

Attention:

Advanced Disposal Services Zion Landfill Inc.
Attn: Timothy D. Curry
701 Green Bay Road
Zion, Illinois 60099

State of Illinois

CLEAN AIR ACT PERMIT
PROGRAM (CAAPP) PERMIT

Source:

Advanced Disposal Services Zion Landfill Inc.
701 Green Bay Road,
Zion, Illinois 60099

I.D. No.: 097200AAV

Permit No.: 97030064

Permitting Authority:

Illinois Environmental Protection Agency
Bureau of Air, Permit Section
217/785-1705



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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JB PRITZKER, GOVERNOR

JOHN J. KIM, ACTING DIRECTOR

CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT

Type of Application: Administrative Amendment (AA)
Purpose of Application: Revise Existing CAAPP Permit to add a Delegated Authority and to reflect a change in the Responsible Official and other contact information

ID No.: 097200AAV
Permit No.: 97030064

Date Application Received: February 7, 2007
Date Issued: June 24, 2015

Date Revision Received: May 20, 2019
Date Revision Issued: May 22, 2019

Expiration Date: June 24, 2020
Renewal Submittal Date: 9 Months Prior to June 24, 2020

Source Name: Advanced Disposal Services Zion Landfill, Inc.
Address: 701 Green Bay Road
City: Zion
County: Lake
ZIP Code: 60099

Permit renewal submitted to IEPA on September 19, 2019 by EIL. Site continues to operate under current permit until permit renewal is finalized/issued by the IEPA.

This permit is hereby granted to the above-designated source authorizing operation in accordance with this CAAPP permit, pursuant to the above referenced application. This source is subject to the conditions contained herein. If a conflict exists between this document and previous versions of the CAAPP permit, this document supersedes those terms and conditions of the permit for which the conflict exists. For further information on the source see Section 1 and for further discussion on the effectiveness of this permit see Condition 2.3(g).

If you have any questions concerning this permit, please contact Anthony P. Miller at 217/785-1705.

Raymond E. Pilapil/wom

Raymond E. Pilapil
Manager, Permit Section
Bureau of Air

REP:WDM:APM:jlp

cc: IEPA, Permit Section
IEPA, FOS, Region 1
Lotus Notes Database

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Section 1 - Source Information

1. AddressesSource

Advanced Disposal Services Zion Landfill, Inc.
701 Green Bay Road
Zion, Illinois 60099

Owner

Advanced Disposal Services Zion Landfill, Inc.
701 Green Bay Road
Zion, Illinois 60099

Operator

Advanced Disposal Services Zion Landfill, Inc.
701 Green Bay Road
Zion, Illinois 60099

Permittee

The Owner and Operator of the source as identified in this table.

2. ContactsCertified Officials

The source shall submit an Administrative Permit Amendment for any change in the Certified Officials, pursuant to Section 39.5(13) of the Act.

	Name	Title
Responsible Official	Dan Dewaard	Midwest Region Vice-President
Delegated Authority	Timothy D. Curry	Midwest Region Landfill Operations Manager

Other Contacts

	Name	Phone No.	Email
Source/Technical Contact, Correspondence and Billing	Timothy D. Curry	618-806-7392	tim.curry@advanceddisposal.com

3. Single Source

- a. The source identified in Condition 1.1 above shall be defined to include all the following additional source(s):

I.D. No.	Permit No.	Single Source Name and Address
097200ABC	03070058	Bio Energy (Illinois) LLC. Zion Landfill Gas Power Station 701 Green Bay Road Zion, Illinois, 60099

Bio Energy (Illinois) LLC owns and operates a landfill gas to energy facility at ADS Zion Landfill under CAAPP Permit No. 03070058 and is considered to be a support facility for the landfill. ADS Zion Landfill and Bio Energy (Illinois) LLC have elected to obtain separate CAAPP permits.

b. Construction Permit 01050045 Requirements [T1]

- i. Pursuant to Construction Permit 01050045, total emissions from the source, i.e., the combination of ADS Zion Landfill and Bio Energy (Illinois) LLC gas-to-energy facility (ID No. 097200ABC) - See Section 1.3(a), shall not exceed the following:

Pollutant	Emissions (Tons/year)
CO	247.5
SO ₂	200.0

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c. Construction Permit 06100001 Requirements [T1]

- i. Pursuant to Construction Permit 06100001, total emissions from the source, i.e., emissions from ADS Zion Landfill's open and enclosed flares referenced in Condition 4.1.1, and Bio Energy (Illinois) LLC gas-to-energy facility (ID No. 097200ABC) - See Section 1.3(a), shall not exceed the following:

Pollutant	Limit (Tons/year)
NO _x	160
CO	247.5
SO ₂	200
VOM	40.0
PM	15.0 ¹
Total HAPs	8.0

¹ This limit does not include fugitive PM emissions from the landfill roadways and soil stockpiles.

d. Construction Permit 12070062 Requirements [T1]

- i. Pursuant to Construction Permit 12070062, the total emissions of the source, i.e., ADS Zion Landfill and Bio Energy (Illinois) LLC facility (ID No. 097200ABC) - See Section 1.3(a), excluding fugitive emissions, shall not exceed the following limits: [T1]

Pollutant	Applicable Rules*		Limit (Tons/Year)
	MSSCAM	PSD	
NO _x	Yes	Yes	126**
CO	No	Yes	225
SO ₂	No	Yes	200
PM	No	Yes	200
PM ₁₀	No	Yes	200
PM _{2.5}	No	Yes	80
VOM	Yes	No	80
NMOC	No	Yes	80

* These columns identify whether a pollutant is being limited, pursuant to both Construction Permit 12070062 and this permit, in order to address applicability of the MSSCAM or PSD rules, or both of these rules, to the expansion of the landfill authorized by Construction Permit 12070062.

** This NO_x limit is derived based on average past actual emissions of the existing source for the consecutive 24 month period and 32 tons/year of increase from the project described in Construction Permit 12070062, (i.e., 94 tons/year + 32 tons/year).

- ii. Pursuant to Construction Permit 12070062, this permit is issued based on the source, i.e., ADS Zion Landfill (ID No 097200AAV) and Bio Energy (Illinois) LLC facility (ID No. 097200ABC) - See Section 1.3(a), not being a major source of emissions of hazardous air pollutants (HAPs). For this purpose, HAP emissions of the source shall not exceed 8 tons per year for any individual HAP and 20 tons per year of any combination of HAPs. [T1]

Note: This condition is intended to ensure that the affected source continues to not be a major source of HAP emissions for purposes of the NESHAP adopted by USEPA pursuant to Section 112(b) of the Clean Air Act.

e. Emissions Reduction Market System (ERMS)

- i. Pursuant to 35 IAC Part 205.205(a), ERMS seasonal emissions of VOM from the source, i.e., ADS Zion Landfill and Bio Energy (Illinois) LLC facility (ID No. 097200ABC) - See Section 1.3(a), during the seasonal allotment period from May 1 through September 30 shall not exceed 15 tons, not including VOM emissions from

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insignificant emission units and activities as identified in Section 6 of this permit. The Permittee shall comply with all applicable requirements in Section 7.2 of this permit.

f. Compliance Method

Monitoring

- i. Pursuant to Sections 39.5(7) (b) and (d) of the Act and Construction Permits 01050045, 06100001 and 12070062, the Permittee shall demonstrate compliance with the requirements in Condition 1.3(b) and (c), as follows:
- A. ADS Zion Landfill shall demonstrate compliance with the emissions limitations in Conditions 1.3(b), (c) and (d) shall be verified utilizing the monitoring, recordkeeping, and reporting procedures used to calculate emissions for the emission units and operations covered under the respective sections of this permit, i.e., the monitoring, recordkeeping, and reporting in Section 4.0 and 6.0 of the permit.
 - B. ADS Zion Landfill shall demonstrate compliance with the emissions limitations in Condition 1.3(e) shall be verified utilizing the monitoring, recordkeeping, and reporting procedures, required in Section 7.2.
 - C. ADS Zion Landfill shall demonstrate compliance with the emissions limitations in Conditions 1.3(b), (c) and (d) shall be verified using site-specific data for the generation, disposition and composition of LFG and appropriate emission factors, which in order of preference for pollutants shall be factors from on-site emission testing, manufacturer's emission data, and emission factors from USEPA's Compilation of Air Pollutant Emission Factors (AP-42) with appropriate adjustments to this data and these emission factors to reflect source-specific conditions and any deficiencies in the collection of LFG and operation of units controlling LFG at this affected source. [T1]
 - D. Compliance with the source-wide annual emissions limitations in Conditions 1.3(b), (c) and (d) shall be based upon the sum of emissions from all applicable emission units and operations at ADS Zion Landfill (ID No 097200AAV) and Bio Energy (Illinois) LLC facility (ID No. 097200ABC), i.e., where compliance with annual limits shall be determined from a running total of 12 months of data, i.e., the sum of emissions data for each specific pollutant for the month of record plus the preceding 11 months of data. [T1]

Testing

- ii. Pursuant to Sections 39.5(7) (b) and (d) of the Act, the ADS Zion Landfill LFG total reduced sulfur (TRS), net heat and NMOC/VOM content shall be determined based the procedures and schedules required in Conditions 4.1.2(b) (ii) (B) and the net heat content and NMOC/VOM testing and calculation procedures required in Conditions 4.1.2(c) (ii) (B) and (C). Where:
- A. The net heating value of the landfill gas shall be calculated from the concentration of methane in the landfill gas as measured by Method 3C of Appendix A of 40 CFR Part 60.
 - B. Total reduced sulfur (TRS) concentration shall be determined as per Reference Method 15/16 or ASTM D5504.
 - C. NMOC/VOM content: Method 25, 25C, or Method 18 of Appendix A of 40 CFR Part 60 must be used to determine inlet NMOC concentration level, unless another method to demonstrate compliance has been approved by the Illinois EPA. If using Method 18 of Appendix A of this Part, 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 may assume 100% of the NMOC emitted is VOM or provide credible evidence in the compliance demonstration of the fraction of VOM that is present, i.e., determine the VOM emission factor based on the removal of the organic compounds listed in 40 CFR 51.100(s)(1) or 35 IAC 211.7150 which have negligible chemical photoreactivity from the overall NMOC concentration.

For each landfill gas sampling and analysis activity from the active collection system, at least three representative samples of landfill gas shall be collected from the common header pipe before the gas moving or any condensate removal equipment.

Recordkeeping

- iii. A. Pursuant to Sections 39.5(7)(b) and (e) of the Act, as applicable, the Permittee shall keep and maintain records and documentation of the assumptions and/or factors, and calculations used to demonstrate compliance with the source-wide limitations in limitations in Conditions 1.3(b), (c) and (d).
- B. Pursuant to Construction Permits 11030009, the Permittee shall keep the following records related to emissions of the source:
 - I. The Permittee shall keep records for the amount of waste deposited in the original landfill and in the expansion, referenced in Construction Permits 11030009, on a yearly basis, further categorized by type of waste if differences in waste type are considered in determining the amount of LFG generated by the existing landfill and the expansion.
 - II. The Permittee shall keep the following records related to overall emissions of the Source:
 - 1. (a) Calculations, on at least an annual basis, for the total amount of LFG generated by the affected landfill during the preceding year and the percentage of the LFG that is attributable to the existing landfill and to the expansion, referenced in Construction Permits 11030009.
 - (b) Amount of LFG (mmscf/month and mmscf/year) sent to the associated gas-to-energy facility, referenced in Condition 1.3(a), as fuel.
 - 2. A file containing the emission factors used by the Permittee for calculating the landfill's emissions of NO_x, CO, SO₂, PM, PM₁₀, VOM, NMOC, and HAPs, with supporting documentation.
 - 3. Records for the total amount of sulfur in collected LFG (tons/month and tons/year), with supporting calculations.
 - 4. Records for emissions of NO_x, CO, SO₂, PM, PM₁₀, VOM, NMOC, and HAPs from the landfill, (tons/month and tons/year), with supporting calculations.
 - 5. Records for the emissions of NO_x, CO, SO₂, PM, PM₁₀, VOM, NMOC, and HAPs the source, i.e., the combined emissions from the affected landfill and associated gas-to-energy facility, referenced in Condition 1.3(a), with supporting calculations, which records shall be compiled on at least a quarterly basis:

Note: For the emissions from the associated gas-to-energy facility, the Permittee may obtain a copy of the records from the operator of the facility on a routine basis, with supporting documentation and calculations.

6. Emissions of NO_x and SO₂ from combustion of LFG collected from the expansion, referenced in Construction Permits 11030009, (tons/month and tons/year), with supporting documentation and calculations.
- C. Pursuant to Construction Permits 12070062, the Permittee shall keep the following records related to emissions of the source:
- I.
 1. The Permittee shall keep records of the total amount of LFG collected from the affected landfill and its disposition, i.e., the amount of LFG sent to the gas-to-energy facility, referenced in Condition 1.3(a), and to each flare (scf/month and scf/year), referenced in Condition 4.1.4, with supporting documentation.
 2. The Permittee shall keep monthly records of the split between LFG generated by the affected landfill that is attributable to the existing source, i.e., the landfill excluding the expansion authorized by Construction Permit 12070062, and LFG that is attributable to the expansion of the landfill authorized by this permit.
 - II. The Permittee shall keep the records related to the emissions of NO_x, CO, SO₂, PM, PM₁₀, VOM, NMOC, and HAPs of the affected source (tons/month and tons/year), i.e., the combined emissions attributable from the operation at the affected landfill and the gas-to-energy facility, referenced in Condition 1.3(a), with supporting calculations and compiled on a quarterly basis.

Note: For this purpose, for the emissions from the associated gas-to-energy facility, the Permittee may on a routine basis obtain a copy of the emission data from the operator of that facility, with supporting documentation and calculations.

Reporting

- iv. A. Pursuant to Section 39.5(7)(f) of the Act, within 30 days of discovering a deviation from applicable requirements in Condition 1.3(b), (c), or (d), all such deviations shall be summarized and reported and also included as part of the Semiannual Monitoring Report required by Condition 3.6(b).
- B. Pursuant to Section 39.5(7)(f) of the Act, the Permittee shall submit an annual compliance report, to the IEPA Air Compliance Section (See Attachment 2 for Addresses) by May 1 of the year following the calendar year of record. The report shall include a summary of the total monthly and the 12 month rolling total annual emissions from the source, i.e., ADS Zion Landfill and Bio Energy (Illinois) LLC facility, see Section 1.3(a), for each of the pollutants listed in Conditions 1.3(b), (c) and (d) for each calendar month based upon a running total of 12 months of data, i.e., the sum of emissions data for each specific pollutant for the month of record plus the preceding 11 months of data to the IEPA, Air Compliance Section (See Attachment 2 for Addresses).

Section 2 - General Permit Requirements

1. Prohibitions

- a. It shall be unlawful for any person to violate any terms or conditions of this permit issued under Section 39.5 of the Act, to operate the CAAPP source except in compliance with this permit issued by the IEPA under Section 39.5 of the Act or to violate any other applicable requirements. All terms and conditions of this permit issued under Section 39.5 of the Act are enforceable by USEPA and citizens under the Clean Air Act, except those, if any, that are specifically designated as not being federally enforceable in this permit pursuant to Section 39.5(7)(m) of the Act. [Section 39.5(6)(a) of the Act]
- b. After the applicable CAAPP permit or renewal application submittal date, as specified in Section 39.5(5) of the Act, the source shall not operate this CAAPP source without a CAAPP permit unless the complete CAAPP permit or renewal application for such source has been timely submitted to the IEPA. [Section 39.5(6)(b) of the Act]
- c. No Owner or Operator of the CAAPP source shall cause or threaten or allow the continued operation of an emission source during malfunction or breakdown of the emission source or related air pollution control equipment if such operation would cause a violation of the standards or limitations applicable to the source, unless this CAAPP permit granted to the source provides for such operation consistent with the Act and applicable Illinois Pollution Control Board regulations. [Section 39.5(6)(c) of the Act]
- d. Pursuant to Section 39.5(7)(g) of the Act, emissions from the source are not allowed to exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act or the regulations promulgated thereunder, consistent with Section 39.5(17) of the Act and applicable requirements, if any.

2. Emergency Provisions

Pursuant to Section 39.5(7)(k) of the Act, the Owner or Operator of the CAAPP source may provide an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations under this CAAPP permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:

- a.
 - i. An emergency occurred and the source can identify the cause(s) of the emergency.
 - ii. The source was at the time being properly operated.
 - iii. The source submitted notice of the emergency to the IEPA within 2 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.
 - iv. During the period of the emergency the source took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or requirements in this permit.
- b. For purposes of Section 39.5(7)(k) of the Act, "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, such as an act of God, that requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operation error.
- c. In any enforcement proceeding, the source seeking to establish the occurrence of an emergency has the burden of proof. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve

the source of any reporting obligations under existing federal or state laws or regulations.

3. General Provisions

a. Duty to Comply

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

b. Need to Halt or Reduce Activity is not a Defense

It shall not be a defense for the source 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]

c. Duty to Maintain Equipment

The source 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. [Section 39.5(7) (a) of the Act]

d. Disposal Operations

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated there under. [Section 39.5(7) (a) of the Act]

e. Duty to Pay Fees

- i. The source must pay fees to the IEPA 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]
- ii. The IEPA shall assess annual fees based on the allowable emissions of all regulated air pollutants, except for those regulated air pollutants excluded in Section 39.5(18) (f) of the Act and insignificant activities in Section 6, at the source during the term of this permit. The amount of such fee shall be based on the information supplied by the applicant in its complete CAAPP permit application. [Section 39.5(18) (a) (ii) (A) of the Act]
- iii. The check should be payable to "Treasurer, State of Illinois" and sent to: Fiscal Services Section, Illinois EPA, P.O. Box 19276, Springfield, IL, 62794-9276. Include on the check: ID #, Permit #, and "CAAPP Operating Permit Fees". [Section 39.5(18) (e) of the Act]

f. Obligation to Allow IEPA Surveillance

Pursuant to Sections 4(a), 39.5(7) (a), and 39.5(7) (p) (ii) of the Act, inspection and entry requirements that necessitate that, upon presentation of credentials and other documents as may be required by law and in accordance with constitutional limitations, the source shall allow the IEPA, or an authorized representative to perform the following:

- i. Enter upon the source's premises where the emission unit(s) are located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

- ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit.
- iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
- iv. Sample or monitor any substances or parameters at any location at reasonable times:
 - A. As authorized by the Clean Air Act or the Act, at reasonable times, for the purposes of assuring compliance with this CAAPP permit or applicable requirements; or
 - B. As otherwise authorized by the Act.
- v. 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.

g. Effect of Permit

- i. Pursuant to Section 39.5(7)(j)(iv) of the Act, nothing in this CAAPP permit shall 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 the Owner or Operator of the 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 Clean Air Act.
 - D. The ability of USEPA to obtain information from the source pursuant to Section 114 (inspections, monitoring, and entry) of the Clean Air Act.
- ii. Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, pursuant to Sections 39.5(7)(j) and (p) of the Act, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements. [35 IAC 201.122 and Section 39.5(7)(a) of the Act]

h. Severability Clause

The provisions of this permit are severable. In the event of a challenge to any portion of this permit, other portions of this permit may continue to be in effect. Should any portion of this permit be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected and the rights and obligations of the source 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]

4. Testing

- a. Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods if applicable test methods are not specified by the applicable regulations or otherwise identified in the conditions of this permit. Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of any tests conducted as required by this permit or as the result of a request by the IEPA

shall be submitted as specified in Condition 7.1 of this permit. [35 IAC Part 201 Subpart J and Section 39.5(7) (a) of the Act]

- b. Pursuant to Section 4(b) of the Act and 35 IAC 201.282, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:
- i. Testing by Owner or Operator: The IEPA may require the Owner or Operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the IEPA, at such reasonable times as may be specified by the IEPA and at the expense of the Owner or Operator of the emission source or air pollution control equipment. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The IEPA shall have the right to observe all aspects of such tests.
 - ii. Testing by the IEPA: The IEPA shall have the right to conduct such tests at any time at its own expense. Upon request of the IEPA, the Owner or Operator of the emission source or air pollution control equipment shall provide, without charge to the IEPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary.

