissions by 98 weight percent or reducing the outlet NMOC concentration of all control vents to less than 20 parts per million by volume (ppmv), dry basis as hexane at 3 percent oxygen. [35 IAC 220.230(b)]

iii. The Permittee shall operate the NMOC control system so as to comply with the provisions of 40 CFR 60.753. Specifically, these include:

A. Design and operation of the control system in compliance with 35 IAC 220.230, 220.250, and 220.270. 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 off the gas to the atmosphere shall be closed within one hour; [35 IAC 220.250(e)] and

B. Operation of the control system at all times when the collected gas is routed to the system. [35 IAC 220.250(f)]

f. Not withstanding the above, the Permittee shall operate the affected emission unit as follows:

i. In the event the LFG collection or control system(s) are inoperable, the gas mover system shall be shut down and all valves in the collection and control system(s) contributing to venting of the gas to the atmosphere shall be closed within 1 hour.

ii. Operate the affected engines and or flare at all times when the collected gas is routed to the system(s).

7.2.4 Non-Applicability of Regulations of Concern

a. This permit is issued based on the affected engines not being subject to the requirements of 35 IAC 212.321 or 212.322 because they do not have a process weight rate as defined in 35 IAC 211.5250.

b. This permit is issued based on the affected emission units not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected emission units are subject to a NSPS proposed after November 15, 1990, pursuant to 40 CFR 64.2(b)(1)(i).

c. This permit is issued based on the affected emission units not being subject to 40 CFR Part 72, Acid Rain Program, because each of the affected emission units serve one or more generators with the total nameplate capacity of 25 MWe or less, pursuant to 40 CFR 72.7(a)(1).

7.2.5 Operational and Production Limits and Work Practices

a. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate any affected engines in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or the USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source [40 CFR 60.11(d)].

7.2.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected engines are subject to the following:

a. This permit is issued based upon the affected engines being used to control emissions of landfill gas including emissions of nonmethane organic compounds (NMOC).

Emissions from each Caterpillar 3516 engine shall not exceed the following limits:

Pollutant	lb/day	ton/yr
NO_x	174.2	31.8
CO	144.2	26.3
PM	2.40	0.44

Pollutant	lb/day	ton/yr
SO_2	85.44	15.59
VOM	10.3	1.88

Emissions from each Caterpillar 3508 engine shall not exceed the following limits:

Pollutant	lb/day	ton/yr
NO_x	140.9	25.72
CO	36.0	6.55
PM	10.63	1.94
SO_2	15.0	2.74
VOM	9.1	1.66

The above limitations were established in Permit 95090034, 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].

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.2.7 Testing Requirements

a. For the performance test required in 35 IAC 220.210(d)(2), Method 25C or Method 18, Appendix A, 40 CFR 60, incorporated by reference in Section 220.130 of this Part, 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 Agency as provided by 35 IAC 220.230(d). If using Method 18, the minimum list of compounds to be tested shall be those published in the Compilation of Air Pollutant Emission Factors (AP-42), incorporated by reference in Section 220.130 of this Part. The following equation shall be used to calculate efficiency: [35 IAC 220.260(d)]

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

Where:

$NMOC_{in}$ = Mass of NMOC Entering Control Device

$NMOC_{out}$ = Mass of NMOC Exiting Control Device

b. Within 90 days of a written request from the Illinois EPA, the Permittee shall perform emissions and/or performance tests specified by the Illinois EPA. [40 CFR 60.8(a) and 35 IAC 201.282] The 90 day time period will automatically be extended for an additional 60 days upon written request by the Permittee. The Illinois EPA may provide additional time for the performance of these tests upon written request by the Permittee.

7.2.8 Monitoring Requirements

a. The Permittee shall operate and maintain each affected emission unit according to manufacture specifications. This provision is considered to be an alternative to the temperature monitoring requirements provided under 40 CFR 60.756(b)(1). [35 IAC 201.281]

b. The Permittee shall calibrate, maintain, and operate according to the manufacturer's specifications, equipment that will enable the continuous monitoring of each affected emission unit's hours of operation. [40 CFR 60.13(i), 60.752(e) and 35 IAC 201.281]

c. The Permittee shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment: [40 CFR 60.756(b) and 35 IAC 201.281]

i. A gas flow rate measuring device that provides a measurement of gas flow to the control system and 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).

7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items

for the affected engines to demonstrate compliance with Conditions 5.5, 7.2.3 and 7.2.6, pursuant to Section 39.5(7)(b) of the Act:

a. Monthly landfill gas volumetric throughput through the active gas collection system to the affected engines.

b. Landfill gas methane content and net heating content (Btu/cubic foot) determined on at least an annual basis.

c. Operating hours for each affected engine per month.

d. Any additional landfill gas analyses that may be conducted during the normal operation of the gas collection system.

