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1.0 SOURCE IDENTIFICATION

1.1 Source

Resource Technology Corporation
14732 East 2100 North Road
Pontiac, Illinois 61764
815/844-2276

I.D. No.: 105821AAP
Standard Industrial Classification: 4911, Electric Services

1.2 Owner/Parent Company

Resource Technology Corporation
330 South Wells Street, Suite 711
Chicago, Illinois 60606

1.3 Operator

Resource Technology Corporation
330 South Wells Street, Suite 711
Chicago, Illinois 60606

John E. Connolly, President
312/341-4045

1.4 General Source Description

The Resource Technology Corporation is located at 14732 East 2100 North Road, Pontiac, Illinois. The source owns and operates a landfill gas collection system and utilizes the landfill gas for the production of electricity and to control landfill gas emissions. Landfill gas is generated by the Livingston Landfill operations and emissions are covered under a separate CAAPP permit (see American Disposal Services, Inc. CAAPP Permit No. 97030075 - BOA I.D. No. 1058211AA0). Resource Technology Corporation (BOA I.D. No. 105821AAP) is a separate corporate entity, that has contracted with American Disposal Services, Inc. for the landfill gas rights at the Livingston Landfill to install and operate a landfill gas collection system and use the collected gas in its landfill gas to energy facility.

2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]
ACMA	Alternative Compliance Market Account
a.k.a.	Also known as
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711
ATU	Allotment Trading Unit
bhp	Brake Horsepower
BOA	Bureau of Air (Illinois EPA)
BOL	Bureau of Land (Illinois EPA)
Btu	British thermal unit
Btu/scf	British thermal unit per standard cubic feet
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CAM	Compliance Assurance Monitoring
CAS	Chemical Abstract Service
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CFR	Code of Federal Regulations
dscf	dry standard cubic feet
ERMS	Emissions Reduction Market System
ft ³	Cubic Feet
gal	Gallon
g/bhp-hr	grams per braking horsepower hour
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
Mg	Megagrams
MW	Megawatts
MWe	Megawatts electricity
mmBtu	Million British Thermal Units
mmBtu/hr	Million British Thermal Units per hour
mmHg	Millimeters of Mercury
mmcf	Million cubic feet
mmscf	Million standard cubic feet
NMOC	Nonmethane Organic Compound
mo	Month
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO _x	Nitrogen Oxides

NSPS	New Source Performance Standards
psia	pounds per square inch absolute
PM	Particulate Matter
PM ₁₀	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
ppm	parts per million
ppmv	parts per million volume
PSD	Prevention of Significant Deterioration
RMP	Risk Management Plan
scf	standard cubic feet
scfm	standard cubic feet per minute
scm	standard cubic meters
SIP	State Implementation Plan
SSM	Startup, Shutdown, and Malfunction
SO ₂	Sulfur Dioxide
T1	Title I - identifies Title I conditions that have been carried over from an existing permit
T1N	Title I New - identifies Title I conditions that are being established in this permit
T1R	Title I Revised - identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit
USEPA	United States Environmental Protection Agency
VOL	Volatile Organic Liquid
VOM	Volatile Organic Material
yr	Year
ZAPCO	Zahren Alternative Power Corporation

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:

Closed Loop Glycol Dehydration System

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

None

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

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

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

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

- 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	Emission Control Equipment
01	Solar Taurus 60	None
	Solar Taurus 60	None
	Solar Taurus 60	None
	Solar Titan 130	None
02	Active Gas Collection System Used to Route Landfill Gas to the Turbines	Turbines
03	30,000 Gallon Condensate Aboveground Storage Tank	None

(Also See Attachment 10.1)

¹ Landfill gas utilized in the above emission units is generated by the Livingston Landfill (See American Disposal Services, Inc. - CAAPP Permit No. 97030075 - BOA I.D. No. 105821AAO).

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 carbon monoxide and nitrogen oxide 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)(iii) and (iv) of the Act].
- 5.1.3 This permit is issued based on the source not being a major source of HAPs.
- 5.1.4 For purposes of the CAAPP, the Resource Technology Corporation (BOA I.D. No. 105821AAP), located at 14732 East 2100 North Road, Pontiac is considered a single source with American Disposal Services, Inc. (Livingston Landfill) CAAPP Permit No. 97030075 - BOA I.D. No. 105821AAO located at R.R. 3, Pontiac. The source has elected to obtain separate CAAPP permits for these locations.

It should be noted that Resource Technology Corporation (BOA I.D. No. 105821AAP) is a separate corporate entity that has contracted with American Disposal Services, Inc. for the landfill gas rights to install and operate a landfill gas collection system and use the collected gas in its landfill gas to energy facility.

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.

Compliance with this requirement is considered to be assured by the inherent nature of operations at this source, as demonstrated by historical operation.

- b. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.
- c. No person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 946 l (250 gal), unless such tank is equipped with a permanent submerged loading pipe, submerged fill or an equivalent device approved by the Illinois EPA. [35 IAC 215.122(b)]

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

Note: At the time of issuance of this permit, no volatile organic liquid was loaded at the source.

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

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 Future Applicable Regulations

- 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.

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

None

5.4 Source-Wide Operational and Production Limits and Work Practices

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

None

5.5 Source-Wide Emission Limitations

5.5.1 Permitted Emissions for Fees

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

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	10.2
Sulfur Dioxide (SO ₂)	41.2
Particulate Matter (PM)	21.2
Nitrogen Oxides (NO _x)	115.2
HAP, not included in VOM or PM	---
Total	187.8

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

The Permittee shall comply with the following source wide limits:

- a. This permit is issued based on the total emissions from the source, (i.e., the above referenced control system and the control system, covered under Construction Permit 98050077 (I.D. No. 105821AAO)) (See Condition 5.1.4), not exceeding the following limitations:

<u>Pollutants</u>	<u>NO_x</u>	<u>CO</u>
(Tons/Yr)	225.0	225.0

The limits on carbon monoxide and nitrogen oxides are limitations established in Permit 97060047 (ID No. 105821AAP), 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. See Condition 7.1.6 [T1].

- b. The maximum volume of waste deposited in the MSW landfill shall not exceed 53,415,163 cubic yards which includes the previously permitted capacity of 34,994,700 cubic yards (Parcels A and B) and the new expansion of 18,420,463 cubic yards (Parcel D), as per BOL Solid Waste Permit Number 1995-337-LFM (BOL ID No. 1058210002). This limitation serves as the basis for determining potential VOM, NMOC and methane

emissions for the landfill. The maximum landfill waste capacity is based upon limitations previously established by the Illinois EPA (i.e., the solid waste permit(s) issued as per 35 IAC Subtitle G) and includes all adjacent and contiguous landfill areas (i.e., all active and inactive sites).

The above limitations are being established in this permit pursuant to Title I of the CAA, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modification and/or 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The source has requested that the Illinois EPA establish emission limitations and other appropriate terms and conditions in this permit that limit potential VOM, NMOC, carbon monoxide and nitrogen oxides emissions from the affected MSW landfill below the levels that would trigger the applicability of these rules, consistent with the information provided in the CAAPP application [T1N].

- c. The above limits are established based upon the MSW landfill's emissions being controlled as described in Condition 7.1.1.

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).

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 and 5.5.3, pursuant to Section 39.5(7)(b) of the Act:

- a. Monthly determination of compliance with Condition 5.5.3 based upon the procedure in 5.9.
- b. 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 Unit 01: Electrical Generation Facility
Control: None

7.1.1 Description

The electrical generation facility consists of four (4) stationary landfill gas fired turbines. Each turbine provides power to a separate electrical generator. The peak generating capacity for the facility is 29 Megawatts of electricity. Each turbine has its own radiator for cooling and each turbine's crankcase is vented to their respective intake to minimize residual fumes.

7.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Turbine 1	Solar Taurus 60	None
Turbine 2	Solar Taurus 60	None
Turbine 3	Solar Taurus 60	None
Turbine 4	Solar Titan 130	None

(Also See Attachment 10.1)

¹ Landfill gas utilized in the above emission units is generated by the Livingston Landfill (See American Disposal Services, Inc. - CAAPP Permit No. 97030075 - BOA I.D. No. 105821AAO).