5. Recordkeeping

a. Control Equipment Maintenance Records

Pursuant to Section 39.5(7) (b) of the Act, a maintenance record shall be kept on the premises for each item of air pollution control equipment. At a minimum, this record shall show the dates maintenance was performed and the nature of preventative maintenance activities.

b. Retention of Records

- i. 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]
- ii. Pursuant to Section 39.5(7) (a) of the Act, other records required by this permit including any logs, plans, procedures, or instructions required to be kept by this permit shall be retained for a period of at least 5 years from the date of entry unless a different period is specified by a particular permit provision.

c. Availability of Records

- i. Pursuant to Section 39.5(7) (a) of the Act, the Permittee shall retrieve and provide paper copies, or as electronic media, any records retained in an electronic format (e.g., computer) in response to an IEPA or USEPA request during the course of a source inspection.
- ii. Pursuant to Section 39.5(7) (a) of the Act, upon written request by the IEPA for copies of records or reports required to be kept by this permit, the Permittee shall promptly submit a copy of such material to the IEPA. For this purpose, material shall be submitted to the IEPA within 30 days unless additional time is provided by the IEPA or the Permittee believes that the volume and nature of requested material would make this overly burdensome, in which case, the Permittee

shall respond within 30 days with the explanation and a schedule for submittal of the requested material. (See also Condition 2.9(d))

6. Certification

a. Compliance Certification

- i. Pursuant to Section 39.5(7)(p)(v)(C) of the Act, the source shall submit annual compliance certifications by May 1 unless a different date is specified by an applicable requirement or by a particular permit condition. The annual compliance certifications shall include the following:
 - A. The identification of each term or condition of this permit that is the basis of the certification.
 - B. The compliance status.
 - C. Whether compliance was continuous or intermittent.
 - D. 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.
- ii. Pursuant to Section 39.5(7)(p)(v)(D) of the Act, all compliance certifications shall be submitted to the IEPA Compliance Section. Address is included in Attachment 2.
- iii. Pursuant to Section 39.5(7)(p)(i) of the Act, all compliance reports required to be submitted shall include a certification in accordance with Condition 2.6(b).

b. Certification by a Responsible Official

Any document (including reports) required to be submitted by this permit shall contain a certification by the responsible official of the source that meets the requirements of Section 39.5(5) of the Act and applicable regulations. [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included in Attachment 3 of this permit.

7. Permit Shield

- a. Pursuant to Section 39.5(7)(j) of the Act, except as provided in Condition 2.7(b) below, the source 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 IEPA, 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 May 5, 2015 (date USEPA notice started), unless this permit has been modified to reflect such new requirements.
- b. Pursuant to Section 39.5(7)(j) of the Act, this permit and the terms and conditions herein do not affect the Permittee's past and/or continuing obligation with respect to statutory or regulatory requirements governing major source construction or modification under Title I of the CAA. Further, neither the issuance of this permit nor any of the terms or conditions of the permit shall alter or affect the liability of the Permittee for any violation of applicable requirements prior to or at the time of permit issuance.
- c. Pursuant to Section 39.5(7)(a) of the Act, the issuance of this permit by the IEPA does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any currently pending or future legal, administrative or equitable rights or

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claims, actions, suits, causes of action or demands whatsoever that the IEPA or the USEPA may have against the applicant including, but not limited to, any enforcement action authorized pursuant to the provision of applicable federal and state law.

8. Title I Conditions

Pursuant to Sections 39(a), 39(f), and 39.5(7)(a) of the Act, as generally identified below, this CAAPP permit may contain certain conditions that relate to requirements arising from the construction or modification of emission units at this source. These requirements derive from permitting programs authorized under Title I of the Clean Air Act (CAA) and regulations thereunder, and Title X of the Illinois Environmental Protection Act (Act) and regulations implementing the same. Such requirements, including the New Source Review programs for both major (i.e., PSD and nonattainment areas) and minor sources, are implemented by the IEPA.

- a. This permit may contain conditions that reflect requirements originally established in construction permits previously issued for this source. These conditions include requirements from preconstruction permits issued pursuant to regulations approved or promulgated by USEPA under Title I of the CAA, as well as requirements contained within construction permits issued pursuant to state law authority under Title X of the Act. Accordingly, all such conditions are incorporated into this CAAPP permit by virtue of being either an "applicable Clean Air Act requirement" or an "applicable requirement" in accordance with Section 39.5 of the Act. These conditions are identifiable herein by a designation to their origin of authority.
- b. This permit may contain conditions that reflect necessary revisions to requirements established for this source in preconstruction permits previously issued under the authority of Title I of the CAA. These conditions are specifically designated herein as "TIR."
 - i. Revisions to original Title I permit conditions are incorporated into this permit through the combined legal authority of Title I of the CAA and Title X of the Act. Public participation requirements and appeal rights shall be governed by Section 39.5 of the Act.
 - ii. Revised Title I permit conditions shall remain in effect through this CAAPP permit, and are therefore enforceable under the same, so long as such conditions do not expire as a result of a failure to timely submit a complete renewal application or are not removed at the applicant's request.
- c. This permit may contain conditions that reflect new requirements for this source that would ordinarily derive from a preconstruction permit established under the authority of Title I of the CAA. These conditions are specifically designated herein as "TIN."
 - i. The incorporation of new Title I requirements into this CAAPP permit is authorized through the combined legal authority of Title I of the CAA and Title X of the Act. Public participation requirements and appeal rights shall be governed by Section 39.5 of the Act.
 - ii. Any Title I conditions that are newly incorporated shall remain in effect through this CAAPP permit, and are therefore enforceable under the same, so long as such conditions do not expire as a result of a failure to timely submit a complete renewal application or are not removed at the applicant's request.

9. Reopening and Revising Permit

a. Permit Actions

This permit may be modified, revoked, reopened and reissued, or terminated for cause in accordance with applicable provisions of Section 39.5 of the Act. The filing of a request by the source for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [Section 39.5(7)(o)(iii) of the Act]

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b. Reopening and Revision

Pursuant to Section 39.5(15) (a) of the Act, this permit must be reopened and revised if any of the following occur:

- i. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit;
- ii. Additional requirements become applicable to the source for acid deposition under the acid rain program;
- iii. The IEPA or USEPA determines that this permit contains a material mistake or that an inaccurate statement was made in establishing the emission standards or limitations, or other terms or conditions of this permit; or
- iv. The IEPA or USEPA determines that this permit must be revised or revoked to ensure compliance with the applicable requirements.

c. Inaccurate Application

Pursuant to Sections 39.5(5) (e) and (i) of the Act, the IEPA has issued this permit based upon the information submitted by the source in the permit application referenced on page 1 of this permit. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation or reopening of this CAAPP under Section 39.5(15) of the Act.

d. Duty to Provide Information

The source shall furnish to the IEPA, within a reasonable time specified by the IEPA any information that the IEPA 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 source shall also furnish to the IEPA copies of records required to be kept by this permit. [Section 39.5(7) (o) (v) of the Act]

10. 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]

11. Permit Renewal

- a. Upon the expiration of this permit, if the source is operated, it shall be deemed to be operating without a permit unless a timely and complete CAAPP application has been submitted for renewal of this permit. However, if a timely and complete application to renew this CAAPP permit has been submitted, the terms and all conditions of the most recent issued CAAPP permit will remain in effect until the issuance of a renewal permit. [Sections 39.5(5) (l) and (o) of the Act]
- b. For purposes of permit renewal, a timely application is one that is submitted no less than 9 months prior to the date of permit expiration. [Section 39.5(5) (n) of the Act]

12. Permanent Shutdown

Pursuant to Section 39.5(7) (a) of the Act, this permit only covers emission units and control equipment while physically present at the 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.

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13. Startup, Shutdown, and Malfunction

Pursuant to Section 39.5(7) (a) of the Act, in the event of an action to enforce the terms or conditions of this permit, this permit does not prohibit a Permittee from invoking any affirmative defense that is provided by the applicable law or rule.

Section 3 - Source Requirements

1. Applicable Requirements

Pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act, the Permittee shall comply with the following applicable requirements. These requirements are applicable to all emission units (including insignificant activities unless specified otherwise in this Section) at the source.

a. Fugitive Particulate Matteri. Applicable Requirement(s)

- A. Pursuant to 35 IAC 212.301, 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 toward the zenith at a point beyond the property line of the source, unless the exception for wind speed greater than 25 mph is demonstrated in accordance with 35 IAC 212.314.
- B. I. Pursuant to Section 39.5(7)(a) of the Act and Construction Permit 12070062, the Permittee shall follow good air pollution control practices to minimize fugitive particulate matter emissions, i.e., dust, from roads, parking areas, and other open areas at the source affected by wind erosion and/or re-entrainment, at each area of the landfill with the potential to generate significant quantities of fugitive particulate matter emissions. [T1]
- II. Pursuant to Section 39.5(7)(a) of the Act and Construction Permit 12070062, in order to minimize fugitive particulate matter emissions from landfill operations under Condition 3.1(a)((i)(B)(I), the Permittee shall implement and maintain control measures. These measures may include: pavement on all regularly traveled entrances and exits to the landfill and treatment (sweeping, application of water, use of dust suppressants, etc., when necessary) of paved and unpaved roads and areas that are routinely subject to vehicle traffic. [T1]

ii. Compliance MethodMonitoring

- A. Pursuant to Construction Permit 12070062, the Permittee shall inspect quarterly to verify proper implementation of the fugitive dust control program requirements in Condition 3.1(a)(i)(B). [T1]

Pursuant to Sections 39.5(7)(b) and (d) of the Act, if fugitive particulate matter emissions are observed during the quarterly inspection, the Permittee shall take corrective action in accordance with the control measures record as incorporated by reference in Condition 3.2(a), within 2 hours to return the affected area of the landfill to the status of no fugitive particulate matter emissions beyond the property line of the source.

Testing

- B. Pursuant to Sections 39.5(7)(b) and (d) of the Act, upon request by the Illinois EPA, the Permittee shall conduct observations at the property line of the source for visible emissions of fugitive particulate matter from the landfill activities with an observation period of at least one (1) minute. For this purpose, daily observations shall be conducted for at least seven calendar days for particular area(s) of concern at the source, as specified in the request, observations shall begin either within one day or three days of receipt of a written request from the Illinois EPA, depending, respectively, upon whether observations will be conducted by employees of

the Permittee or a third-party observer hired by the Permittee to conduct observations on its behalf. The Permittee shall keep records for these observations in accordance with Condition 3.1(a)(ii)(C)(III).

Recordkeeping

- C. I. Pursuant to Sections 39.5(7)(b) and (e) of the Act, the Permittee shall maintain a record identifying the control measures that the Permittee elects to use to comply with Condition 3.1(a)(i)(B). The Permittee shall keep a copy of the most recent control measures record on site with all previous amendments or revisions, and it shall include the following information:
1. A map or diagram showing the location of all fugitive particulate matter emissions generating activities and/or where control measures are typically applied on a regular basis, including the location, identification, length, and width of roadways, and volume and nature of expected traffic or other activity;
 2. Description of the standard control measures including type of measure, frequency and, if applicable, application rates;
 3. Description of any secondary control measures that would be used based on circumstances (freezing temperatures, recent rain, dry weather, etc.) with identification of the circumstances in which they would be used and identify any triggers for implementation of additional control measures, e.g., presence of extended dust plumes following passage of vehicles, with description of those additional dust control measures;
 4. Description of corrective actions that will be implemented in the event of visible emissions across the property line and/or observation of areas affected by wind erosion and/or re-entrainment. Such corrective action may include but is not limited to the application of a protective cover on landfill surfaces, the spraying of surfactant solution or water on a regular basis, or other equivalent treatment methods;
 5. Assumptions and/or observations regarding the quantity and nature of vehicle traffic at the source as related to source operations.
- II. Pursuant to Sections 39.5(7)(b) and (e) of the Act and Construction Permit 12070062, shall maintain following records related to the control of fugitive dust from the affected landfill.
1. Records documenting implementation of dust control measures.
 2. Records for the periodic inspections required by Condition 3.1(a)(ii)(A). The records shall include
 - (a) Date and time of the inspection and/or observations were performed;
 - (b) Name(s) of observing personnel and their affiliation;
 - (c) Identification of type of inspection and/or observations, i.e., compliance inspections pursuant to Condition 3.1(a)(ii)(A) and/or observations request by the Illinois EPA pursuant to Condition 3.1(a)(ii)(B);

- (d) Identification of the activity and/or property line which was observed;
 - (e) The total elapsed time for each observation, i.e., the observation period;
 - (f) If a demonstration for exception from 35 IAC 212.301 is being made, wind speed data as required by 35 IAC 212.314, with an indication as to where the data was obtained; and
 - (g) The findings of the observer including whether an inspection of activities was necessary as a result of observed fugitive particulate matter emissions and/or to verify implementation of the control measures record
- iii. Records for incidents when control measures were not carried out as scheduled or were not fully implemented and incidents when additional control measures were carried out, with description of each such incident and explanation. These records shall address any adjustments to the scheduling of control measures made by the Permittee due to weather conditions that either acted to reduce or increase the level of potential dust, such as precipitation or extended periods of dry weather.

b. Ozone Depleting Substances

Pursuant to 40 CFR 82.150(b), 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:

- i. Pursuant to 40 CFR 82.156, persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices.
- ii. Pursuant to 40 CFR 82.158, equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment.
- iii. Pursuant to 40 CFR 82.161, persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program.
- iv. Pursuant to 40 CFR 82 Subpart B, any person performing service on a motor vehicle for consideration when this service involves the refrigerant in the motor vehicle air conditioner shall comply with 40 CFR 82 Subpart B, Servicing of Motor Vehicle Air Conditioners.
- v. Pursuant to 40 CFR 82.166, all persons shall comply with the reporting and recordkeeping requirements of 40 CFR 82.166.

c. Asbestos Demolition and Renovation

- i. Asbestos Fees. Pursuant to Section 9.13(a) of the Act, for any site for which the Owner or Operator must file an original 10-day notice of intent to renovate or demolish pursuant to Condition 3.1(c)(ii) below and 40 CFR 61.145(b), the owner or operator shall pay to the IEPA with the filing of each 10-day notice a fee of \$150.
- ii. Pursuant to 40 CFR 61 Subpart M, Standard of Asbestos, prior to any demolition or renovation at this facility, the Permittee shall fulfill notification requirements of 40 CFR 61.145(b).

iii. Pursuant to 40 CFR 61.145(c), during demolition or renovation, the Permittee shall comply with the procedures for asbestos emission control established by 40 CFR 61.145(c).

d. NSPS/NESHAP for Municipal Solid Waste Landfills

- i. Pursuant to the definitions in 40 CFR 60.751 and 63.1990, the ADS Zion Landfill (Section 4.1) is considered to be a "municipal solid waste landfill or MSW landfill" for purposes of compliance with 40 CFR Part 60 Subpart WWW - Standards of Performance for Municipal Solid Waste Landfills and 40 CFR Part 63 Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills.
- ii. Pursuant to 39.5(7) (a) and (b) of the Act, for purposes of compliance with 40 CFR Part 60 Subpart WWW and 40 CFR Part 63 Subpart AAAA, documentation and data required in Section 4.1 for ADS Zion Landfill shall be included in, applicable compliance records and/or reports, required under 40 CFR Part 60 Subpart WWW and 40 CFR Part 63 Subpart AAAA, shown in Section 4.1.

e. Future Emission Standards

Pursuant to Section 39.5(15) (a) of the Act, this source shall comply with any new or revised applicable future standards of 40 CFR 60, 61, 62, or 63; or 35 IAC Subtitle B after the date issued of this permit. The Permittee shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by Condition 2.6(a). This permit may also have to be revised or reopened to address such new regulations in accordance to Condition 2.9.

2. Applicable Plans and Programs

Pursuant to Sections 39.5(7) (b) and (d) of the Act, the Permittee shall comply with the following requirements.

a. Control Measures Record

- i. Pursuant to Sections 39.5(7) (b) and (e) of the Act, the Control Measures record shall be amended from time to time by the Permittee so that the Control Measures record is current. Any future revision to the Control Measures record shall be submitted to the Illinois EPA within 30 days of such amendment.
- ii. Pursuant to Sections 39.5(7) (b) and (e) of the Act, the Control Measures record, as submitted by the Permittee on April 24, 2015, is incorporated herein by reference. Any future revision made by the Permittee during the permit term is automatically incorporated by reference provided the revision is not expressly disapproved, in writing, by the Illinois EPA within 30 days of receipt of the revision.
- iii. Pursuant to Sections 39.5(7) (b) and (e) of the Act, the Permittee shall submit to the Illinois EPA not later than 60 days after the effectiveness of Condition 3.1(a) (ii) (C) (I), an updated copy of the Control Measures record submitted on April 24, 2015. Upon request by the Agency, the Permittee shall submit other relevant information related to the control practices.

Note: The incorporation of the record of control measures into this permit is for the sole purpose of providing an enforceable component to the Permittee's obligation, as set forth in Condition 3.1(a) (i) (B) (II), to implement and maintain control measures as necessary to minimize fugitive particulate matter emissions. This incorporation by reference does not provide an independent basis to enforce against the Permittee's selection of control measures and/or alleged noncompliance with 35 IAC 212.301.

b. Episode Action Plan

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- i. Pursuant to 35 IAC 244.141, the Permittee shall have on file with the IEPA an Episode Action Plan for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures. The Episode Action Plan shall contain the information specified in 35 IAC 244.144.
- ii. The Permittee shall immediately implement the appropriate steps described in the Episode Action Plan should an air pollution alert or emergency be declared, as required by 35 IAC 244.169, or as may otherwise be required under 35 IAC 244, Appendix D.
- iii. Pursuant to 35 IAC 244.143(d), if an operational change occurs at the source which invalidates the Episode Action Plan, a revised Episode Action Plan shall be submitted to the IEPA for review within 30 days of the change and is automatically incorporated by reference provided the revision is not expressly disapproved, in writing, by the IEPA within 30 days of receipt of the revision. In the event that the IEPA notifies the Permittee of a deficiency with any revision to the Episode Action Plan, the Permittee shall be required to revise and resubmit the Episode Action Plan within 30 days of receipt of notification to address the deficiency pursuant to Section 39.5(7) (a) of the Act.
- iv. The Episode Action Plan, as submitted by the Permittee on November 21, 2014, is incorporated herein by reference. The document constitutes the formal Episode Action Plan required by 35 IAC 244.142, addressing the actions that will be implemented to reduce SO₂, PM₁₀, NO₂, CO and VOM emissions from various emissions units in the event of a yellow alert, red alert or emergency issued under 35 IAC 244.161 through 244.165.
- v. Pursuant to Section 39.5(7) (b) of the Act, the Permittee shall keep a copy of the Episode Action Plan, any amendments or revisions to the Episode Action Plan (as required by Condition 3.2(b) (iii)), and the Permittee shall also keep a record of activities completed according to the Episode Action Plan.

3. Title I Requirements

As of the date of issuance of this permit, other than the source-wide Title limitations on combined emissions from both Zion landfill and Bio Energy (Illinois) LLC in Condition 1.3(b), there are no other source-wide Title I requirements that need to be included in this Condition.

4. Synthetic Minor Limits

As of the date of issuance of this permit, there are no source-wide synthetic minor limits that need to be included in this Condition.

5. Source-wide Non-Applicability Determinations

- a. Pursuant to 35 IAC 212.302(a) and (b), the operations at this source are not subject to 35 IAC 212.304 through 212.310 and 212.312 because, respectively, the operations at the source are not designated as being applicable based upon the sources SIC code (35 IAC 212.302(a)) and because it is not located in the geographical areas defined in 35 IAC 212.324(a) (1), respectively.

Should this source become subject to 35 IAC 212.302, the Permittee shall prepare and operate under a Fugitive PM Operating Program consistent with 35 IAC 212.310 and submitted to the IEPA for its review. The Fugitive PM Operating Program shall be designed to significantly reduce fugitive particulate matter emissions, pursuant to 35 IAC 212.309(a). Any future Fugitive PM Operating Program made by the Permittee during the permit term is automatically incorporated by reference provided the Fugitive PM Operating Program is not expressly disapproved, in writing, by the IEPA within 30 days of receipt of the Fugitive PM Operating Program. In the event that the IEPA notifies the Permittee of a deficiency with any Fugitive PM Operating Program, the Permittee shall be required to revise and resubmit the Fugitive PM Operating Program within 30 days of

receipt of notification to address the deficiency pursuant to Section 39.5(7)(a) of the Act.

