



## PART 70 PERMIT TO OPERATE

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to operate the air contaminant source(s) described below, in accordance with the laws, rules, and conditions set forth herein.

**Operating Permit Number:** OP2013-062  
**Expiration Date:** OCT 01 2018  
**Installation ID:** 051-0075  
**Project Number:** 2010-01-044

**Installation Name and Address**

Ameresco Jefferson City  
8432 No More Victims Road  
Jefferson City, MO 65101  
Cole County

**Parent Company's Name and Address**

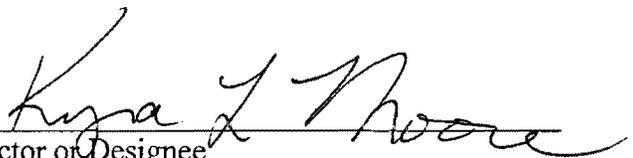
Ameresco Jefferson City LLC  
111 Speen Street, Suite 410  
Framingham, MA 01701

**Installation Description:**

Ameresco Jefferson City LLC owns and operates a renewable power generation facility, on land leased from the Missouri Department of Corrections at the Jefferson City Correctional Center (JCCC). Ameresco has installed three reciprocating internal combustion engines at the installation that can generate 3.2 MW of electricity, using landfill gas (LFG) fuel or natural gas. Each engine is equipped with a heat recovery steam generator and the steam and hot water is piped to the JCCC. The LFG is generated at the Jefferson City Landfill, LLC, and Ameresco has installed dewatering and filtration equipment and a regenerative gas conditioning system at the landfill to scrub impurities from the landfill gas. A flare controls the system purge gas. Ameresco also owns and operates the underground pipeline that transports the conditioned LFG fuel to the power installation.

OCT 02 2013

Effective Date

  
Director or Designee

Department of Natural Resources



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## I. Installation Description and Equipment Listing

### INSTALLATION DESCRIPTION

Ameresco Jefferson City LLC owns and operates a renewable power generation source, on land leased from the Missouri Department of Corrections at the Jefferson City Correctional Center (JCCC).

Ameresco has installed three reciprocating internal combustion engines at the prison that can generate 3.2 MW of electricity. The engines are fueled by landfill gas (LFG) fuel or natural gas. The engines are equipped with heat recovery steam generators (HRSGs), which provide steam and hot water to the prison. Each HRSG is equipped with a bypass duct that allows the operator to control the flow of exhaust to each unit. And the exhaust passes through a silencer before being released to the atmosphere.

Ameresco has installed filters and a dehydration unit as well as a gas conditioning system at the landfill to prepare the LFG for combustion. The conditioning system removes siloxanes, a class of organosilicon compounds that can lead to abrasive deposits on pistons and cylinder heads and damage the engines.

The permittee uses a regenerative thermal swing adsorption (TSA) unit as the gas conditioning system. The TSA unit consists of two twin adsorber units, a condensate collection tank, a control panel, and an open flare. The activated carbon in each adsorber unit is regenerated by taking the adsorber unit offline, heating it to drive off captured VOCs and flushing it with dewatered and filtered LFG. The flushed gas is then sent to the flare for destruction. The flare is rated at 300 cfm. The gas dehydration, filters, and conditioning system are considered to be a treatment system for the LFG that is purchased by Ameresco and the treatment process is regulated as a landfill control device under 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.

After passing through the TSA, the scrubbed LFG fuel gas is transferred via a 3.5 mile pipeline from the landfill to the JCCC. The permittee has leased 0.8 acres of existing property from the prison for the generator sets. The gas is used to fuel three General Electric model JMS 320 reciprocating internal combustion engines, each rated at 1,470 brake horsepower (bhp) of mechanical output at full load with a maximum hourly heat input of approximately 10 MMBtu/hr. Each engine is equipped with a HRSG that provides steam to the prison. The engines are dual fuel units, able to combust both landfill gas and pipeline grade natural gas. The three engines are subject to 40 CFR Part 63 Subpart ZZZZ.

A part 70 Operating Permit is required because the potential emissions of CO are above 100 tons/year.

Ameresco is considered to be a separate installation from either the JCL or the JCCC. Regarding the JCL, the permittee meets two of the criteria of the definition of "installation", but does not meet the requirement of being under common control. The two entities are under different ownership, do not have access to each other's emission units or control devices, and each entity can operate independently of the other. In regards to the JCCC, the determination is based on electricity being the primary product of the generators and the ability of JCCC to provide its own needs for steam and hot water. JCCC has boilers and emergency generators to generate their own power, steam, and hot water.

<b>Reported Air Pollutant Emissions, tons per year</b>			
Pollutants	2011	2010	2009*
Particulate Matter ≤ Ten Microns (PM <sub>10</sub> )	5.52	5.28	3.77
Particulate Matter ≤ 2.5 Microns (PM <sub>2.5</sub> )	0	0	0
Sulfur Oxides (SO <sub>x</sub> )	1.74	1.67	1.19
Nitrogen Oxides (NO <sub>x</sub> )	21.42	20.42	11.86
Volatile Organic Compounds(VOC)	4.68	4.48	3.33
Carbon Monoxide (CO)	94.42	90.13	52.98
Lead (Pb)	0	0	0
Hazardous Air Pollutants (HAPs)	0.08	0.05	0.6
Ammonia (NH <sub>3</sub> )	0	0	0

\*2009 was the first year that the installation submitted EIQ reports.

**EMISSION UNITS WITH LIMITATIONS**

The following list provides a description of the equipment at this installation that emits air pollutants and that are identified as having unit-specific emission limitations.

<u>Emission Unit #</u>	<u>Description of Emission Unit</u>
EU0010	Engine 1 (EP1)
EU0020	Engine 2 (EP2)
EU0030	Engine 3 (EP3)
EU0040	Gas Treatment and Thermal Swing Adsorption Unit (with Open Flare)

**EMISSION UNITS WITHOUT LIMITATIONS**

The following list provides a description of the equipment that does not have unit specific limitations at the time of permit issuance.

<u>Description of Emission Source</u>
None

**DOCUMENTS INCORPORATED BY REFERENCE**

These documents have been incorporated by reference into this permit.

