ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

BUREAU OF AIR

DIVISION of AIR POLLUTION CONTROL

PERMIT SECTION

Springfield, Illinois

PROJECT SUMMARY for the
DRAFT CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT

Lee County Landfill, Inc.
Lee County Landfill, Inc., Municipal Waste Landfill

Illinois EPA ID Number: 103806AAL

Application Number: 99090089

Application Type: Renewal Permit

Start of Public Comment Period:

Close of Public Comment Period:

Permit Engineer/Technical Contact: Mike Davidson, 217/782-2113

Community Relations/Comments Contact: Brad Frost, 217/782-7027

(This Project Summary generally describes the source and explains the draft permit. This document has been prepared pursuant to Section 39.5(8)(b) of the Illinois Environmental Protection Act, which requires "a statement that sets forth the legal and factual basis for the draft CAAPP permit conditions.")

I. INTRODUCTION

a. Nature of the action taken in this permit

This source has applied for renewal of the Clean Air Act Permit Program (CAAPP) operating permit. The CAAPP is the program established in Illinois for operating permits for significant stationary sources as required by Title V of the federal Clean Air Act and Section 39.5 of Illinois' Environmental Protection Act. The conditions in a CAAPP permit are enforceable by the Illinois Environmental Protection Agency (Illinois EPA), the USEPA, and the public. This document is for informational purposes only and does not shield the Permittee from enforcement actions or its responsibility to comply with applicable regulations. This document shall not constitute a defense to a violation of the Act or any rule or regulation.

A CAAPP permit contains conditions identifying the applicable state and federal air pollution control requirements that apply to a source. The permit also establishes emission limits, appropriate compliance procedures, and specific operational flexibility. The appropriate compliance procedures may include monitoring, record keeping, and reporting to show compliance with these requirements. The Permittee must carry out these procedures on an on-going basis to demonstrate that the source is operating in accordance with the requirements of the permit. Further explanations of the specific provisions of the draft CAAPP permit are contained in the attachments to this document, which also identify the various emission units at the source.

1. This permit incorporates the acquisition and expansion into the adjacent Dixon/GROP #1 and #2 landfills (Formerly owned by the City of Dixon BOA I.D. No. 103020ACD) located at 1279 North Bataan Road, Dixon. The expansion into the applicable areas is covered under Construction Permit 06020081.

2. This permit has been revised to show that the leachate storage tank, which was previously considered to be a significant emission unit under Section 7.2 of the previous permit, is now considered to be an insignificant emission units (See Condition 3.1.1) based upon changes to the applicability criteria in 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. Specifically, the subpart does not apply to storage vessels with a capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or with a capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure less than 15.0 kPa. (See the amendments made in the Federal Register - 68 FR 59328, Oct. 15, 2003).

3. This permit has been revised to incorporate the operation of the previously un-permitted gasoline dispensing facility at the source (See Section 7.2).

b. Response to Comments made during Public Notice

The following is in response to comments submitted by the Permittee's representative, correspondence dated August 13, 2008, during the public comment period.

1. Permit Terms and Condition 7.1.0(b)(ii)

Lee County landfill objects to the requirement that "all surface or subsurface landfill fires and/or significant landfill subsurface oxidation events" be reported by telephone to Illinois EPA Compliance Section within 24 hours (See Condition 7.1.0(b)(ii)) and requests that this condition be removed.

Illinois EPA considers surface or subsurface landfill fires and/or significant landfill subsurface oxidation events to be indicative of a major upset condition at the landfill which may warrant additional Illinois EPA oversight and/or corrective action by the Permittee. Based upon Illinois EPA's experience with these types of events, a proactive approach is warranted. Therefore, the above request is rejected and will not be acted upon.

The regulatory basis for these requirements can be found under Section 9(a) of the Act and 35 IAC 201.141, 201.263, and 201.302.

Guidance regarding landfill fires was taken from the US FEMA guidance document "LANDFILL FIRES THEIR MAGNITUDE, CHARACTERISTICS, AND MITIGATION - May 2002/FA–225". This guidance was used to catalog the conditions that may be characteristic of a reportable event, as shown in Condition 7.1.0(b)(ii).

2. Permit Terms and Section 7.3 specifically Condition 7.3.3

Lee County landfill objects to the inclusion of engines identified in Section 7.3 in the CAAPP permit and Illinois EPA's characterization of these engines described in Conditions 7.3.1 and 7.3.2 as "stationary reciprocating internal combustion engines (RICE)" pursuant to 40 CFR Part 63 Subpart ZZZZ--National Emissions Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines.