- b. Pursuant to 35 IAC 212.700, the operations at this source are not subject to 35 IAC Part 212 Subpart U because, the operations at the source are not located in the geographical areas defined in 35 IAC 212.324(a)(1).

Should this source become subject to 35 IAC Part 212 Subpart U, then the Permittee shall prepare and operate under a PM₁₀ Contingency Measure Plan reflecting the PM₁₀ emission reductions as set forth in 35 IAC 212.701 and 212.703. The Permittee shall, within 90 days after the date this source becomes subject to 35 IAC 212.700, submit a request to modify this CAAPP permit in order to include a new, appropriate PM₁₀ Contingency Measure Plan.

- c. Pursuant to 35 IAC 212.314, Condition 3.1(a)(i)(A) and 35 IAC 212.301 shall not apply when the wind speed is greater than 40.2 km/hr (25 mph).
- d. Pursuant to 40 CFR 68.10, the source is not subject to the federal regulations for Chemical Accident Prevention in 40 CFR Part 68 because the source does not meet the listed applicability requirements.

Should this stationary source, as defined in 40 CFR 68.3, become subject to the federal regulations for Chemical Accident Prevention in 40 CFR Part 68, then the Permittee shall submit a compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or submit 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, as part of the annual compliance certification required by Condition 2.6(a). This condition is imposed in this permit pursuant to 40 CFR 68.215(a)(2)(i) and (ii).

- e. i. A. The mobile compression ignition (CI) internal combustion engines (ICE) at ADS Zion Landfill are not subject to the requirements of 40 CFR Part 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines based upon the engines not meeting the applicability criteria in 40 CFR 60.4200 and the definition of a *stationary internal combustion engine* in 40 CFR 60.4219, i.e., the engines are mobile and meet the definition of a non-road engine as defined in 40 CFR 1068.30.
- B. The mobile spark ignition (SI) internal combustion engines (ICE) at ADS Zion Landfill are not subject to the requirements of 40 CFR Part 60 Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines based upon the engines not meeting the applicability criteria in 40 CFR 60.4230 and the definition of a *stationary internal combustion engine* in 40 CFR 60.4248, i.e., the engines are mobile and meet the definition of a non-road engine as defined in 40 CFR 1068.30.
- C. The mobile internal combustion engines at ADS Zion Landfill are not subject to the requirements of 40 CFR 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines based upon the engines not meeting the applicability criteria in 40 CFR 63.6585(a) and the definition of a *stationary reciprocating internal combustion engine (RICE)* in 40 CFR 63.6675, i.e., the engines are mobile and meet the definition of a non-road engine as defined in 40 CFR 1068.30.
- ii. The Permittee shall comply with the following applicable requirements pursuant to Sections 39.5(7)(a), (b), (d), and (e) of the Act.
- A. The Permittee shall not have any nonroad engines onsite/in one location at ADS Zion Landfill for more than 12 consecutive months. 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 it replaced will be included in calculating the consecutive time period.

- B.
 - i. Pursuant to 35 IAC Part 201.142, the Permittee shall obtain appropriate permits, as applicable, prior the installation of any new stationary engine at the source. Pursuant Section 39.5(14)(b) of the Act, the Permittee shall submit an application to revise this CAAPP permit as a "minor permit modification" subsequent to the installation of any new stationary engine at the source.
 - ii. Pursuant to 35 IAC 201.142 and Sections 39.5(14)(b) or (c) of the Act, the Permittee either submit the applications and revise this CAAPP permit as per Condition 3.5(e)(ii)(B)(i) or revise this CAAPP as a "significant permit modification" prior to any change in an existing engines applicability to either 40 CFR Part 60 Subpart IIII and/or JJJJ and/or 40 CFR Part 63 Subpart ZZZZ, i.e., any change where an engine would be meet the definition of either a stationary internal combustion engine or stationary RICE.
- C. Pursuant to 35 IAC 270.302(b), the Permittee shall submit an application for modification of the CAAPP permit, pursuant to Section 39.5(14) of the Act, within 12 months of a change in an existing engines status, i.e., portable to stationary, or the installation of any new "stationary reciprocating internal combustion engine (RICE)" at the source.
- D. Pursuant to Sections 39.5(7)(b) and (e) of the Act, the Permittee shall verify that the engines at the source meet the definition of a mobile and non-road engines, as defined at 40 CFR 1068.30, by collecting and maintaining the following:
 - I. An annual inventory or list of all engines at the source, with sufficient description to identify each engine (make, model, horsepower, serial number, fuel used, etc.); and
 - II. Semi-annual record or log of the location of each engine at the source which documents whether the engine is operating at a single location during the past 12 months.

While on site, each engine shall be labeled in such way that it can be determined whether it is a nonroad engine or a stationary engine subject to 40 CFR 63 Subpart ZZZZ.

- f.
 - i. The stationary reciprocating internal combustion engines, as defined in 35 IAC 211.6360, at ADS Zion Landfill are not subject to the requirements of 35 IAC Part 217, Subpart Q - Stationary Reciprocating Internal Combustion Engines And Turbines based upon the engines not meeting the applicability criteria in 35 IAC 217.386. Specifically, pursuant to 217.386(a)(2)(A), the engines, located at ADS Zion Landfill, nameplate capacities are less than 500 bhp output.
Note: Applicability and/or non-applicability of the engines located at the adjacent Bio Energy (Illinois) LLC - Zion Landfill Gas Power Station (ID No. 097200ABC), referenced in Condition 1.3, is addressed separately in CAAPP Permit No. 03070058.
 - ii.
 - A. Pursuant to Sections 39.5(7)(b) and (e) of the Act, the Permittee shall verify that the engines at the are not applicable to 35 IAC Part 217, Subpart Q, by collecting and maintaining an inventory or list of all engines at the source, with sufficient description to identify each engine (make, model, nameplate capacity/horsepower, serial number, fuel used, etc.).
 - B. Pursuant to 35 IAC 201.142, the Permittee shall obtain a construction permit prior to the installation of any new "stationary reciprocating internal combustion engine (RICE)" at the source that meets the criteria shown in 35

IAC 201.146(i), i.e., any "combustion engine with a rating at equal to or greater than 500 bhp output that is subject to the control requirements of 35 Ill. Adm. Code 217.388(a) or (b)".

- C. Pursuant to 35 IAC 270.302(b), the Permittee shall submit an application for modification of the CAAPP permit, pursuant to Section 39.5(14) of the Act, within 12 months of a change in an existing engines status or the installation of any new "stationary reciprocating internal combustion engine (RICE)" at the source.

6. Reporting Requirements

The Permittee shall submit the following information pursuant to Section 39.5(7)(f) of the Act. Addresses are included in Attachment 2.

a. Prompt Reporting

- i. A. Pursuant to Section 39.5(7)(f)(ii) of the Act, the Permittee shall promptly notify the IEPA Air Compliance Section within 30 days of deviations from applicable requirements as follows:
 - I. Requirements in Conditions 3.1(a) through (e).
 - II. Requirements in Conditions 3.2(a) and (b).
 - III. Requirements in Condition 3.5(e) and (f).
- B. All such deviations shall be summarized and reported as part of the Semiannual Monitoring Report required by Condition 3.6(b).
- ii. The Permittee shall notify the IEPA Air Compliance Section, of all other deviations as part of the Semiannual Monitoring Report required by Condition 3.6(b).
- iii. The deviation reports shall contain at a minimum the following information:
 - A. Date and time of the deviation.
 - B. Emission unit(s) and/or operation involved.
 - C. The duration of the event.
 - D. Probable cause of the deviation.
 - E. Corrective actions or preventative measures taken.
- iv. All deviation reports required in this Permit shall be identified, summarized, and reported as part of the Semiannual Monitoring Report required by Condition 3.6(b).

b. Semiannual Reporting

- i. Pursuant to Section 39.5(7)(f)(i) of the Act, the Permittee shall submit a Semi-Annual Monitoring Report to the Illinois EPA Air Compliance Section summarizing required monitoring and identifying all instances of deviation from the permit, every six months as follows, unless more frequent reporting is required elsewhere in this Permit.

<u>Monitoring Period</u>	<u>Report Due Date</u>
January through June	July 31
July through December	January 31

- ii. The Semiannual Monitoring Report must be certified by a Responsible Official consistent with Condition 2.6(b).

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c. Annual Emissions Reporting

Pursuant to 35 IAC Part 254, the Source shall submit an Annual Emission Report to the Air Quality Planning Section, due by May 1 of the year following the calendar year in which the emissions took place. All records and calculations upon which the verified and reported data are based must be retained by the source.

Section 4 - Emission Unit Requirements

4.1 MSW Landfill

1. Emission Units and Operations

<i>Emission Units</i>	<i>Pollutants Being Regulated</i>	<i>Original Construction Date</i>	<i>Modification/ Reconstruction Date</i>	<i>Air Pollution Control Devices or Measures</i>	<i>Monitoring Devices</i>
MSW Landfill	Opacity, NO _x , CO, SO ₂ , PM/PM ₁₀ , VOM/NMOC, HAPs and Asbestos	Commenced Construction 1975		Gas to Energy Facility ³	None
		Initiated Waste Disposal Operations Dec. 31, 1975	May 26, 1998 ¹ Sept. 1, 2011 ² Oct. 30, 2014 ³	and 6,000 scfm Enclosed Flare and 3,000 scfm Open Flare ⁵ Dec. 10, 2008	

Footnote No.

- 1 Zion Site #2 expansion was not covered by Construction Permit.
- 2 Construction Permit 11030009: Approximately 1.7 million cubic yards vertical expansion of landfill.
- 3 Construction Permit 12070062: Waste capacity increase to approximately 29.2 million cubic yards.
- 4 The gas to energy facility is owned and operated by Bio Energy (Illinois) LLC (BOA I.D. #097200ABC) and is covered under a separate CAAPP permit, See CAAPP Permit #03070058 for applicable requirements for the gas to energy facility. As per Condition 1.3(a), Bio Energy (Illinois) LLC is considered a single source with ADS Zion Landfill and the gas to energy facility is considered to provide the primary means of landfill gas/NMOC control.
- 5 Construction Permit 06100001: 3,000 scfm open flare and 6,000 scfm enclosed flare and replaced the previously permitted 2,550 scfm enclosed flare.

It should be noted: Only the requirements applicable to the MSW landfill and its secondary control devices, the enclosed and open flares, are addressed in this Section.

2. Applicable Requirements

For the emission units in Condition 4.1.1 above, the Permittee shall comply with the following applicable requirements pursuant to Sections 39.5(7) (a), 39.5(7) (b), and 39.5(7) (d) of the Act.

a. i. Visible Emissions (Opacity) Requirements

- A. Pursuant to 35 IAC 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, except as allowed by 35 IAC 212.123(b) and 212.124.
- B. Pursuant to 40 CFR 60.18(c) (1), the open flare shall be designed for and operated with no visible emissions as determined by the methods specified in Condition 4.1.2(a) (ii) (A) and 40 CFR 60.18(f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

ii. Compliance Method (Opacity Requirements)

Monitoring

- A. I. Pursuant to Sections 39.5(7) (b) and (d) of the Act, the Permittee shall verify proper operation of the enclosed and open flares by conducting monthly inspections of the flares while the flares are in

operation to ensure that all combustion components and supporting equipment is functioning properly.

- II. Pursuant to Sections 39.5(7)(b), (d) and (e) of the Act, the Permittee shall verify compliance with the limitations in Condition 4.1.2(a)(i)(A) and (B) by performing the following:
- (1) Annual visible emission observations of the enclosed and open flares in accordance with Reference Method 22, Appendix A, 40 CFR 60 or the USEPA approved modified Reference Method 22..
 - (2) If visible emissions in excess of 5 minutes are observed, the Permittee shall take corrective action within 4 hours of such observation. Corrective action may include, but is not limited to, shutdown of the operation, maintenance and repair, and/or adjustment of fuel usage. If corrective action was taken, the Permittee shall perform a follow up observation for visible emissions in accordance with Reference Method 22, Appendix A, 40 CFR 60, or the USEPA approved modified Reference Method 22. If visible emissions continue, then opacity measurements shall be performed within 48 hours of the initial Reference Method 22, Appendix A, 40 CFR 60, or the USEPA approved modified Reference Method 22 using Reference Method 9. Monitoring by a third party is not required unless requested in writing by the IEPA and/or USEPA.
 - (3) The Permittee shall perform additional monitoring upon Illinois EPA request.

Recordkeeping

- B. Pursuant to 39.5(7)(b) and (e) of the Act, the Permittee shall collect and maintain copies of all field data sheets recording observations as Reference Method 22, Appendix A, 40 CFR 60, the USEPA approved modified Reference Method 22 and/or Method 9, which includes, but is not limited to the following:
- I. Date and time the observations/measurements were performed;
 - II. Name(s) of observing personnel and their affiliation;
 - III. The total elapsed time for each observation, i.e., the observation period, pursuant to the method used;
 - IV. The results of the observations/measurements including the total amount of time of the presence of any visible emissions;
 - V. Operational status of the open and enclosed flares being observed;
 - VI. If applicable, a description of any corrective action taken including if the corrective action took place within 4 hours of the initial observation of exceedance.
- C. Pursuant to Section 39.5(7)(b) and (e) of the Act, the Permittee shall maintain records of the monthly open and enclosed flare inspections, including a log of any maintenance and repairs performed on either the enclosed or open flare.

b. i. Sulfur Dioxide Requirements (SO₂)

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- A. Pursuant to 35 IAC 214.301, no person shall cause or allow the emission of sulfur dioxide (SO₂) into the atmosphere from any process emission source to exceed 2000 ppm.
- B. Pursuant to Construction Permit 06100001, total emissions of SO₂ from the open and enclosed flares, shall not exceed 45.66 tons/month and 200 tons/year. [T1]
- C. I. Pursuant to Construction Permit 11030009, total emissions of SO₂ from the combustion of LFG attributable to the existing ADS Zion landfill, shall not exceed 25.0 tons/month and 200 tons/year. [T1]
II. Pursuant to Construction Permit 11030009, total emissions of SO₂ from the combustion of LFG attributable to the vertical expansion of ADS Zion landfill, covered in Construction Permit 11030009, shall not exceed 4.0 tons/month and 32.0 tons/year. [T1]
- D. Pursuant to Construction Permit 12070062, total emissions of SO₂ from the flares (the enclosed flare and open flare), shall not exceed 45.7 lb/hr and 200 tons/year. [T1]

ii. Compliance Method (SO₂ Requirements)

Monitoring

- A. Pursuant to Sections 39.5(7)(b), (d) and (f) of the Act and Construction Permit 06100001, 11030009 and 12070062, the Permittee shall demonstrate compliance with Conditions 4.1.2(b)(i)(A) through (D) by the following: [T1]
 - I. For purposes of determining compliance with the limits in Conditions 4.1.2(b)(i)(A) through (D), emissions shall be determined using site-specific data of the composition of LFG and appropriate emission factors, which in order of preference for pollutants shall be factors from on-site emission testing, manufacturer's emission data, and emission factors from USEPA's Compilation of Air Pollutant Emission Factors (AP-42) with appropriate adjustments to this data and these emission factors to reflect source-specific conditions and any deficiencies in the collection of LFG and operation of units controlling LFG at this affected source.
 - II. Sampling and analysis for sulfur content of LFG shall be conducted on the following schedule, with the calculations for the sulfur content of collected LFG in pounds per hour made using representative hourly values for the volumes of different streams of collected LFG. If data has been collected previously under earlier permits, it may be used to comply with the requirements below: [T1]
 - 1. Sampling and analysis for sulfur content of LFG collected at this landfill shall be conducted on a quarterly basis, until four required samples in a row indicate the overall sulfur content of the LFG on an hourly basis is no more than 14 pounds (equivalent to SO₂ emissions of 28.0 pounds per hour), at which time sampling and analysis shall be conducted at least annually.
 - 2. Thereafter, if annual sampling indicates the overall sulfur content of the LFG on an hourly basis is more than 18.3 pounds (equivalent to SO₂ emissions of 36.5 pounds per hour) than sampling and analysis on a quarterly basis shall be resumed.
 - III. LFG Chemical and Physical Composition: The LFG shall be sampled and analyzed for total reduced sulfur (TRS) as per Reference Method 15/16

or ASTM D5504. A written notification of sampling activity and submittal of a formal test protocol for such sampling activity is not required.

For each landfill gas sampling and analysis activity from the active collection system, at least three representative samples of landfill gas shall be collected from the common header pipe before the gas moving or any condensate removal equipment.

- IV. Install, calibrate, maintain, and operate according to the manufacturer's specifications a landfill gas flow rate measuring device that shall record the flow to the open and enclosed flares at least every 15 minutes.
- V. Compliance with the SO₂ emissions limits in Condition 4.1.2(b)(i)(A) and through (D) shall be verified monthly, using emission factors in developed from representative sampling and analysis of the LFG being generated by this landfill as required by Condition 4.1.2(b)(ii)(B).

Pursuant to Construction Permits 06100001, 11030009, and 12070062, compliance with annual limits shall be determined from a running total of 12 months of data, i.e., the sum of emissions data for the month of record plus the preceding 11 months of data. [T1]

Recordkeeping

- B. Pursuant to Sections 39.5(7)(b) and (e) of the Act, the Permittee shall maintain the following records:
 - I. The LFG consumed by the flares pursuant to Condition 4.1.2(b)(ii)(A)(IV), on a daily, monthly and annual basis.
 - II. The TRS content of the LFG and the results of the compliance verification procedures pursuant to Condition 4.1.2(b)(ii)(B)(II) with supporting calculations.
 - III. Log of sampling and analysis activity, including measured data, documentation for the sampling and analysis activities.
 - IV. Monthly analysis of the representative hourly, monthly and annual emissions of SO₂ from the affected open and enclosed flares (lb/hr, tons/month and tons/year) with supporting documentation and calculations.
- C. Pursuant to 39.5(7)(b) and (e) of the Act, the Permittee shall keep an operating and maintenance log(s) which shall include the following:
 - I. Status of the flare;
 - II. Adjustments to the flare's operating parameters; and
 - III. Identification of any period when the flare was to be in service but was out of service with a detailed explanation the cause and an explanation of actions taken to prevent or reduce the likelihood of future occurrences.
- c. i. **Nonmethane Organic Compounds Requirements (NMOC)**
 - A. I. Pursuant to 40 CFR 60.752(b)(2)(i) and Section 39.5(7)(a) of the Act, the landfill gas collection and control system shall be operated as per the Illinois EPA approved collection and control system design plan dated December 4, 2014 and amended November 18, 2016.

1. Pursuant to 40 CFR 60.752(b)(2)(i)(A) and Section 39.5(7)(a) of the Act, the collection and control system shall meet the design requirements in Condition 4.1.2(c)(i)(A)(III) and 40 CFR 60.752(b)(2)(ii).
2. Pursuant to 40 CFR 60.752(b)(2)(i)(B) and Section 39.5(7)(a) of the Act, the following alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of 40 CFR 60.753 through 60.758 are approved:

(a) Pursuant to the USEPA Region 5 determinations, dated April 4, 2008, October 3, 2008, and August 2, 2017 the Permittee may operate extraction points EW01, EW12A, CEW5, and CEW5 and EW-02, REW-1, EW-21, and CEW5WH under the following alternative operational procedures:

(i) When the oxygen concentration at the extraction location does not decline to acceptable levels after more than one hour of reduced vacuum, the location may be shut off until the gas quality recovers.

(ii) The monthly monitoring required by 40 CFR Part 60, Subpart WWW will be conducted for these locations, but positive pressure or elevated oxygen concentrations will not be considered as exceedances of the operating limits in 40 CFR 60.753.

However, the monthly monitoring results must be reported to the Illinois Environmental Protection Agency ("IEPA"). The reports to IEPA shall note if and when the extraction points are shut off in accordance with this alternative procedure.

(iii) If monthly monitoring indicates that pressure has built up in the extraction point and the oxygen concentration still exceeds 5 percent, the location will be briefly opened to relieve the pressure and may then be shut down until it is monitored the following month.