7.1.3 Applicability Provisions and Applicable Regulations

- a. The "affected emission units" for the purpose of these unit-specific conditions are the emission units described in Condition 7.1.1 and 7.1.2.
- b. The affected emission units are subject to the emission limits identified in Condition 5.2.2.
- c. The source (See Condition 5.1.3) is subject to the New Source Performance Standard (NSPS) for air emissions from Municipal Solid Waste Landfills, 40 CFR 60, Subparts A and WWW. Illinois EPA is administrating NSPS in Illinois on behalf of the United States EPA under a delegation agreement and through Section 9.1 of the Illinois Environmental Protection Act.

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

- i. For purposes of compliance with the NSPS, the affected emission units 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 emission units either alone or in combination, 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. [40 CFR 60.752(b)(2)(iii)(B)]
- iii. The turbines shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in 40 CFR 60.756. [40 CFR 60.752(b)(2)(iii)(B)(2)]
- iv. 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 40 CFR 60.752(b)(2)(iii). In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting off the gas to the atmosphere shall be closed within one hour; [40 CFR 60.753(e)] and
 - B. Operation of the control system at all times when the collected gas is routed to the system. [40 CFR 60.753(f)]
- d. The affected emission units are subject to the NSPS for Stationary Gas Turbines, 40 CFR 60 Subparts A and GG, because the heat input at peak load is equal to or greater than 10.7 gigajoules per hour (10 mmBtu/hr), based on the lower heating value of the fuel fired and the gas turbine commenced construction, modification, or reconstruction after October 3, 1977, and has a peak load less than or equal to 107.2 gigajoules per hour (100 mmBtu/hr). The Illinois EPA administers the NSPS for subject sources in Illinois pursuant to a delegation agreement with the USEPA.

The Permittee is required to comply with the requirements of the NSPS 40 CFR 60 Subparts GG: Stationary Gas Turbines, and/or any amendments promulgated by USEPA. These requirements include but are limited to the following:

- i. The affected emission units are defined as electric utility stationary gas turbines based upon the definition in the NSPS.

Electric utility stationary gas turbine means any stationary gas turbine constructed for the purpose of supplying more than one-third of its potential electric output capacity to any utility power distribution system for sale [40 CFR 60.331(q)]

- ii. Standard for Nitrogen Oxides:

- A. Electric utility stationary gas turbines with a heat input at peak load greater than 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired shall comply with the provisions of 40 CFR 60.332(a)(1). [40 CFR 60.332(b)]

Therefore, no owner or operator subject to the provisions of 40 CFR 60.332(a)(1) shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of [40 CFR 60.332(a)(1)]:

$$\text{STD} = 0.0075 \cdot \frac{(14.4)}{Y} + F$$

Where:

STD = Allowable NOx emissions (percent by volume at 15 percent oxygen and on a dry basis).

Y = Manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour, and

F = NO_x emission allowance for fuel-bound nitrogen as defined in Condition 7.1.3(d) (1) (C) and 40 CFR 60.332(a) (3).

It should be noted that at the time of this permit, the above provision (Condition 7.1.3(d) (ii) (A)) applies to the Titan 130 Turbine

- B. Stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules per hour (10 million Btu/hour) but less than or equal to 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired, shall comply with the provisions of 40 CFR 60.332(a) (2). [40 CFR 60.332(c)]

Therefore, no owner or operator of an affected turbine shall cause to be discharged into the atmosphere from such gas turbine, any gases which contain nitrogen oxides in excess of [40 CFR 60.332(a) (2)]:

$$\text{STD} = 0.0150 \cdot \frac{(14.4)}{Y} + F$$

Where:

STD = Allowable NO_x emissions (percent by volume at 15 percent oxygen and on a dry basis).

Y = Manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour, and

F = NO_x emission allowance for fuel-bound nitrogen as defined in Condition 7.1.3(d) (1) (C) and 40 CFR 60.332(a) (3).

It should be noted that at the time of this permit, the above provision (Condition 7.1.3(d)(ii)(B)) applies to the Taurus 60 Turbines.

- C. F shall be defined according to the nitrogen content of the fuel during the most recent performance test required under 40 CFR 60.8 as follows [40 CFR 60.332(a)(3)]:

Fuel-bound Nitrogen (Percent by Weight)	F (NO _x Percent by Volume)
$N \leq 0.015$	0
$0.015 < N \leq 0.1$	0.04 (N)
$0.1 < N \leq 0.25$	$0.04 + 0.0067(N - 0.1)$
$N > 0.25$	0.005

Where:

N = The nitrogen content of the fuel (percent by weight).

or:

Manufacturers may develop and submit to USEPA custom fuel-bound nitrogen allowances for each gas turbine model they manufacture. These fuel-bound nitrogen allowances shall be substantiated with data and must be approved for use by the USEPA before the initial performance test required by 40 CFR 60.8. Notices of approval of custom fuel-bound nitrogen allowances will be published in the Federal Register.

iii. Standard for Sulfur Dioxide

On and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, every owner or operator subject to the provision of this subpart shall comply with one or the other of the following conditions

- A. No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis [40 CFR 60.333(a)].

- B. No owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel which contains sulfur in excess of 0.8 percent by weight [40 CFR 60.333(b)].
- e. The source (See Condition 5.1.3) is subject to 40 CFR 63, Subparts A and AAAA – National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills. In this case, applicability is based upon the MSW landfill at the source meeting the criteria in 40 CFR 63.1935(a)(3). Additionally, the source is defined as an existing affected source based upon the criteria shown 40 CFR 63.1940.

Therefore, on or before January 16, 2004, the Permittee shall comply with the requirements in 40 CFR 63.1955(b) and 63.1960 through 63.1980. [40 CFR 63.1945(b) and 63.1945(f)]

The Permittee is required to comply with the requirements of the NESHAP 40 CFR 63 Subpart AAAA – National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills, and/or any amendments promulgated by USEPA. These requirements include but are limited to the following:

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

during the 6-month reporting period. Deviations for continuous emission monitors or numerical continuous parameter monitors must be determined using a 3 hour monitoring block average. [40 CFR 63.1955(c)]

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

- v. A deviation is defined in 40 CFR 63.1990. For the purposes of the landfill monitoring and SSM plan requirements, deviations include the items in 40 CFR 63.1965(a) through (c). These include:
 - A. A deviation occurs when the control device operating parameter boundaries described in 40 CFR 60.758(c) (1) of subpart WWW are exceeded. [40 CFR 63.1965(a)]

 - B. A deviation occurs when 1 hour or more of the hours during the 3-hour block averaging period does not constitute a valid hour of data. A valid hour of data must have measured values for at least three 15-minute monitoring periods within the hour. [40 CFR 63.1965(b)]

 - C. A deviation occurs when a SSM plan is not developed, implemented, or maintained on site. [40 CFR 63.1965(c)]

- vi. Keep records and reports as specified in 40 CFR part 60 Subpart WWW, whichever applies to your landfill, with one exception: You must submit the annual report described in 40 CFR 60.757(f) every 6 months. [40 CFR 63.1980(a)]
 - vii. You must also keep records and reports as specified in the general provisions of 40 CFR Part 60 and 63 as shown in Table 1 of 40 CFR 63, Subpart AAAA. Applicable records in the general provisions include items such as SSM plans and the SSM plan reports. [40 CFR 63.1980(b)]
- f. The affected emission units 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 unit to exceed 2,000 ppm [35 IAC 214.301].
- g. The affected emission units 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 35 IAC 215.302, 215.303, or 215.304 and the following exemption: If no odor nuisance exists the limitation of 35 IAC 215.301 shall only apply to photochemically reactive material [35 IAC 215.301].

