



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: OP2008-051

Expiration Date: NOV - 4 2013

Installation ID: 019-0091

Project Number: 2003-05-056

Installation Name and Address

City of Columbia Sanitary Landfill
5700 Peabody Road
Columbia, MO 65202
Boone County

Parent Company's Name and Address

City of Columbia Sanitary Landfill
5700 Peabody Road
Columbia, MO 65202

Installation Description:

This is a 107 acre municipal solid waste landfill that consists of both active and inactive portions. A flare is present to control landfill gas emissions, however the facility has been permitted to install and operate four reciprocating internal combustion engines, each rated at 1,468 brake horsepower and each equipped with a 1,059 kilowatt generator and a new flare. At this time the flare and engines may not be operated concurrently.

NOV - 5 2008

Effective Date


Director or Designee
Department of Natural Resources

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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

The City of Columbia Sanitary Landfill is a 107 acre municipal solid waste landfill that consists of both active and inactive portions located in the northern section of a 560 acre site. The landfill consists of a fifty-one acre pre-Subtitle D area and a fifty-six acre Subtitle D area. The landfill was issued a Solid Waste permit, number 101908, in August 1985, by the Missouri Department of Natural Resources Solid Waste Program. A vertical expansion approved in 2001 increased the landfill design capacity to a total of 12,147,700 cubic yards. The landfill has constructed four of the six cells of the Subtitle D area of the landfill.

A flare is present to control landfill gas emissions, however the facility has been permitted to install and operate four reciprocating internal combustion engines, each rated at 1,468 brake horsepower and each equipped with a 1,059 kilowatt generator. The engines have a maximum heat input capacity of approximately ten million British thermal units per hour each. Exhaust from the engines will pass through a silencer prior to releasing to the atmosphere. At this time, the flare and engines may not be operated concurrently.

Reported Air Pollutant Emissions, tons per year								
Year	Particulate Matter ≤ Ten Microns (PM-10)	Particulate Matter ≤ 2.5 Microns (PM-2.5)	Sulfur Oxides (SO _x)	Nitrogen Oxides (NO _x)	Volatile Organic Compound s(VOC)	Carbon Monoxide (CO)	Lead (Pb)	Hazardous Air Pollutants (HAPs)
2007	2.27	1.47	1.21	3.46	2.26	64.88	---	0.88
2006	2.00	1.42	1.17	3.35	2.19	62.85	---	0.85
2005	1.39	1.39	1.15	3.27	2.14	61.35	---	0.82
2004	1.32	1.32	1.09	3.11	2.03	58.28	---	0.79
2003	0.87	0.82	0.002	2.06	2.85	38.57	---	0.21

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.

Emission Unit #	Description of Emission Unit	Emission Point
EU0010	Landfill	EP-2
EU0020	Flare	unknown
EU0030	Four (4) Generators	EP-08, EP-09, EP-10, EP-11

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.

Description of Emission Source

Fugitive Emissions from Paved Haul Road
10,000 gallon diesel fuel storage tank
300 gallon gasoline storage tank
300 gallon kerosene storage tank
Parts Washer
500 gallon portable Diesel fuel storage tank
350,000 Btu/hr waste oil burner

DOCUMENTS INCORPORATED BY REFERENCE

These documents have been incorporated by reference into this permit.

1. Construction Permit 082007-007, Issued August 6, 2007
2. Amendment to Construction Permit 082007-007, Issued June 9, 2008

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 PW-001

10 CSR 10-6.060 Construction Permits Required
Construction Permit 082007-007, Issued August 6, 2007
Amendment to Construction Permit 082007-007, Issued June 9, 2008

Operational Limitation:

The City of Columbia Sanitary Landfill shall not install or operate a bioreactor at this site without obtaining approval from the Air Pollution Control Program. [Special Condition 2A]

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.