(iv) The surface monitoring required by 40 CFR Part 60, Subpart WWW will continue to be conducted in this area. Standard remediation steps, including evaluating the need to return the extraction location to full-time service, must be followed if exceedances of the 500 ppm methane surface concentration limits are detected in the immediate vicinity.

(v) If the monthly monitoring indicates that gas quality has improved (i.e., the oxygen concentration has dropped below 5 percent), the extraction location will be brought back on line until the gas quality declines again. If the oxygen levels can be maintained below the regulatory limit of 5 percent, this alternate operating procedure is terminated and the well

shall be operated in accordance with the regulatory requirements.

- (vi) When the collector is not connected to the GCCS, it must be sealed to not allow fugitive landfill gas emissions.
 - (b) Pursuant to 40 CFR 60.752(b)(2)(i)(D) and 60.759, the Permittee may utilize temporary gas extraction wells, horizontal collection trenches and/or leachate collection systems for LFG extraction, provided that the components are installed as per the approved collection and control system design plan dated December 4, 2014 and amended November 18, 2016 and 40 CFR 60.759, until permanent extraction wells can be installed once the area is at final grade. This exclusion does not shield the temporary LFG extraction points from compliance with the other applicable provisions of 40 CFR Part 60, Subpart WWW.
 - (c) Pursuant to Condition 4.1.2(c)(ii)(B) and 40 CFR 60.753(d) and 60.756(a), the Permittee may exclude from monitoring:
 - (i) Those wells installed within the waste boundary and connected to the gas collection and control system (GCCS) for odor control or for purposes other than NMOC control and/or off-site landfill migration control installed prior to the age criteria shown in Condition 4.1.2(c)(i)(B)(I) and 40 CFR 60.753(a); and
 - (ii) Dangerous areas such as roads, the active area, truck traffic areas, areas with snow or ice covered, and steep sloped areas with grade equals to 4:1 from the surface monitoring plan.
 - (d) Pursuant to 40 CFR 60.753(b)(2), excluding areas within Phase 1a without a geomembrane or synthetic cover, final cover areas within ADS Zion Landfill with a geomembrane or synthetic cover and sideslope of at least 3:1 and up to 4:1 shall be operated with a maximum positive pressure of 26 inches water column (w.c.) at each gas extraction well. For areas of the landfill with a geomembrane or synthetic cover and sideslope of sideslope of 4:1 or greater, the maximum allowable positive pressure shall not exceed 39 inches w.c.
- II. Pursuant to 40 CFR 60.752(b)(2)(ii), the Permittee shall install a collection and control system that captures the gas generated within the landfill as required by the following:
- 1. Pursuant to 40 CFR 60.752(b)(2)(ii)(A), the active collection system shall:
 - (a) Pursuant to 40 CFR 60.752(b)(2)(ii)(A)(1), be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;

- (b) Pursuant to 40 CFR 60.752(b)(2)(ii)(A)(2), collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of:
 - (i) 5 years or more if active; or
 - (ii) 2 years or more if closed or at final grade.
- (c) Pursuant to 40 CFR 60.752(b)(2)(ii)(A)(3), collect gas at a sufficient extraction rate;
- (d) Pursuant to 40 CFR 60.752(b)(2)(ii)(A)(4), be designed to minimize off-site migration of subsurface gas.

2. Pursuant to 40 CFR 60.752(b)(2)(iii), the Permittee shall route all the collected gas to a control system that complies with the requirements in 40 CFR 60.752(b)(2)(iii)(A), (B) or (C). The enclosed and open flares at ADS Zion Landfill Inc. shall be designed and operated as follows:

- (a) Pursuant to 40 CFR 60.752(b)(2)(iii)(A), the open flare shall be designed and operated in accordance with 40 CFR 60.18:

Where:

- (i) Pursuant to 40 CFR 60.18(c)(1), the flare shall be designed for and operated with no visible emissions as determined by the methods specified in 40 CFR 60.18(f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
- (ii) Pursuant to 40 CFR 60.18(c)(2), the flare shall be operated with a flame present at all times, as determined by the methods specified in 40 CFR 60.18(f).
- (iii) Pursuant to 40 CFR 60.18(c)(3), the Permittee has the choice of adhering to either the heat content specifications in 40 CFR 60.18(c)(3)(ii) and the maximum tip velocity specifications in 40 CFR 60.18(c)(4), or adhering to the requirements in 40 CFR 60.18(c)(3)(i).
 - (A) Pursuant to 40 CFR 60.18(c)(3)(i)(B), the actual exit velocity of a flare shall be determined by the method specified in 40 CFR 60.18(f)(4).
 - (B) Pursuant to 40 CFR 60.18(c)(3)(ii), the net heating value of the gas being combusted shall be 7.45 MJ/scm (200 Btu/scf) or greater. The net heating value of the gas being combusted shall be determined by the methods specified in 40 CFR 60.18(f)(3).
- (iv) Pursuant to 40 CFR 60.18(c)(4)(i), open flare shall be designed for and operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18(f)(4), less than 18.3 m/sec (60

ft/sec), except as provided in 40 CFR 60.18(c)(4)(ii) and (iii).

- (v) Pursuant to 40 CFR 60.18(e), except as provided for in Condition 4.1.2(c)(i)(B)(V) and 40 CFR 60.753(e), flares used to comply with provisions of 40 CFR 60.752 shall be operated at all times when emissions may be vented to them.
 - (b) (i) Pursuant to 40 CFR 60.752(b)(2)(iii)(B), the enclosed flare shall be designed and operated 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).
 - (ii) Pursuant to 40 CFR 60.752(b)(2)(iii)(B)(2), the enclosed flare shall be operated within the parameter ranges established during the most recent performance test. The operating parameters to be monitored are specified in Condition 4.1.2(c)(ii)(B)(II) and 40 CFR 60.756.
- III. Pursuant to 40 CFR 60.752(b)(2)(iv), the Permittee shall operate the collection and control device installed to comply with 40 CFR Subpart WWW, in accordance with the provisions Condition 4.1.2(c)(i)(B) and 40 CFR Section 60.753 [Operational standards for collection and control systems]; Conditions 4.1.2(c)(ii)(A)(II) through (VI) and 40 CFR Section 60.755 [Compliance provisions]; and Condition 4.1.2(c)(ii)(B) and 40 CFR Section 60.756 [Monitoring of operations].
- IV. Pursuant to 40 CFR 60.752(b)(2)(v), the collection and control system may be capped or removed provided that all the conditions of 40 CFR 60.752(b)(2)(v)(A), (B), and (C) are met:
- 1. The landfill shall be a closed landfill as defined in 40 CFR 60.751. A closure report shall be submitted to the Illinois EPA Compliance Section as provided in Condition 4.5(b)(i)(B) and 40 CFR 60.757(d);
 - 2. The collection and control system shall have been in operation a minimum of 15 years; and
 - 3. Following the procedures specified in Condition 4.1.2(c)(ii)(C)(I) and 40 CFR 60.754(b), the calculated NMOC gas produced by the landfill shall be less than 50 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.
- B. I. Pursuant to 40 CFR 60.753(a), the Permittee shall 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:
- 1. 5 years or more if active; or
 - 2. 2 years or more if closed or at final grade;

- II. Pursuant to 40 CFR 60.753(b), the Permittee shall operate the collection system with negative pressure at each wellhead except under the following conditions:
1. A fire or increased well temperature;
 2. Use of a geomembrane or synthetic cover. The Permittee shall develop acceptable pressure limits in the design plan. ~ Note: Approved pressure limits are shown in Condition 4.1.2(c)(i)(A)(I)(2)(d);
 3. A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Illinois EPA.
- III. Pursuant to 40 CFR 60.753(c), the Permittee shall 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.
- IV. Pursuant to 40 CFR 60.753(d), the Permittee shall operate the collection system so that the methane concentration is less than 500 ppm above background at the surface of the landfill.
- V. Pursuant to 40 CFR 60.753(e), the Permittee shall operate the system such that all collected gases are vented to a control system designed and operated in compliance with Condition 4.1.2(c)(i)(A)(II)(2) and 40 CFR 60.752(b)(2)(iii). In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour.
- VI. Pursuant to 40 CFR 60.753(f), the Permittee shall operate the control system at all times when the collected gas is routed to the system.
- VII. Pursuant to 40 CFR 60.753(g), if monitoring demonstrates that the operational requirements in Condition 4.1.2(c)(i)(B)(II), (III), or (IV) and 40 CFR 60.753(b), (c), or (d) are not met, corrective action shall be taken as specified in Condition 4.1.2(c)(ii)(A)(II)(3) through (5) and/or 4.1.2(c)(ii)(A)(IV) and 40 CFR 60.755(a)(3) through (5) and/or 40 CFR 60.755(c). If corrective actions are taken as specified in Condition 4.1.2(c)(ii)(A)(II) and 40 CFR 60.755, the monitored exceedance is not a violation of the operational requirements in Condition 4.1.2(c)(i)(B) and 40 CFR 60.753.
- C. I. Pursuant to 40 CFR 60.759(a), the Permittee shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved in the collection and control system design plan as provided in 40 CFR 60.752(b)(2)(i)(C) and (D):
1. Pursuant to 40 CFR 60.759(a)(1), the collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed

in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat.

2. Pursuant to 40 CFR 60.759(a)(2), the sufficient density of gas collection devices determined in Condition 4.1.2(c)(i)(C)(I)(1) and 40 CFR 60.759(a)(1) shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.
3. Pursuant to 40 CFR 60.759(a)(3), the placement of gas collection devices determined in Condition 4.1.2(c)(i)(C)(1) and 40 CFR 60.759(a)(1) shall control all gas producing areas, except as provided as follows:
 - (a) Pursuant to 40 CFR 60.759(a)(3)(i), any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided in Condition 4.1.2(c)(ii)(D)(VII)(2) and 40 CFR 60.758(d). The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and shall be provided to the Illinois EPA upon request.
 - (b) Pursuant to 40 CFR 60.759(a)(3)(ii), any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material shall be documented and provided to the Illinois EPA upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section shall be computed using the equation in 40 CFR 40 CFR 60.759(a)(3)(ii).
 - (c) Pursuant to 40 CFR 60.759(a)(3)(iii), the values for k and CNMOC determined in field testing shall be used if field testing has been performed in determining the NMOC emission rate or the radii of influence (this distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for k, LO and CNMOC provided in 40 CFR 60.754(a)(1) or the alternative values from 40 CFR 60.754(a)(5) shall be used. The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in Condition 4.1.2(c)(i)(C)(I)(3)(a) and 40 CFR 60.759(a)(3)(i).

- II. Pursuant to 40 CFR 60.759(b), the Permittee shall construct the gas collection devices using the following equipment or procedures:

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1. The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration.
 2. Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.
 3. Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.
- III. Pursuant to 40 CFR 60.759(c), the Permittee shall convey the landfill gas to a control system in compliance with 4.1.2(c) (i) (A) (II) (2) and 40 CFR 60.752(b) (2) (iii) through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:
1. Pursuant to 40 CFR 60.759(c) (1), for existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures below in Condition 4.1.2(c) (i) (C) (III) (2) and 40 CFR 60.759(c) (2) shall be used.
 2. Pursuant to 40 CFR 60.759(c) (2), for new collection systems, the maximum flow rate shall be in accordance with Condition 4.1.2(c) (ii) (A) (II) (1) and 40 CFR 60.755(a) (1).
- D. Pursuant to 40 CFR 60.1(a), the Permittee must comply with the applicable General Provisions in 40 CFR 60.1 through 60.19 (See Section 7.3(a) of this permit.).

ii. Compliance Method (NMOC Requirements)

Compliance Provisions

- A. I. 1. Pursuant to Section 39.5(7) (b) of the Act, the Permittee shall operate the GCCS under the provisions of the GCCS design plan

prepared by the Permittee and submitted to the IEPA for its review as required in Conditions 4.1.2(c) (i) (A) (I) and 40 CFR 60.752(b) (2) (i). The GCCS design plan shall be designed to significantly capture the gas generated within the MSW landfill and reduce NMOC emissions, pursuant to Section 39.5(7) (a) of the Act and Conditions 4.1.2(c) (i) (A) (II)-(III) and 40 CFR 60.752(b) (2) (ii) and (iv). The Permittee shall comply with the GCCS design plan and any amendments to the GCCS design plan submitted pursuant to Conditions 4.1.2(c) (i) (A) (I) (2).

2. Pursuant to Section 39.5(7) (a) of the Act and Condition 4.1.2(c) (i) (A) (I), the GCCS design plan shall be amended from time to time by the Permittee so that the GCCS design plan is current. Such amendments shall be consistent with the requirements set forth Conditions 4.1.2(c) (i) (A) (II)-(III) and 40 CFR 60.752(b) (2) (ii) and (iv) and shall be submitted to the IEPA within 30 days of such amendment. Any future revision to the GCCS design plan made by the Permittee during the permit term is automatically incorporated by reference provided the revision is not expressly disapproved, in writing, by the IEPA within 30 days of receipt of the revision. In the event that the IEPA notifies the Permittee of a deficiency with any revision to the GCCS design plan, the Permittee shall be required to revise and resubmit the GCCS design plan within 30 days of receipt of notification to address the deficiency pursuant to Section 39.5(7) (a) of the Act.
3. The GCCS design plan, dated December 4, 2014 and amended November 18, 2016, is incorporated herein by reference. The document constitutes the formal established GCCS design plan required by Condition 4.1.2(c) (i) (A) (I) and 40 CFR 60.752(b) (2) (i), addressing the capture of the gas generated within the MSW landfill and reduce NMOC emissions.

II. Pursuant to 40 CFR 60.755(a), except as provided, if applicable, in Condition 4.1.2(c) (i) (A) (I) (2) and 40 CFR 60.752(b) (2) (i) (B), the specified methods below and in 40 CFR 60.755(a) (1) through (a) (6) shall be used to determine whether the gas collection system is in compliance with Condition 4.1.2(c) (i) (A) (II) and 40 CFR 60.752(b) (2) (ii).

1. Pursuant to 40 CFR 60.755(a) (1), for the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with Condition 4.1.2(c) (i) (A) (II) (1) (a) and 40 CFR 60.752(b) (2) (ii) (A) (1), one of the equations in 40 CFR 60.755(a) (1) (i) or (ii) shall be used. The k and L_0 kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site specific values demonstrated to be appropriate and approved by the Illinois EPA Compliance Section or USEPA. 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.

Pursuant to 40 CFR 60.755(a) (1) (iii), actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in 40 CFR 60.755(a) (1) (a) (1) (i) and (ii). If the landfill is still accepting waste, the actual measured flow data will not equal

the maximum expected gas generation rate, so calculations using the equations in 40 CFR 60.755(a)(1)(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.

2. Pursuant to 40 CFR 60.755(a)(2), for the purposes of determining sufficient density of gas collectors for compliance with Condition 4.1.2(c)(i)(A)(II)(1)(b) and 40 CFR 60.752(b)(2)(ii)(A)(2), the Permittee 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.
3. Pursuant to 40 CFR 60.755(a)(3), for the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with Condition 4.1.2(c)(i)(A)(II)(1)(c) and 40 CFR 60.752(b)(2)(ii)(A)(3), the Permittee shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under Condition 4.1.2(c)(i)(B)(II) and 40 CFR 60.753(b). If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval.
4. Pursuant to 40 CFR 60.755(a)(5), for the purpose of identifying whether excess air infiltration into the landfill is occurring, the Permittee shall monitor each well monthly for temperature and nitrogen or oxygen as provided in Condition 4.1.2(c)(i)(B)(III) and 40 CFR 60.753(c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval.
5. Pursuant to 40 CFR 60.755(a)(6), if the Permittee seeks to demonstrate compliance with Condition 4.1.2(c)(i)(A)(II)(1)(d) and 40 CFR 60.752(b)(2)(ii)(A)(4) through the use of a collection system not conforming to the specifications provided in Condition 4.1.2(c)(i)(C) and 40 CFR 60.759, the Permittee shall provide information satisfactory to the Illinois EPA Compliance Section as specified in 40 CFR 60.752(b)(2)(i)(C) demonstrating that off-site migration is being controlled.

III. Pursuant to 40 CFR 60.755(b), for purposes of compliance with 40 CFR 60.753(a), the Permittee shall place each well or design component as specified in the approved design plan as provided in Condition

4.1.2(c) (i) (A) (I) and 40 CFR 60.752(b) (2) (i). Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

1. 5 years or more if active; or
2. 2 years or more if closed or at final grade.

IV. Pursuant to 40 CFR 60.755(c), the following procedures shall be used for compliance with the surface methane operational standard as provided in Condition 4.1.2(c) (i) (B) (IV) and 40 CFR 60.753(d).

1. Pursuant to 40 CFR 60.755(c) (1), the Permittee shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in Condition 4.1.2(c) (ii) (A) (V) and 40 CFR 60.755(d).
2. Pursuant to 40 CFR 60.755(c) (2), 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.
3. Pursuant to 40 CFR 60.755(c) (3), surface emission monitoring shall be performed in accordance with RM 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.
4. Pursuant to 40 CFR 60.755(c) (4), any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified below and in 40 CFR 60.755(c) (4) (i) through (v) shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of Condition 4.1.2(c) (i) (B) (IV) and 40 CFR 60.753(d).
 - (a) Pursuant to 40 CFR 60.755(c) (4) (i), the location of each monitored exceedance shall be marked and the location recorded.
 - (b) Pursuant to 40 CFR 60.755(c) (4) (ii), cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance.
 - (c) Pursuant to 40 CFR 60.755(c) (4) (iii), if the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in Condition 4.1.2(c) (ii) (A) (IV) (4) (e) and 40 CFR 60.755(c) (4) (v) shall be taken, and no further monitoring of that location is required until the action specified in Condition 4.1.2(c) (ii) (A) (IV) (4) (e) and 40 CFR 60.755(c) (4) (v).

- (d) Pursuant to 40 CFR 60.755(c)(4)(iv), any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in Conditions 4.1.2(c)(ii)(A)(IV)(4)(b) or (c) and 40 CFR 60.755(c)(4)(ii) or (iii) shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in Conditions 4.1.2(c)(ii)(A)(IV)(4)(c) or (e) and 40 CFR 60.755(c)(4)(iii) or (v) shall be taken.
- (e) Pursuant to 40 CFR 60.755(c)(4)(v), for any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Administrator for approval.
- (f) Pursuant to 40 CFR 60.753(d), 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.

5. Pursuant to 40 CFR 60.755(c)(5), the Permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

V. Pursuant to 40 CFR 60.755(d), the Permittee shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

- 1. The portable analyzer shall meet the instrument specifications provided in RM 21 of Appendix A of 40 CFR Part 60, except that "methane" shall replace all references to VOC.
- 2. The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.
- 3. To meet the performance evaluation requirements in RM 21, the instrument evaluation procedures of RM 21 shall be used.

4. The calibration procedures provided in RM 21 shall be followed immediately before commencing a surface monitoring survey.

VI. Pursuant to 40 CFR 60.755(e), the provisions 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.

Monitoring

- B. I. Pursuant to 40 CFR 60.756(a), the Permittee shall install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:
1. Measure the gauge pressure in the gas collection header on a monthly basis as provided in Condition 4.1.2(c) (ii) (A) (II) (3) and 40 CFR 60.755(a) (3); and
 2. Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in Condition 4.1.2(c) (ii) (A) (II) (4) and 40 CFR 60.755(a) (5); and

Pursuant to Condition 4.1.2(c) (i) (B) (III) and 40 CFR 40 CFR 60.753(c),

- (a) The nitrogen level shall be determined using Method 3C, unless an alternative test method is established in the collection and control system design plan as allowed, if applicable, in Conditions 4.1.2(c) (i) (A) (I) and 40 CFR 60.752(b) (2) (i).
- (b) Unless an alternative test method is established in the collection and control system design plan as allowed, if applicable, in Condition 4.1.2(c) (i) (A) (I) and 40 CFR 60.752(b) (2) (i), the oxygen shall be determined by an oxygen meter using Method 3A or 3C except that:
 - (i) The span shall be set so that the regulatory limit is between 20 and 50 percent of the span;
 - (ii) A data recorder is not required;
 - (iii) Only two calibration gases are required, a zero and span, and ambient air may be used as the span;
 - (iv) A calibration error check is not required;
 - v. The allowable sample bias, zero drift, and calibration drift are ± 10 percent.