7.1.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected turbines not being subject to 35 IAC 216.121, because the affected turbines are not fuel combustion emission sources.
- b. This permit is issued based on the affected turbines not being subject to 35 IAC 217.121, because the actual heat input to the affected turbines are less than 250 mmBtu, pursuant to 35 IAC 217.121.
- c. This permit is issued based on the affected turbines not being subject to 35 IAC 217 Subparts U, V, W or X, because the affected emission units do not meet the applicability criteria shown in the respective subparts. Specifically, the affected emission units are not fossil fuel-fired, as defined in 35 IAC 211.2425, the maximum design heat input is less than 250 mmBtu/hr and the maximum nameplate capacity of each unit is less than 25 Megawatts.

- d. This permit is issued based on the MSW landfill associated with the affected emission units not being subject to those provisions of 40 CFR 63 Subpart AAAAA covering "bioreactors" because the MSW landfill's operation does not meet the following definition.

Bioreactor means a MSW landfill or portion of a MSW landfill where any liquid other than leachate (leachate includes landfill gas condensate) is added in a controlled fashion into the waste mass (often in combination with recirculating leachate) to reach a minimum average moisture content of at least 40 percent by weight to accelerate or enhance the anaerobic (without oxygen) biodegradation of the waste. [40 CFR 63.1990]

- e. 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).
- f. 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).

7.1.5 Operational and Production Limits and Work Practices

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

The Permittee shall comply with the requirements of 40 CFR 60.752(b)(2). These requirements include but are not limited to the following:

- i. Submittal of a NMOC collection and control system design plan prepared by a professional engineer to the Illinois EPA, Division of Air Pollution Control, Permit Section within 1 year. The NMOC collection and control system design plan shall include the information required under 40 CFR 60.752(b)(2)(i)(A), (B) and (C). [40 CFR 60.752(b)(2)(i)]:
 - A. The Illinois EPA finds that the revised Landfill Gas Collection and Control System Design Plan, dated July 25, 2003, submitted by Resource Technology Corporation (ID No. 105821AAP), pursuant to 40 CFR 60.752(b)(2)(i) to be

acceptable and that it meets the requirements of 40 CFR 60.752(b)(2)(i)(A), (B), and (C). Deviations from or modifications to the plan must be approved by the Illinois EPA.

It should be noted that the above plan was submitted pursuant to changes at the landfill and revises the previously approved plan dated February 3, 1999, submitted by Resource Technology Corporation under Permit No. 97060047 (ID No. 105821AAP).

- B. This permit is issued based upon the following alternatives for the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of 40 CFR 60.753 through 60.758 proposed in the Landfill Gas Collection And Control System Design Plan pursuant to 40 CFR 60.752(b)(2)(i)(B), being approved by Illinois EPA:

1. The proposal to allow an increase in the wellhead temperature limit set in 40 CFR 60.753(c) and Condition 7.2.7(a)(iii).

Therefore, the request to increase the wellhead temperature limit to 146°F is allowed provided the Permittee complies with the inspection, monitoring, and recordkeeping procedure shown in the plan and the compliance procedure in Condition 7.2.13(a)(i)(3)(E) and 40 CFR 60.755(a)(5).

It should be noted that the request for a 30-day investigation period prior to corrective action, as shown in the revised design plan is not approved

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

7.1.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5.3, the affected emission units are subject to the following:

- a. This permit is issued based upon the control system being used to control emissions of landfill gas including NMOC emissions.
- b. Landfill gas, supplemented as needed with natural gas or other gaseous fuel, shall be the only fuels fired in the control systems.
- c. Total combined operation and emissions from the turbines shall not exceed the following limits:

Solar Titan Turbine Emissions		
<u>Pollutant</u>	<u>(Lb/Mo)</u>	<u>(Tons/Yr)</u>
NO _x	5.84	25.58
CO	9.53	41.75
VOM	0.30	1.32
PM/PM ₁₀	0.86	3.77
SO ₂	0.43	1.86

Emissions Per Solar Taurus Turbine		
<u>Pollutant</u>	<u>(Lb/Mo)</u>	<u>(Tons/Yr)</u>
NO _x	5.25	23.00
CO	10.36	45.38
VOM	0.51	2.24
PM/PM ₁₀	1.04	4.60
SO ₂	0.17	0.72

Total Combined Emissions From All Four Turbines	
<u>Pollutant</u>	<u>(Tons/Yr)</u>
NO _x	94.58
CO	177.89
VOM	8.04
PM/PM ₁₀	17.57
SO ₂	4.02

These limits are based on 8,760 hours/year of operation, maximum firing rates for each turbine and standard emission factors and calculation procedures.

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

The above limitations were established in Permit 97060047, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

7.1.7 Testing Requirements

- a. 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.

7.1.8 Monitoring Requirements

- a. As an alternative to the temperature monitoring requirements provided under 40 CFR 60.756(b)(1), the Permittee shall operate and maintain each turbine according to manufactures specifications. This alternative is approved pursuant to 40 CFR 60.13(i); [35 IAC 201.281]
- b. The Permittee shall monitoring the units' hours of operation on a daily basis. [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).

- d. The Permittee shall comply with the monitoring requirements specified in the NSPS for Stationary Gas Turbines, 40 CFR 60 Subparts GG (40 CFR 60.334). As applicable, these requirements include but are not limited to the following:

For landfill gas, which is supplied without intermediate bulk storage, the nitrogen content shall be determined and recorded daily on business days (excluding weekends and holidays). This may be done using a gas chromatography (GC) because this method is reproducible and representative. This is a custom schedule based on the design and operation of the affected facility and the characteristics of the fuel supply, substantiated with data submitted to and approved by the USEPA (40 CFR 60.334 [b][2]).

For landfill gas, which is supplied without intermediate bulk storage, the sulfur content shall be determined and recorded semi-annually. This is a custom schedule based on the design and operation of the affected facility and the characteristics of the fuel supply, substantiated with data submitted to and approved by the USEPA (40 CFR 60.334 [b][2]).

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 each affected emission unit to demonstrate compliance with Conditions 5.5.1; 7.1.3 and 7.1.5 through 7.1.8; and, pursuant to Section 39.5(7) (b) of the Act:

a. Records for Startup

- i. The Permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected emission unit; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. [40 CFR 60.7(b)]

The following information for each startup of an affected emission unit:

- A. Date, time, and duration of the startup, shutdown, or malfunction in the operation, i.e., start time and time normal operation achieved, i.e., stable operation at load.
- B. If normal operation was not achieved within 20 minutes, an explanation why startup or malfunction could not be corrected or achieved in 20 minutes;
- C. A detailed description of the startup, shutdown, or malfunction in the operation, including reason for operation and whether required maintenance was performed;
- D. An explanation why established startup, shutdown, or malfunction in the operation procedures could not be performed, if not performed;
- E. The nature of excess emissions as applicable, i.e., severity and duration, if above normal; and
- F. Whether exceedance of Conditions 5.2.2(b), 7.1.3 or 7.1.6 may have occurred during startup, shutdown, or malfunction in the operation, with explanation and estimated duration time (minutes).

b. 40 CFR 60 Subparts GG, WWW and 40 CFR 63 Subpart AAAAA

The Permittee shall keep records as specified in 40 CFR Part 60, Subparts GG and WWW. These records shall include but are not limited to the following [40 CFR 63.1980(a)]

- i. Except as provided in §60.752(b)(2)(i)(B), the Permittee shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in 40 CFR 60.758(b)(1) through (b)(4) as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal. [40 CFR 60.758(b)]

- ii. The Permittee must keep records as specified in the general provisions of 40 CFR Part 60 and Part 63 (See Table 1 of 40 CFR 63 Subpart AAAA). Applicable records include items such as SSM plans. [40 CFR 63.1980(b)] These records shall include but are not limited to the following equipment operating parameters for the affected emission units specified to be monitored in 40 CFR 60.756 and records of the following items for the control system in order to demonstrate compliance with Conditions 5.5, 7.1.3, 7.1.5, 7.1.6, 7.1.7 and 7.1.8: [35 IAC 201.281]
 - A. Operating logs detailing each activity performed with date of the following: turbine operating hours (daily); equipment inspections and repairs (as performed or as needed); natural gas usage bills (monthly); landfill gas consumption (daily); and affected emission unit electrical power output (daily);
 - B. Up-to-date, readily accessible continuous records of the landfill and natural gas flow to the control system (Monthly and annual). Annual landfill gas usage shall be determined each month based on the current month of record's usage plus the usage for the preceding 11 months;
 - C. As applicable records of nitrogen and sulfur content of the landfill gas and natural gas used to fire the affected emission unit;
 - D. Operating hours for each affected emission unit;
 - E. Copies of any landfill gas analyses and net heating value determinations, including those required under Conditions 7.1.5 and 7.1.8 or as a part of a compliance determination under Condition 7.1.13, that may be conducted during the normal operation of the gas collection system;
 - F. Total annual NO_x, PM, SO₂, CO, and VOM emissions from the affected emission units, based on the current month of records months landfill gas usage plus the usage for the preceding 11 and the applicable emission factors, with supporting calculations.