EU0010 – Landfill			
Emission Unit	Description	Manufacturer/Model #	2003 EIQ Reference #
EU0010	107 Acre Municipal Solid Waste Landfill	n/a	EP-02

PERMIT CONDITION EU0010-001
 10 CSR 10-6.070 New Source Performance Regulations
 40 CFR Part 60 Subpart WWW Standards of Performance for Municipal Solid Waste Landfills

Emission Limitation:

The permittee, as the designated owner or operator of a MSW landfill having a design capacity equal to or greater than 2.5 million Mg or 2.5 million cubic meters, shall either comply with §60.752(b)(2) (i.e. installation of a collection and control systems) of Subpart WWW or calculate a NMOC emission rate for the landfill using the procedures specified in §60.754 of Subpart WWW. [40 CFR 60.752(b)]

Compliance Requirements:

- 1) If the calculated NMOC emission rate is less than fifty Mg per year, the owner or operator shall: [40 CFR 60.752(b)(1)]
 - a) Submit an annual emission report to the administrator, except as provided for in §60.757(b)(1)(ii); and [40 CFR 60.752(b)(1)(i)]
 - b) Recalculate the NMOC emission rate annually using the procedures specified in §60.754(a)(1) (“Test Methods” section below) until such time as the calculated NMOC emission rate is equal to or greater than fifty Mg per year, or the landfill is closed. [40 CFR 60.752(b)(1)(ii)]
 - i) If the NMOC emission rate, upon recalculation required in §60.752(b)(1)(ii), is equal to or greater than fifty Mg per year, the owner or operator shall install a collection and control system in compliance with §60.752(b)(2). [40 CFR 60.752(b)(1)(ii)(A)]
 - ii) If the landfill is permanently closed, a closure notification shall be submitted to the administrator as provided for in §60.757(d). [40 CFR 60.752(b)(1)(ii)(B)]
 - c) If the estimated NMOC emission rate as reported in the annual report to the administrator is less than fifty Mg per year in each of the next five consecutive years, the owner or operator may elect to submit an estimate of the NMOC emission rate for the next five-year period in lieu of the annual report. This estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the five years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based shall be provided to the administrator. This estimate shall be revised at least once every five years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the five-year estimate, a revised five-year estimate shall be submitted to the administrator. The revised estimate shall cover the five-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate. [40 CFR 60.757(b)(1)(ii)]

- 2) If the annual calculated NMOC emission rate is equal to or greater than fifty Mg per year, the owner of operator shall:
- a) Comply with the requirements in §§60.753 through 60.759, except as provided by §60.752(b)(2)(i)(B) (i.e. approved alternatives) [40 CFR 60.756] and
 - b) Comply with the requirements of §§63.1955(b) and 63.1960 through 63.1980 by the date your landfill is required to install a collection and control systems by 40 CFR 60.752(b)(2) of Subpart WWW. [40 CFR 1945(e)]

Test Methods:

The landfill owner or operator shall calculate the NMOC emission rate using either the equation provided in §60.754(a)(1)(i) section or the equation provided in §60.754(a)(1)(ii). Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in §60.754(a)(1)(i), for part of the life of the landfill and the actual year-to-year solid waste acceptance rate is unknown, as specified in §60.754(a)(1)(ii), for part of the life of the landfill. The values to be used in the equation are 0.05 per year for k, 170 cubic meters per Mg for L_o, and 4,000 ppmv as hexane for the C_{NMOC}. [40 CFR 60.754(a)(1)]

- 1) The following equation shall be used if the actual year-to-year solid waste acceptance rate is known. [40 CFR 60.754(a)(1)(i)]

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

Where,

M_{NMOC} = Total NMOC emission rate from the landfill, Mg per year

k = methane generation rate constant, year⁻¹

L_o = methane generation potential, cubic meters per Mg solid waste

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

t_i = age of the ith section, years

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

3.6 × 10⁻⁹ = conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for M_i if documentation of the nature and amount of such wastes is maintained.

- 2) The following equation shall be used if the actual year-to-year solid waste acceptance rate is unknown. [40 CFR 60.754(a)(1)(ii)]

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

Where,

M_{NMOC} = mass emission rate of NMOC, Mg per year

L_o = methane generation potential, cubic meters per Mg solid waste

R = average annual acceptance rate, Mg per year

k = methane generation rate constant, year⁻¹

t = age of landfill, years

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

c = time since closure, years; for active landfill c = 0 and e^{-kc}

3.6 × 10⁻⁹ = conversion factor

The mass of non-degradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value of R, if documentation of the nature and amount of such wastes is maintained.