3. Monitor temperature of the landfill gas on a monthly basis as provided in Condition 4.1.2(c) (ii) (A) (II) (4) and 40 CFR 60.755(a) (5).

II. Pursuant to 40 CFR 60.756(b), the Permittee shall monitor temperature and flow or bypasses of the enclosed flare. This monitoring equipment shall be calibrated, maintained, and operated according to the manufacturer's specifications, as follows:

1. Pursuant to 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.
 2. Pursuant to 40 CFR 60.756(b)(2), a device that records flow to or bypass of the enclosed flare. The Permittee shall either:
 - (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
 - (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.
- III. Pursuant to 40 CFR 60.756(c) and 40 CFR 60.18(f)(2), the Permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment on the open flare:
1. A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.
 2. A device that records flow to or bypass of the flare. The Permittee shall either:
 - (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
 - (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.
- IV. Pursuant to 40 CFR 60.756(f), the Permittee shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in Condition 4.1.2(c)(ii)(A)(V) and 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.
- V. Pursuant to 39.5(7)(b) and (d) of the Act, the Permittee shall verify compliance of the open flare with the minimum "7.45 MJ/scm (200 Btu/scf) LFG net heat content limitation in Condition 4.1.2(c)(i)(A)(II)(2)(a)(iii)(B) and 40 CFR 60.18(c)(ii) annually, the net heating value of the combusted landfill gas as determined in 40 CFR 60.18(f)(3) shall be calculated from the concentration of methane in the landfill gas as measured by Method 3C of Appendix A of 40 CFR Part 60. A minimum of three 30-minute Method 3C samples shall be used to make the determination. The measurement of other organic

components, hydrogen, and carbon monoxide is not applicable. Method 3C may be used to determine the landfill gas molecular weight for calculating the flare gas exit velocity under 40 CFR 60.18(f)(4). A written notification of sampling/monitoring activity and submittal of a formal test protocol for such sampling/monitoring activity is not required.

- VI. Pursuant to 39.5(7)(b) and (d) of the Act, the Permittee shall verify compliance of the enclosed flare with the NMOC 98 weight-percent control efficiency or the 20 ppmv outlet concentration level, in Condition 4.1.2(c)(i)(A)(II)(2)(b) and 40 CFR 60.752(b)(2)(iii)(B) by performing a subsequent performance test and submitting a performance test report as part of the CAAPP permit renewal application. The performance test shall be performed no more than two years prior to the expiration date of this CAAPP permit. Pursuant to 40 CFR 60.754(d), Method 25, 25C, or Method 18 of Appendix A of 40 CFR Part 60 must be used to determine compliance with the 98 weight-percent efficiency or the 20 ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the Administrator as provided by 40 CFR 60.752(b)(2)(i)(B). Method 3 or 3A shall be used to determine oxygen for correcting the NMOC concentration as hexane to 3 percent. In cases where the outlet concentration is less than 50 ppm NMOC as carbon (8 ppm NMOC as hexane), Method 25A should be used in place of Method 25. If using Method 18 of Appendix A of this part, 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:

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

where,

NMOC_{in} = mass of NMOC entering control device

NMOC_{out} = mass of NMOC exiting control device

Written notification of sampling activity and submittal of a formal test protocol for such sampling activity is required as per Conditions 2.4 and 7.1 of this permit.

Testing

- C. I. Pursuant to 40 CFR 60.754(b), the Permittee shall calculate the NMOC emission rate for purposes of determining when the system can be removed as provided in Condition 4.1.2(c)(i)(A)(IV) and 40 CFR 60.752(b)(2)(v), using the equation in 40 CFR 60.754(b).
1. Pursuant to 40 CFR 60.754(b)(1), the flow rate of landfill gas, Q_{LF}G, 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.
 2. Pursuant to 40 CFR 60.754(b)(2), the average NMOC concentration, CNMOC, 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 CNMOC as carbon to CNMOC as hexane.

3. Pursuant to 40 CFR 60.754(b)(3), the Permittee may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the USEPA.
- II. Pursuant to 40 CFR 60.754(c), when calculating emissions for PSD purposes, the Permittee shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in 40 CFR 51.166 or 52.21 using AP-42 or other approved measurement procedures.

Recordkeeping

General Records

- D. I. Pursuant to Sections 39.5(7)(b) and (e) of the Act, the Permittee shall keep readily accessible, on-site records of the items listed below. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.
1. Site-specific NMOC emission rate(s) and/or methane generation rate constant(s) (k) used to determine MSW landfill emissions (megagrams/yr) allowed under 40 CFR 60.754(a)(3), (4), and/or (5).
 2. Copies of USEPA and/or Illinois EPA correspondence approving alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of 40 CFR 60.753 through 60.758 allowed under, if applicable, in Condition 4.1.2(c)(i)(A)(I)(2) and 40 CFR 60.752(b)(2)(i)(B).
 3. Waste Acceptance

Copies of all waste acceptance records required to be maintained under 35 IAC Subtitle G (i.e., daily, monthly, and/or quarterly solid waste records and summaries). At a minimum these records shall include:
 - a. Monthly records of the amount of waste accepted;
 - b. The year-by-year waste acceptance rate;
 - c. The total amount of waste in-place; and
 4. An inspection maintenance and repair log for the affected landfill and/or control equipment, listing each activity performed with date. This requirement includes the landfill cover integrity inspection and repair requirement in Condition 4.1.2(c)(ii)(A)(IV)(5) and 40 CFR 60.755(c)(5).
 5. Up-to-date, readily accessible continuous records of the landfill flow to the control system (Monthly and annual). Annual landfill gas usage shall be determined on a calendar year basis.
 6. Operating hours on a monthly basis for each flare.

NSPS Records

- II. Pursuant to 40 CFR Section 60.7(b); the owners or operators shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the GCCS including; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
- III. Pursuant to 40 CFR Section 60.7(f); the owners or operators shall maintain a file of all measurements, maintenance, reports and records.
- IV. Pursuant to 40 CFR 60.758(a), except as provided, if applicable, in Condition 4.1.2(c) (i) (A) (I) (2) and 40 CFR 60.752(b) (2) (i) (B), the Permittee shall keep 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.
- V. Pursuant to 40 CFR 60.758(b), except as provided, if applicable, in Condition 4.1.2(c) (i) (A) (I) (2) and 40 CFR 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 below as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the open and enclosed flare vendor specifications shall be maintained until removal.
 - 1. Pursuant to 40 CFR 60.758(b) (1) (i), the maximum expected gas generation flow rate as calculated in Condition 4.1.2(c) (ii) (A) (II) (1) and 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 Compliance Section or USEPA.
 - 2. Pursuant to 40 CFR 60.758(b) (1) (ii), the density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in Condition 4.1.2(c) (i) (C) (I) (1) and 40 CFR 60.759(a) (1).
 - 3. (a) Pursuant to 40 CFR 60.758(b) (2) (i), the average combustion temperature of the enclosed flare, measured at least every 15 minutes and averaged over the same time period of the performance test.
(b) Pursuant to 40 CFR 60.758(b) (2) (i), the enclosed flare percent reduction of NMOC determined as specified in Condition 4.1.2(c) (i) (A) (II) (2) (b) and 40 CFR 60.752(b) (2) (iii) (B) achieved by the control device.
- VI. Pursuant to 40 CFR 60.758(c), the Permittee shall keep up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in Condition 4.1.2(c) (ii) (B) and 40 CF 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.

1. Pursuant to 40 CFR 60.758(c)(1)(i), the following constitutes exceedances that shall be recorded: 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 §60.752(b)(2)(iii) was determined.
 2. Pursuant to 40 CFR 60.758(c)(2), 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 in Condition 4.1.2(c)(ii)(B)(II) and 40 CFR 60.756.
- VII. Pursuant to 40 CFR 60.758(d), except as provided in Condition 4.1.2(c)(i)(A)(I) and 40 CFR 60.752(b)(2)(i)(B), 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.
1. Pursuant to 40 CFR 60.758(d)(1), the shall keep 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).
 2. Pursuant to 40 CFR 60.758(d)(2), the Permittee shall keep 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).
- VIII. Pursuant to 40 CFR 60.758(e), except as provided in 40 CFR 60.752(b)(2)(i)(B), the Permittee shall keep 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.

d. i. Hazardous Air Pollutant Requirements (HAP)

- A. I. Pursuant to 40 CFR 63.1955(a), the Permittee shall comply with the requirements of 40 CFR Part 60, Subpart WWW as shown in Condition 4.1.2(c).
- II. Pursuant to 40 CFR 63.1955(b), the Permittee must comply with the requirements in Condition 4.1.2(d)(ii)(A) and (B) and 4.1.5(b)(i)(D) and 40 CFR 63.1960 through 63.1985 and with the general provisions of 40 CFR 63 Subpart A specified in table 1 of 40 CFR 63 Subpart AAAA and Section 7.4(a) of this permit.
- III. Pursuant to 40 CFR 63.1955(c), 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, the Permittee must follow the procedures in 40 CFR 60.752(b)(2). If alternatives have already been approved under 40 CFR 60 Subpart WWW, these alternatives can be used to comply with 40 CFR 63 Subpart AAAA.

ii. Compliance Method (HAP Requirements)

Advanced Disposal Services Zion Landfill, Inc.
I.D. No.: 097200AAV
Permit No.: 97030064

Date Received: 2/7/2007
Date Issued: 6/24/2015
Date Revised: 5/22/2019

General and Continuing Compliance Requirements

- A. I. Pursuant to 40 CFR 63.1960, compliance shall be determined as per the requirements in Condition 4.1.2(c)(ii), including performance testing, monitoring of the collection system, continuous parameter monitoring, and other credible evidence. In addition, continuous parameter monitoring data, collected pursuant to Condition 4.1.2(c)(ii)(B)(II)(1), shall be used to demonstrate compliance with the operating conditions for control systems. If a deviation occurs, the Permittee shall have failed to meet the control device operating conditions described in Condition 4.1.2(c)(i)(A)(III) pursuant to 40 CFR 60 Subpart WWW and have deviated from the requirements of 40 CFR 63 Subpart AAAA. Finally, the Permittee must develop 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. Failure to write or maintain a copy of the SSM plan is a deviation from the requirements of 40 CFR 63 Subpart AAAA.
- II. 1. Pursuant to 40 CFR 63.1965, a deviation is defined in 40 CFR 63.1990. For the purposes of the landfill monitoring and SSM plan requirements, deviations include the following.
- a. Pursuant to 40 CFR 63.1965(a), a deviation occurs when the control device operating parameter boundaries described in 40 CFR 60.758(c)(1) of Subpart WWW are exceeded.
- b. Pursuant to 40 CFR 63.1965(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.
- c. Pursuant to 40 CFR 63.1965(c), a deviation occurs when a SSM plan is not developed or maintained on site.
- III. Pursuant to 40 CFR 63.1975, the following are not to be included in any average computed under 40 CFR 63 Subpart AAAA:
1. Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments.
2. Startups.
3. Shutdowns.
4. Malfunctions.

Recordkeeping

- B. I. Pursuant to 40 CFR 63.1980(a), the Permittee shall keep records as specified in Conditions 4.1.2(c)(ii)(D)(II) through (VIII) pursuant to 40 CFR 60 Subpart WWW.
- II. Pursuant to 40 CFR 63.1980(b) and 40 CFR 60.7(b) and 63.10(b)(2)(ii), the Permittee must keep and maintain the following general records:
1. Pursuant to 40 CFR 63.10(b)(2)(i), the occurrence and duration of each startup or shutdown when the startup or shutdown causes the source to exceed any applicable emission limitation;

2. Pursuant to 40 CFR 60.7(b) and 63.10(b)(2)(ii), the occurrence and duration of each malfunction of operation of the landfill and/or gas collection system, or the required air pollution control, or any periods during which a continuous monitoring system or monitoring device is inoperative;
3. Pursuant to 40 CFR 63.10(b)(2)(iii), all required maintenance performed on the air pollution control and monitoring equipment;
4. Pursuant to 40 CFR 63.10(b)(2)(iv)(A), actions taken during periods of startup or shutdown when the source exceeded applicable emission limitations in a relevant standard and when the actions taken are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see §63.6(e)(3));
5. Pursuant to 40 CFR 63.10(b)(2)(B), actions taken during periods of malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when the actions taken are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see §63.6(e)(3)); or
6. Pursuant to 40 CFR 63.10(b)(2)(v), all information necessary, including actions taken, to demonstrate conformance with the affected source's startup, shutdown, and malfunction plan (see §63.6(e)(3)) when all actions taken during periods of startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the startup, shutdown, and malfunction plan may be recorded using a "checklist", or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events);

Applicable records include but are not limited to items such as SSM plans.

- III. Pursuant to 40 CFR 63.1980(g), if the Permittee adds any liquids other than leachate in a controlled fashion to the waste mass then the Permittee must keep a record of calculations showing that the percent moisture by weight expected in the waste mass to which liquid is added is less than 40 percent. The calculation must consider the waste mass, moisture content of the incoming waste, mass of water added to the waste including leachate recirculation and other liquids addition and precipitation, and the mass of water removed through leachate or other water losses. Moisture level sampling or mass balances calculations can be used. The Permittee must document the calculations and the basis of any assumptions. Keep the record of the calculations until the Permittee ceases liquids addition.

Pursuant to Condition 3.1(d)(ii), documentation and data required in Condition 4.1.2(d) for ADS Zion Landfill shall be included as part of the above referenced record.

e. i. Asbestos

Advanced Disposal Services Zion Landfill, Inc.
I.D. No.: 097200AAV
Permit No.: 97030064

Date Received: 2/7/2007
Date Issued: 6/24/2015
Date Revised: 5/22/2019

- A. I. Pursuant to 40 CFR 61.151, the Permittee shall operate any inactive (asbestos) waste disposal site, as defined in 40 CFR 61.141, i.e., the site has not received any new deposits of asbestos-containing waste material (ACWM) within the past calendar year, as follows:
1. Comply with one of the following:
 - a. Pursuant to 40 CFR 61.151(a)(1), either discharge no visible emissions to the outside air from an inactive waste disposal site subject to 40 CFR 61.151; or
 - b. Pursuant to 40 CFR 61.151(a)(2), cover the ACWM with at least 15 centimeters (6 inches) of compacted nonasbestos-containing material, and grow and maintain a cover of vegetation on the area adequate to prevent exposure of the ACWM; or
 - c. Pursuant to 40 CFR 61.151(a)(3), cover the asbestos-containing waste material with at least 60 centimeters (2 feet) of compacted nonasbestos-containing material, and maintain it to prevent exposure of the asbestos-containing waste; or
 - d. Pursuant to 40 CFR 61.151(a)(4), for inactive waste disposal sites for asbestos tailings, a resinous or petroleum-based dust suppression agent that effectively binds dust to control surface air emissions may be used instead of the methods listed above and in 40 CFR 61.151(a)(1), (2), and (3). Use the agent in the manner and frequency recommended for the particular asbestos tailings by the manufacturer of the dust suppression agent to achieve and maintain dust control. Obtain prior written approval of the Illinois EPA Compliance Section or USEPA to use other equally effective dust suppression agents. For purposes of this paragraph, any used, spent, or other waste oil is not considered a dust suppression agent.
 2. Pursuant to 40 CFR 61.151(b), unless a natural barrier adequately deters access by the general public, install and maintain warning signs and fencing as required in 40 CFR 61.151(b), or comply with 40 CFR 61.151(a)(2) or (a)(3).
 3. Pursuant to 40 CFR 61.151(c), the Permittee may use an alternative control method that has received prior approval of the Illinois EPA or USEPA rather than comply with the requirements of 40 CFR 61.151(a) or (b).
 4. Pursuant to 40 CFR 61.151(e), within 60 days of a site becoming inactive, record, in accordance with State law, a notation on the deed to the facility property and on any other instrument that would normally be examined during a title search; this notation will in perpetuity notify any potential purchaser of the property that:
 - a. The land has been used for the disposal of asbestos-containing waste material;
 - b. The survey plot and record of the location and quantity of asbestos-containing waste disposed of within the

disposal site required in 40 CFR 40 CFR 61.154(f) have been filed with the Administrator; and

c. The site is subject to 40 CFR Part 61, Subpart M.

II. Pursuant to 40 CFR 61.154, the Permittee shall operate any active (asbestos) waste disposal site that receives ACWM as follows:

1. Pursuant to 40 CFR 61.154(a), either there must be no visible emissions to the outside air from any active waste disposal site where ACWM has been deposited, or the requirements of 40 CFR 61.154(c) or (d) must be met.
2. Pursuant to 40 CFR 61.154(b), unless a natural barrier adequately deters access by the general public, either warning signs and fencing must be installed and maintained as shown in 40 CFR 61.154(b), or the requirements of 40 CFR 61.154(c) (1) must be met.
3. Pursuant to 40 CFR 61.154(c), rather than meet the no visible emission requirement of 40 CFR 61.154(a), at the end of each operating day, or at least once every 24-hour period while the site is in continuous operation, the asbestos-containing waste material that has been deposited at the site during the operating day or previous 24-hour period shall:
 - a. Pursuant to 40 CFR 61.154(c) (1), be covered with at least 15 centimeters (6 inches) of compacted nonasbestos-containing material, or
 - b. Pursuant to 40 CFR 61.154(c) (2), be covered with a resinous or petroleum-based dust suppression agent that effectively binds dust and controls wind erosion. Such an agent shall be used in the manner and frequency recommended for the particular dust by the dust suppression agent manufacturer to achieve and maintain dust control. Other equally effective dust suppression agents may be used upon prior approval by the Illinois EPA or USEPA. For purposes of this paragraph, any used, spent, or other waste oil is not considered a dust suppression agent.
4. Pursuant to 40 CFR 61.154(d), rather than meet the no visible emission requirement of 40 CFR 61.154(a), use an alternative emissions control method that has received prior written approval by the Administrator according to the procedures described in 40 CFR 61.149(c) (2).
5. Pursuant to 40 CFR 61.154(g), upon closure of the active waste disposal site, the Permittee shall comply with all the provisions of 40 CFR 61.151.

ii. Compliance Method (Asbestos Requirements)

Monitoring

- A. Pursuant to Sections 39.5(7) (b) and (d) of the Act, the Permittee shall perform a monthly inspection on all active ACWM disposal sites at the source to demonstrate compliance with the visible emissions and/or cover requirements of Condition 4.1.2(e) (i) (A) and 40 CFR 61.151(a) and 61.154(c). If the cover at the site is not in compliance with the ACWM cover requirements, pursuant to Condition 4.1.2(e) (i) (A) and 40 CFR 61.151(a) and

61.154(c), or if ACWM is exposed, the Permittee shall either monitor for visible emissions using USEPA RM 22 or take corrective action within 4 hours of the observation of exposed ACWM, in accordance with the cover and or control requirements Condition 4.1.2(e) (i) (A) and 40 CFR 61.151(a) and 61.154(c), as applicable. All inspections and/or corrective actions and data as per RM 22 must be documented. The monthly cover integrity survey conducted in accordance with 40 CFR 60.755(c) (5) and Condition 4.1.2(c) (ii) (A) (IV) (5) may be conducted and documented concurrently with the asbestos cover integrity survey.