7.2.10 Reporting Requirements

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

a. The Permittee shall notify the Illinois EPA within 30 days of an exceedance of the limits in Conditions 7.2.3, 7.2.5, or 7.2.6. The notification shall include:

i. Identification of the limit that may have been exceeded.

ii. Duration of the possible exceedance.

iii. An estimate of the amount of emissions in excess of the applicable standard.

iv. A description of the cause of the possible exceedance.

v. When compliance was reestablished.

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

i. A summary of exceedances of the limits in Conditions 7.2.3 and 7.2.6, if any, which require notification to the Compliance Section in accordance with Condition 7.2.10(a).

ii. The annual emissions of CO, VOM, NO_x and SO_2 for the affected engines for each month of the previous year, to demonstrate compliance with Condition 7.2.6 (e.g., for the month of January, the emissions from February of the preceding calendar year through January, for the month of February, the emissions from March of the preceding calendar year through February, 12 months in all).

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected engine 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:

None

7.2.12 Compliance Procedures

Compliance with Conditions 5.5 and 7.2.6 shall be determined using the recordkeeping requirements of Condition 7.2.9 and the following emission factors:

Emissions for each Caterpillar 3516 engine shall be determined by the following emission factors:

Pollutant	Emission Factor (g/bhp-hr)	Notes
NO_x	2.9	1
CO	2.4	1
PM	0.04	2
SO_2	1.41	3
VOM	0.171	4

1. CO and NO_x emission factor based on manufacturers performance chart.

2. Particulate emission factor based upon oil consumption of 5 gal/day, with 7.415 lb/gal and 1.5 wt% ash.

3. Sulfur dioxide emission factor based upon 1000 ppm H_2S and 21329 scfh landfill gas.

4. VOM emission factor based upon 473 ppm hexane with 80% destruction.

Emissions for the Caterpillar 3508 engine shall be determined by the following emission factors:

Pollutant	Emission Factor (lb/mmBtu)
NO_x	3.1
CO	0.79
PM	0.0763
SO_2	0.0025
VOM	0.2

The above emission factors are from AP-42 Tables 3.4-2 and 3.4-5.

7.3 Solidification Process

7.3.1 Description

Liquid wastes are solidified in a solidification box. The final product is then suitable for placing in the landfill.

7.3.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Solidification Process	Solidification of wastes by addition and mixing of a reagent.	None

7.3.3 Applicability Provisions and Applicable Regulations

a. The “affected solidification process” for the purpose of these unit-specific conditions, is the solidification mixing described in Condition 7.3.1 and 7.3.2.

b. The affected solidification process is subject to the emission limits identified in Condition 5.2.2.

c. The affected solidification process is subject to 35 IAC 212.321(a), which provides that:

   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 (see also Attachment 10.2) [35 IAC 212.321(a)].

d. The affected solidification process is subject to 35 IAC 218.301 - Use of Organic Material:

   No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302, 218.303, or 218.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 218.301 shall only apply to photochemically reactive material [35 IAC 218.301].

7.3.4 Non-Applicability of Regulations of Concern

None

7.3.5 Operational and Production Limits and Work Practices

a. The affected solidification process shall not exceed 30,000 gal/day liquid waste and 27.5 tons/day reagent usage operating 333 days per year.

7.3.6 Emission Limitations

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

Liquid	Density	Reagent	Annual
10 million gal/yr 30,000 gal/day	8 lb/gal	1.1 lb/lb	365 days/yr

Pollutants	Emission Factors	(lb/day)	(ton/yr)
PM	1.5 lb/ton	198	33
PM_{10}	1.0 lb/ton	132	22

These limits are based on maximum usage rates of waste liquid, proportion of reagent, limited operating days and standard emission factors. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1]

7.3.7 Testing Requirements

None

7.3.8 Monitoring Requirements

None

7.3.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected solidification process to demonstrate compliance with Conditions 5.5.1, 7.3.3 and 7.3.6 pursuant to Section 39.5(7)(b) of the Act:

a. The amount of reagent used to solidify waste (Ton/mo and Ton/yr).

b. The amount of waste liquid processed (gal/day and gal/yr).

7.3.10 Reporting Requirements

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

a. Emissions from the affected solidification process in excess of the limits specified in Condition 7.3.3 within 30 days of such occurrence.

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected solidification process 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. Location of the affected solidification process on the sources property.