- G. Copies of USEPA or Illinois EPA approval of alternative testing, monitoring, and compliance procedures in Conditions 7.1.5, 7.1.8, 7.1.9 and 7.1.13.
- H. The average combustion temperature measured at least every 15 minutes and averaged over the same time period of the performance test. [40 CFR 60.758(b)(2)(i)]
 - *Alternative:** In conjunction with the exclusion from the requirement to keep and maintain records of the turbines combustion temperatures (See Condition 7.1.8(a), the Permittee must keep records to verify the turbines are being operated within manufactures specifications.
- I. The percent reduction of NMOC determined as specified in 40 CFR 60.752(b)(2)(iii)(B) achieved by the control device. [40 CFR 60.758(b)(2)(ii)]
- J. Copies of all performance tests performed pursuant to the requirements of 40 CFR 60 Subparts A, GG and WWW and 40 CFR 63 Subparts A and AAAA.

- c. The Permittee shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in 40 CFR 60.756 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. [40 CFR 60.758(c)]

The following constitute exceedances that shall be recorded and reported under 40 CFR 60.757(f) and condition 7.1.10(a)(ii): 40 CFR 60.758(c)(1) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28 °C below the average combustion temperature during the most recent performance test at which compliance with 40 CFR 60.752(b)(2)(iii) was determined. [40 CFR 60.758(c)(1)(i)]

The Permittee shall keep records of any periods of operation during which any affected emission unit exceed the operating parameters preset by the

affected emission unit's manufacture or those established by the most recent performance test at which compliance with 40 CFR 60.332, 60.333, and 60.752(b)(2)(iii) was determined or permit limitations were established. [35 IAC 201.281]

- d. The Permittee shall keep up-to-date records of the indication of flow to the control system or the monitoring conducted pursuant to Condition 7.1.8. This includes but is not limited to an indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under 40 CFR 60.756. [40 CFR 60.758(c)(2) and 35 IAC 201.281]
- e. Records shall be retained for five years and shall be readily available for inspection and copying by the Illinois EPA upon request. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

7.1.10 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Compliance Section of non-compliance with the operating requirements and emissions limitations of this permit. This shall include:
 - i. Emissions of NO_x, PM, SO₂, CO, or VOM in excess of the limits in Condition 5.5 and 7.1.6, calculated by using emission factors and equation from Condition 7.1.12 based on the current month's records plus the preceding 11 months within 30 days of such an occurrence.
 - ii. 40 CFR 60 Subpart GG

If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA within 30 days after the exceedance. The report shall include the emissions released in accordance with recordkeeping requirements, a copy of the relevant records, and a description of the exceedances or violation and efforts to reduce emissions and future occurrences.

Pursuant to 40 CFR 60.7(c) and 60.334(c), periods of excess emissions that shall be reported are defined as follows:

A. Nitrogen oxides.

Any period in which the fuel-bound nitrogen of the fuel is greater than the maximum nitrogen content allowed by the fuel-bound nitrogen allowance used during the performance test required by 40 CFR 60.335(a). Each report shall include the average fuel consumption, ambient conditions, gas turbine load, and nitrogen content of the fuel during the period of excess emissions, and the data developed under 40 CFR 60.335 [40 CFR 60.334(c) (1)].

B. Sulfur dioxide.

Any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 percent [40 CFR 60.334(c) (2)].

iv. 40 CFR 60 Subparts WWW and 40 CFR 63 Subpart AAAA

The Permittee shall submit to the Illinois EPA reports of the recorded information listed in 40 CFR 60.757(f) every 6 months. [40 CFR 63.1980(a)]

Additionally, the Permittee is required provide reports as specified in the general provisions of 40 CFR Part 60 and Part 63 (See Table 1 of 40 CFR 63 Subpart AAAA). Applicable reports include the SSM plan reports.

In this case, reportable exceedances and deviations, pursuant to 40 CFR 60 Subparts WWW and 40 CFR 63 Subpart AAAA, are defined under 40 CFR 60.758(c) and 40 CFR 63.1965 and 63.1990. [40 CFR 60.757(f) and 40 CFR 63.1980(a)]

A. Value and length of time for exceedance of applicable parameters monitored under 40 CFR 60.756(a), (b), (c), and (d). [40 CFR 60.757(f) (1)]

B. Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under 40 CFR 60.756. [40 CFR 60.757(f) (2)]

- C. Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating. [40 CFR 60.757(f)(3)]
- D. All periods when the collection system was not operating in excess of 5 days. [40 CFR 60.757(f)(4)]
- E. The location of each exceedance of the 500 parts per million methane concentration as provided in 40 CFR 60.753(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. [40 CFR 60.757(f)(5)]
- F. The date of installation and the location of each well or collection system expansion added pursuant to 40 CFR 60.755(a)(3), (b), and (c)(4). [40 CFR 60.757(f)(5)]

It should be noted that the 6 month reporting period indicated above supercedes the previous 1 year reporting period indicated in 40 CFR 60.757(f). This change is mandated by the requirements of 40 CFR 63.1980(a).

- iv. A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Illinois EPA may request additional relevant information subsequent to this notice. [40 CFR 60.7(a)(4)]

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to an affected emission unit 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

- a. Compliance with the emission limits in Conditions 5.5 and 7.1.6 shall be based on the recordkeeping requirements in Condition 7.1.9 and calculated based on the emission factors and formulas listed below:

Taurus 60 Turbines¹

	Emission Rates per Turbine
Pollutant	(lb/hr)
PM/PM ₁₀	1.031
NO _x	5.241
SO ₂	2.100
VOM	0.508
CO	10.353

Titan 130 Turbine²

	Emission Rates per Turbine
Pollutant	(lb/hr)
PM/PM ₁₀	0.70
NO _x	5.34
SO ₂	1.0
VOM	0.30
CO	8.68

Notes:

1. All factors were determined from stack test results under maximum operating conditions. These results were previously submitted to Illinois EPA in correspondence dated November 21, 2001.
2. All factors were determined from stack test results under maximum operating conditions. These results were previously submitted to Illinois EPA in correspondence dated July 8, 2002.

Emissions (lb) = appropriate emission factor x affected emission units hours of operation

Total monthly and annual emissions shall be determined based upon the sum of emissions for each period of record. Annual emissions 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). Documentation and cross references shall be included with all emission calculation records and reports.

- b. For the purpose of estimating un-controlled methane, NMOC, VOM, and HAP emissions may be calculated based upon the monitoring, recordkeeping, and reporting requirements in Conditions 7.1.9, 7.1.10, and 7.1.11; the USEPA Landfill Gas Emissions Model (See <http://www.epa.gov/ttn/chief> and AP-42, Chapter 2.4) and the landfill gas collection efficiencies shown in AP-42, Chapter 2.4. The Permittee is allowed to use site-specific NMOC concentration and/or methane generation rate constant (k) determined through the procedures shown in Condition 7.1.8. Further, the Permittee is allowed to use NMOC concentration, methane generation rate constant (k) and/or methane generation potential (Lo) approved by USEPA or Illinois EPA. In addition, the Permittee is allowed to use site specific HAP emissions data recorded during landfill gas testing provided that full documentation and emissions calculations data is provided as part of the emission report. It should be noted that approval must be made in writing for any changes made to standard USEPA methods.