Illinois EPA has determined that the above engines are stationary reciprocating internal combustion engines pursuant to the definition in 40 CFR 63.6675 and definition for "Nonroad engine" shown in 40 CFR 1068.30. Paraphrasing

the exemption in regard to nonroad engines shown in paragraph (2)(iii) of the definition:

> "An internal combustion engine is not a nonroad engine" if the "engine otherwise included in paragraph (1)(iii) of this definition remains or will remain at a location for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. A location is any single site at a building, structure, facility, or installation. Any engine (or engines) that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period. An engine located at a seasonal source is an engine that remains at a seasonal source during the full annual operating period of the seasonal source. A seasonal source is a stationary source that remains in a single location on a permanent basis (i.e. , at least two years) and that operates at that single location approximately three months (or more) each year. This paragraph (2)(iii) does not apply to an engine after the engine is removed from the location."

In this case, Illinois EPA considers the landfill to be a single location. Therefore, the above request is rejected and will not be acted upon.

II. GENERAL SOURCE DESCRIPTION

a. Nature of source

The Lee County Landfill, Inc., a subsidiary of Allied Waste, is located on 1214 South Bataan Road near Dixon. The landfill has been operating since 1998 and is classified as a MSW landfill. It is currently being operated under a solid waste permit issued by Illinois EPA BOL as per the requirements of 35 IAC Subtitle G: Waste Disposal. A MSW landfill is defined as an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. An MSW landfill may also receive other types of RCRA Subtitle D wastes (40 CFR 257.2) such as commercial solid waste, non-hazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste.

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

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

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

At the time of issuance of this permit, a landfill gas collection and control system is used to collect and burn a portion of the landfill gas. The control system includes a landfill gas to energy facility owned and operated by Dixon/Lee Energy Partners, LLC (CAAPP Permit Application No.: 00070051 - BOA I.D. No. 103020ACJ). Dixon/Lee Energy Partners, LLC is a separate corporate entity, which has contracted with the Lee County Landfill, Inc. to use the gas generated from the landfill in its landfill gas to energy facility.

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

Other emissions at the source include: particulate matter emissions (fugitive dust) generated from roads and excavation activities; VOM emissions from the leachate/condensate storage tank; and landfill combustion emissions (NO_x, CO, SO_2, PM/PM_{10}, and VOM) from the landfill control system (enclosed flare).

b. Ambient air quality status for the area

The source is located in an area that is currently designated attainment or unclassifiable for the National Ambient Air Quality Standards for all criteria pollutants (carbon monoxide, lead, nitrogen dioxide, ozone, $PM_{2.5}$, PM_{10}, sulfur dioxide).

c. Major source status

1. The source requires a CAAPP permit as a major source of carbon monoxide and nitrogen oxide emissions.

2. The source also requires 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. Specifically, this source is subject to the NSPS for

Municipal Solid Waste Landfills, 40 CFR 60 Subpart WWW (See Condition 7.1.3(b) and 40 CFR 60.755(c)).

3. The source also requires a CAAPP permit because the source is considered a single source with the adjacent Dixon/Lee Energy Partners, LLC (CAAPP Permit Application No.: 00070051 - BOA I.D. No. 103020ACJ). The source has elected to obtain separate CAAPP permits for these locations.

d. Source emissions

The following table lists annual emissions of criteria pollutants from this source, as reported in the Annual Emission Reports sent to the Illinois EPA.

	Annual Emissions (tons)			
Pollutant	**2004**	**2005**	**2006**	**2007**
CO	--	--	--	
NO_x	--	--	--	
PM	32.77	32.04	48.96	36.28
SO_2	--	--	--	
VOM	4.39	11.41	1.72	6.88
HAP				
Toluene	--	--	0.71	1.21

III. NEW SOURCE REVIEW/TITLE I CONDITIONS

This draft permit contains terms and conditions that address the applicability of permit programs for new and modified sources under Title I of the Clean Air Act (CAA) and regulations promulgated thereunder, including 40 CFR 52.21, Prevention of Significant Deterioration (PSD) and 35 IAC Part 203, Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within the draft permit by T1, T1R, or T1N. Any conditions established in a construction permit pursuant to Title I and not revised or deleted in this draft permit, remain in effect pursuant to Title I provisions until such time that the Illinois EPA revises or deletes them. Where the source has requested that the Illinois EPA establish new conditions or revise such conditions in a Title I permit, those conditions are consistent with the information provided in the CAAPP application and will remain in effect pursuant to Title I provisions until such time that the Illinois EPA revises or deletes them.