Recordkeeping

- B. I. Pursuant to 40 CFR 61.154(e), for all asbestos-containing waste material received, the Permittee shall:
1. Pursuant to 40 CFR 61.154(e) (1), maintain waste shipment records, using a form similar to that shown in Figure 4 of 40 CFR 61 Subpart M, and include the following information:
 - a. The name, address, and telephone number of the waste generator.
 - b. The name, address, and telephone number of the transporter(s).
 - c. The quantity of the ACWM in cubic meters (cubic yards).
 - d. The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers. Report in writing to the Illinois EPA Compliance Section, by the following working day, the presence of a significant amount of improperly enclosed or uncovered waste. Submit a copy of the waste shipment record along with the report.
 - e. The date of the receipt.
 2. Pursuant to 40 CFR 61.154(e) (2), as soon as possible, and no longer than 30 days after receipt of the waste, send a copy of the signed waste shipment record to the waste generator.
 3. Pursuant to 40 CFR 61.154(e) (3), upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received, attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, immediately report in writing to the Illinois EPA Compliance Section. Describe the discrepancy and attempts to reconcile it, and submit a copy of the waste shipment record along with the report.
- II. Pursuant to 40 CFR 61.154(e), maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area.
- III. Pursuant to Sections 39.5(7) (b) and (e) of the Act, the Permittee shall collect and maintain the records of the inspections and/or corrective actions and data as per RM 22 required pursuant to Condition 4.1.2(e) (i) (A).

f. i. Odor Requirements

Advanced Disposal Services Zion Landfill, Inc.
I.D. No.: 097200AAV
Permit No.: 97030064

Date Received: 2/7/2007
Date Issued: 6/24/2015
Date Revised: 5/22/2019

- A. I. Pursuant to Construction Permit 06100001, 11030009, and 12070062, In the event that the operation of the landfill gas collection and control system results in an odor nuisance or any other nuisance due to the operation of the flares or through any other cause, the Permittee shall take all appropriate and necessary action, including but not limited to, additional work practices for handling of waste; enhancements to the gas collection system; changes in operating procedures or installation of additional air pollution control equipment, in order to eliminate the nuisance. [T1]
- II. Pursuant to Section 9(a) of the Act, no person shall cause or threaten to allow the discharge or emission of any contaminant into the environment of any state so as to cause or tend to cause air pollution in Illinois, either alone or in combination with contaminants from other sources, or so as to violate regulations or standards adopted under this Act.
- III. Pursuant to Section 39.5(7) (a) of the Act, the Permittee shall take appropriate and necessary actions to minimize odors, these include but are not limited to the following:
- Early application of daily or intermediate cover;
 - Separation and/or sequestration of odoriferous waste;
 - Application of temporary tarps or plastic sheeting;
 - Adjustments to the landfill gas collection system;
 - Maintenance on landfill components; and/or
 - Application of low VOM (<1% by wt.) deodorizers or neutralizers, e.g., use of the ECOLO odor control product referenced in Condition 6.2.

ii. Compliance Method (Odor Requirements)

Monitoring

- A. Pursuant to Section 39.5(7) (b) and (d) of the Act, the Permittee shall conduct weekly inspections of source's operations and evaluate releases of odors from those operations until at least 4 weeks of data indicates that no odor nuisance exists. Thereafter; monitoring may switch to a monthly basis. Monitoring shall revert to the weekly basis if a deviation is detected. Monthly monitoring may resume after another 4 weeks of data again indicates no deviations.
- B. Pursuant to Section 39.5(7) (b) and (d) of the Act, any citizen's odor complaints submitted directly to the source shall be evaluated within 72 hours from the date of receipt and the Permittee shall make all reasonable efforts to reduce or eliminate the cause of such odors.

Recordkeeping

- C. Pursuant to Section 39.5(7) (b) and (e) of the Act, the Permittee shall keep the records of any inspections; evaluations; assessments and/or identifications of odors being released; if applicable, copies of any odor control plans or standard operating procedures in regard to odors and/or odor complaints; and logs of any appropriate and necessary corrective actions taken which may include but is not limited to the actions listed in Condition 4.1.2(f) (i) (A) (III).

The Permittee shall document whether or not odors were detected during either the odor inspection or investigation of a citizen's odor complaint and whether or not a specific odor or odor complaint could or could not be localized or attributed to ADS Zion Landfill or another source.

3. Non-Applicability Determinations

Advanced Disposal Services Zion Landfill, Inc.
I.D. No.: 097200AAV
Permit No.: 97030064

Date Received: 2/7/2007
Date Issued: 6/24/2015
Date Revised: 5/22/2019

- a. The MSW landfill is not subject to 35 IAC 220, Nonmethane Organic Compounds because, pursuant to 35 IAC 220.200(b), any MSW landfill that commenced construction, reconstruction, or modification on or after May 30, 1991, is subject to the requirements of 40 CFR 60, Subpart WWW, in lieu of the requirements of 35 IAC 220.
- b. The MSW landfill and fugitive PM operations are not subject to 35 IAC 212.321 or 212.322, due to the unique nature of the unit(s), a process weight rate cannot be set so that such rules cannot reasonably be applied, pursuant to 35 IAC 212.323.
- c. The MSW landfill is not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources in regard to VOM/NMOC emissions, because the MSW landfill is subject to a NESHAP, i.e., 40 CFR Part 63 Subpart AAAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills, that was proposed after November 15, 1990, pursuant to 40 CFR 64.2(b)(1)(i), and the NESHAP requires sufficient monitoring for the associated control devices, i.e., the open and enclosed flares listed in Condition 4.1.1, via compliance with 40 CFR Part 60 Subpart WWW - Standards of Performance for Municipal Solid Waste Landfills.
- d. The MSW landfill is not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources in regard to NO_x, CO, SO₂, PM/PM₁₀, and Asbestos emissions, because the landfill does not use an add-on control device to achieve compliance with an emission limitation or standard for the listed pollutants.
- e. Pursuant to the criteria in 40 CFR 64.2(b)(2), the open and enclosed flares, listed in Condition 4.1.1, are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources in regard to NO_x, CO, SO₂, PM/PM₁₀, and VOM/NMOC emissions, because neither of the flares use an add-on control device to achieve compliance with an emission limitation or standard.

4. Other Requirements

For the emission units in Condition 4.1.1 above, the Permittee shall comply with the following applicable requirements pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act.

a. i. Title I Requirements [T1]

A. Title I Requirements (Construction Permit 06100001 [T1])

Pursuant to Construction Permit 06100001 and the open and enclosed flares referenced in Condition 4.1.1, the Permittee shall comply with the following: [T1]

- I. The design capacity of the enclosed flare shall not exceed 6,000 scfm of LFG.
- II. The design capacity of the open flare shall not exceed 3,000 scfm of LFG.
- III. Emissions of the open and enclosed flares shall not exceed the following limits:

Pollutant	Limit			
	Emission Factor (lb/million scf of LFG)		Hourly (lb/hr)	Annual (ton/yr)
	Enclosed	Open		
NO _x	30.0	30.9	7.2	31.5
CO	100	168	45.66	200.0
VOM			2.8	12.3

PM			1.0	4.4
Total HAPs			0.5	2.2

IV. Notwithstanding the above, the hourly emissions of NO_x from the open and enclosed flares may exceed 7.2 pounds per hour, when the flares are operated during period of reduced capacity or outage of the associated Bio Energy (Illinois) LLC gas-to-energy facility referenced in Condition 1.3(a). During such periods, hourly emissions of NO_x from the open and enclosed flares and engines at the Bio Energy (Illinois) LLC gas-to-energy facility, in total, shall not exceed 36.4 pounds per hour, which is the total of the permitted hourly NO_x emissions of the engines during normal operation, 29.2 pounds per hour, and the permitted NO_x emissions of the affected flares during normal operation, 7.2 pounds per hour.

B. Title I Requirements (Construction Permit 11030009 [T1])

Pursuant to Construction Permit 11030009, in regard to the open and enclosed flares referenced in Condition 4.1.1 the Permittee shall comply with the following: [T1]

I. The emissions from flaring LFG at the affected landfill shall not exceed the following:

Pollutant	Limit	
	Emission Factor (lb/million scf of LFG)	
	Enclosed Flare	Open Flare
NO _x	30.0	30.9
CO	100	168

II. The total emissions of the enclosed flare and open flare including emissions from flaring LFG from the vertical expansion of ADS Zion landfill, authorized in Construction Permit 11030009, shall not exceed the following limits

Pollutant	Hourly (lb/hr)	Annual (ton/yr)
CO	45.66	200.0
VOM/NMOC	2.8	12.3
PM/PM _{2.5}	1.0	4.4
Total HAPs	0.5	2.2

III. 1. The total emissions from combustion of LFG attributable to the existing landfill shall not exceed the following limits:

Pollutant	Monthly (ton/mo)	Annual (ton/yr)
NO _x	16.0	160.0

2. Total emissions of NO_x from the combustion of LFG attributable to the vertical expansion of ADS Zion landfill, covered in Construction Permit 11030009, shall not exceed 4.0 tons/month and 32.0 tons/year. [T1]

C. Title I Requirements (Construction Permit 12070062 [T1])

Pursuant to Construction Permit 12070062 and the landfill and open and enclosed flares referenced in Condition 4.1.1, the Permittee shall comply with the following: [T1]

- I. The design capacity of the affected landfill shall not exceed 29.2 million cubic yards of waste.
- II. The total emissions of the flares (the enclosed flare and open flare), including emissions from flaring LFG from the expansion authorized by Construction Permit 12070062, shall not exceed the following limits.

Pollutant	Hourly (lb/hr)	Annual (ton/yr)
CO	45.7	200
VOM/NMOC	2.8	12.3
PM/PM ₁₀	1.0	4.4
Total HAPs	1.8	7.9

- III. The NO_x emissions from the control of the LFG collected from the expansion authorized by Construction Permit 12070062 shall not exceed 7.2 lbs/hour and 32 tons/year.

ii. Compliance Method

- A. Pursuant to Construction Permits 06100001, 11030009, and 12070062, compliance with annual limits shall be determined from a running total of 12 months of data i.e., the sum of emissions data for the month of record plus the preceding 11 months of data. [T1]
- B. Pursuant to 39.5(7)(b) and (d) of the Act and Construction Permit 06100001, 11030009, and 12070062, for purposes of determining compliance with the limits in Condition 4.1.4(a)(i)(A), (B), and (C), emissions shall be determined using site-specific data for the generation, disposition and composition of LFG and appropriate emission factors, which in order of preference for pollutants shall be factors from on-site emission testing, manufacturer's emission data, and emission factors from USEPA's Compilation of Air Pollutant Emission Factors (AP-42) with appropriate adjustments to this data and these emission factors to reflect source-specific conditions and any deficiencies in the collection of LFG and operation of units controlling LFG at this affected source.
- C. Pursuant to 39.5(7)(b) and (d) of the Act and Construction Permits 12070062, the Permittee shall install, maintain, and operate instrumentation to continuously measure the total amount of LFG collected from the affected landfill, in scf, and the disposition of this LFG as follows:
 - I. The amount of LFG sent to the associated gas-to-energy facility, referenced in Condition 1.3(a).
 - II. The amount of LFG sent to each flare, on a daily basis.
 - III. In addition to the hourly data automatically recorded by these instrumentation, the Permittee shall compile and record data from these instrumentations for the total amount of LFG collected from the affected landfill and its disposition on a monthly basis (per month and running total of 12-months).

As an alternative to continuous monitoring for the amount of LFG sent to the gas-to-energy facility, as addressed by Condition 1.3(a)(C)(I), the Permittee may obtain this data from the owner or operator of this facility (scf/month).

iii. Recordkeeping

- A. I. Pursuant to Construction Permits 06100001, the Permittee shall keep the following records pursuant to the enclosed and open flares;
1. A file for emission factors used for calculating the emissions and the maximum hourly emissions of the enclosed and open flares during different operating modes of the source, with supporting documentation.
 2. Monthly and annual emissions of NO_x, CO, VOM, PM, and HAPs from the affected flares, with supporting calculations (tons/month and tons/year).
 3. During periods when the enclosed and open flares are operating during reduced capacity or outage of the gas-to-energy facility, referenced in Condition 1.3(a), operating records to show that the applicable annual limits in Condition 4.2.4(a) (i) (A) are met.
- II. Pursuant to Construction Permits 11030009, the Permittee shall keep the following records pursuant to the enclosed and open flares;
1. Total consumption of LFG by the flares, on a daily basis.
 2. Operating Records:
 - (a) A file containing the design specifications for each flare including capacity, scfm, and a demonstration that the open flare complies with applicable operating requirements of 40 CFR 60.18 (e.g., gas heat content and exit velocity) and the enclosed flare complies with the applicable requirements of 40 CFR 60 Subpart WWW.
 - (b) An operating log that shall include the following:
 - (i) Status of the flare.
 - (ii) Adjustments of flare's operating parameters.
 - (iii) Identification of any period when the flare was to be in service but was out of service with a detailed explanation of the cause and an explanation of actions taken to prevent or reduce the likelihood of future occurrences.
 - (c) An inspection/maintenance log that shall include the following:
 - (i) Date of inspection and observed condition of the flare.
 - (ii) Date and description of maintenance performed.
 - (d) Records related to emissions of the flares:
 - (i) A file containing: 1) The emission factors used by the Permittee for calculating emissions of NO_x, CO, PM, and VOM with supporting documentation; and 2) Engineering calculations for the maximum hourly emissions of NO_x, CO, PM, NMOC and VOM from each flare.

- (ii) Emissions NO_x, CO, PM, VOM, NMOC, and HAPs from each flare (tons/month and tons/year), with supporting calculations.
- III. Pursuant to Construction Permits 12070062, the Permittee shall keep the following records pursuant to the enclosed and open flares;
- 1. The Permittee shall keep a record for the design capacity of the affected landfill, with supporting documentation.
 - 2. (a) The Permittee shall keep records of the total amount of LFG collected from the affected landfill and its disposition, i.e., the amount of LFG sent to the gas-to-energy facility and to each flare (scf/month and scf/year), with supporting documentation.
(b) The Permittee shall keep monthly records of the split between LFG generated by the affected landfill that is attributable to the existing source, i.e., the landfill excluding the expansion authorized by Construction Permits 12070062, and LFG that is attributable to the expansion of the landfill authorized by Construction Permits 12070062.
 - 3. Permittee shall keep the following records related to emissions of each flare:
 - (a) A file containing the current data used by the Permittee to calculate emissions from each flare used to control collected LFG, as follows, with supporting documentation:
 - (i) The emission factors for NO_x, CO, PM, and PM₁₀.
 - (ii) The VOM and NMOC content of the LFG and the control efficiency for each of these pollutants.
 - (iii) For HAPs, HAP contents of the LFG and the factors for generation of emissions of HAPs when the LFG is controlled.
 - (b) Records of NO_x, CO, PM, VOM and HAPs (tons/month and tons/year), with supporting calculations.

5. Reporting Requirements

The Permittee shall submit the following information pursuant to Section 39.5(7)(f) of the Act. Addresses are included in Attachment 2.

a. Prompt Reporting

- i. A. Pursuant to Section 39.5(7)(f)(ii) of the Act, the Permittee shall promptly notify the IEPA Air Compliance Section within 30 days of deviations from applicable requirements as follows unless a different period is specified by a particular permit provision, i.e., NSPS or NESHAP requirement:
 - I. Requirements in Conditions 4.1.2(a)(i), 4.1.2(b)(i), 4.1.2(c)(i), 4.1.2(d)(i), and 4.1.2(e)(i);
 - II. Requirements in Conditions 4.1.4(a)(i)

- ii. The deviation reports shall contain at a minimum the following information:
 - A. Date and time of the deviation.
 - B. Emission unit(s) and/or operation involved.
 - C. The duration of the event.
 - D. Probable cause of the deviation.
 - E. Corrective actions or preventative measures taken.
- iii. All such deviations shall be summarized and reported as part of the Semiannual Monitoring Report required by Condition 3.6(b).

b. Federal Reporting

- i. A. Pursuant to 40 CFR 60.757(d), the owner or operator of a controlled landfill shall submit a closure report to the Illinois EPA Compliance Section within 30 days of waste acceptance cessation. The Illinois EPA 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, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 60.7(a)(4).
- B. Pursuant to 40 CFR 60.757(e), the owner or operator of a controlled landfill shall submit an equipment removal report to the Illinois EPA Compliance Section 30 days prior to removal or cessation of operation of the control equipment.
 - I. Pursuant to 40 CFR 60.757(e)(1), the equipment removal report shall contain all of the following items:
 - 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.
 - II. Pursuant to 40 CFR 60.757(e)(2), 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.
- C. I. Pursuant to 40 CFR 63.1980(a), the Permittee shall submit reports as specified in 40 CFR 60 Subpart WWW, whichever applies to the affected MSW landfill, with one exception: The Permittee must submit the annual report described in 40 CFR 60.757(f) by July 30 and January 30.
- II. Pursuant to 40 CFR 63.1980(b), the Permittee must also submit reports as specified in the general provisions of 40 CFR Part 60 Subpart A and 40 CFR Part 63 as shown in Table 1 of 40 CFR 63 Subpart AAAA. Applicable records in the general provisions include items such as SSM plans.
- III. Pursuant to 40 CFR 60.757(f), the recorded information shown below and in 40 CFR 60.757(f)(1) through (f)(6) shall be submitted in the

semi-annual reports required in Condition 4.1.5(b)(i)(D)(I) and in 40 CFR 63.1980(a). Reportable exceedances are defined under Condition 4.1.2(c)(ii)(D)(VII) and 40 CFR 60.758(c).

1. Value and length of time for exceedance of applicable parameters monitored under 40 CFR 60.756(a), (b), (c), and (d).
 2. 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.
 3. 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.
 4. All periods when the collection system was not operating in excess of 5 days.
 5. 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.
 6. 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).
- D. Pursuant to 40 CFR 60.757(g), the Permittee shall include the following information with the initial performance test report required under 40 CFR 60.8:
- I. A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;
 - II. The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;
 - III. The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material;
 - IV. 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;
 - V. 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; and
 - VI. The provisions for the control of off-site migration.
- E. I. Pursuant to 40 CFR 61.151(d) and 61.154(j), the Permittee shall notify the Illinois EPA Compliance Section in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and covered as per 40 CFR 61.151 or 61.154, and follow the procedures specified in the notification. If the excavation will

begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Illinois EPA Compliance Section at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice:

1. Scheduled starting and completion dates.
 2. Reason for disturbing the waste.
 3. Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed necessary, the Administrator may require changes in the emission control procedures to be used.
 4. Location of any temporary storage site and the final disposal site.
- II. Pursuant to 40 CFR 61.154(e)(1)(iv), the Permittee shall report in writing to the Illinois EPA Compliance Section, by the following working day, the presence of a significant amount of improperly enclosed or uncovered waste. Submit a copy of the waste shipment record, required in 40 CFR 61.154(e), along with the report.
- III. Pursuant to 40 CFR 61.154(e)(1)(iv), if the discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received is not resolved within 15 days after receiving the waste, as per 40 CFR 61.154(e)(1)(iv), the Permittee shall immediately report in writing to the Illinois EPA Compliance Section. Describe the discrepancy and attempts to reconcile it, and submit a copy of the waste shipment record, required in 40 CFR 61.154(e), along with the report.
- IV. Pursuant to 40 CFR 61.154(h), the Permittee shall submit to the Illinois EPA Compliance Section, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities, required in 40 CFR 61.154(f).

4.2 Gasoline Dispensing Operation

1. Emission Units and Operations

<i>Emission Units</i>	<i>Pollutants Being Regulated</i>	<i>Original Construction Date</i>	<i>Modification/ Reconstruction Date</i>	<i>Air Pollution Control Devices or Measures</i>	<i>Monitoring Devices</i>
500 Gallon Gasoline Storage Tank	VOM	--	--	Submerged Loading	None

2. Applicable Requirements

For the emission units in Condition 4.2.1 above, the Permittee shall comply with the following applicable requirements pursuant to 39.5(7) (a), 39.5(7) (b), and 39.5(7) (d) of the Act.

a. i. State Work Practice Requirements

A. Pursuant to 35 IAC 218.583(a) (1), no person shall cause or allow the transfer of gasoline from any delivery vessel into any stationary storage tank for the gasoline dispensing operation unless the tank is equipped with a submerged loading pipe.

ii. Periodic Monitoring Compliance Method (VOM Requirements)

Monitoring

A. Pursuant to Section 39.5(7) (b) and (d) of the Act, the Permittee shall conduct semi-annual inspections of the gasoline storage tank and dispensing operation while the tank is being filled by inspecting the submerged loading pipe is physically present and the condition of the pipe for integrity.

Recordkeeping

B. Pursuant to Section 39.5(7) (b) and (e) of the Act, the Permittee shall maintain the records of conducted inspections, with a date and results of such inspections.