Construction Permit 032008-010

## II. Plant Wide Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

### **PERMIT CONDITION PW001**

10 CSR 10-6.060, Construction Permits Required  
Construction Permit 032008-010, Issued February 13, 2007

#### **Emission Limitation:**

The permittee shall emit less than 40 tons of nitrogen oxides (NO<sub>x</sub>) from the entire installation in any consecutive 12-month period. [Special Condition 2A]

#### **Operational Limitation:**

Each of the electric generator sets shall be equipped with a non-resettable hour meter to record the hours of operation for that unit. [Special Condition 2B]

#### **Monitoring:**

The permittee shall monitor the NO<sub>x</sub> emissions.

#### **Recordkeeping:**

1. The permittee shall use Attachment B, or equivalent forms approved by the Air Pollution Control Program to demonstrate compliance with the NO<sub>x</sub> emission limitation. [Special Condition 2B]
2. The permittee shall maintain all records for not less than five years and shall make them available immediately to any Department of Natural Resources' personnel upon request. [Special Condition 2B]

#### **Reporting:**

1. The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri, 65102, no later than ten days after the end of the month during which the records indicate that the source exceeded the emission limitation. [Special Condition 2C]
2. The permittee shall report any deviations from the standards, test methods and procedures, monitoring, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

### III. Emission Unit Specific Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

<b>EU0010 through EU0030 – Internal Combustion Engines and Electric Generators</b>	
Emission Unit	Description
EU0010	Reciprocating Internal Combustion Engine; MHDR=1470 brake horsepower mechanical output, and 10 MMBtu/hr heat input, Mfr: General Electric, Model: JMS 320 with 1060 kW generator and heat recovery steam generator, units constructed 1/22/2009. Burns treated landfill gas as primary fuel and can also use natural gas.
EU0020	Reciprocating Internal Combustion Engine; MHDR=1470 brake horsepower mechanical output, and 10 MMBtu/hr heat input, Mfr: General Electric, Model: JMS 320 with 1060 kW generator and heat recovery steam generator, units constructed 1/22/2009. Burns treated landfill gas as primary fuel and can also use natural gas.
EU0030	Reciprocating Internal Combustion Engine; MHDR=1470 brake horsepower mechanical output, and 10 MMBtu/hr heat input, Mfr: General Electric, Model: JMS 320 with 1060 kW generator and heat recovery steam generator, units constructed 1/22/2009. Burns treated landfill gas as primary fuel and can also use natural gas.

<b>EU0040 – Open Flare for Thermal Swing Adsorption Unit</b>	
Emission Unit	Description
EU0040	Gas Treatment and Thermal Swing Adsorption Unit with Open Flare, fired by treated landfill gas; MHDR=300 scfm

**PERMIT CONDITION (EU0040)-001**  
 10 CSR 10-6.070 New Source Performance Regulations  
 40 CFR Part 60, Subpart A General Provisions and Subpart WWW Standards of Performance for  
 Municipal Solid Waste Landfills

**Operational Standards:**

1. The permittee shall comply with the provisions of §60.752(b)(2), §60.753(e) and §60.753(f).
2. The provisions of this subpart 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 one hour for treatment or control devices. [§60.755(e)]

**Test Methods and Procedures:**

The permittee shall comply with the provisions of §60.754.

**Monitoring:**

The permittee shall comply with the provisions of §60.756(c), §60.756(d), and §60.756(e).

**Recordkeeping:**

The permittee shall comply with the provisions of §60.758(b), §60.758(c), and §60.758(e).

**Reporting:**

1. The permittee shall comply with the provisions of §60.757(g).
2. The permittee shall report any deviations from the standards, test methods and procedures, monitoring, recordkeeping, and reporting requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

**PERMIT CONDITION (EU0040) - 002**

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations  
40 CFR Part 63, Subpart A General Provisions and Subpart AAAA National Emission Standards for  
Hazardous Air Pollutants: Municipal Solid Waste Landfills

**Standards:**

1. The permittee shall comply with 40 CFR Part 60 Subpart WWW. [§63.1955(a)(1)]
2. The permittee shall comply with the provisions of §63.1955(b) and §63.1955(c).

**General and Continuing Compliance Requirements:**

1. The permittee shall comply with the provisions of §63.1960.
2. The permittee shall comply with the provisions of §63.1965.
3. The permittee shall comply with the provisions of §63.1975.

**Notifications, Records, and Reports:**

1. The permittee shall comply with the provisions of §63.1980(b).
2. The permittee shall report any deviations from the standards, monitoring, and recordkeeping/reporting requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

**PERMIT CONDITION (EU0010 through EU0030)-003**

10 CSR 10-6.075, Maximum Achievable Control Technology Regulations and  
40 CFR Part 60, Subpart A General Provisions and 40 CFR Part 60 Subpart JJJJ- Standards of  
Performance for Stationary Spark Ignition Internal Combustion Engines

**Emission Standards:**

1. Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine. [§60.4234]
2. Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE. For owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 100 HP (except gasoline and rich burn engines that use LPG) manufactured prior to January 1, 2011 that were certified to the certification emission standards in 40 CFR Part 1048 applicable to engines that are not severe duty engines, if such stationary SI ICE was certified to a carbon monoxide (CO) standard above the standard in Table 1 to this subpart, then the owners and operators may meet the CO certification (not field testing) standard for which the engine was certified.[§60.4233(e)]

Applicable Emission Limits from Table 1:

Fuel Type	Max engine power	Mfr date	Emissions Standards <sup>a</sup>					
			g/HP-hr			ppmvd at 15% O <sub>2</sub>		
			NOX	CO	VOC <sup>b</sup>	NOX	CO	VOC <sup>b</sup>
Natural Gas	HP≥500	7/1/2007	2.0	4.0	1.0	160	540	86
Landfill Gas	HP≥500	7/1/2007	3.0	5.0	1.0	220	610	80

a Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O<sub>2</sub>.

b For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

**Compliance Requirements**

The permittee shall comply with the provisions of §60.4243(b).

**Testing Requirements**

The permittee shall comply with the provisions of §60.4244.