Default factor values are as follows:

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

- c. Compliance with Condition 7.1.3(c), (d) and (e) shall be determined using the monitoring and recordkeeping requirements of Condition 7.1.8 and 7.1.9, respectively.
- d. Compliance with Conditions 7.1.3(f) and 7.1.3(g) is considered to be assured based on historical operation along with the Permittee meeting the requirements of Condition 7.1.5.

7.2 Unit 02: Active Gas Collection and Control System
 Control: Active Gas Collection System Used to Route Landfill Gas to Turbines

7.2.1 Description

An active landfill gas collection and control system (GCCS) used to route landfill gas to turbines and/or flares

7.2.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
02	Active Gas Collection System	Active Gas Collection System Used to Route Landfill Gas to Turbines

7.2.3 Applicability Provisions and Applicable Regulations

- a. The "affected collection system" for the purpose of these unit-specific conditions, is the active gas collection system described in Condition 7.2.1 and 7.2.2.
- b. The affected collection system is subject to the emission limits identified in Condition 5.2.2.
- c. The affected landfill is subject to the NSPS for Municipal Solid Waste Landfills, 40 CFR 60 Subparts A and WWW, because the affected landfill commenced construction, reconstruction or modification or began accepting waste on or after May 30, 1991. The Illinois EPA administers the NSPS for subject sources in Illinois pursuant to a delegation agreement with USEPA.

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

7.2.4 Non-Applicability of Regulations of Concern

- a. The affected landfill is not subject to the requirements of 35 IAC Part 220, Non-Methane Organic Compounds, because the landfill does not meet the applicability criteria listed in 35 IAC 220.200(a).

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

7.2.5 Control Requirements

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

The Permittee shall comply with the requirements of 40 CFR 60.752(b)(2). These requirements include but are not limited to the following:

- i. Submittal of a NMOC collection and control system design plan prepared by a professional engineer to the Illinois EPA, Division of Air Pollution Control, Permit Section within 1 year. The NMOC collection and control system design plan shall include the information required under 40 CFR 60.752(b)(2)(i)(A), (B) and (C). [40 CFR 60.752(b)(2)(i)]:
 - A. The Illinois EPA finds that the revised Landfill Gas Collection and Control System Design Plan, dated July 25, 2003, submitted by Resource Technology Corporation (ID No. 105821AAP), pursuant to 40 CFR 60.752(b)(2)(i) to be acceptable and that it meets the requirements of 40 CFR 60.752(b)(2)(i)(A), (B), and (C). Deviations from or modifications to the plan must be approved by the Illinois EPA.

It should be noted that the above plan was submitted pursuant to changes at the landfill and revises the previously approved plan dated February 3, 1999, submitted by Resource Technology Corporation under Permit No. 97060047 (ID No. 105821AAP).
 - B. This permit is issued based upon the following alternatives for the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of 40 CFR 60.753 through 60.758 proposed in the Landfill Gas Collection and Control System Design Plan pursuant to 40 CFR 60.752(b)(2)(i)(B), being approved by Illinois EPA:

1. The proposal to allow an increase in the wellhead temperature limit set in 40 CFR 60.753(c) and Condition 7.2.7(a) (iii).

Therefore, the request to increase the wellhead temperature limit to 146°F is allowed provided the Permittee complies with the inspection, monitoring, and recordkeeping procedure shown in the plan and the compliance procedure in Condition 7.2.13(a) (i) (3) (E) and 40 CFR 60.755(a) (5).

It should be noted that the request for a 30-day investigation period prior to corrective action, as shown in the revised design plan is not approved

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

- ii. Installation of a collection and control system that captures the gas generated within the landfill, as required by 40 CFR 60.752(b) (2) (ii) (A) or (B) and 40 CFR 60.752(b) (2) (iii), within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 NMOC sampling and analysis, as provided in 40 CFR 60.754(a) (3) and (4), respectively, demonstrates that the emission rate is less than 50 megagrams per year, as specified in 40 CFR 60.757(c) (1) or (2). [40 CFR 60.752(b) (2) (ii)]
- iii. Routing of all collected landfill gas to a control system that complies with the requirements in either paragraph 40 CFR 60.752(b) (2) (iii) (A), (B) or (C). [40 CFR 60.752(b) (2) (iii)]
 - A. An open flare designed and operated in accordance with 40 CFR 60.18. [40 CFR 60.752(b) (2) (iii) (A)]

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

1. If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone. [40 CFR 60.752(b) (2) (iii) (B) (1)]

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

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

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

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

7.2.6 Emission Limitations

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

7.2.7 Operating Requirements

- a. Upon installation of a gas collection and control system used to comply with the provisions of 40 CFR 60.752(b)(2)(ii), the Permittee shall operate the collection system in accordance with the provisions of 40 CFR 60.753. These requirements include but are not limited to the following:
 - i. Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for: [40 CFR 60.753(a)]
 - A. 5 years or more if active.
 - B. 2 years or more if closed or at final grade.
 - ii. Operate the collection system with negative pressure at each wellhead except under the conditions shown 40 CFR 60.753(b). [40 CFR 60.753(b)]
 - iii. Operate each interior wellhead in the collection system with a landfill gas temperature less than 55°C (131°F) and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The Permittee may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens. Nitrogen or oxygen levels shall be determined based upon the applicable methods and or procedures shown in 40 CFR 60.753(c)(1) or (2). [40 CFR 60.753(c)]
 - iv. Operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the Permittee shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The Permittee may establish an alternative traversing pattern that ensures

equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30 meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing. [40 CFR 60.753(d)]

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

7.2.8 Testing Requirements

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

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

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

Where:

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

Q_{LFG} = Flow rate of landfill gas, cubic meters per minute

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

- i. The flow rate of landfill gas, Q_{LFG} , shall be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control device using a gas flow measuring device calibrated according to the provisions of section 4 of Method 2E of Appendix A of 40 CFR Part 60. [40 CFR 60.754(b) (1)]
 - ii. The average NMOC concentration, C_{NMOC} , shall be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25C or Method 18 of Appendix A of 40 CFR Part 60. If using Method 18 of Appendix A of 40 CFR Part 60, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The sample location on the common header pipe shall be before any condensate removal or other gas refining units. The Permittee shall divide the NMOC concentration, from Method 25C of Appendix A of 40 CFR Part 60, by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane. [40 CFR 60.754(b) (2)]
 - iii. The Permittee may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the USEPA. [40 CFR 60.754(b) (3)]
- b. When calculating emissions for PSD purposes, the Permittee of each MSW landfill subject to the provisions of 40 CFR 60 Subpart WWW shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in 35 IAC 203 (40 CFR 51.166) or 40 CFR 52.21 using AP-42 or other approved measurement procedures. [40 CFR 60.754(c)]
 - c. For the performance test required in 40 CFR 60.752(b) (2) (iii) (B), Method 25C or Method 18 of Appendix A of 40 CFR Part 60 shall be used to determine compliance with 98 weight-percent efficiency or the 20 ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the USEPA or Illinois EPA as

provided by 40 CFR 60.752(b)(2)(i)(B). If using Method 18 of Appendix A of 40 CFR Part 60, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The following equation shall be used to calculate efficiency: [40 CFR 60.754(d)]

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

Where:

NMOC_{in} = Mass of NMOC entering control device

NMOC_{out} = Mass of NMOC exiting control device

- d. The Permittee shall sample and analyze the landfill gas entering the control system(s) at least once per year. This analyses shall include determinations for heat value and composition which shall include at least: methane, sulfur compounds, nonmethane organic content, and nonmethane organic compound (NMOC) content, if USEPA Method 18 is used the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The Permittee is allowed to use landfill gas analyses performed by an independent company. The Permittee is required to make the above determinations based upon the average of three consecutive test runs. Written notification of testing or submittal of a formal testing protocol is not required for these tests.
- e. Within 90 days of a written request from the Illinois EPA, the Permittee shall perform such other emissions and/or performance tests specified by the Illinois EPA. [40 CFR 60.8(a) and 35 IAC 201.282]. The Illinois EPA may provide additional time for the performance of these tests upon written request by the Permittee.
- f. Unless otherwise specified, each test shall consist of three separate runs each of at least sixty (60) minutes in duration. For the purpose of determining, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Illinois EPA approval, be determined using the arithmetic mean of the results of the two other runs.