C. Pursuant to Section 39.5(7) (b) and (e) of the Act, the Permittee shall keep a copy of operating instructions and maintenance log.

b. i. HAP Emissions - Work Practice Requirements (40 CFR 63 Subpart CCCCC)

A. Pursuant to 40 CFR 63.1116(a), the Permittee shall fulfill at least the following requirements in regards to the gasoline dispensing operation with monthly throughput of less than 10,000 gallons of gasoline:

- I. Minimize gasoline spills;
- II. Clean up spills as expeditiously as practicable;
- III. Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use; and
- IV. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

B. Pursuant to 40 CFR 63.1111(j), the dispensing of gasoline from a fixed gasoline storage tank at the gasoline dispensing facility into a portable gasoline tank for the on-site delivery and subsequent dispensing of the gasoline into the fuel tank of a motor vehicle or other gasoline-fueled

engine or equipment used within the area source is only subject to Condition 4.2.2(b) (i) (A) and 40 CFR 63.11116.

- C. Pursuant to 40 CFR 63.11130, the Permittee must comply with the applicable general provisions specified in the general provisions of 40 CFR Part 63 as shown in Table 3 of 40 CFR 63 Subpart CCCC and Section 7.4(b) of this permit.

ii. Compliance Method (Federal Work Practice Requirements)

Monitoring

- A. Pursuant to Section 39.5(7) (b) and (d) of the Act, the Permittee shall conduct semi-annual inspections of the gasoline storage tank and dispensing operation to ensure that the operating requirements established by Condition 4.2.2(b) (i) (A) and 40 CFR 63.1116(a) are met. The tank shall be inspected while the tank is being filled.

Recordkeeping

- B. Pursuant to Section 39.5(7) (b) and (e) of the Act, the Permittee shall keep on site written operating procedures or instructions on how to implement the operating requirements established by Condition 4.2.2(b) (i) (A) and 40 CFR 63.1116(a).
- C. Pursuant to Section 39.5(7) (b) and (e) of the Act, the Permittee shall maintain the records of inspections conducted to comply with Condition 4.2.2(a) (ii) (A) with a date and results of such inspections.
- D. Pursuant to 40 CFR 63.11111(e), the Permittee shall maintain the records of monthly the gasoline dispensing facility's throughput.

3. Non-Applicability Determinations

- a. The gasoline storage tank and associated dispensing operations are not subject to 40 CFR 64, Compliance Assurance Monitoring (CAM) for VOM or HAPs because the tank uses a passive control measure, such as a seal, lid, or roof, that is not considered a control device because it acts to prevent the release of pollutants.
- b. The gasoline storage tank is not subject to 35 IAC 215.301 because the gasoline storage tank does not use organic material as defined in 35 IAC 211.4250(b).
- c. The gasoline storage tank is not subject to 35 IAC 215.586(c) because the average monthly gasoline throughput is less than 10,000 gallons as limited by Condition 4.2.2(c) (i) (A).
- d. The gasoline storage tank is not subject to 35 IAC 215.581 and 215.582 because the tank is not a bulk gasoline plant or bulk gasoline terminal as defined in 35 IAC 211.790 and 211.810, respectively.
- e. Pursuant 40 CFR 63.11111(c) and (d), the gasoline dispensing facility is not subject to the requirements of 40 CFR 63.11117 or 63.11118 because the gasoline dispensing facility's monthly throughput is less than 10,000 gallons per month.

4. Other Requirements

As of the date of issuance of this permit, there are no such requirements that need to be included for this gasoline storage tank.

5. Reporting Requirements

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The Permittee shall submit the following information pursuant to Section 39.5(7)(f) of the Act. Addresses are included in Attachment 2.

a. Prompt Reporting

- i. A. Pursuant to Section 39.5(7)(f)(ii) of the Act, the Permittee shall promptly notify the IEPA Air Compliance Section within 30 days of deviations from applicable requirements as follows unless a different period is specified by a particular permit provision, i.e., NSPS or NESHAP requirement:
 - I. Requirements in Conditions 4.2.2(a), (b), and (c).
- B. All such deviations shall be summarized and reported as part of the Semiannual Monitoring Report required by Condition 3.6(b).
- ii. The Permittee shall notify the IEPA Air Compliance Section of all other deviations as part of the Semiannual Monitoring Report required by Condition 3.6(b).
- iii. The deviation reports shall contain at a minimum the following information:
 - A. Date and time of the deviation.
 - B. Emission unit(s) and/or operation involved.
 - C. The duration of the event.
 - D. Probable cause of the deviation.
 - E. Corrective actions or preventative measures taken.

Section 5 - Additional Title I Requirements

This Section is reserved for Title I requirements not specified in Sections 3 or 4. As of the date of issuance of this permit, there are no Title I requirements that need to be separately addressed in this Section.

Section 6 - Insignificant Activities Requirements

1. Insignificant Activities Subject to Specific Regulations

This condition is reserved for insignificant activities, as defined in 35 IAC 201.210 and 201.211, which are subject to specific standards promulgated pursuant Sections 111, 112, 165, or 173 of the Clean Air Act, see Sections 9.1(d) and 39.5(6) (a) of the Act. As of the date of issuance of this permit, there are no such insignificant activities present at the source.

2. Insignificant Activities in 35 IAC 201.210(a)

In addition to any insignificant activities identified in Condition 6.1, the following additional activities at the source constitute insignificant activities pursuant to 35 IAC 201.210 and 201.211:

Insignificant Activity	Number of Units	Insignificant Activity Category
8,000 gallon Aboveground Leachate/Condensate Storage Tanks	2	35 IAC 201.210(a) (1) and 201.211
160,000 Gallon Aboveground Leachate Storage Tanks	1	35 IAC 201.210(a) (1) and 201.211
32,000 Gallon Aboveground Leachate Storage Tanks	2	35 IAC 201.210(a) (1) and 201.211
Petroleum Contaminated soils as daily cover	1	35 IAC 201.210(a) (1) and 201.211
Use of ECOLO odor control product with propylene glycol additive in winter	1	35 IAC 201.210(a) (1) and 201.211
Direct combustion units used for comfort heating and fuel combustion emission units as further detailed in 35 IAC 201.210(a) (4).	8	35 IAC 201.210(a) (4)
Storage tanks of virgin or rerefined distillate oil, hydrocarbon condensate from natural gas pipeline or storage systems, lubricating oil, or residual fuel oil.	6	35 IAC 201.210(a) (11)
Gas turbines and stationary reciprocating internal combustion engines < 112 kW (150 HP).	7	35 IAC 201.210(a) (15)

3. Insignificant Activities in 35 IAC 201.210(b)

Pursuant to 35 IAC 201.210, the source has identified insignificant activities as listed in 35 IAC 201.210(b) (1) through (28) as being present at the source. The source is not required to individually list the activities.

4. Applicable Requirements

Insignificant activities in Conditions 6.1 and 6.2 are subject to the following general regulatory limits notwithstanding status as insignificant activities. The Permittee shall comply with the following requirements, as applicable:

- a. Pursuant to 35 IAC 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to 35 IAC 212.122, except as provided in 35 IAC 212.123(b).
- b. Pursuant to 35 IAC 214.301, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to exceed 2,000 ppm, except as provided in 35 IAC Part 214.
- c. Pursuant to 35 IAC 218.122(b), no person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 250 gal, unless such tank is equipped with a permanent submerged loading pipe, submerged fill, or an equivalent device approved by the IEPA according to 35 IAC Part 201 or unless such tank is a pressure tank as described in 35 IAC 215.121(a) or is fitted with a recovery system as described in 35 IAC 218.121(b) (2). Exception as provided in 35 IAC 218.122(c):

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If no odor nuisance exists the limitations of 35 IAC 218.122 shall only apply to the loading of volatile organic liquid with a vapor pressure of 2.5 psia or greater at 70°F.

5. Compliance Method

Pursuant to Section 39.5(7)(b) of the Act, the source shall maintain records of the following items for the insignificant activities in Conditions 6.1 and 6.2:

- a. List of all insignificant activities, including insignificant activities added as specified in Condition 6.6, the categories the insignificant activities fall under, and supporting calculations as needed for any insignificant activities listed in 35 IAC 201.210(a)(1) through (3).
- b. Potential to emit emission calculations before any air pollution control device for any insignificant activities listed in 35 IAC 201.210(a)(1) through (3).

6. Notification Requirements for Insignificant Activities

The source shall notify the IEPA accordingly to the addition of insignificant activities:

a. Notification 7 Days in Advance

- i. Pursuant to 35 IAC 201.212(b), for the addition of an insignificant activity that would be categorized under 35 IAC 201.210(a)(1) and 201.211 and is not currently identified in Conditions 6.1 or 6.2, a notification to the IEPA Permit Section 7 days in advance of the addition of the insignificant activity is required. Addresses are included in Attachment 2. The notification shall include the following pursuant to 35 IAC 201.211(b):
 - A. A description of the emission unit including the function and expected operating schedule of the unit.
 - B. A description of any air pollution control equipment or control measures associated with the emission unit.
 - C. The emissions of regulated air pollutants in lb/hr and ton/yr.
 - D. The means by which emissions were determined or estimated.
 - E. The estimated number of such emission units at the source.
 - F. Other information upon which the applicant relies to support treatment of such emission unit as an insignificant activity.
- ii. Pursuant to 35 IAC 201.212(b), for the addition of an insignificant activity that would be categorized under 35 IAC 201.210(a)(2) through 201.210(a)(18) and is not currently identified in Conditions 6.1 or 6.2, a notification to the IEPA Permit Section 7 days in advance of the addition of the insignificant activity is required. Addresses are included in Attachment 2.
- iii. Pursuant to Sections 39.5(12)(a)(i)(B) and 39.5(12)(b)(iii) of the Act, the permit shield described in Section 39.5(7)(j) of the Act (see Condition 2.7) shall not apply to any addition of an insignificant activity noted above.

b. Notification Required at Renewal

Pursuant to 35 IAC 201.212(a) and 35 IAC 201.146(kkk), for the addition of an insignificant activity that would be categorized under 35 IAC 201.210(a) and is currently identified in Conditions 6.1 or 6.2, a notification is not required until the renewal of this permit.

c. Notification Not Required

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Pursuant to 35 IAC 201.212(c) and 35 IAC 201.146(kkk), for the addition of an insignificant activity that would be categorized under 35 IAC 201.210(b) as describe in Condition 6.3, a notification is not required.

Section 7 - Other Requirements

1. Testing

- a. Pursuant to Section 39.5(7) (a) of the Act, a written test protocol shall be submitted at least sixty (60) days prior to the actual date of testing, unless it is required otherwise in applicable state or federal statutes. The IEPA may at the discretion of the Compliance Section Manager (or designee) accept protocol less than 60 days prior to testing provided it does not interfere with the IEPA's ability to review and comment on the protocol and does not deviate from the applicable state or federal statutes. The protocol shall be submitted to the IEPA, Compliance Section and IEPA, Stack Test Specialist for its review. Addresses are included in Attachment 2. This protocol shall describe the specific procedures for testing, including as a minimum:
- i. The name and identification of the emission unit(s) being tested.
 - ii. Purpose of the test, i.e., permit condition requirement, IEPA or USEPA requesting test.
 - iii. The person(s) who will be performing sampling and analysis and their experience with similar tests.
 - iv. 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 emission unit and any control equipment will be determined.
 - v. The specific determinations of emissions and operation which are intended to be made, including sampling and monitoring locations.
 - vi. The test method(s) that will be used, with the specific analysis method, if the method can be used with different analysis methods. Include if emission tests averaging of 35 IAC 283 will be used.
 - vii. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with detailed justification. This shall be included as a waiver of the test procedures. If a waiver has already been obtained by the IEPA or USEPA, then the waiver shall be submitted.
 - viii. Any proposed use of an alternative test method, with detailed justification. This shall be included as a waiver of the test procedures. If a waiver has already been obtained by the IEPA or USEPA, then the waiver shall be submitted.
 - ix. Sampling of materials, QA/QC procedures, inspections, etc.
- b. The IEPA, Compliance Section shall be notified prior to these tests to enable the IEPA to observe these tests pursuant to Section 39.5(7) (a) of the Act as follows:
- i. Notification of the expected date of testing shall be submitted in writing a minimum of thirty (30) days prior to the expected test date, unless it is required otherwise in applicable state or federal statutes.
 - ii. Notification of the actual date and expected time of testing shall be submitted in writing a minimum of five (5) working days prior to the actual date of the test. The IEPA may at its discretion of the Compliance Section Manager (or designee) accept notifications with shorter advance notice provided such notifications will not interfere with the IEPA's ability to observe testing.
- c. Copies of the Final Report(s) for these tests shall be submitted to the IEPA, Compliance Section within fourteen (14) days after the test results are compiled and finalized but no later than ninety (90) days after completion of the test, unless it is required

otherwise in applicable state or federal statutes or the IEPA may at the discretion of the Compliance Section Manager (or designee) agree upon an alternative date in advance pursuant to Section 39.5(7)(a) of the Act. The Final Report shall include as a minimum:

- i. General information including emission unit(s) tested.
 - ii. A summary of results.
 - iii. Discussion of conditions during each test run (malfunction/breakdown, startup/shutdown, abnormal processing, etc.).
 - iv. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.
 - v. Detailed description of test conditions, including:
 - A. Process information, i.e., mode(s) of operation, process rate, e.g. fuel or raw material consumption.
 - B. Control equipment information, i.e., equipment condition and operating parameters during testing.
 - C. A discussion of any preparatory actions taken, i.e., inspections, maintenance and repair.
 - vi. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
 - vii. An explanation of any discrepancies among individual tests or anomalous data.
 - viii. Results of the sampling of materials, QA/QC procedures, inspections, etc.
 - ix. Discussion of whether protocol was followed and description of any changes to the protocol if any occurred.
 - x. Demonstration of compliance showing whether test results are in compliance with applicable state or federal statutes.
- d. Copies of all test reports and other test related documentation shall be kept on site as required by Condition 2.5(b) pursuant to Section 39.5(7)(e)(ii) of the Act.

2. Emissions Reduction Market System (ERMS) Requirements

- a. Pursuant to 35 IAC Part 205, ERMS seasonal emissions of VOM during the seasonal allotment period from May 1 through September 30 shall not exceed 15 tons/year, not including VOM emissions from insignificant emission units and activities as identified in Section 6 of this permit. This 15 tons/season threshold includes VOM emissions from this source and Bio Energy (Illinois) LLC facility (ID No. 097200ABC), the two of which are considered to be one source, see Condition 1.3.
- b. Pursuant to 35 IAC 205, the Permittee shall maintain the following records to determine compliance with the above limitation:
 - i. Records of operating data and other information for each individual emission unit or group of related emission units at the source, as specified in Sections 3 and 4 of this permit, as appropriate, to determine actual VOM emissions during the seasonal allotment period.
 - ii. Records of the VOM emissions, in tons, during the seasonal allotment period, with supporting calculations, for each individual emission unit or group of related emission units at the source, determined in accordance with the procedures specified in Sections 3 and 4 of this permit.
 - iii. Total VOM emissions from the source, in tons, during each seasonal allotment period.
- c. Pursuant to 35 IAC 205.205(b) and 35 IAC 205.300, the Permittee shall submit the seasonal emissions component of the Annual Emissions Report by October 31 of each year, reporting actual emissions of VOM during the seasonal allotment period.
- d. Pursuant to 35 IAC Section 205.150(c), in the event that the source's VOM emissions during the seasonal allotment period exceed 15 tons, the source shall no longer be exempt from the ERMS and shall immediately comply with 35 IAC Part 205, including holding allotment trading units (ATUs) for its VOM emissions during the first seasonal allotment period it exceeded 15 tons and each seasonal allotment period thereafter.

3. 40 CFR 60 Subpart A Requirements (NSPS)

a. 40 CFR 60 Subpart A and Subpart WWW - Standards of Performance for Municipal Solid Waste (MSW) Landfills

Pursuant to 40 CFR 60 Subpart A and Subpart WWW, the Permittee shall comply with the following applicable General Provisions as indicated:

<i>General Provision Citation</i>	<i>Subject of Citation</i>	<i>Explanation (if required)</i>
40 CFR 60.1	General Applicability of the General Provisions	
40 CFR 60.2	Definitions	
40 CFR 60.3	Units and Abbreviations	
40 CFR 60.4	Address	
40 CFR 60.5	Determination of Construction or Modification	
40 CFR 60.6	Review of Plans	
40 CFR 60.7	Notification and Recordkeeping	
40 CFR 60.8	Performance Tests	
40 CFR 60.9	Availability of Information	
40 CFR 60.10	State Authority	
40 CFR 60.11	Compliance with Standards and Maintenance Requirements	
40 CFR 60.12	Circumvention	
40 CFR 60.13	Monitoring Requirements	
40 CFR 60.14	Modification	
40 CFR 60.15	Reconstruction	
40 CFR 60.16	Priority List	
40 CFR 60.17	Incorporations by Reference	
40 CFR 60.18	General Control Device Requirements and Work Practice Requirements	
40 CFR 60.19	General Notification and Reporting Requirements	

4. 40 CFR 63 Subpart A Requirements (NESHAP)

a. 40 CFR 63 Subpart A and Subpart AAAAA - National Emission Standards for Hazardous Air Pollutants for Municipal Solid Waste (MSW) Landfills

Pursuant to 40 CFR 63 Subpart A and Subpart AAAAA, the Permittee shall comply with the following applicable General Provisions as indicated:

General Provision Citation	Description	Explanation
63.1(a)	Applicability: general applicability of NESHAP in this part	Affected sources are already subject to the provisions of paragraphs (a)(10)-(12) through the same provisions under 40 CFR, part 60 Subpart A.
63.1(b)	Applicability determination for stationary sources	
63.1(e)	Title V permitting	
63.2	Definitions	
63.4	Prohibited activities and circumvention	Affected sources are already subject to the provisions of paragraph (b) through the same provisions under 40 CFR, Part 60 Subpart A.
63.5(b)	Requirements for existing, newly constructed, and reconstructed sources	
63.6(e)	Operation and maintenance requirements, startup, shutdown and malfunction plan provisions	
63.6(f)	Compliance with non-opacity emission standards	Affected sources are already subject to the provisions of paragraphs (f)(1) and (2)(i) through the same provisions under 40 CFR, Part 60 Subpart A.
63.10(b)(2)(i)-(b)(2)(v)	General recordkeeping requirements	
63.10(d)(5)	If actions taken during a startup, shutdown and malfunction plan are consistent with the procedures in the startup, shutdown and malfunction plan, this information shall be included in a semi-annual startup, shutdown and malfunction plan report. Any time an action taken during a startup, shutdown and malfunction plan is not consistent with the startup, shutdown and malfunction plan, the source shall report actions taken within 2 working days after commencing such actions, followed by a letter 7 days after the event	
63.12(a)	These provisions do not preclude the State from adopting and enforcing any standard, limitation, etc., requiring permits, or requiring emissions reductions in excess of those specified	
63.15	Availability of information and confidentiality	
63.1(a)	Applicability: general applicability of NESHAP in this part	Affected sources are already subject to the provisions of paragraphs (a)(10)-(12) through the same provisions under 40 CFR, Part 60 Subpart A.
63.1(b)	Applicability determination for stationary sources	
63.1(e)	Title V permitting	
63.2	Definitions	

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b. 40 CFR 63 Subpart A and Subpart CCCCCC-National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

Pursuant to 40 CFR 63 Subpart A and Subpart CCCC, the Permittee shall comply with the following applicable General Provisions as indicated:

Table 3 to Subpart CCCCCC of Part 63-Applicability of General Provisions

General Provision Citation	Description	Explanation	General Provision Citation
§63.1	Applicability	Initial applicability determination; applicability after standard established; permit requirements; extensions, notifications	Yes, specific requirements given in §63.1111.
§63.1(c)(2)	Title V Permit	Requirements for obtaining a title V permit from the applicable permitting authority	Yes, §63.1111(f) of Subpart CCCCCC exempts identified area sources from the obligation to obtain title V operating permits.
§63.2	Definitions	Definitions for part 63 standards	Yes, additional definitions in §63.11132.
§63.3	Units and Abbreviations	Units and abbreviations for part 63 standards	Yes.
§63.4	Prohibited Activities and Circumvention	Prohibited activities; Circumvention, severability	Yes.
§63.5	Construction/Reconstruction	Applicability; applications; approvals	Yes, except that these notifications are not required for facilities subject to §63.1116
§63.6(a)	Compliance with Standards/Operation & Maintenance-Applicability	General Provisions apply unless compliance extension; General Provisions apply to area sources that become major	Yes.
§63.6(b)(1)-(4)	Compliance Dates for New and Reconstructed Sources	Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for CAA section 112(f)	Yes.
§63.6(b)(5)	Notification	Must notify if commenced construction or reconstruction after proposal	Yes.
§63.6(b)(6)	[Reserved]		
§63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources That Become Major	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were an area source	No.
§63.6(c)(1)-(2)	Compliance Dates for Existing Sources	Comply according to date in this Subpart, which must be no later than 3 years after effective date; for CAA section 112(f) standards, comply within 90 days of effective date unless compliance extension	No, §63.1113 specifies the compliance dates.
§63.6(c)(3)-(4)	[Reserved]		