- 3) Tier 1. The owner or operator shall compare the calculated NMOC mass emission rate to the standard of fifty Mg per year. [40 CFR 60.754(a)(2)]
 - a) If the NMOC emission rate calculated in §60.754(a)(1) is less than fifty Mg per year, then the landfill owner shall submit an emission rate report as provided in §60.757(b)(1) (“Reporting” section below), and shall recalculate the NMOC mass emission rate annually as required under §60.752(b)(1). [40 CFR 60.754(a)(2)(i)]
 - b) If the calculated NMOC emission rate is equal to or greater than fifty Mg per year, then the landfill owner shall either comply with §60.752(b)(2), or determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the procedures provided in §60.754(a)(3). [40 CFR 60.754(a)(2)(ii)]
- 4) Tier 2. The landfill owner or operator shall determine the NMOC concentration using the following sampling procedure. The landfill owner or operator shall install at least two sample probes per hectare of landfill surface that has retained waste for at least two years. If the landfill is larger than twenty-five hectares in area, only fifty samples are required. The sample probes should be located to avoid known areas of non-degradable solid waste. The owner or operator shall collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25 or 25C of Appendix A of Part 60. Method 18 of Appendix A of Part 60 may be used to analyze the samples collected by the Method 25 or 25C sampling procedure. Taking composite samples from different probes into a single cylinder is allowed; however, equal sample volumes must be taken from each probe. For each composite, the sampling rate, collection times, beginning and ending cylinder vacuums, or alternative volume measurements must be recorded to verify that composite volumes are equal. Composite sample volumes should not be less than one liter unless evidence can be provided to substantiate the accuracy of smaller volumes. Terminate compositing before the cylinder approaches ambient pressure where measurement accuracy diminishes. If using Method 18, the owner or operator must identify all compounds in the sample and, as a minimum, test for those compounds published in the most recent Compilation of Air Pollutant Emission Factors (AP-42), minus carbon monoxide, hydrogen sulfide, and mercury. As a minimum, the instrument must be calibrated for each of the compounds on the list. Convert the concentration of each Method 18 compound to C_{NMOC} as hexane by multiplying by the ratio of its carbon atoms divided by six. If more than the required number of samples are taken, all samples must be used in the analysis. The landfill owner or operator must divide the NMOC concentration from Method 25 or 25C of Appendix A of Part 60 by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane. If the landfill has an active or passive gas removal system in place, Method 25 or 25C samples may be collected from these systems instead of surface probes provided the removal system can be shown to provide sampling as representative as the two sampling probe per hectare requirement. For active collection systems, samples may be collected from the common header pipe before the gas moving or condensate removal equipment. For these systems, a minimum of three samples must be collected from the header pipe. [40 CFR 60.754(a)(3)]
 - a) The landfill owner or operator shall recalculate the NMOC mass emission rate using the equations provided in §60.754(a)(1)(i) or §60.754(a)(1)(ii) of this section and using the average NMOC concentration from the collected samples instead of the default value in the equation provided in §60.754(a)(1). [40 CFR 60.754(a)(3)(i)]
 - b) If the resulting mass emission rate calculated using the site-specific NMOC concentration is equal to or greater than fifty Mg per year, then the landfill owner or operator shall either comply