7.3.12 Compliance Procedures

Compliance with Conditions 5.5.1, 5.5.3 and 7.3.3(c) and (d) shall be determined using the recordkeeping requirements of Condition 7.3.9 and the formulas listed below:

a. Solidification Emissions PM (lb) = Material through the Solidification Process (ton) x Emission Factor (1.5 lb/ton)

b. Solidification Emissions PM_{10} (lb) = Material through the Solidification Process (ton) x Emission Factor (1 lb/ton)

The PM and PM_{10} emission factors are based on standard AP-42 emission factors.

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 September 7, 2002 (the date of issuance of the draft permit) unless this permit has been modified to reflect such new requirements.

8.2 Applicability of Title IV Requirements (Acid Deposition Control)

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

8.3 Emissions Trading Programs

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

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

8.4 Operational Flexibility/Anticipated Operating Scenarios

8.4.1 Changes Specifically Addressed by Permit

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

8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes that contravene express permit terms without applying for or obtaining an amendment to this

permit, provided that [Section 39.5(12)(a)(i) of the Act]:

a. The changes do not violate applicable requirements;

b. The changes do not contravene federally enforceable permit terms or conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements;

c. The changes do not constitute a modification under Title I of the CAA;

d. Emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change; and

e. The Permittee provides written notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change. This notice shall:

   i. Describe the physical or operational change;

   ii. Identify the schedule for implementing the physical or operational change;

   iii. Provide a statement of whether or not any New Source Performance Standard (NSPS) is applicable to the physical or operational change and the reason why the NSPS does or does not apply;

   iv. Provide emission calculations which demonstrate that the physical or operational change will not result in a modification; and

   v. Provide a certification that the physical or operational change will not result in emissions greater than authorized under the Conditions of this permit.

8.5 Testing Procedures

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

8.6 Reporting Requirements

8.6.1 Monitoring Reports

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

Monitoring Period	Report Due Date
January - June	September 1
July - December	March 1

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

8.6.2 Test Notifications

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

a. The name and identification of the affected unit(s);

b. The person(s) who will be performing sampling and analysis and their experience with similar tests;

c. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;

d. The specific determination of emissions and operation which are intended to be made, including sampling and monitoring locations;

e. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods;

f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification; and

g. Any proposed use of an alternative test method, with detailed justification.

8.6.3 Test Reports

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

a. The name and identification of the affected unit(s);

b. The date and time of the sampling or measurements;

c. The date any analyses were performed;

d. The name of the company that performed the tests and/or analyses;

e. The test and analytical methodologies used;

f. The results of the tests including raw data, and/or analyses including sample calculations;

g. The operating conditions at the time of the sampling or measurements; and

h. The name of any relevant observers present including the testing company's representatives, any Illinois EPA or USEPA representatives, and the representatives of the source.

8.6.4 Reporting Addresses

a. The following addresses should be utilized for the submittal of reports, notifications, and renewals:

i. Illinois EPA - Air Compliance Section

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

ii. Illinois EPA - Air Regional Field Office

Illinois Environmental Protection Agency
Division of Air Pollution Control
5415 North University
Peoria, Illinois 61614

iii. Illinois EPA - Air Permit Section (MC 11)

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

iv. USEPA Region 5 - Air Branch

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

b. Unless otherwise specified in the particular provision of this permit, reports shall be sent to the Illinois EPA - Air Compliance Section with a copy sent to the Illinois EPA - Air Regional Field Office.

8.7 Obligation to Comply with Title I Requirements

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

9.0 STANDARD PERMIT CONDITIONS

9.1 Effect of Permit

9.1.1 The issuance of this permit does not release the Permittee from compliance with State and Federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or applicable ordinances, except as specifically stated in this permit and as allowed by law and rule [Section 39.5(7)(j)(iv) of the Act].

9.1.2 In particular, this permit does not alter or affect the following:

a. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section;

b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

c. The applicable requirements of the acid rain program consistent with Section 408(a) of the CAA; and

d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.

9.1.3 Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

9.2 General Obligations of Permittee

9.2.1 Duty to Comply

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

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

9.2.2 Duty to Maintain Equipment

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

9.2.3 Duty to Cease Operation

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

9.2.4 Disposal Operations

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

9.2.5 Duty to Pay Fees

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

9.3 Obligation to Allow Illinois EPA Surveillance

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

a. Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated equipment, operation, or activity is located or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control

equipment), practices, or operations regulated or required under this permit;

d. Sample or monitor any substances or parameters at any location:

i. At reasonable times, for the purposes of assuring permit compliance; or

ii. As otherwise authorized by the CAA, or the Act.

e. Obtain and remove samples of any discharge or emission of pollutants authorized by this permit; and

f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source authorized by this permit.