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Section 7 - Other Requirements
7.4 - 40 CFR 63 Subpart A Requirements (NESHAP)

General Provision Citation	Description	Explanation	General Provision Citation
§63.6(c) (5)	Compliance Dates for Existing Area Sources That Become Major	Area sources That become major must comply with major source standards by date indicated in this Subpart or by equivalent time period (e.g., 3 years)	No.
§63.6(d)	[Reserved]		
63.6(e) (1) (i)	General duty to minimize emissions	Operate to minimize emissions at all times; information Administrator will use to determine if operation and maintenance requirements were met.	No. See §63.11115 for general duty requirement.
63.6(e) (1) (ii)	Requirement to correct malfunctions ASAP	Owner or operator must correct malfunctions as soon as possible.	No.
§63.6(e) (2)	[Reserved]		
§63.6(e) (3)	Startup, Shutdown, and Malfunction (SSM) Plan	Requirement for SSM plan; content of SSM plan; actions during SSM	No.
§63.6(f) (1)	Compliance Except During SSM	You must comply with emission standards at all times except during SSM	No.
§63.6(f) (2)-(3)	Methods for Determining Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection	Yes.
§63.6(g) (1)-(3)	Alternative Standard	Procedures for getting an alternative standard	Yes.
§63.6(h) (1)	Compliance with Opacity/Visible Emission (VE) Standards	You must comply with opacity/VE standards at all times except during SSM	No.
§63.6(h) (2) (i)	Determining Compliance with Opacity/VE Standards	If standard does not State test method, use EPA Method 9 for opacity in Appendix A of part 60 of this chapter and EPA Method 22 for VE in Appendix A of part 60 of this chapter	No.
§63.6(h) (2) (ii)	[Reserved]		
§63.6(h) (2) (iii)	Using Previous Tests To Demonstrate Compliance With Opacity/VE Standards	Criteria for when previous opacity/VE testing can be used to show compliance with this Subpart	No.
§63.6(h) (3)	[Reserved]		
§63.6(h) (4)	Notification of Opacity/VE Observation Date	Must notify Administrator of anticipated date of observation	No.
§63.6(h) (5) (i), (iii)-(v)	Conducting Opacity/VE Observations	Dates and schedule for conducting opacity/VE observations	No.
§63.6(h) (5) (ii)	Opacity Test Duration and Averaging Times	Must have at least 3 hours of observation with 30 6-minute averages	No.
§63.6(h) (6)	Records of Conditions During Opacity/VE Observations	Must keep records available and allow Administrator to inspect	No.
§63.6(h) (7) (i)	Report Continuous Opacity Monitoring System (COMS) Monitoring Data From Performance Test	Must submit COMS data with other performance test data	No.
§63.6(h) (7) (ii)	Using COMS Instead of EPA Method 9	Can submit COMS data instead of EPA Method 9 results even if rule requires EPA Method 9 in Appendix A of part 60 of this chapter, but must notify Administrator before performance test	No.

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7.4 - 40 CFR 63 Subpart A Requirements (NESHAP)

General Provision Citation	Description	Explanation	General Provision Citation
§63.6(h) (7) (iii)	Averaging Time for COMS During Performance Test	To determine compliance, must reduce COMS data to 6-minute averages	No.
§63.6(h) (7) (iv)	COMS Requirements	Owner/operator must demonstrate that COMS performance evaluations are conducted according to §63.8(e); COMS are properly maintained and operated according to §63.8(c) and data quality as §63.8(d)	No.
§63.6(h) (7) (v)	Determining Compliance with Opacity/VE Standards	COMS is probable but not conclusive evidence of compliance with opacity standard, even if EPA Method 9 observation shows otherwise. Requirements for COMS to be probable evidence-proper maintenance, meeting Performance Specification 1 in Appendix B of part 60 of this chapter, and data have not been altered	No.
§63.6(h) (8)	Determining Compliance with Opacity/VE Standards	Administrator will use all COMS, EPA Method 9 (in appendix A of part 60 of this chapter), and EPA Method 22 (in Appendix A of part 60 of this chapter) results, as well as information about operation and maintenance to determine compliance	No.
§63.6(h) (9)	Adjusted Opacity Standard	Procedures for Administrator to adjust an opacity standard	No.
§63.6(i) (1)-(14)	Compliance Extension	Procedures and criteria for Administrator to grant compliance extension	Yes.
§63.6(j)	Presidential Compliance Exemption	President may exempt any source from requirement to comply with this Subpart	Yes.
§63.7(a) (2)	Performance Test Dates	Dates for conducting initial performance testing; must conduct 180 days after compliance date	Yes.
§63.7(a) (3)	CAA Section 114 Authority	Administrator may require a performance test under CAA Section 114 at any time	Yes.
§63.7(b) (1)	Notification of Performance Test	Must notify Administrator 60 days before the test	Yes.
§63.7(b) (2)	Notification of Re-scheduling	If have to reschedule performance test, must notify Administrator of rescheduled date as soon as practicable and without delay	Yes.
§63.7(c)	Quality Assurance (QA)/Test Plan	Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with; test plan approval procedures; performance audit requirements; internal and external QA procedures for testing	Yes.
§63.7(d)	Testing Facilities	Requirements for testing facilities	Yes.
§63.7(e) (1)	Conditions for Conducting Performance Tests	Performance test must be conducted under representative conditions	No, §63.11120(c) specifies conditions for conducting performance tests.
§63.7(e) (2)	Conditions for Conducting Performance Tests	Must conduct according to this Subpart and EPA test methods unless Administrator approves alternative	Yes.

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General Provision Citation	Description	Explanation	General Provision Citation
\$63.7(e) (3)	Test Run Duration	Must have three test runs of at least 1 hour each; compliance is based on arithmetic mean of three runs; conditions when data from an additional test run can be used	Yes.
\$63.7(f)	Alternative Test Method	Procedures by which Administrator can grant approval to use an intermediate or major change, or alternative to a test method	Yes.
\$63.7(g)	Performance Test Data Analysis	Must include raw data in performance test report; must submit performance test data 60 days after end of test with the Notification of Compliance Status; keep data for 5 years	Yes.
\$63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test	Yes.
\$63.8(a) (1)	Applicability of Monitoring Requirements	Subject to all monitoring requirements in standard	Yes.
\$63.8(a) (2)	Performance Specifications	Performance Specifications in Appendix B of 40 CFR part 60 apply	Yes.
\$63.8(a) (3)	[Reserved]		
\$63.8(a) (4)	Monitoring of Flares	Monitoring requirements for flares in §63.11 apply	Yes.
\$63.8(b) (1)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative	Yes.
\$63.8(b) (2)-(3)	Multiple Effluents and Multiple Monitoring Systems	Specific requirements for installing monitoring systems; must install on each affected source or after combined with another affected source before it is released to the atmosphere provided the monitoring is sufficient to demonstrate compliance with the standard; if more than one monitoring system on an emission point, must report all monitoring system results, unless one monitoring system is a backup	No.
\$63.8(c) (1)	Monitoring System Operation and Maintenance	Maintain monitoring system in a manner consistent with good air pollution control practices	No.
\$63.8(c) (1) (i)-(iii)	Operation and Maintenance of Continuous Monitoring Systems (CMS)	Must maintain and operate each CMS as specified in §63.6(e) (1); must keep parts for routine repairs readily available; must develop a written SSM plan for CMS, as specified in §63.6(e) (3)	No.
\$63.8(c) (2)-(8)	CMS Requirements	Must install to get representative emission or parameter measurements; must verify operational status before or at performance test	No.
\$63.8(d)	CMS Quality Control	Requirements for CMS quality control, including calibration, etc.; must keep quality control plan on record for 5 years; keep old versions for 5 years after revisions	No.
\$63.8(e)	CMS Performance Evaluation	Notification, performance evaluation test	No.

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General Provision Citation	Description	Explanation	General Provision Citation
		plan, reports	
§63.8(e)(1)-(5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring	No.
§63.8(f)(6)	Alternative to Relative Accuracy Test	Procedures for Administrator to approve alternative relative accuracy tests for continuous emissions monitoring system (CEMS)	No.
§63.8(g)	Data Reduction	COMS 6-minute averages calculated over at least 36 evenly spaced data points; CEMS 1 hour averages computed over at least 4 equally spaced data points; data that cannot be used in average	No.
§63.9(a)	Notification Requirements	Applicability and State delegation	Yes.
§63.9(b)(1)-(2), (4)-(5)	Initial Notifications	Submit notification within 120 days after effective date; notification of intent to construct/reconstruct, notification of commencement of construction/reconstruction, notification of startup; contents of each	Yes.
§63.9(c)	Request for Compliance Extension	Can request if cannot comply by date or if installed best available control technology or lowest achievable emission rate	Yes.
§63.9(d)	Notification of Special Compliance Requirements for New Sources	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date	Yes.
§63.9(e)	Notification of Performance Test	Notify Administrator 60 days prior	Yes.
§63.9(f)	Notification of VE/Opacity Test	Notify Administrator 30 days prior	No.
§63.9(g)	Additional Notifications when Using CMS	Notification of performance evaluation; notification about use of COMS data; notification that exceeded criterion for relative accuracy alternative	Yes, however, there are no opacity standards.
§63.9(h)(1)-(6)	Notification of Compliance Status	Contents due 60 days after end of performance test or other compliance demonstration, except for opacity/VE, which are due 30 days after; when to submit to Federal vs. State authority	Yes, however, there are no opacity standards.
§63.9(i)	Adjustment of Submittal Deadlines	Procedures for Administrator to approve change when notifications must be submitted	Yes.
§63.9(j)	Change in Previous Information	Must submit within 15 days after the change	Yes.
§63.10(a)	Recordkeeping/Reporting	Applies to all, unless compliance extension; when to submit to Federal vs. State authority; procedures for owners of more than one source	Yes.
§63.10(b)(1)	Recordkeeping/Reporting	General requirements; keep all records readily available; keep for 5 years	Yes.
§63.10(b)(2)(i)	Records related to SSM	Recordkeeping of occurrence and duration of startups and shutdowns	No.

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General Provision Citation	Description	Explanation	General Provision Citation
§63.10(b)(2)(ii)	Records related to SSM	Recordkeeping of malfunctions	No. See §63.11125(d) for recordkeeping of (1) occurrence and duration and (2) actions taken during malfunction.
§63.10(b)(2)(iii)	Maintenance records	Recordkeeping of maintenance on air pollution control and monitoring equipment	Yes.
§63.10(b)(2)(iv)	Records Related to SSM	Actions taken to minimize emissions during SSM	No.
§63.10(b)(2)(v)	Records Related to SSM	Actions taken to minimize emissions during SSM	No.
§63.10(b)(2)(vi)-(xi)	CMS Records	Malfunctions, inoperative, out-of-control periods	No.
§63.10(b)(2)(xii)	Records	Records when under waiver	Yes.
§63.10(b)(2)(xiii)	Records	Records when using alternative to relative accuracy test	Yes.
§63.10(b)(2)(xiv)	Records	All documentation supporting Initial Notification and Notification of Compliance Status	Yes.
§63.10(b)(3)	Records	Applicability determinations	Yes.
§63.10(c)	Records	Additional records for CMS	No.
§63.10(d)(1)	General Reporting Requirements	Requirement to report	Yes.
§63.10(d)(2)	Report of Performance Test Results	When to submit to Federal or State authority	Yes.
§63.10(d)(3)	Reporting Opacity or VE Observations	What to report and when	No.
§63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension	Yes.
§63.10(d)(5)	SSM Reports	Contents and submission	No. See §63.11126(b) for malfunction reporting requirements.
§63.10(e)(1)-(2)	Additional CMS Reports	Must report results for each CEMS on a unit; written copy of CMS performance evaluation; two-three copies of COMS performance evaluation	No.
§63.10(e)(3)(i)-(iii)	Reports	Schedule for reporting excess emissions	No.
§63.10(e)(3)(iv)-(v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedances (now defined as deviations); provision to request semiannual reporting after compliance for 1 year; submit report by 30th day following end of quarter or calendar half; if there has	No.

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General Provision Citation	Description	Explanation	General Provision Citation
		not been an exceedance or excess emissions (now defined as deviations), report contents in a statement that there have been no deviations; must submit report containing all of the information in §§63.8(c) (7)-(8) and 63.10(c) (5)-(13)	
§63.10(e) (3) (iv)-(v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedances (now defined as deviations); provision to request semiannual reporting after compliance for 1 year; submit report by 30th day following end of quarter or calendar half; if there has not been an exceedance or excess emissions (now defined as deviations), report contents in a statement that there have been no deviations; must submit report containing all of the information in §§63.8(c) (7)-(8) and 63.10(c) (5)-(13)	No, §63.11130(K) specifies excess emission events for this Subpart.
§63.10(e) (3) (vi)-(viii)	Excess Emissions Report and Summary Report	Requirements for reporting excess emissions for CMS; requires all of the information in §§63.10(c) (5)-(13) and 63.8(c) (7)-(8)	No.
§63.10(e) (4)	Reporting COMS Data	Must submit COMS data with performance test data	No.
§63.10(f)	Waiver for Recordkeeping/Reporting	Procedures for Administrator to waive	Yes.
§63.11(b)	Flares	Requirements for flares	No.
§63.12	Delegation	State authority to enforce standards	Yes.
§63.13	Addresses	Addresses where reports, notifications, and requests are sent	Yes.
§63.14	Incorporations by Reference	Test methods incorporated by reference	Yes.
§63.15	Availability of Information	Public and confidential information	Yes.

Section 8 - State Only Requirements

1. Permitted Emissions for Fees

The annual emissions from the ADS Zion landfill portion of the source for purposes of "Duties to Pay Fees" of Condition 2.3(e), not considering insignificant activities as addressed by Section 6, shall not exceed the following limitations. The overall fee emissions shall be determined by adding emissions from all ADS Zion landfill emission units. Compliance with these limits shall be determined on a calendar year basis. The Permittee shall maintain records with supporting calculations of how the annual emissions for fee purposes were calculated. This Condition is set for the purpose of establishing fees and is not federally enforceable. See Section 39.5(18) of the Act.

Pollutant		Tons/Year
Volatiles Organic Material	(VOM)	8.0
Sulfur Dioxide	(SO ₂)	58.0
Particulate Matter	(PM)	37.0
Nitrogen Oxides	(NO _x)	16.0
HAP, not included in VOM or PM	(HAP)	2.0
Total		121.0

Attachment 1 - Acronyms and Abbreviations

acfm	Actual cubic feet per minute
ACMA	Alternative Compliance Market Account
Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]
ADS Zion Landfill	Advanced Disposal Services Zion Landfill
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711
ATU	Allotment trading unit
BACT	Best Available Control Technology
BAT	Best Available Technology
Btu	British Thermal Units
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CAIR	Clean Air Interstate Rule
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CISWI	Commercial Industrial Solid Waste Incinerator
CO	Carbon monoxide
CO ₂	Carbon dioxide
COMS	Continuous Opacity Monitoring System
CPMS	Continuous Parameter Monitoring System
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
ERMS	Emissions Reduction Market System
°F	Degrees Fahrenheit
GHG	Green house gas
GACT	Generally Acceptable Control Technology
gr	Grains
HAP	Hazardous air pollutant
Hg	Mercury
HMIWI	Hospital medical infectious waste incinerator
hp	Horsepower
hr	Hour
H ₂ S	Hydrogen sulfide
I.D. No.	Identification number of source, assigned by IEPA
IAC	Illinois Administrative Code
ILCS	Illinois Compiled Statutes
IEPA	Illinois Environmental Protection Agency
kw	Kilowatts
LAER	Lowest Achievable Emission Rate

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lbs	Pound
m	Meter
MACT	Maximum Achievable Control Technology
M	Thousand
MM	Million
mos	Month
MSDS	Material Safety Data Sheet
MSSCAM	Major Stationary Sources Construction and Modification (Non-attainment New Source Review)
MW	Megawatts
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO _x	Nitrogen oxides
NSPS	New Source Performance Standards
NSR	New Source Review
PB	Lead
PEMS	Predictive Emissions Monitoring System
PM	Particulate matter
PM ₁₀	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
PM _{2.5}	Particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 microns as measured by applicable test or monitoring methods
ppm	Parts per million
ppmv	Parts per million by volume
ppmw	Parts per million by weight
PSD	Prevention of Significant Deterioration
PSEU	Pollutant-Specific Emission Unit
psia	Pounds per square inch absolute
PTE	Potential to emit
RACT	Reasonable Available Control Technology
RMP	Risk Management Plan
scf	Standard cubic feet
SCR	Selective catalytic reduction
SIP	State Implementation Plan
SO ₂	Sulfur dioxide
T1	Title I - identifies Title I conditions that have been carried over from an existing permit
T1N	Title I New - identifies Title I conditions that are being established in this permit
T1R	Title I Revised - identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit
TRS	Total Reduced Sulfur
USEPA	United States Environmental Protection Agency
VOM	Volatile organic material
w.c.	Water Column

Attachment 2 - Contact and Reporting Addresses

<p>IEPA Compliance Section</p>	<p>Illinois EPA, Bureau of Air Compliance & Enforcement Section (MC 40) 1021 North Grand Avenue East P.O. Box 19276 Springfield, Illinois 62794-9276</p> <p>Phone No.: 217/782-2113</p>
<p>IEPA Stack Test Specialist</p>	<p>Illinois EPA, Bureau of Air Compliance Section Source Monitoring - Third Floor 9511 Harrison Street Des Plaines, Illinois 60016</p> <p>Phone No.: 847/294-4000</p>
<p>IEPA Air Quality Planning Section</p>	<p>Illinois EPA, Bureau of Air Air Quality Planning Section (MC 39) 1021 North Grand Avenue East P.O. Box 19276 Springfield, Illinois 62794-9276</p> <p>Phone No.: 217/782-2113</p>
<p>IEPA Air Regional Field Operations Regional Office #1</p>	<p>Illinois EPA, Bureau of Air Regional Office #1 9511 Harrison Street Des Plaines, Illinois 60016</p> <p>Phone No.: 847/294-4000</p>
<p>IEPA Permit Section</p>	<p>Illinois EPA, Bureau of Air Permit Section (MC 11) 1021 North Grand Avenue East P.O. Box 19506 Springfield, Illinois 62794-9506</p> <p>Phone No.: 217/785-1705</p>
<p>USEPA Region 5 - Air Branch</p>	<p>USEPA (AR - 17J) Air and Radiation Division 77 West Jackson Boulevard Chicago, IL 60604</p> <p>Phone No.: 312/353-2000</p>

Attachment 3 - Example Certification by a Responsible Official

SIGNATURE BLOCK	
NOTE: THIS CERTIFICATION MUST BE SIGNED BY A RESPONSIBLE OFFICIAL. APPLICATIONS WITHOUT A SIGNED CERTIFICATION WILL BE DEEMED AS INCOMPLETE.	
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. ANY PERSON WHO KNOWINGLY MAKES A FALSE, FICTITIOUS, OR FRAUDULENT MATERIAL STATEMENT, ORALLY OR IN WRITING, TO THE ILLINOIS EPA COMMITS A CLASS 4 FELONY. A SECOND OR SUBSEQUENT OFFENSE AFTER CONVICTION IS A CLASS 3 FELONY. (415 ILCS 5/44(H))	
AUTHORIZED SIGNATURE:	
BY: _____	_____
AUTHORIZED SIGNATURE	TITLE OF SIGNATORY
_____	_____/_____/_____
TYPED OR PRINTED NAME OF SIGNATORY	DATE

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