- g. The following methods and procedures shall be used for testing of emissions, unless another method is approved by the Illinois EPA: Refer to 40 CFR 60, Appendix A.

Sample and Velocity Traverses	USEPA Method 1
Determination of Stack Gas Velocity And Volumetric Flow Rate	USEPA Methods 2A, 2C, or 2D
Gas Analysis for Carbon Dioxide, Oxygen, Excess Air, and Dry Molecular Weight	USEPA Method 3
Moisture Content in Stack Gases	USEPA Method 4
Visual Determination of Opacity	USEPA Method 9
Total Gaseous Nonmethane Organic Emissions as Carbon	USEPA Method 18 or 25
Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares	USEPA Method 22
Standard Method for Analysis of Reformed Gas by Gas Chromatography	ASTM D1946-77
Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter [High-Precision Method]	ASTM D2382-76

- h. At least 30 days prior to the actual date of testing a written test plan shall be submitted to the Illinois EPA for review and approval, unless another procedure is approved by the Illinois EPA. This plan shall describe the specific procedures for testing, including:
- i. The name and identification of the affected unit(s);
 - ii. The person(s) who will be performing sampling and analysis and their experience with similar tests;
 - iii. 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;

- iv. The specific determinations of emissions and operation which are intended to be made, including sampling and monitoring locations;
 - v. The test method(s), which will be used, with the specific analysis method, if the method can be used with different analysis methods;
 - vi. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification;
 - vii. Any proposed use of an alternative test method, with detailed justification; and
 - viii. The format and content of the Source Test Report.
- i. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification of the expected date of testing shall be submitted a minimum of thirty (30) days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of five (5) working days prior to the actual test date.
 - j. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 30 days after the test results are compiled and finalized. The Final Report shall include as a minimum:
 - i. A summary of results.
 - ii. General Information.
 - iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.
 - vi. Detailed description of test conditions, including:
 - A. Total flow of landfill gas to the facility;
 - B. Landfill gas pretreatment operating parameters; and
 - C. Control system operating parameters, i.e., landfill gas flow to the control system, average flare combustion temperature, etc.

- v. Data and calculations, including copies of all raw data sheets and records of laboratory analysis, sample calculations, and data on equipment calibration.
- vi. The results of all quality control evaluations, including a copy of all quality control data.
- k. The Permittee shall sample and analyze the landfill gas entering the control system(s) at least twice per year. This analyses shall include determinations for the following: heat valve; methane content, and nonmethane organic compound (NMOC) content, if USEPA Method 18 is used the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The Permittee is allowed to use landfill gas analysis performed by an independent company. The Permittee is required to make the above determinations based upon the average of three consecutive test runs. Written notification of testing or submittal of a formal testing protocol is not required for these tests.

7.2.9 Inspection and Monitoring Requirements

- a. The Permittee shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment: [35 Ill. Adm. Code 201.281]
 - i. A gas flow rate measuring device(s) that provides a measurement of gas flow to the flare. The owner or operator shall either:
 - A. Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control system at least every 15 minutes; and/or
- b. The Permittee is required to comply with the requirements of the NSPS 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfills and/or any amendments promulgated by USEPA. These requirements include but are limited to the following, as applicable:
 - i. The following procedures shall be used for compliance with the surface methane operational standard as provided in 40 CFR 60.753(d). [40 CFR 60.755(c)]

- A. After installation of the collection system, the Permittee shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in paragraph (d) of this section. [40 CFR 60.755(c) (1)]
 - B. The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells. [40 CFR 60.755(c) (2)]
 - C. Surface emission monitoring shall be performed in accordance with section 4.3.1 of Method 21 of Appendix A of 40 CFR Part 60, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions. [40 CFR 60.755(c) (3)]
 - D. Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified in 40 CFR 60.755(c) (i) through (v) shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of 40 CFR 60.753(d). [40 CFR 60.755(c) (4)]
 - E. The Permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis. [40 CFR 60.755(c) (5)]
- ii. The Permittee shall comply with the instrumentation specifications and procedures for surface emission monitoring devices in 40 CFR 60.755(d). These include but are not limited to the following: [40 CFR 60.755(d)]

- A. The portable analyzer shall meet the instrument specifications provided in section 3 of Method 21 of 40 CFR 60 Appendix A, except that "methane" shall replace all references to VOC. [40 CFR 60.755(d)(1)]
 - B. The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air. [40 CFR 60.755(d)(2)]
 - C. To meet the performance evaluation requirements in section 3.1.3 of Method 21 of 40 CFR 60 Appendix A, the instrument evaluation procedures of section 4.4 of Method 21 of 40 CFR 60 Appendix A shall be used. [40 CFR 60.755(d)(3)]
 - D. The calibration procedures provided in section 4.2 of Method 21 of 40 CFR 60 Appendix A shall be followed immediately before commencing a surface monitoring survey. [40 CFR 60.755(d)(4)]
- iii. The gas collection and control requirements of 40 CFR 60 Subpart WWW shall apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices. [40 CFR 60.755(e)]
- iv. Except as provided in 40 CFR 60.752(b)(2)(i)(B),
- A. The Permittee shall install a sampling port and a thermometer, or other temperature measuring device, or an access port for temperature measurements at each wellhead and: [40 CFR 60.756(a)]
 - 1. Measure the gauge pressure in the gas collection header on a monthly basis as provided in 40 CFR 60.755(a)(3); and [40 CFR 60.756(a)(1)]
 - 2. Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in 40 CFR 60.755(a)(5); and [40 CFR 60.756(a)(2)]

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

3. If the Permittee elects to comply with 40 CFR 60.752(b)(2)(iii) using an open flare, the Permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment: [40 CFR 60.756(c)]
 - I. A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame. [40 CFR 60.756(c)(1)]
 - II. A device that records flow to or bypass of the flare. The Permittee shall either: [40 CFR 60.756(c)(2)]
 - a. Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or [40 CFR 60.756(c)(2)(i)]
 - b. Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line. [40 CFR 60.756(c)(2)(ii)]
4. If the Permittee elects to comply with 40 CFR 60.752(b)(2)(iii) using a device other than an open flare or an enclosed combustor, the Permittee shall provide information

satisfactory to the Illinois EPA or USEPA as provided in 40 CFR 60.752(b)(2)(i)(B) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Illinois EPA or USEPA shall review the information and either approve it, or request that additional information be submitted. The Illinois EPA or USEPA may specify additional appropriate monitoring procedures. [40 CFR 60.756(d)]

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

7.2.10 Recordkeeping Requirements

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

- a. The Permittee shall maintain and retain the following general records:
 - i. Copies of any landfill gas analyses and net heating value determinations, including those required under Conditions 7.2.5 and 7.2.8 or as a part of a compliance determination under Condition 7.2.13, that may be conducted during the normal operation of the gas collection system.
 - ii. A summary of exceedances of the limits in Conditions 5.2.2(a), 7.2.5, 7.2.6 and 7.2.7, as applicable, which require notification to the Compliance Section in accordance with Condition 7.2.11(a).
 - iii. Copies of USEPA or Illinois EPA approval of alternative testing, monitoring, and compliance procedures in Conditions 7.2.5, 7.2.8, 7.2.9 and 7.2.13.
 - iv. As installed records of the landfill gas collection and control system including the following:
 - A. As built diagrams and drawings of the collection system;
 - B. Identification of the make, model, specifications and manufacture of blower and enclosed flare;
 - C. Identification of the as built specifications of the gas collection system; and
 - D. Copies of all records required pursuant to the requirements of 35 IAC Subtitle G.
 - v. Any operating parameters that are continuously monitored and recorded that are associated with proper operation of the affected emission units and/or control equipment including those parameters recorded pursuant to Condition 7.2.9.