- with §60.752(b)(2), or determine the site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the procedure specified in §60.754(a)(4). [40 CFR 60.754(a)(3)(ii)]
- c) If the resulting NMOC mass emission rate is less than fifty Mg per year, the owner or operator shall submit an annual or five-year estimate of the emission rate report as provided in §60.757(b)(1) (“Reporting” section below) and retest the site-specific NMOC concentration every five years using the methods specified in §60.754. [40 CFR 60.754(a)(3)(iii)]
- 5) **Tier 3.** The site-specific methane generation rate constant shall be determined using the procedures provided in Method 2E of Appendix A of Part 60. The landfill owner or operator shall estimate the NMOC mass emission rate using equations in §60.754(a)(1)(i) or §60.754(a)(1)(ii) and using a site-specific methane generation rate constant (k), and the site-specific NMOC concentration as determined in §60.754(a)(3) instead of the default values provided in §60.754(a)(1). The landfill owner or operator shall compare the resulting NMOC mass emission rate to the standard of fifty Mg per year. [40 CFR 60.754(a)(4)]
- a) If the NMOC mass emission rate as calculated using the site-specific methane generation rate and concentration of NMOC is equal to or greater than fifty Mg per year, the owner or operator shall comply with §60.752(b)(2). [40 CFR 60.754(a)(4)(i)]
- b) If the NMOC mass emission rate is less than fifty Mg per year, then the owner or operator shall submit a periodic emission rate report as provided in §60.757(b)(1) (“Reporting” section below) and shall recalculate the NMOC mass emission rate annually, as provided in §60.757(b)(1) (“Reporting” section below) using the equations in §60.754(a)(1) and using the site-specific methane generation rate constant and NMOC concentration obtained in §60.754(a)(3). The calculation of the methane generation rate constant is performed only once, and the value obtained from this test shall be used in all subsequent annual NMOC emission rate calculations. [40 CFR 60.754(a)(4)(ii)]
- 6) The owner or operator may use other methods to determine the NMOC concentration or a site-specific (k) as an alternative to the methods required in §60.754(a)(3) and (a)(4) if the method has been approved by the administrator. [40 CFR 60.754(a)(5)]

Recordkeeping:

The owner or operator shall keep for at least five years up-to-date, readily accessible, on-site records of the design capacity report which triggered §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 four hours. Either paper copy or electronic formats are acceptable. [40 CFR 60.758(a)]

Reporting:

- 1) Each owner or operator subject to the requirements of Subpart WWW of Part 60 shall submit an NMOC emission rate report to the administrator initially and annually thereafter, except as provided for in §60.757(b)(1)(ii) (as explained in the “Monitoring” section above). The administrator may request such additional information as may be necessary to verify the reported NMOC emission rate. [40 CFR 60.755(b)]
- a) The NMOC emission rate report shall contain an annual or five-year estimate of the NMOC emission rate calculated using the formula and procedures provided in §60.754(a) or (b), as applicable. [40 CFR 60.757(b)(1)]
- b) The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual or five-year emissions. [40 CFR 60.757(b)(2)]

- c) Each owner or operator subject to the requirements of this subpart is exempted from the requirements of §60.757(b)(1) and (2), after the installation of a collection and control system in compliance with §60.752(b)(2), during such time as the collection and control system is in operation and in compliance with §§60.753 and 60.755. [40 CFR 60.757(b)(3)]
- 2) Each owner or operator subject to the provisions of §60.752(b)(2)(i) shall submit a collection and control system design plan to the administrator within one year of the first report required under §60.757(b) in which the emission rate equals or exceeds fifty Mg per year, except as follows: [40 CFR 60.757(c)]
 - a) If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in §60.754(a)(3) and the resulting rate is less than fifty Mg per year, annual periodic reporting shall be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than fifty Mg per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated emission rate based on NMOC sampling and analysis, shall be submitted within 180 days of the first calculated exceedance of fifty Mg per year. [40 CFR 60.757(c)(1)]
 - b) If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant (k), as provided in Tier 3 in §60.754(a)(4), and the resulting NMOC emission rate is less than fifty Mg per yr, annual periodic reporting shall be resumed. The resulting site-specific methane generation rate constant (k) shall be used in the emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions of §60.754(a)(4) and the resulting site-specific methane generation rate constant (k) shall be submitted to the administrator within one year of the first calculated emission rate exceeding fifty Mg per year. [40 CFR 60.757(c)(2)]
- 3) Each owner or operator of a controlled landfill shall submit a closure report to the administrator within thirty days of waste acceptance cessation. The administrator 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 administrator, no additional wastes may be placed into the landfill without filing a notification of modification as described under §60.7(a)(4). [40 CFR 60.757(d)]
- 4) 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 any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

PERMIT CONDITION EU0010-002

10 CSR 10-6.080 Emission Standards for Hazardous Air Pollutants
40 CFR Part 61 Subpart M National Emission Standard for Asbestos