**Notification, Reports, and Records**

1. The permittee shall comply with the provisions of §60.4245(a), §60.4245(c), and §60.4245(d).
2. The permittee shall report any deviations from the standards, monitoring, and recordkeeping/reporting requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit.

## IV. Core Permit Requirements

The installation shall comply with each of the following regulations or codes. Consult the appropriate sections in the Code of Federal Regulations (CFR), the Code of State Regulations (CSR), and local ordinances for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued. The following is only an excerpt from the regulation or code, and is provided for summary purposes only.

### **10 CSR 10-6.045 Open Burning Requirements**

- 1) General Provisions. The open burning of tires, petroleum-based products, asbestos containing materials, and trade waste is prohibited, except as allowed below. Nothing in this rule may be construed as to allow open burning which causes or constitutes a public health hazard, nuisance, a hazard to vehicular or air traffic, nor which violates any other rule or statute.
- 2) Refer to the regulation for a complete list of allowances. The following is a listing of exceptions to the allowances:
  - a) Burning of household or domestic refuse. Burning of household or domestic refuse is limited to open burning on a residential premises having not more than four dwelling units, provided that the refuse originates on the same premises, with the following exceptions:
    - i) Kansas City metropolitan area. The open burning of household refuse must take place in an area zoned for agricultural purposes and outside that portion of the metropolitan area surrounded by the corporate limits of Kansas City and every contiguous municipality;
    - ii) Springfield-Greene County area. The open burning of household refuse must take place outside the corporate limits of Springfield and only within areas zoned A-1, Agricultural District;
    - iii) St. Joseph area. The open burning of household refuse must take place within an area zoned for agricultural purposes and outside that portion of the metropolitan area surrounded by the corporate limits of St. Joseph; and
    - iv) St. Louis metropolitan area. The open burning of household refuse is prohibited;
  - b) Yard waste, with the following exceptions:
    - i) Kansas City metropolitan area. The open burning of trees, tree leaves, brush or any other type of vegetation shall require an open burning permit;
    - ii) Springfield-Greene County area. The City of Springfield requires an open burning permit for the open burning of trees, brush or any other type of vegetation. The City of Springfield prohibits the open burning of tree leaves;
    - iii) St. Joseph area. Within the corporate limits of St. Joseph, the open burning of trees, tree leaves, brush or any other type of vegetation grown on a residential property is allowed during the following calendar periods and time-of-day restrictions:
      - (1) A three (3)-week period within the period commencing the first day of March through April 30 and continuing for twenty-one (21) consecutive calendar days;
      - (2) A three (3)-week period within the period commencing the first day of October through November 30 and continuing for twenty-one (21) consecutive calendar days;
      - (3) The burning shall take place only between the daytime hours of 10:00 a.m. and 3:30 p.m.; and
      - (4) In each instance, the twenty-one (21)-day burning period shall be determined by the director of Public Health and Welfare of the City of St. Joseph for the region in which the City of St. Joseph is located provided, however, the burning period first shall receive the approval of the department director; and

- iv) St. Louis metropolitan area. The open burning of trees, tree leaves, brush or any other type of vegetation is limited to the period beginning September 16 and ending April 14 of each calendar year and limited to a total base area not to exceed sixteen (16) square feet. Any open burning shall be conducted only between the hours of 10:00 a.m. and 4:00 p.m. and is limited to areas outside of incorporated municipalities;
- 3) Certain types of materials may be open burned provided an open burning permit is obtained from the director. The permit will specify the conditions and provisions of all open burning. The permit may be revoked if the owner or operator fails to comply with the conditions or any provisions of the permit.
- 4) Ameresco Jefferson City may be issued an annually renewable open burning permit for open burning provided that an air curtain destructor or incinerator is utilized and only tree trunks, tree limbs, vegetation or untreated wood waste are burned. Open burning shall occur at least two hundred (200) yards from the nearest occupied structure unless the owner or operator of the occupied structure provides a written waiver of this requirement. Any waiver shall accompany the open burning permit application. The permit may be revoked if Ameresco Jefferson City fails to comply with the provisions or any condition of the open burning permit.
- a) In a nonattainment area, as defined in 10 CSR 10-6.020, paragraph (2)(N)5., the director shall not issue a permit under this section unless the owner or operator can demonstrate to the satisfaction of the director that the emissions from the open burning of the specified material would be less than the emissions from any other waste management or disposal method.
- 5) Reporting and Recordkeeping. New Source Performance Standard (NSPS) 40 CFR Part 60 Subpart CCCC establishes certain requirements for air curtain destructors or incinerators that burn wood trade waste. These requirements are established in 40 CFR 60.2245-60.2260. The provisions of 40 CFR Part 60 Subpart CCCC promulgated as of September 22, 2005, shall apply and are hereby incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N Capitol Street NW, Washington, DC 20401. To comply with NSPS 40 CFR 60.2245-60.2260, sources must conduct an annual Method 9 test. A copy of the annual Method 9 test results shall be submitted to the director.
- 6) Test Methods. The visible emissions from air pollution sources shall be evaluated as specified by 40 CFR Part 60, Appendix A–Test Methods, Method 9–Visual Determination of the Opacity of Emissions from Stationary Sources. The provisions of 40 CFR Part 60, Appendix A, Method 9 promulgated as of December 23, 1971, is incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N Capitol Street NW, Washington, DC 20401.

#### **10 CSR 10-6.050 Start-up, Shutdown and Malfunction Conditions**

- 1) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the director within two business days, in writing, the following information:
- a) Name and location of installation;
- b) Name and telephone number of person responsible for the installation;
- c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
- d) Identity of the equipment causing the excess emissions;
- e) Time and duration of the period of excess emissions;
- f) Cause of the excess emissions;
- g) Air pollutants involved;
- h) Best estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;

- i) Measures taken to mitigate the extent and duration of the excess emissions; and
  - j) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
- 2) The permittee shall submit the paragraph 1 information list to the director in writing at least ten days prior to any maintenance, start-up or shutdown, which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event cannot be given ten days prior to the planned occurrence, it shall be given as soon as practicable prior to the release. If an unplanned excess release of emissions exceeding one hour occurs during maintenance, start-up or shutdown, the director shall be notified verbally as soon as practical during normal working hours and no later than the close of business of the following working day. A written notice shall follow within ten working days.
  - 3) Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under Section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the paragraph 1 list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under Section 643.080 or 643.151, RSMo.
  - 4) Nothing in this rule shall be construed to limit the authority of the director or commission to take appropriate action, under Sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.
  - 5) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

#### **10 CSR 10-6.060 Construction Permits Required**

The permittee shall not commence construction, modification, or major modification of any installation subject to this rule, begin operation after that construction, modification, or major modification, or begin operation of any installation which has been shut down longer than five years without first obtaining a permit from the permitting authority.