- vi. Records of any periods of operation during which the control system exceeded the operating parameters preset by the flare manufacture or those established by the most recent performance test at which compliance with 40 CFR 60.752(b)(2)(iii) was determined. These incidents shall also be reported under 40 CFR 60.757(f).
- vii. A maintenance and repair log for the affected emission unit and/or control equipment, listing each activity performed with date. This requirement includes but is not limited to: replacement and repair of landfill gas collection and control system components; corrective actions undertaken to correct monitored operational exceedances as per 40 CFR 60.755 pursuant to 40 CFR 60.753; and the landfill cover inspection and repair requirement in Condition 7.2.9.
- viii. Records of all observations made pursuant to the visible emissions monitoring required under Condition 7.2.8(a) and records of any corrective action taken to control visible emissions (i.e., application of water spray or dust suppressants to roadways and dusty areas, flare adjustments, etc.).
- ix. Inspections as per Condition 7.2.9:
 - A. The date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
 - B. The date of each inspection where it was determined by the Permittee that it was necessary to implement the control measures;
 - C. The dates the control measures were implemented; and
 - D. On a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

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

- A. Records to demonstrate compliance with 40 CFR 60.752(b)(2)(ii) shall include: [40 CFR 60.758(b)(1)]
 - 1. The maximum expected gas generation flow rate as calculated in 40 CFR 60.755(a)(1). The Permittee may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Illinois EPA or USEPA. [40 CFR 60.758(b)(1)(i)]
 - 2. The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 40 CFR 60.759(a)(1). [40 CFR 60.758(b)(1)(ii)]

- B. Records to demonstrate compliance with 40 CFR 60.752(b)(2)(iii) through the use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts shall include: [40 CFR 60.758(b)(2)]
 - 1. The average combustion temperature measured at least every 15 minutes and averaged over the same time period of the performance test. [40 CFR 60.758(b)(2)(i)]
 - 2. The percent reduction of NMOC determined as specified in 40 CFR 60.752(b)(2)(iii)(B) achieved by the control device. [40 CFR 60.758(b)(2)(ii)]

- C. Records to demonstrate compliance with 40 CFR 60.752(b)(2)(iii)(B)(1) through use of a boiler or process heater of any size shall include: a description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing. [40 CFR 60.758(b)(3)]

D. Records to demonstrate compliance with compliance with 40 CFR 60.752(b)(2)(iii)(A) through use of an open flare shall include: the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent. [40 CFR 60.758(b)(4)]

iii. The Permittee shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in 40 CFR 60.756 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. [40 CFR 60.758(c)]

A. The following constitute exceedances that shall be recorded and reported under 40 CFR 60.757(f): [40 CFR 60.758(c)(1)]

1. For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average combustion temperature was more than 28°C below the average combustion temperature during the most recent performance test at which compliance with 40 CFR 60.752(b)(2)(iii) was determined. [40 CFR 60.758(c)(1)(i)]

2. For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under paragraph (b)(3) of this section. [40 CFR 60.758(c)(1)(ii)]

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

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

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

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

7.2.11 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected MSW landfill with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, any corrective actions or preventive measures taken; emissions released in accordance with recordkeeping requirements; and a copy of the relevant records.

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

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

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

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

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

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

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

- B. The Illinois EPA may request such additional information as may be necessary to verify that all of the conditions for removal in 40 CFR 60.752(b)(2)(v) have been met. [40 CFR 60.757(e)(2)]
- iii. The Permittee shall submit to the Illinois EPA annual reports of the recorded information in 40 CFR 60.757(f)(1) through (f)(6). The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under 40 CFR 60.8. For enclosed combustion devices and flares, reportable exceedances are defined under 40 CFR 60.758(c). [40 CFR 60.757(f)]
- A. Value and length of time for exceedance of applicable parameters monitored under 40 CFR 60.756(a), (b), (c), and (d). [40 CFR 60.757(f)(1)]
 - B. Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under §60.756. [40 CFR 60.757(f)(2)]
 - C. Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating. [40 CFR 60.757(f)(3)]
 - D. All periods when the collection system was not operating in excess of 5 days. [40 CFR 60.757(f)(4)]
 - E. The location of each exceedance of the 500 parts per million methane concentration as provided in 40 CFR 60.753(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. [40 CFR 60.757(f)(5)]
 - F. The date of installation and the location of each well or collection system expansion added pursuant to 40 CFR 60.755(a)(3), (b), and (c)(4). [40 CFR 60.757(f)(6)]

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

- iv. The Permittee shall include the following information with the initial performance test report required under 40 CFR 60.8: [40 CFR 60.757(g)]
 - A. A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion; [40 CFR 60.757(g) (1)]
 - B. The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based; [40 CFR 60.757(g) (2)]
 - C. The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material; [40 CFR 60.757(g) (3)]
 - D. The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area; [40 CFR 60.757(g) (4)]
 - E. The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; [40 CFR 60.757(g) (5)] and
 - F. The provisions for the control of off-site migration. [40 CFR 60.757(g) (6)]

7.2.12 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.2.13 Compliance Procedures

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

i. Except as provided in 40 CFR 60.752(b)(2)(i)(B), the specified methods in 40 CFR 60.755(a)(1) through (a)(6) shall be used to determine whether the gas collection system is in compliance with §60.752(b)(2)(ii). [40 CFR 60.755(a)]

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

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

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

Where:

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

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

R = Average annual acceptance rate, megagrams per year

k = Methane generation rate constant, year⁻¹

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

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

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

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

Where:

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

k = Methane generation rate constant, year⁻¹

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

M_i = Mass of solid waste in the i^{th} section, megagrams

t_i = Age of the i^{th} section, years

3. If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in paragraphs (a)(1)(i) and (ii) of this section. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equations in paragraphs (a)(1)(i) or (ii) or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment. [40 CFR 60.755(a)(1)(iii)]
- B. For the purposes of determining sufficient density of gas collectors for compliance with 40 CFR 60.752(b)(2)(ii)(A)(2), the owner or operator shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Illinois EPA, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards. [40 CFR 60.755(a)(2)]
 - C. For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with 40 CFR 60.752(b)(2)(ii)(A)(3), the owner or operator shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under 40 CFR 60.753(b). If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval. [40 CFR 60.755(a)(3)]

- D. Owners or operators are not required to expand the system as required in 40 CFR 60.755(a)(3) of this section during the first 180 days after gas collection system startup. [40 CFR 60.755(a)(4)]
 - E. For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or oxygen as provided in 40 CFR 60.753(c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval. [40 CFR 60.755(a)(5)]
 - F. An owner or operator seeking to demonstrate compliance with 40 CFR 60.752(b)(2)(ii)(A)(4) through the use of a collection system not conforming to the specifications provided in 40 CFR 60.759 shall provide information satisfactory to the Illinois EPA as specified in 40 CFR 60.752(b)(2)(i)(C) demonstrating that off-site migration is being controlled.
- ii. For purposes of compliance with 40 CFR 60.753(a), each owner or operator of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in 40 CFR 60.752(b)(2)(i). Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of: [40 CFR 60.755(b)]
- A. 5 years or more if active; or
 - B. 2 years or more if closed or at final grade.

7.3 Unit: Condensate Storage Tank
Control: None

7.3.1 Description

30,000-gallon condensate storage tank used to store landfill leachate and condensate collected onsite.