Emission Limitations:

Each owner or operator of an active waste disposal site that receives asbestos-containing waste material from a source covered under §§61.149, 61.150, or 61.155 shall meet the following requirements:

- 1) Either there must be no visible emissions to the outside air from any active waste disposal site where asbestos-containing waste material has been deposited, or [40 CFR 61.154(a)]

- 2) Unless a natural barrier adequately deters access by the general public, either warning signs or fencing must be installed and maintained as specified in §60.154(b)(1) through (3) or:
[40 CFR Part 61.154(b)(1)]
 - a) At the end of each operating day, or at least once every 24-hour period while the site is in continuous operation, the asbestos-containing waste material that has been deposited at the site during the operating day or previous 24-hour period shall be covered with at least fifteen centimeters (six inches) of compacted nonasbestos-containing material, or
 - b) 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 administrator. [40 CFR Part 61.154(c)(1) and (2)]
- 3) Rather than meet the no visible emission requirement, the owner or operator may use an alternative emissions control method that has received prior written approval by the administrator according to the procedures described in §60.149(c)(2). [40 CFR Part 61.154(d)]
- 4) Upon closure, comply with all the provisions of §60.151. [40 CFR Part 61.154(g)]

Monitoring/Record Keeping:

- 1) For all asbestos-containing waste material received, the owner or operator of the active waste disposal site shall: [40 CFR Part 61.154(e)(1)(i) through (v)]
 - a) Maintain waste shipment records containing the following information:
 - b) The name, address, and telephone number of the waste generator;
 - c) The name, address, and telephone number of the transporter;
 - d) The quantity of the asbestos-containing waste material in cubic meters or cubic yards;
 - e) The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers; and
 - f) The date of the receipt.
- 2) Retain a copy of all records and reports for at least two years. [40 CFR Part 61.154(3)(4)]
- 3) Maintain, until closure, records of the location, depth and area, and quantity in cubic meters or cubic yards of asbestos-containing waste material within the disposal site on a map or diagram of the disposed area. [40 CFR Part 61.154(f)]
- 4) Furnish upon request, and make available during normal business hours for inspection by the administrator, all records required under this section. [40 CFR Part 61.154(i)]

Reporting:

- 1) For any improperly enclosed or uncovered waste, or any asbestos-containing material not sealed in a leak-tight container, the owner or operator shall report in writing to the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and if different, the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the disposal site, 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. [40 CFR Part 61.154(e)(1)(iv)]
- 2) As soon as possible and no longer than thirty days after receipt of the waste, send a copy of the signed waste shipment record to the waste generator. [40 CFR Part 61.154(e)(2)]
- 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 fifteen days after receiving the waste, immediately

report in writing to the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and if different, the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the disposal site, 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. [40 CFR Part 61.154(e)(3)]

- 4) Submit to the administrator, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities. [40 CFR Part 61.154(h)]
- 5) Notify the administrator in writing at least forty-five days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. 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 administrator at least ten 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:
 [40 CFR Part 61.154(j)(1) through (4)]
- 6) Scheduled starting and completion dates;
- 7) Reason for disturbing waste;
 - a) 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; and
 - b) Location of any temporary storage site and the final disposal site.

EU0020– Flare			
Emission Unit	Description	Manufacturer/Model #	2007 EIQ Reference #
EU0020	New Landfill Gas Flare	n/a	unknown

PERMIT CONDITION EU0020-001
 10 CSR 10-6.060 Construction Permits Required
 Construction Permit 082007-007, Issued August 6, 2007
 Amendment to Construction Permit 082007-007, Issued June 9, 2008

- 1) The combustion engines (EU0030) and the new 2,000 scfm flare (EU0020) shall not be operated concurrently. [Special Condition 2A]
- 2) If the City of Columbia decided in the future to combust the landfill gas in the combustion engines and the new flare simultaneously, the City shall apply for a modification to Construction Permit 082007-007A. [Special Condition 3B]
- 3) The City of Columbia Sanitary Landfill shall render inoperable by removing the circuit breakers that feed the control and blowers to the existing flare before the date the new flare becomes operational. The existing flare may not be operated or utilized after the new flare becomes operational without first undergoing review by the Air Pollution Control Program. [Special Condition 4A]

PERMIT CONDITION EU0020-002

10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds

Emission Limitation:

- 1) Emissions from any new source operation shall not contain more than five hundred parts per million by volume (500 ppmv) of sulfur dioxide.
- 2) Stack gasses shall not contain more than thirty-five milligrams (35 mg) per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three hour time period.