This draft permit would establish new Title I requirements.

IV. COMPLIANCE INFORMATION

The source has certified compliance with all applicable rules and regulations; therefore, a compliance schedule is not required for this source. In addition, the draft permit requires the source to certify its compliance status on an annual basis.

V. PROPOSED ILLINOIS EPA ACTION/REQUEST FOR COMMENTS

It is the Illinois EPA's preliminary determination that this source's permit application meets the standards for issuance of a CAAPP permit. The Illinois EPA is therefore proposing to issue a CAAPP permit, subject to the conditions proposed in the draft permit. Additionally, records reports and inspection were reviewed and did not indicate any non-compliance.

Comments are requested by the Illinois EPA for the draft or proposed permit, pursuant to 35 IAC Part 252 and Sections 39.5(8) and (9) of the Illinois Environmental Protection Act. A final decision on the draft or proposed permit will not be made until the public, affected states, and USEPA have had an opportunity to comment. The Illinois EPA is not required to accept recommendations that are not based on applicable requirements. If substantial public interest is shown in this matter, the Illinois EPA will consider holding a public hearing in accordance with 35 IAC Part 166.

ATTACHMENT 1: Summary of Source-Wide Requirements

The following table indicates the source-wide emissions control programs and planning requirements that are applicable to this source. These programs are addressed in Sections 5 and 6 of the draft permit.

Program/Plan	**Applicable**
Emissions Reduction Market System (ERMS)	No
Nitrogen Oxides (NO_x) Trading Program	No
Acid Rain Program	No
Compliance Assurance Monitoring (CAM) Plan	No
Fugitive Particulate Matter (PM) Operating Program	No
Risk Management Plan (RMP)	No
PM_{10} Contingency Measure Plan	No

ATTACHMENT 2: Summary of Requirements for Specific Emission Units

The following tables include information on the requirements that apply to significant emission units at this source. The requirements are found in Section 7 of the draft permit, which is further divided into subsection, i.e., Section 7.1, 7.2, etc., for the different categories of units at the source. A separate table is provided for each subsection in Section 7 of the draft permit. An explanation of acronyms and abbreviations is contained in Section 2 of the draft permit.

Table 1 (Section 7.1 of the draft permit)

Emission Unit - Municipal Solid Waste Landfill	
Description	Municipal Solid Waste Landfill
Date Constructed	Commenced Construction: June 1998 Operation Commenced: November 1998 Modification (Expansion): November 30,2006 See Application No. 06020081
Emission Control Equipment	Landfill Gas Collection And Control System (i.e., Adjacent gas to energy plant owned by Dixon/Lee Energy Partners, LLC and operated by Illinois Electrical Generation Partners, LLC (CAAPP Permit Application No.: 00070051 - BOA I.D. No. 103020ACJ).)
Applicable Rules and Requirements	
Emission Standards	• 40 CFR 60 Subparts A and WWW (NSPS for Municipal Solid Waste Landfills) • 40 CFR 63, Subparts A and AAAA (National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills) • 40 CFR 61 Subparts A and M (National Emission Standard for Asbestos)
Streamlining	Not Applicable
Title I Conditions	• The draft permit contains limits on operation and emissions in Conditions 7.1.6. o Emissions of particulate matter (PM) from the landfill and landfill haul roads. These limits were incorporated from Permit 06020081. (T1) o New Title 1 limits regarding the overall design capacity of the landfill. The limitations are being established in this permit pursuant to Title I of the CAA, specifically 40 CFR 52.21, Prevention of Significant Deterioration (PSD) since landfill design capacity is the basis for determining potential emissions for the landfill and landfill gas control system. (T1N)