#### **10 CSR 10-6.065 Operating Permits**

The permittee shall file a complete application for renewal of this operating permit at least six months before the date of permit expiration. In no event shall this time be greater than eighteen months. [10 CSR 10-6.065(6)(B)1.A(V)] The permittee shall retain the most current operating permit issued to this installation on-site. [10 CSR 10-6.065(6)(C)1.C(II)] The permittee shall immediately make such permit available to any Missouri Department of Natural Resources personnel upon request. [10 CSR 10-6.065(6)(C)3.B]

#### **10 CSR 10-6.100 Alternate Emission Limits**

Proposals for alternate emission limitations shall be submitted on Alternate Emission Limits Permit forms provided by the department. An installation owner or operator must obtain an Alternate Emission Limits Permit in accordance with 10 CSR 10-6.100 before alternate emission limits may become effective.

**10 CSR 10-6.110 Submission of Emission Data, Emission Fees and Process Information**

- 1) The permittee shall submit full emissions report either electronically via MoEIS, which requires Form 1.0 signed by an authorized company representative, or on Emission Inventory Questionnaire (EIQ) paper forms on the frequency specified in this rule and in accordance with the requirements outlined in this rule. Alternate methods of reporting the emissions, such as spreadsheet file, can be submitted for approval by the director.
- 2) The permittee may be required by the director to file additional reports.
- 3) Public Availability of Emission Data and Process Information. Any information obtained pursuant to the rule(s) of the Missouri Air Conservation Commission that would not be entitled to confidential treatment under 10 CSR 10-6.210 shall be made available to any member of the public upon request.
- 4) The permittee shall pay an annual emission fee per ton of regulated air pollutant emitted according to the schedule in the rule. This fee is an emission fee assessed under authority of RSMo. 643.079.
- 5) The fees shall be payable to the Department of Natural Resources and shall be accompanied by the emissions report.
- 6) The permittee shall complete required reports on state supplied EIQ forms or electronically via MoEIS. Alternate methods of reporting the emissions can be submitted for approval by the director. The reports shall be submitted to the director by April 1 after the end of each reporting year. If the full emissions report is filed electronically via MoEIS, this due date is extended to May 1.
- 7) The reporting period shall end on December 31 of each calendar year. Each report shall contain the required information for each emission unit for the twelve (12)-month period immediately preceding the end of the reporting period.
- 8) The permittee shall collect, record and maintain the information necessary to complete the required forms during each year of operation of the installation.

**10 CSR 10-6.130 Controlling Emissions During Episodes of High Air Pollution Potential**

This rule specifies the conditions that establish an air pollution alert (yellow/orange/red/purple), or emergency (maroon) and the associated procedures and emission reduction objectives for dealing with each. The permittee shall submit an appropriate emergency plan if required by the Director.

**10 CSR 10-6.150 Circumvention**

The permittee shall not cause or permit the installation or use of any device or any other means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission or air contaminant which violates a rule of the Missouri Air Conservation Commission.

**10 CSR 10-6.170**

**Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin**

**Emission Limitation:**

- 1) The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive particulate matter emissions to go beyond the premises of origin in quantities that the particulate matter may be found on surfaces beyond the property line of origin. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the director.
- 2) The permittee shall not cause nor allow to occur any fugitive particulate matter emissions to remain visible in the ambient air beyond the property line of origin.

- 3) Should it be determined that noncompliance has occurred, the director may require reasonable control measures as may be necessary. These measures may include, but are not limited to, the following:
  - a) Revision of procedures involving construction, repair, cleaning and demolition of buildings and their appurtenances that produce particulate matter emissions;
  - b) Paving or frequent cleaning of roads, driveways and parking lots;
  - c) Application of dust-free surfaces;
  - d) Application of water; and
  - e) Planting and maintenance of vegetative ground cover.

**Monitoring:**

The permittee shall conduct inspections of its facilities sufficient to determine compliance with this regulation. If the permittee discovers a violation, the permittee shall undertake corrective action to eliminate the violation.

The permittee shall maintain the following monitoring schedule:

- 1) The permittee shall conduct weekly observations for a minimum of eight (8) consecutive weeks after permit issuance.
- 2) Should no violation of this regulation be observed during this period then-
  - a) The permittee may observe once every two (2) weeks for a period of eight (8) weeks.
  - b) If a violation is noted, monitoring reverts to weekly.
  - c) Should no violation of this regulation be observed during this period then-
    - i) The permittee may observe once per month.
    - ii) If a violation is noted, monitoring reverts to weekly.
- 3) If the permittee reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner to the initial monitoring frequency.

**Recordkeeping:**

The permittee shall document all readings on Attachment A, or its equivalent, noting the following:

- 1) Whether air emissions (except water vapor) remain visible in the ambient air beyond the property line of origin.
- 2) Whether the visible emissions were normal for the installation.
- 3) Whether equipment malfunctions contributed to an exceedance.
- 4) Any violations and any corrective actions undertaken to correct the violation.

<b>10 CSR 10-6.180 Measurement of Emissions of Air Contaminants</b>
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- 1) The director may require any person responsible for the source of emission of air contaminants to make or have made tests to determine the quantity or nature, or both, of emission of air contaminants from the source. The director may specify testing methods to be used in accordance with good professional practice. The director may observe the testing. All tests shall be performed by qualified personnel.
- 2) The director may conduct tests of emissions of air contaminants from any source. Upon request of the director, the person responsible for the source to be tested shall provide necessary ports in stacks or ducts and other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants.
- 3) The director shall be given a copy of the test results in writing and signed by the person responsible for the tests.