Operational Limitation/Equipment Specifications:

The emission units shall be limited to burning landfill gas (LFG).

Monitoring/Record Keeping:

Documentation supporting the fuel used landfill gas (LFG).

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION EU0020-003

10 CSR 10-6.070 New Source Performance Standards
40 CFR Part 60, Subpart A General Provisions

Note: The following are requirements applicable to the flare when it is used to comply with the standards of 40 CFR Part 60 Subpart W. At this time, the landfill NMOC emission rate is less than fifty megagrams per year. If the emission rate exceeds this level in the future, the facility will be required to submit a collection and control system design plan as required by Subpart W, which including the flare will then trigger the following requirements from Subpart A:

Emission/Operational Limitations:

- 1) Flares shall be designed for and operated with no visible emissions except for periods not to exceed a total of five minutes during any two consecutive hours. Method 22 of Appendix A to 40 CFR, Part 60 shall be used to determine the compliance of flares with the visible emission provisions. The observation period is two hours and shall be used according to Method 22.
[40 CFR 60.18(c)(1), (f)(1)]
- 2) Flares shall be operated with a flame present at all times when emissions may be vented to them.
[40 CFR 60.18(c)(2), (e)].
- 3) Flares shall be steam-assisted, air-assisted, or non-assisted [40 CFR 60.18(c)(6)].
- 4) The permittee has the choice of adhering to either the heat content specifications and the maximum tip velocity specifications, or adhering to the alternate specifications of §60.18(c)(3)(i). All test methods and specifications for these two choices are described below [40 CFR 60.18(c)(3)]:

a) *The alternate specifications of §60.18(c)(3)(i):*

Flares shall be used that have a diameter of three inches or greater, are non-assisted, have a hydrogen content of eight percent (by volume), or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity, V_{max} , as determined by the following equation:

1. $V_{max} = (X_{H_2} - K_1) * K_2$

2. Where:

3. V_{max} = Maximum permitted velocity, m/sec.

4. K_1 = Constant, 6.0 volume-percent hydrogen.

5. K_2 = Constant, 3.9(m/sec)/volume-percent hydrogen.

6. X_{H_2} = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77.

i) The actual exit velocity of a flare shall be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip [40 CFR 60.18(f)(4)].

b) *The net heating value specifications of §60.18(c)(3)(ii):*

i) Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is non-assisted.

ii) The net heating value of the gas being combusted shall be determined by using the following equation [40 CFR 60.18(f)(3)]:

1. $H_T = K \sum_{i=1}^n C_i H_i$

2. where:

3. H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of off gas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C;

4. K = Constant, 1.74×10^{-7} (1 / ppm) (g mole / scm) (MJ / kcal) where the standard temperature for (g mole / scm) is 20 C.

5. C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 or 90; and

6. H_i = Net heat of combustion of sample component i, kcal/g mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 if published values are not available or cannot be calculated.

2) Steam-assisted and non-assisted flares shall be designed for and operated with:

a) An exit velocity less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (b) and (c) below [40 CFR 60.18(c)(4)(i)]

b) An exit velocity equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf) [40 CFR 60.18(c)(4)(ii)]

- c) An exit velocity less than the velocity V_{\max} and less than 122 m/sec (400 ft/sec) is allowed. V_{\max} shall be determined by the equation [40 CFR 60.18(c)(4)(iii), (f)(5)]:
1. $\text{Log}_{10}(V_{\max})=(H_T+28.8)/31.7$
 2. where
 3. V_{\max} =Maximum permitted velocity, m/sec
 4. 28.8 and 31.7 = Constants
 5. H_T = The net heating value as determined in §60.18(f)(3) (section (4)(b)(ii) above)
- d) The actual exit velocity of a flare shall be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip [40 CFR 60.18(f)(4)].
- 3) Air-assisted flares shall be designed and operated such that the exit velocity is less than the velocity, V_{\max} , as determined by the following equation [40 CFR 60.18(c)(5), (f)(6)]:
1. $V_{\max}=8.706+0.7084 (H_T)$
 2. where
 3. V_{\max} = Maximum permitted velocity, m/sec
 4. 8.706 and 0.7084 = Constants
 5. H_T = The net heating value as determined in §60.18(f)(3) (section (4)(b)(ii) above)