9.4 Obligation to Comply With Other Requirements

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

9.5 Liability

9.5.1 Title

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

9.5.2 Liability of Permittee

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

9.5.3 Structural Stability

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

9.5.4 Illinois EPA Liability

This permit in no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any

loss due to damage, installation, maintenance, or operation of the source.

9.5.5 Property Rights

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

9.6 Recordkeeping

9.6.1 Control Equipment Maintenance Records

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

9.6.2 Records of Changes in Operation

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

9.6.3 Retention of Records

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

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

9.7 Annual Emissions Report

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

9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7)(p)(v) of the Act, the Permittee shall submit annual compliance certifications. The compliance

certifications shall be submitted no later than May 1 or more frequently as specified in the applicable requirements or by permit condition. The compliance certifications shall be submitted to the Air Compliance Section, Air Regional Field Office, and USEPA Region 5 – Air Branch. The addresses for the submittal of the compliance certifications are provided in Condition 8.6.4 of this permit.

a. The certification shall include the identification of each term or condition of this permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.

b. All compliance certifications shall be submitted to USEPA Region 5 in Chicago as well as to the Illinois EPA.

c. All compliance reports required to be submitted shall include a certification in accordance with Condition 9.9.

9.9 Certification

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

9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

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

9.10.2 Emergency Provision

a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technology-based emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:

i. An emergency occurred as provided in Section 39.5(7)(k) of the Act and the Permittee can identify the cause(s) of the emergency.

Normally, an act of God such as lightning or flood is considered an emergency;

ii. The permitted source was at the time being properly operated;

iii. The Permittee submitted notice of the emergency to the Illinois EPA within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and

iv. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.

b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations.

9.11 Permanent Shutdown

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

9.12 Reopening and Reissuing Permit for Cause

9.12.1 Permit Actions

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

9.12.2 Reopening and Revision

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

a. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit;

b. Additional requirements become applicable to an affected source for acid deposition under the acid rain program;

c. The Illinois EPA or USEPA determines that this permit contains a material mistake or inaccurate statement when establishing the emission standards or limitations, or other terms or conditions of this permit; and

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

9.12.3 Inaccurate Application

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

9.12.4 Duty to Provide Information

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

9.13 Severability Clause

The provisions of this permit are severable, and should any one or more be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected. The rights and obligations of the Permittee shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements

underlying these provisions shall remain in force [Section 39.5(7)(i) of the Act].

9.14 Permit Expiration and Renewal

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

10.0 ATTACHMENTS

10.1 Attachment 1 Summary of Emission Units

Emission Unit	Description	Date Constructed	Emission Control Equipment
MSW Landfill	Tazewell 1: Closed MSW Landfill with a gas collection and control system. Tazewell 2: Active MSW Landfill with a gas collection and control system.	Commenced Construction: 1974 Last Modification: N/A	Engines and/or Enclosed flare
Engine/ Generator 1	Caterpillar 3516 Reciprocating Engine used for generation of electricity.	January 1989	None
Engine/ Generator 2	Caterpillar 3516 Reciprocating Engine used for generation of electricity.	January 1989	None
Engine/ Generator 3	Caterpillar 3508 Reciprocating Engine used for generation of electricity.	January 1989	None
Engine/ Generator 4	Caterpillar 3516 Reciprocating Engine used for generation of electricity.	N/A	None
Solidification Process	Solidification of non-hazardous wastes	October 1994	None

10.2 Attachment 2 Emissions of Particulate Matter from New Process Emission Units

10.2.1 Process Emission Units for Which Construction or Modification Commenced On or After April 14, 1972

a. 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, 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)].

b. 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,

i. Up to process weight rates of 408 Mg/hr (450 TON/hr):

	Metric	English
P	Mg/hr	Ton/hr
E	kg/hr	lb/hr
A	1.214	2.54
B	0.534	0.534

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

	Metric	English
P	Mg/hr	Ton/hr
E	kg/hr	lb/hr
A	11.42	24.8
B	0.16	0.16

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

Metric		English	
P	E	P	E
Mg/hr	kg/hr	Ton/hr	lb/hr
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

10.3 Attachment 3 Example Certification by a Responsible Official

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

Signature: _____

Name: _____

Official Title: _____

Telephone No.: _____

Date Signed: _____

10.4 Attachment 4 Guidance on Revising This Permit

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

1. Administrative Permit Amendment;

2. Minor Permit Modification; and

3. Significant Permit Modification.

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

1. Administrative Permit Amendment

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

2. Minor Permit Modification

- Do not violate any applicable requirement;

- Do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;

- Do not require a case-by-case determination of an emission limitation or other standard, or a source-specific determination of ambient impacts, or a visibility or increment analysis;

- Do not seek to establish or change a permit term or condition for which there is no corresponding underlying requirement and which avoids an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:

    - A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the CAA; and

    - An alternative emissions limit approved pursuant to regulations promulgated under Section 112(i)(5) of the CAA.