**10 CSR 10-6.165 Restriction of Emission of Odors**

**This requirement is not federally enforceable.**

No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one volume of odorous air is diluted with seven volumes of odor-free air for two separate trials not less than 15 minutes apart within the period of one hour. This odor evaluation shall be taken at a location outside of the installation's property boundary.

**Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone**

- 1) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
  - a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
  - b) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
  - c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
  - d) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
- 2) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
  - a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
  - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
  - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
  - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).
  - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
  - f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
- 3) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A, Production and Consumption Controls.
- 4) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.

- 5) The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR Part 82*

**10 CSR 10-6.280 Compliance Monitoring Usage**

- 1) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
- a) Monitoring methods outlined in 40 CFR Part 64;
  - b) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
  - c) Any other monitoring methods approved by the director.
- 2) Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred by a permittee:
- a) Monitoring methods outlined in 40 CFR Part 64;
  - b) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
  - c) Compliance test methods specified in the rule cited as the authority for the emission limitations.
- 3) The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
- a) Applicable monitoring or testing methods, cited in:
    - i) 10 CSR 10-6.030, "Sampling Methods for Air Pollution Sources";
    - ii) 10 CSR 10-6.040, "Reference Methods";
    - iii) 10 CSR 10-6.070, "New Source Performance Standards";
    - iv) 10 CSR 10-6.080, "Emission Standards for Hazardous Air Pollutants"; or
  - b) Other testing, monitoring, or information gathering methods, if approved by the director, that produce information comparable to that produced by any method listed above.

## V. General Permit Requirements

The installation shall comply with each of the following requirements. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued,

### **10 CSR 10-6.065(6)(C)1.B Permit Duration**

This permit is issued for a term of five years, commencing on the date of issuance. This permit will expire at the end of this period unless renewed.

### **10 CSR 10-6.065(6)(C)1.C General Recordkeeping and Reporting Requirements**

- 1) Recordkeeping
  - a) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
  - b) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any Missouri Department of Natural Resources' personnel upon request.
- 2) Reporting
  - a) All reports shall be submitted to the Air Pollution Control Program's Enforcement Section, P. O. Box 176, Jefferson City, MO 65102.
  - b) The permittee shall submit a report of all required monitoring by:
    - i) October 1st for monitoring which covers the January through June time period, and
    - ii) April 1st for monitoring which covers the July through December time period.
    - iii) Exception. Monitoring requirements which require reporting more frequently than semi-annually shall report no later than 30 days after the end of the calendar quarter in which the measurements were taken.
  - c) Each report shall identify any deviations from emission limitations, monitoring, recordkeeping, reporting, or any other requirements of the permit, this includes deviations or Part 64 exceedances.
  - d) Submit supplemental reports as required or as needed. Supplemental reports are required no later than ten days after any exceedance of any applicable rule, regulation or other restriction. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken.
    - i) Notice of any deviation resulting from an emergency (or upset) condition as defined in paragraph (6)(C)7.A of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if the permittee wishes to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and the permittee can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.

- ii) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.
- iii) Any other deviations identified in the permit as requiring more frequent reporting than the permittee's semi-annual report shall be reported on the schedule specified in this permit, and no later than ten days after any exceedance of any applicable rule, regulation, or other restriction.
- e) Every report submitted shall be certified by the responsible official, except that, if a report of a deviation must be submitted within ten days after the deviation, the report may be submitted without a certification if the report is resubmitted with an appropriate certification within ten days after that, together with any corrected or supplemental information required concerning the deviation.
- f) The permittee may request confidential treatment of information submitted in any report of deviation.

#### **10 CSR 10-6.065(6)(C)1.D Risk Management Plan Under Section 112(r)**

The permittee shall comply with the requirements of 40 CFR Part 68, Accidental Release Prevention Requirements. If the permittee has more than a threshold quantity of a regulated substance in process, as determined by 40 CFR Section 68.115, the permittee shall submit a Risk Management Plan in accordance with 40 CFR Part 68 no later than the latest of the following dates:

- 1) June 21, 1999;
- 2) Three years after the date on which a regulated substance is first listed under 40 CFR Section 68.130; or
- 3) The date on which a regulated substance is first present above a threshold quantity in a process.

#### **10 CSR 10-6.065(6)(C)1.F Severability Clause**

In the event of a successful challenge to any part of this permit, all uncontested permit conditions shall continue to be in force. All terms and conditions of this permit remain in effect pending any administrative or judicial challenge to any portion of the permit. If any provision of this permit is invalidated, the permittee shall comply with all other provisions of the permit.

#### **10 CSR 10-6.065(6)(C)1.G General Requirements**

- 1) The permittee must comply with all of the terms and conditions of this permit. Any noncompliance with a permit condition constitutes a violation and is grounds for enforcement action, permit termination, permit revocation and re-issuance, permit modification or denial of a permit renewal application.
- 2) The permittee may not use as a defense in an enforcement action that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit
- 3) The permit may be modified, revoked, reopened, reissued or terminated for cause. Except as provided for minor permit modifications, the filing of an application or request for a permit modification, revocation and reissuance, or termination, or the filing of a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- 4) This permit does not convey any property rights of any sort, nor grant any exclusive privilege.
- 5) The permittee shall furnish to the Air Pollution Control Program, upon receipt of a written request and within a reasonable time, any information that the Air Pollution Control Program reasonably may require to determine whether cause exists for modifying, reopening, reissuing or revoking the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to

the Air Pollution Control Program copies of records required to be kept by the permittee. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 10 CSR 10-6.065(6)(C)1.

**10 CSR 10-6.065(6)(C)1.H Incentive Programs Not Requiring Permit Revisions**

No permit revision will be required for any installation changes made under any approved economic incentive, marketable permit, emissions trading, or other similar programs or processes provided for in this permit.

**10 CSR 10-6.065(6)(C)1.I Reasonably Anticipated Operating Scenarios**

None.