Monitoring/Record Keeping/Reporting:

- 1) The presence of a flare pilot flame shall be monitored by using a thermocouple or any other equivalent device to detect the presence of a flame. [40 CFR 60.18(f)(2)]
- 2) The permittee shall maintain records according to 40 CFR §60.758(c).
- 3) 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 any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

PERMIT CONDITION EU0020-004

10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any **new** source any visible emissions with an opacity greater than twenty percent.
- 2) *New source*: any equipment, machine, device, article, contrivance or installation installed in the outstate Missouri area after February 24, 1971, or in the Springfield metropolitan area after September 24, 1971.
- 3) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six minutes in any sixty minutes air contaminants with an opacity up to sixty percent.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) Daily observations using Method 22-like procedures shall be performed while the flare is operational. The observation period shall not last longer than one minute. Additionally, a semi-annual, Method 22 monitoring even lasting two consecutive hours shall occur, whenever the flare is operational.

Record Keeping:

- 1) The permittee shall maintain records of all observation results (see Attachment A1 or A2), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment B)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment C)
- 4) Attachments A1 or A2, B or C contain logs including these record keeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available immediately for inspection to Department of Natural Resources personnel upon request.
- 6) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

EU0030 – Generators			
Emission Unit	Description	Manufacturer/Model #	EIQ Reference #
EU0030	Four (4) Generators	n/a	EP-08, EP-09, EP-10 and EP-11

PERMIT CONDITION EU0030-001
 10 CSR 10-6.060 Construction Permits Required
 Construction Permit 082007-007, Issued August 6, 2007
 Amendment to Construction Permit 082007-007, Issued June 9, 2008

Stack Testing Requirements:

- 1) The City of Columbia Sanitary Landfill shall conduct performance testing on one of the LGE electrical generators (EP-08, EP-09, EP-10 or EP-11) sufficient to quantify the emission rates (pounds of pollutant per million cubic feet of methane) of carbon monoxide (CO), and nitrogen oxides (NOx) claimed in the construction permit application from these sources. The application used three grams CO per bhp-hr and 0.6 grams NOx per bhp-hr. The emission tests should provide emission factors for a full range of loads on the generators (i.e. at loads from 50% to 100%) so that an accurate estimate of CO, and NOx emissions from the installation during all modes of operation can be determined. The installation shall conduct tests that represent, at a minimum, three different operational loads for each pollutant. The test(s) shall be done in accordance with the procedures outlined below and subject to the Compliance Section’s discretion. An emission factor shall be developed from the NOx performance test. [Special Condition 1A]
- 2) A completed Proposed Test Plan must be submitted to the Air Pollution Control Program at least thirty days prior to the proposed test date of any such performance tests so that a pre-test meeting may be arranged, if necessary, and to assure that the test date is acceptable for an observer from the Air Pollution Control Program to be present. The Proposed Test Plan must be approved by the director prior to conduction the required emissions testing. [Special Condition 1B]
- 3) The stack test required shall be performed within sixty days after achieving the maximum generation production rate at which the units will be operated, but not later than 180 days after initial start-up of the LGE electrical generators. [Special Condition 1C]
- 4) Two copies of a written report of the performance test results must be submitted to the director within ninety days of completion of the performance testing. The report must include legible copies of the raw data sheets, analytical instrument laboratory data, and complete sample calculations from the required method for at least one sample run for each air pollutant tested. [Special Condition 1D]
- 5) If the required stack tests indicate that the potential emissions of CO will exceed the major source threshold (250 tons per year), the City of Columbia Sanitary Landfill shall limit the hours of operation such that the major source threshold will not be exceeded. An emission rate of three grams CO per brake horse power was used to calculate the potential emissions, if the testing shows that the emission rate is higher than three grams CO per brake horsepower, this construction permit will have to be amended. The GE model JSG 320 engines to calculate the potential emissions were rated at 1,468 bhp each. [Special Condition 1E]

PERMIT CONDITION EU0030-002

10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds

Emission Limitation:

- 1) Emissions from any new source operation shall not contain more than five hundred parts per million by volume (500 ppmv) of sulfur dioxide.
- 2) Stack gasses shall not contain more than thirty-five milligrams (35 mg) per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three hour time period.