Emission Unit - Municipal Solid Waste Landfill	
Non-applicability	• 35 IAC 212.321 - Emissions of Particulate Matter from Process Emission Units: Source is not considered to be a process emission unit • 35 IAC Part 220 - Non-Methane Organic Compounds: MSW landfill does not meet the applicability criteria • 40 CFR Part 64 - Compliance Assurance Monitoring (CAM) for Major Stationary Sources" The MSW landfill is subject to a NSPS
Periodic Monitoring (other than basic regulatory requirements)	
Testing	• Required by 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfills • Sampling and analysis of the landfill gas entering the control system(s) at least once per year to determine for heat value and composition which shall include at least: methane, sulfur compounds, nonmethane organic content, and nonmethane organic compound (NMOC) content. Required to verify compliance with the emission limits in Condition 7.1.6(b).
Emissions Monitoring	• Required by 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfill • Dust monitoring required to verify compliance limitation in Conditions 5.3.2(a) and 7.1.3(d) and in conjunction with the fugitive dust minimization program required in Conditions 7.1.5(d).
Operational Monitoring	• Required by 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfill • Landfill gas flow rate monitoring - 35 Ill. Adm. Code 201.281 • Fugitive dust emissions are visible across the source's property line – Used to assure compliance with the fugitive dust limitation in Conditions 5.3.2(a) and 7.1.3(e) and in conjunction with the fugitive dust minimization program required in Conditions 7.1.5(e)
Inspections	• Required by 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfill
Recordkeeping	Required by: 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfill, 40 CFR 63, Subpart AAAA: National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills and NESHAP 40 CFR 61 Subpart M: Handling Procedures and Control Measures for the Disposal of ACWM. Other records required for emission calculation and compliance with requirements in Condition 7.1.6.
Other	Compliance with the fugitive dust limitation in Conditions 5.3.2(a) based upon a visual observation.
Reporting	

Emission Unit - Municipal Solid Waste Landfill	
Prompt Reporting	30 day reporting of exceedance of limits in Condition 7.1.5 and 7.1.6
Other Reporting	• General Reporting requirements including reporting of subsurface oxidation events. • 40 CFR 60 Subpart WWW: Standards of Performance for Municipal Solid Waste Landfill • 40 CFR 63, Subpart AAAA: National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills • NESHAP 40 CFR 61 Subpart M: Handling Procedures and Control Measures for the Disposal of ACWM.
Other Information	
Footnotes	Additional periodic monitoring is not necessary as the monitoring required by the NSPS and NESHAP is adequate to assure compliance.

Table 2 (Section 7.2 of the draft permit)

Emission Unit	
Name	Gasoline Dispensing Facility
Description	Gasoline is dispensed to motor vehicles and other equipment at the source. The affected source includes each gasoline cargo tank during the delivery of product to a gasoline dispensing facility, the gasoline storage tank (e.g., the five hundred fifty (550) gallon gasoline storage tank) and the equipment used for the refueling of motor vehicles.
Date Constructed	--
Emission Control Equipment	None
Applicable Rules and Requirements	
Emission Standards	• 35 IAC 215.122(b) and 215.583(a)(1): Gasoline Storage Tank required to have submerged loading pipe, submerged fill, or an equivalent device. • 40 CFR 63 Subpart CCCCCC - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Dispensing Facilities: All gasoline dispensing facilities are subject.
Streamlining	Not Applicable
Title I Conditions	Not Applicable
Non-applicability	• 40 CFR 60 Subpart K, Ka and Kb: gasoline storage tank has a design capacity of less than 75 m^3 (19,812.9 gal) • 35 IAC 215.121, Storage Containers, because the material stored in the affected gasoline storage tank has a maximum true vapor pressure of less than 2.5 psia and the tank design capacity is less than 151 m^3 (40,000 gal) • 35 IAC 215.123(b) - Petroleum Liquid Storage Tanks, because the requirements do not apply to stationary storage tanks with a capacity less than 151.42 m^3 (40,000 gal) • 35 IAC 215.583(a)(2), (c) and (d), because the tank has a capacity of less than 575 gallons. [35 IAC 215.583(b)(3)]
Periodic Monitoring (other than basic regulatory requirements)	
Testing	None
Emissions Monitoring	None

Operational Monitoring	Verification that the gasoline storage tank is being filled utilizing a permanent submerged loading pipe or submerged fill, to insure compliance with the operating requirements of Conditions 7.2.3(b) and 7.2.5(a) and to verify that submerged loading pipe or submerged fill is in place and operating correctly. Such inspections shall be performed either monthly or each time that the tank is filled.
Inspections	None
Recordkeeping	Verification of compliance with Conditions 5.6.1, 7.2.3, 7.2.5, and 7.2.8 pursuant to Section 39.5(7)(b) of the Act
Other	None
Reporting	
Prompt Reporting	5 days of becoming aware of the non-compliance status pursuant to Conditions 7.2.3(b) and 7.2.5(a) - Section 39.5(7)(f)(ii) of the Act 30 days of becoming aware of the non-compliance status pursuant due to damage, deterioration, or other condition of the tank Conditions 7.2.3(b) and 7.2.5(a) - Section 39.5(7)(f)(ii) of the Act 30 days of exceedance of the operational and emissions limitations in Conditions 7.2.3, 7.2.5, 7.2.6, and 7.2.8 - Section 39.5(7)(f)(ii) of the Act
Other Reporting	None
Other Information	
Footnotes	Recordkeeping and Reports is sufficient periodic monitoring when coupled with the requirements to inspect the submerged loading because the affected emission unit: 1. is a small emitter; 2. has not previously violated any applicable regulations; and 3. the likelihood of exceedance is small.