**10 CSR 10-6.065(6)(C)3 Compliance Requirements**

- 1) Any document (including reports) required to be submitted under this permit shall contain a certification signed by the responsible official.
- 2) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized officials of the Missouri Department of Natural Resources, or their authorized agents, to perform the following (subject to the installation's right to seek confidential treatment of information submitted to, or obtained by, the Air Pollution Control Program):
  - a) Enter upon the premises where a permitted installation is located or an emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
  - b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  - c) Inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
  - d) As authorized by the Missouri Air Conservation Law, Chapter 643, RSMo or the Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the terms of this permit, and all applicable requirements as outlined in this permit.
- 3) All progress reports required under an applicable schedule of compliance shall be submitted semi-annually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following:
  - a) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and
  - b) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
- 4) The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards, or work practices. These certifications shall be submitted annually by April 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to EPA Region VII, 11201 Renner Boulevard, Lenexa, Kansas 66219, as well as the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and Part 64 exceedances and excursions must be included in the compliance certifications. The compliance certification shall include the following:
  - a) The identification of each term or condition of the permit that is the basis of the certification;
  - b) The current compliance status, as shown by monitoring data and other information reasonably available to the installation;

- c) Whether compliance was continuous or intermittent;
- d) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period; and
- e) Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

#### **10 CSR 10-6.065(6)(C)6 Permit Shield**

- 1) Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date that this permit is issued, provided that:
  - a) The applicable requirements are included and specifically identified in this permit, or
  - b) The permitting authority, in acting on the permit revision or permit application, determines in writing that other requirements, as specifically identified in the permit, are not applicable to the installation, and this permit expressly includes that determination or a concise summary of it.
- 2) Be aware that there are exceptions to this permit protection. The permit shield does not affect the following:
  - a) The provisions of Section 303 of the Act or Section 643.090, RSMo concerning emergency orders,
  - b) Liability for any violation of an applicable requirement which occurred prior to, or was existing at, the time of permit issuance,
  - c) The applicable requirements of the acid rain program,
  - d) The authority of the Environmental Protection Agency and the Air Pollution Control Program of the Missouri Department of Natural Resources to obtain information, or
  - e) Any other permit or extra-permit provisions, terms or conditions expressly excluded from the permit shield provisions.

#### **10 CSR 10-6.065(6)(C)7 Emergency Provisions**

- 1) An emergency or upset as defined in 10 CSR 10-6.065(6)(C)7.A shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emissions limitations. To establish an emergency- or upset-based defense, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, the following:
  - a) That an emergency or upset occurred and that the permittee can identify the source of the emergency or upset,
  - b) That the installation was being operated properly,
  - c) That the permittee took all reasonable steps to minimize emissions that exceeded technology-based emissions limitations or requirements in this permit, and
  - d) That the permittee submitted notice of the emergency to the Air Pollution Control Program within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.
- 2) Be aware that an emergency or upset shall not include noncompliance caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

#### **10 CSR 10-6.065(6)(C)8 Operational Flexibility**

An installation that has been issued a Part 70 operating permit is not required to apply for or obtain a permit revision in order to make any of the changes to the permitted installation described below if the changes are not Title I modifications, the changes do not cause emissions to exceed emissions allowable

under the permit, and the changes do not result in the emission of any air contaminant not previously emitted. The permittee shall notify the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Boulevard, Lenexa, KS 66219, at least seven days in advance of these changes, except as allowed for emergency or upset conditions. Emissions allowable under the permit means a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that establishes an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

- 1) Section 502(b)(10) changes. Changes that, under Section 502(b)(10) of the Act, contravene an express permit term may be made without a permit revision, except for changes that would violate applicable requirements of the Act or contravene federally enforceable monitoring (including test methods), recordkeeping, reporting or compliance requirements of the permit.
  - a) Before making a change under this provision, The permittee shall provide advance written notice to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Boulevard, Lenexa, KS 66219, describing the changes to be made, the date on which the change will occur, and any changes in emission and any permit terms and conditions that are affected. The permittee shall maintain a copy of the notice with the permit, and the Air Pollution Control Program shall place a copy with the permit in the public file. Written notice shall be provided to the EPA and the Air Pollution Control Program as above at least seven days before the change is to be made. If less than seven days' notice is provided because of a need to respond more quickly to these unanticipated conditions, the permittee shall provide notice to the EPA and the Air Pollution Control Program as soon as possible after learning of the need to make the change.
  - b) The permit shield shall not apply to these changes.

#### **10 CSR 10-6.065(6)(C)9 Off-Permit Changes**

- 1) Except as noted below, the permittee may make any change in its permitted operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. Insignificant activities listed in the application, but not otherwise addressed in or prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the off-permit provisions of this section. Off-permit changes shall be subject to the following requirements and restrictions:
  - a) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; the permittee may not change a permitted installation without a permit revision if this change is subject to any requirements under Title IV of the Act or is a Title I modification;
  - b) The permittee must provide written notice of the change to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Boulevard, Lenexa, KS 66219, no later than the next annual emissions report. This notice shall not be required for changes that are insignificant activities under 10 CSR 10-6.065(6)(B)3. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change.
  - c) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes; and
  - d) The permit shield shall not apply to these changes.

### **10 CSR 10-6.020(2)(R)12 Responsible Official**

The application utilized in the preparation of this permit was signed by Joseph DeManche, Executive Vice President. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Director of the Air Pollution Control Program of the change. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

### **10 CSR 10-6.065(6)(E)6 Reopening-Permit for Cause**

This permit may be reopened for cause if:

- 1) The Missouri Department of Natural Resources (MDNR) receives notice from the Environmental Protection Agency (EPA) that a petition for disapproval of a permit pursuant to 40 CFR § 70.8(d) has been granted, provided that the reopening may be stayed pending judicial review of that determination,
- 2) The Missouri Department of Natural Resources or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,
- 3) Additional applicable requirements under the Act become applicable to the installation; however, reopening on this ground is not required if—:
  - a) The permit has a remaining term of less than three years;
  - b) The effective date of the requirement is later than the date on which the permit is due to expire;or
  - c) The additional applicable requirements are implemented in a general permit that is applicable to the installation and the installation receives authorization for coverage under that general permit,
- 4) The installation is an affected source under the acid rain program and additional requirements (including excess emissions requirements), become applicable to that source, provided that, upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit; or
- 5) The Missouri Department of Natural Resources or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

### **10 CSR 10-6.065(6)(E)1.C Statement of Basis**

This permit is accompanied by a statement setting forth the legal and factual basis for the permit conditions (including references to applicable statutory or regulatory provisions). This Statement of Basis, while referenced by the permit, is not an actual part of the permit.