7.3.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
03	30,000 Gallon Condensate Aboveground Storage Tanks	None

7.3.3 Applicability Provisions and Applicable Regulations

- a. The "affected emission unit" for the purpose of these unit-specific conditions, is the condensate storage tank described in Conditions 7.3.1 and 7.3.2.
- b. Except as provided in Condition 7.3.4.a, the affected tank is subject to the NSPS for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984, 40 CFR 60 Subpart Kb, because the affected tank has a capacity greater than or equal to 40 m³ (10,566 gallons) and is used to store Volatile organic liquids (VOLs) for which construction, reconstruction, or modification is commenced after July 23, 1984. [40 CFR 60.110b(a)]

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

7.3.4 Non-Applicability of Regulations of Concern

- a. Except as provided in Condition 7.3.9(a) (see also 40 CFR 60.116b(c)), the affected emission unit is exempt from the General Provisions of the NSPS and from the provisions of 40 CFR 60 Subpart Kb because the affected emission unit has a design capacity of greater than or equal to 75 m³ but less than 151 m³ storing a liquid with a maximum true vapor pressure less than 15.0 kPa. [40 CFR 60.110b(c)]

- b. The affected tank is not subject to the limitations of 35 IAC 215.121, Storage Containers, because the material stored in the affected tank has a maximum true vapor pressure of less than 2.5 psia and the design capacity is less than 151 m³ (40,000 gal).
- c. The affected tank is not subject to the requirements of 35 IAC 215.123 - Petroleum Liquid Storage Tanks, pursuant to 35 IAC 215.123(a)(2), which exempts stationary storage tanks with a capacity less than 151.42 m³ (40,000 gal) and 35 IAC 215.123(a)(6), which exempts stationary storage tanks in which volatile petroleum liquid is not stored. Landfill condensate is not included in the definition of VPL, pursuant to 35 IAC 211.4610 and 211.7170.
- d. The affected tank is not subject to the requirements of 35 IAC 215.122, Loading Operations, because pursuant to 35 IAC 215.122(c), if no odor nuisance exists the limitations of 35 IAC 215.122 shall only apply to the loading of VOL with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F).

7.3.5 Operational and Production Limits and Work Practices

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

7.3.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5.3, the affected emission units are subject to the following:

- a. This permit is issued based upon negligible emissions of volatile organic material from the condensate storage tank. For this purpose emissions shall not exceed nominal rates of 0.1 pound per hour and 0.44 ton per year.

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

The above limitations were established in Permit 97060047, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

7.3.7 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 emission unit to demonstrate compliance with Conditions 5.5.1 and 7.3.3 pursuant to Section 39.5(7)(b) of the Act:

- a. Readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept for the life of the source. [40 CFR 60.110b(a) and (c), 60.116b(a), and 60.116b(b)]
- b. The throughput of the affected tank, gal/mo and gal/yr.
- c. The annual VOM emissions from the affected emission unit based on the material stored, the tank throughput, and the applicable emission factors and formulas with supporting calculations.

7.3.10 Reporting Requirements

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

The storage of anything other than the material specified in Condition 7.3.5 within 30 days of becoming aware of the non-compliance status. This notification shall include a description of the event, the cause for the non-compliance, actions taken to correct the non-compliance, and the steps to be taken to avoid future non-compliance.

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.3.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.3.9 and the emission factors and formulas listed below:

For the purpose of estimating VOM emissions from the affected tanks to determine compliance with Conditions 5.5.1 and 7.3.6, USEPA's emission calculation programs TANKS (either Versions 3.1 or 4.0), WATER8 or WATER9 are acceptable.

Hourly emissions shall be determined by dividing annual emissions by 8760.

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 July 17, 2003 (the date of issuance of the draft permit) unless this permit has been modified to reflect such new requirements.

8.2 Applicability of Title IV Requirements (Acid Deposition Control)

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

8.3 Emissions Trading Programs

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

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

8.4 Operational Flexibility/Anticipated Operating Scenarios

8.4.1 Changes Specifically Addressed by Permit

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

8.4.2 Changes Requiring Prior Notification

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

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

8.5 Testing Procedures

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

8.6 Reporting Requirements

8.6.1 Monitoring Reports

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

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

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

8.6.2 Test Notifications

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

- a. The name and identification of the affected unit(s);
- b. The person(s) who will be performing sampling and analysis and their experience with similar tests;
- c. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;
- d. The specific determination of emissions and operation which are intended to be made, including sampling and monitoring locations;
- e. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods;
- f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification; and

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

8.6.3 Test Reports

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

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

8.6.4 Reporting Addresses

- a. The following addresses should be utilized for the submittal of reports, notifications, and renewals:
 - i. Illinois EPA - Air Compliance Section
Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276
 - ii. Illinois EPA - Air Regional Field Office
Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

iii. Illinois EPA - Air Permit Section (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)(1), (n), and (o) of the Act].

10.0 ATTACHMENTS

10.1 Attachment 1 - Summary of Emission Units

The following emission units are owned and operated by Resource Technology Corporation (BOA I.D. No 105821AAP):

Emission Unit	Description	Peak Load KW	Startup Date	Emission Control Equipment
Turbine 1	Solar Taurus 60	5,000.0	03/02/01	None
Turbine 2	Solar Taurus 60	5,000.0	03/02/01	None
Turbine 3	Solar Taurus 60	5,000.0	03/02/01	None
Turbine 4	Solar Titan 130	14,000.0	12/15/01	None
----	30,000 Gallon Condensate Aboveground Storage Tanks	----	----	None

¹ Landfill gas utilized in the emission units is generated by the Livingston Landfill (See American Disposal Services, Inc. - CAAPP Permit No. 97030075 - BOA I.D. No. 105821AAO).

The following emission units are owned and operated by the American Disposal Services, Inc. (Livingston Landfill) CAAPP Permit No. 97030075 - BOA I.D. No. 105821AAO located at RR 3, Pontiac.

Emission Unit	Description	Significant Dates	Emission Control Equipment
01	MSW Landfill Parcel A and B 34,994,700 Yd ³ Parcel D 18,420,463 Yd ³	Commenced Construction March 1978 Commenced Construction 2000	Landfill Gas to Energy Facility ¹
02	210,000 Gallon Leachate/Condensate Aboveground Storage Tanks	----	None
03	300 Gallon Gasoline Storage Tank	----	None

¹ Adjacent gas to energy plant owned and operated by Resource Technology Corporation, I.D. No. 105821AAP.

10.2 Attachment 2 - Example Certification by a Responsible Official

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

Signature: _____

Name: _____

Official Title: _____

Telephone No.: _____

Date Signed: _____

10.3 Attachment 3 - Guidance on Revising This Permit

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

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

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

1. Administrative Permit Amendment
 - Corrects typographical errors;
 - Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at the source;
 - Requires more frequent monitoring or reporting by the Permittee;
 - Allows for a change in ownership or operational control of the source where no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new Permittees has been submitted to the Illinois EPA;
 - Incorporates into the CAAPP permit a construction permit, provided the conditions of the construction permit meet the requirements for the issuance of CAAPP permits; or
 - Incorporates into the CAAPP permit revised limitations or other requirements resulting from the application of an approved economic incentives rule, marketable permits rule, or generic emissions trading rule.
2. Minor Permit Modification
 - Do not violate any applicable requirement;

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

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

- A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
- The source's suggested draft permit/conditions;
- Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and
- Information as contained on form 271-CAAPP for the Illinois EPA to use to notify USEPA and affected States.

3. Significant Permit Modification

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

- Applications requesting a significant change in existing monitoring permit terms or conditions;
- Applications requesting a relaxation of reporting or recordkeeping requirements; and
- Cases in which, in the judgment of the Illinois EPA, action on an application for modification would require decisions to be made on technically complex issues.

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

Summary Of Application Contents

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

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

Signature Block

This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete.	
30.	I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate and complete. Authorized Signature: BY: _____ <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 45%; text-align: center;"> _____ <small>AUTHORIZED SIGNATURE</small> </div> <div style="width: 45%; text-align: center;"> _____ <small>TITLE OF SIGNATORY</small> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 45%; text-align: center;"> _____ <small>TYPED OR PRINTED NAME OF SIGNATORY</small> </div> <div style="width: 45%; text-align: center;"> _____ / _____ / _____ <small>DATE</small> </div> </div>

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

10.5 Attachment 5 - Guidance on Renewing This Permit

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

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

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

as existing information is being incorporated by reference.

- 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

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