- Are not modifications under any provision of Title I of the CAA; and

- Are not required to be processed as a significant permit modification.

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

- A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;

- The source’s suggested draft permit/conditions;

- Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and

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

3. Significant Permit Modification

- Applications that do not qualify as either minor permit modifications or as administrative permit amendments;

- Applications requesting a significant change in existing monitoring permit terms or conditions;

- Applications requesting a relaxation of reporting or recordkeeping requirements; and

- Cases in which, in the judgment of the Illinois EPA, action on an application for modification would require decisions to be made on technically complex issues.

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

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

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

- Form 273-CAAPP, REQUEST FOR ADMINISTRATIVE PERMIT AMENDMENT FOR CAAPP PERMIT; or

- Form 271-CAAPP, MINOR PERMIT MODIFICATION FOR CAAPP PERMIT; or

- Form 200-CAAPP, APPLICATION FOR CAAPP PERMIT (for significant modification).

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

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

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

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

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

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

Source Information

1. Source name:		
2. Source street address:		
3. City:		4. Zip code:
5. Is the source located within city limits?		☐ Yes ☐ No
6. Township name:	7. County:	8. ID number:

Owner Information

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

Operator Information (if different from owner)

14. Name		
15. Address:		
16. City:	17. State:	18. Zip code:

Applicant Information

19. Who is the applicant? ☐ Owner ☐ Operator	20. All correspondence to: (check one) ☐ Owner ☐ Operator ☐ Source
21. Attention name and/or title for written correspondence:	
22. Technical contact person for application:	23. Contact person's telephone number:

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

Summary Of Application Contents

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

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

Signature Block

This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete.

30. I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate and complete.
Authorized Signature:

BY:

_____	_____
AUTHORIZED SIGNATURE	TITLE OF SIGNATORY
_____	_____ / _____ / _____
TYPED OR PRINTED NAME OF SIGNATORY	DATE

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

10.6 Attachment 6 Guidance on Renewing This Permit

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

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

1. A completed renewal application form 200-CAAPP, APPLICATION FOR CAAPP PERMIT.

2. A completed compliance plan form 293-CAAPP, COMPLIANCE PLAN/SCHEDULE OF COMPLIANCE FOR CAAPP PERMIT.

3. A completed compliance certification form 296-CAAPP, COMPLIANCE CERTIFICATION, signed by the responsible official.

4. Any applicable requirements that became effective during the term of the permit and that were not included in the permit as a reopening or permit revision.

5. If this is the first time this permit is being renewed and this source has not yet addressed CAM, the application should contain the information on form 464-CAAPP, COMPLIANCE ASSURANCE MONITORING (CAM) PLAN.

6. Information addressing any outstanding transfer agreement pursuant to the ERMS.

7. a. If operations of an emission unit or group of emission units remain unchanged and are accurately depicted in previous submittals, the application may contain a letter signed by a responsible official that requests incorporation by reference of existing information previously submitted and on file with the Illinois EPA. This letter must also include a statement that information incorporated by reference is also being certified for truth and accuracy by the responsible official’s signing of the form 200-CAAPP, APPLICATION FOR CAAPP PERMIT and the form 296-CAAPP, COMPLIANCE CERTIFICATION. The boxes should be marked yes on form 200-CAAPP, APPLICATION FOR CAAPP PERMIT, as existing information is being incorporated by reference.

b. If portions of current operations are not as described in previous submittals, then in addition to the information above for operations that remain unchanged, the application must contain the necessary information on all changes, e.g., discussion of changes, new or revised CAAPP forms, and a revised fee form 292-CAAPP, FEE DETERMINATION FOR CAAPP PERMIT, if necessary.

8. Information about all off-permit changes that were not prohibited or addressed by the permit to occur without a permit revision and the information must be sufficient to identify all applicable requirements, including monitoring, recordkeeping, and reporting requirements, for such changes.

9. Information about all changes made under 40 CFR 70.4(b)(12)(i) and (ii) that require a 7-day notification prior to the change without requiring a permit revision.

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

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

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

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

Mail renewal applications to:

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

MVH:psj