## **VI. Attachments**

Attachments follow.



**Attachment B**  
 Monthly NO<sub>x</sub> Tracking Record

This sheet covers the month of \_\_\_\_\_ in the year \_\_\_\_\_.

Copy this sheet as needed.

Column 1	Column 2 (a)	Column 3	Column 4	Column 5	Column 6
Generator	Hours operated from meter beginning of month (hours/month)	Hours operated from meter at end of month (hours/month)	Hours end of month minus hours beginning of month	Emission Factor (tons/month)	NO <sub>x</sub> Emitted (Tons)
Generator 1				*	
Generator 2				*	
Generator 3				*	
(b)Monthly Total of NO <sub>x</sub> emissions from Generator 1, 2, and 3 in Tons:					
(c)12-Month NO <sub>x</sub> Emissions Total from Previous Month's Attachment E, in Tons:					
(d)Monthly NO <sub>x</sub> emissions total (b) from previous year's Attachment E, in Tons					
(e)Current 12-month Total of NO <sub>x</sub> Emissions in Tons: [(b) + (c) - (d)]					

**NOTE: The emission factor developed from the NO<sub>x</sub> performance test will be used to determine compliance with the 40 ton per year limitation.**

**Instructions:**

- (a) [Column 3] - [Column 2] = [Column 4] then take [Column 4] x [Column 5] = [Column 6];
- (b) Summation of [Column 6] in Tons;
- (c) 12-Month NO<sub>x</sub> emissions total (e) from last month's Attachment E, in Tons;
- (d) Monthly NO<sub>x</sub> emissions total (b) from previous year's Attachment E, in Tons; and
- (e) Calculate the new 12-month NO<sub>x</sub> emissions total. A 12-Month NO<sub>x</sub> emissions total (e) of less than 40.0 tons for the installation indicates compliance.

## STATEMENT OF BASIS

### Permit Reference Documents

These documents were relied upon in the preparation of the operating permit. Because they are not incorporated by reference, they are not an official part of the operating permit.

- 1) Part 70 Operating Permit Application, received 1/19/2010;
- 2) 2011 Emissions Inventory Questionnaire, received 4/26/2012; and
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition.
- 4) Construction Permit #022007-008

### Applicable Requirements Included in the Operating Permit but Not in the Application or Previous Operating Permits

In the operating permit application, the installation indicated they were not subject to the following regulation(s). However, in the review of the application, the agency has determined that the installation is subject to the following regulation(s) for the reasons stated.

None

### Other Air Regulations Determined Not to Apply to the Operating Permit

The Air Pollution Control Program (APCP) has determined the following requirements to not be applicable to this installation at this time for the reasons stated.

10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants* does not apply to EU0040 Open Flare. The flare is exempt from this regulation per 10 CSR 10-6.220(1)(H) as it is regulated by 10 CSR 10-6.070. Per the control device requirements on the landfill within NSPS WWW the flare is required to comply with §60.18. §60.18 requires no visible emissions with an exception of five minutes during any two hour period. The rule does not apply to the internal combustion engines per 6.220(1)(A).

10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds* was not applied to this installation. AP-42 Section 2.4.4.2 lists a default sulfur compound concentration of 46.9 ppmv for landfill gas which is below the emission limitation of 500 ppmv within the regulation. When the units burn natural gas, the sulfur emissions are expected to be below the applicable limits.

10 CSR 10-6.100, *Alternate Emission Limits*

This rule is not applicable because the installation is in an ozone attainment area.

10 CSR 10-6.405, *Restriction of Emission of Particulate Matter Emissions From Fuel Burning Equipment Used for Indirect Heating* does not apply to the installation because it meets the exemption in 6.405(1)(E) by burning only natural gas or landfill gas.

**Construction Permit History**

The following construction permits have been issued to this installation:

1) Construction Permit 022007-008

This permit was issued February 13, 2007, to authorize the installation of a gas conditioning system, three reciprocating internal combustion engines each equipped with generators and heat recovery systems. This permit was superseded by Construction Permit 032008-010.

2) Construction Permit 032008-010

This permit was issued March 21, 2008, to authorize the installation of a gas conditioning system, which includes a flare, three reciprocating internal combustion engines, each equipped with a 1060 KW generator and heat recovery steam generators. The engines can burn either landfill gas or natural gas. The special conditions of this permit appear as plant wide conditions in this Operating Permit. The stack testing requirements of this permit are not included in the Operating Permit because they were satisfied by stack testing that was conducted on 4/16/2009. Engine #3 burned landfill gas for the testing at three load settings, 50%, 70%, and 100% of design output and carbon monoxide (CO) and nitrogen oxides (NOx) emissions were evaluated. The results are detailed in the following tables:

% load	NOx lb/hr	NOx ton/yr	NOx lb/MMSCF methane	NOx g/hp-hr	Assumed NOx value in permit application g/hp-hr
100	1.92	8.41	180	0.593	1.0
70	1.39	6.09	169	0.569	
50	1.15	5.04	192	0.694	

% load	CO lb/hr	CO ton/yr	CO lb/MMSCF methane	CO g/hp-hr	Assumed CO value in permit application g/hp-hr
100	8.35	36.57	783	2.57	3.0
70	6.06	26.54	735	2.48	
50	4.60	20.15	769	2.78	

**New Source Performance Standards (NSPS) Applicability**

40 CFR Part 60 Subpart WWW-Standards of Performance for Municipal Solid Waste Landfills

The installation is subject to this regulation because it uses the landfill gas from a landfill which is subject to this regulation. The landfill has exceeded the 50 Mg/yr threshold and has installed an open flare to control emissions.

The Ameresco process units use the gas instead of sending it to the flare which is part of the landfill. Ameresco operates its' own flare and thermal swing adsorption units. Ameresco's flare is used to destroy the landfill gas that is used when flushing the thermal swing adsorption units to regenerate the activated carbon. After passing through the adsorption units, the treated landfill gas is burned in

the reciprocating internal combustion engines. For the purposes of this rule, the flare is considered a control device and the thermal swing adsorption tower is a treatment device, see 60.752(b)(2)(iii)(C).