Table 3 (Section 7.3 of the draft permit)

Emission Unit	
Name	RICE Engines (Subject to NESHAP - 40 CFR 63 Subpart ZZZZ)
Description	The reciprocating internal combustion engines (RICE) are gasoline and diesel fired process emission units used to provide power to various components at the source. These include a tarpping machine, light towers, water pump, compressors, host, tipping machines, vacuum unit, pressure washer, and welder.
Date Constructed	Prior to June 12, 2006
Emission Control Equipment	None
Applicable Rules and Requirements	
Emission Standards	• 35 IAC 212.123: General opacity standard • 35 IAC 214.301: General sulfur dioxide standard for process emission sources • 40 CFR Part 63 Subpart ZZZZ--National Emissions Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines
Streamlining	Not Applicable
Title I Conditions	Not Applicable
Non-applicability	• 40 CFR Part 60, Subpart IIII: the affected diesel engines were manufactured after April 1, 2006 and are not fire pump engines, pursuant to 40 CFR 60.4200(a)(2)(i) • 40 CFR Part 60 Subpart JJJJ: the affected spark ignition internal combustion engines were manufactured before July 1, 2008 • Acid Rain Program, 40 CFR 72: engines are non-utility units, as defined by 40 CFR 72.6(b)(8). • 35 IAC 212.321 or 212.322: due to the unique nature of such units, a process weight rate can not be set • 35 IAC 216.121: the affected engines are not fuel combustion units, as defined by 35 IAC 211.2470 • 35 IAC Part 217, Subpart Q: Stationary Reciprocating Internal Combustion Engines and Turbines: the affected engines are not stationary reciprocating internal combustion engines listed in Appendix G of that Part, pursuant to 35 IAC 217.386. • 35 IAC 217.141: the affected engines are not fuel combustion units, as defined by 35 IAC 211.2470 • 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources: the affected engines do not use an add-on control device

Periodic Monitoring (other than basic regulatory requirements)	
Testing	None
Emissions Monitoring	None
Operational Monitoring	Verification that the operation and opacity of the affected engine shall be formally observed by operating personnel for the affected engine or a member of Permittee's environmental staff on a regular basis to assure that the affected engine is operating properly, which observations shall be made at least every six months.
Inspections	None
Recordkeeping	Verification of compliance with Conditions 5.6.1 and 7.3.3 pursuant to Section 39.5(7)(b) of the Act • operating log • maintenance and repair log • records of compliance pursuant to Condition 7.3.3(d)(vi), i.e., 40 CFR Part 60 Subpart IIII, for compression ignition engines or 40 CFR Part 60 Subpart JJJJ, for spark ignition engines. [40 CFR 63.6590(c)] • Fuel usage • sulfur content • Emissions
Other	None
Reporting	
Prompt Reporting	• Emissions of opacity and SO_2, from the affected engines in excess of the limits specified in Conditions 7.3.3 within 30 days - Section 39.5(7)(f)(ii) of the Act • Operation of the affected engines in noncompliance with the requirements specified in Condition 7.3.5 within 30 days of such occurrence • Reporting of Construction and/or Reconstruction o Notice of plans to reconstruct an affected engine, postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced [40 CFR 60.15(d)] o Notifications of the date construction (or reconstruction as defined under 40 CFR 60.15) of an affected facility is commenced postmarked no later than 30 days after such date. - 40 CFR 60.4214(a) and/or 60.4245(c) [40 CFR 60.7(a)(1)]
Other Reporting	None

Other Information	
Footnotes	Periodic operational, opacity, and sulfur monitoring and the recordkeeping and reports is sufficient periodic monitoring because the affected emission units: 1. are small emitter; 2. has not previously violated any applicable regulations; and 3. the likelihood of exceedance is small.