#### 40 CFR Part 60 Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

The engines were manufactured in May 2007, and constructed on January 22, 2009. They are located at an area source of HAP, and are rated at 1470 brake horsepower.

According to §60.4230(a)(6) states the provisions of § 60.4236 of this subpart apply to all owners and operators of stationary SI ICE that commence construction after June 12, 2006. §60.4236 states that after July 1, 2009 owners cannot install SI ICE that are larger than 500 HP that do not meet the emission standards in §60.4233.

§60.4233(e) states that all SI ICE with greater than or equal to 100 HP must comply with the emission standards in Table 1. Therefore, these standards appear in the Operating Permit.

The provisions for both natural gas and landfill gas have been included in this Operating Permit due to the assertion that Ameresco can operate independently of the Jefferson City Landfill. This assertion was a factor in determining that these two installations do not meet the definition of installation together and should therefore be considered separate entities, during the construction permitting process. Ameresco's engines are dual fuel engines, capable of burning both landfill gas and natural gas, and must demonstrate compliance with the emissions limitations for both fuels.

#### **Maximum Achievable Control Technology (MACT) Applicability**

##### 40 CFR Part 63 Subpart AAAA, National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills

Compliance with this regulation is demonstrated by maintaining compliance with 40 CFR Part 60 Subpart WWW and an SSM plan.

##### 40 CFR Part 63 Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

According to § 63.6590 (c)(1), a new or reconstructed stationary RICE located at an area source must meet the requirements of this part by meeting the requirements 40 CFR Part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

#### **National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

In the permit application and according to Air Pollution Control Program records, there was no indication that any Missouri Air Conservation Law, Asbestos Abatement, 643.225 through 643.250; 10 CSR 10-6.080, Emission Standards for Hazardous Air Pollutants, Subpart M, National Standards for Asbestos; and 10 CSR 10-6.250, Asbestos Abatement Projects - Certification, Accreditation, and Business Exemption Requirements apply to this installation. The installation is subject to these regulations if they undertake any projects that deal with or involve any asbestos containing materials. None of the installation's operating projects underway at the time of this review deal with or involve asbestos containing material. Therefore, the above regulations were not cited in the operating permit. If the installation should undertake any construction or demolition projects in the future that deal with or

involve any asbestos containing materials, the installation must follow all of the applicable requirements of the above rules related to that specific project.

### **Compliance Assurance Monitoring (CAM) Applicability**

40 CFR Part 64, *Compliance Assurance Monitoring (CAM)*

These units are exempt from CAM because they are subject to MACT and NSPS standards that were proposed after November 15, 1990, see 40 CFR Part 64(b)(1)(i).

### **Greenhouse Gas Emissions**

The preamble of the GHG Reporting Rule clarifies that Part 98 requirements do not have to be incorporated in Part 70 permits operating permits at this time. In addition, Missouri regulations do not require the installation to report CO<sub>2</sub> emissions in their Missouri Emissions Inventory Questionnaire; therefore, the installation's CO<sub>2</sub> emissions were not included within this permit. An estimate of CO<sub>2</sub> emissions are included in the statement of basis. The applicant may be required to report the data directly to EPA. The public may obtain CO<sub>2</sub> emissions data for this installation by visiting EPA's Clean Air Markets website at: <http://camdataandmaps.epa.gov/gdm/index.cfm>.

### **Updated Potential to Emit for the Installation**

<b>Pollutant</b>	<b>Potential to Emit (tons/yr)<sup>1</sup></b>
CO	140.58
CO <sub>2</sub> e	1683.55
HAP	0.42
NO <sub>x</sub>	40
PM <sub>10</sub>	6.39
PM <sub>25</sub>	6.39
SO <sub>x</sub>	2.70
VOC	0.80

<sup>1</sup>Each emission unit was evaluated at 8,760 hours of uncontrolled annual operation unless otherwise noted. NO<sub>x</sub> emissions are limited by Construction Permit 032008-010 to less than 40 tons/year, so all potential emissions were scaled to this limitation.

### **Other Regulatory Determinations**

None

### **Other Regulations Not Cited in the Operating Permit or the Above Statement of Basis**

Any regulation which is not specifically listed in either the Operating Permit or in the above Statement of Basis does not appear, based on this review, to be an applicable requirement for this installation for one or more of the following reasons:

- 1) The specific pollutant regulated by that rule is not emitted by the installation;
- 2) The installation is not in the source category regulated by that rule;
- 3) The installation is not in the county or specific area that is regulated under the authority of that rule;
- 4) The installation does not contain the type of emission unit which is regulated by that rule;
- 5) The rule is only for administrative purposes.

Should a later determination conclude that the installation is subject to one or more of the regulations cited in this Statement of Basis or other regulations which were not cited, the installation shall determine and demonstrate, to the Air Pollution Control Program's satisfaction, the installation's compliance with that regulation(s). If the installation is not in compliance with a regulation which was not previously cited, the installation shall submit to the Air Pollution Control Program a schedule for achieving compliance for that regulation(s).

Prepared by:

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Nicole Weidenbenner, P.E.  
Environmental Engineer

Mr. Joseph DeManche  
Ameresco Jefferson City  
8432 No More Victims Road  
Jefferson City, MO 65101

Re: Ameresco Jefferson City, 051-0075  
Permit Number: **OP2013-062**

Dear Mr. DeManche:

Enclosed with this letter is your Part 70 operating permit. Please review this document carefully. Operation of your installation in accordance with the rules and regulations cited in this document is necessary for continued compliance. It is very important that you read and understand the requirements contained in your permit.

You may appeal this permit to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.078.16 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you have any questions or need additional information regarding this permit, please do not hesitate to contact Nicole Weidenbenner at the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by telephone at (573) 751-4817. Thank you for your time and attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Michael J. Stansfield, P.E.  
Operating Permit Unit Chief

MJS:nwk

Enclosures

c: Northeast Regional Office  
PAMS File: 2010-01-044