Operational Limitation/Equipment Specifications:

The emission units shall be limited to burning landfill gas (LFG).

Monitoring/Record Keeping:

Documentation supporting the fuel used landfill gas (LFG).

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

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) 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. 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) City of Columbia Sanitary Landfill 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 City of Columbia Sanitary Landfill fails to comply with the provisions or any condition of the open burning permit.
 - a) In a non-attainment 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 Record Keeping. 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 fifteen 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 Section 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 10-6.110 Submission of Emission Data, Emission Fees and Process Information

- 1) The permittee shall complete and submit an Emission Inventory Questionnaire (EIQ) annually.
- 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, to satisfy the requirements of the Federal Clean Air Act, Title V.
- 5) The permittee shall complete required reports on state supplied EIQ forms or in a form satisfactory to the director and the reports shall be submitted to the director by June 1 after the end of each reporting period.
- 6) 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-month period immediately preceding the end of the reporting period.
- 7) 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

- 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 non-compliance 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.

10 CSR 10-6.180 Measurement of Emissions of Air Contaminants

- 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 10-3.090 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 fifteen minutes apart within the period of one hour.

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 record keeping 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 fifty 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.

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 Record Keeping and Reporting Requirements

- 1) Record Keeping
 - 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, Missouri 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 thirty 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, record keeping, 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 semiannual 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 non-compliance 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, re-issued or terminated for cause. Except as provided for minor permit modifications, the filing of an application or request for a permit modification, revocation and re-issuance, or termination, or the filing of a notification of planned changes or anticipated non-compliance, 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 semiannually (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, 901 North 5th Street, Kansas City, Kansas 66101, as well as the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 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 application 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, Missouri 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, 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), record keeping, 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, Missouri 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, 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, Missouri 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, 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 John Glascock, P.E., Director of Public Works. 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 thirty 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) MDNR 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) MDNR 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 A2
 Method 22 (Outdoor) Observation Log**

This record keeping sheet or an equivalent form may be used for the record keeping requirements of 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*.

Method 22 (Outdoor) Observation Log		
Emission Unit		
Observer	Date	
Sky Conditions		
Precipitation		
Wind Direction	Wind Speed	
Sketch process unit: Indicate the position relative to the source and sun; mark the potential emission points and/or the observing emission points.		
Observation Clock Time	Observation Period Duration (minute: second)	Accumulative Emission Time (minute: second)
Begin Observation		
End Observation		

ATTACHMENT C
Method 9 Opacity Emissions Observations

This record keeping sheet or an equivalent form may be used for the record keeping requirements of 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*.

Method 9 Opacity Emissions Observations								
Company					Observer			
Location					Observer Certification Date			
Date					Emission Unit			
Time					Control Device			
Hour	Minute	Seconds				Steam Plume (check if applicable)		Comments
		0	15	30	45	Attached	Detached	
	0							
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
SUMMARY OF AVERAGE OPACITY								
Set Number	Time				Opacity			
	Start	End		Sum	Average			

Readings ranged from _____ to _____ % opacity.

Was the emission unit in compliance at the time of evaluation? _____
 YES NO Signature of Observer _____

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 May 9, 2003;
- 2) 2007 Emissions Inventory Questionnaire, received May 29, 2008; 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 082007-007, Issued August 6, 2007
- 5) Amendment to Construction Permit 082007-007, Issued June 9, 2008.

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 10-6.100, *Alternate Emission Limits*

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

10 CSR 10-6.310, *Restriction of Emissions from Municipal Solid Waste Landfills*

This rule applies to each solid waste municipal landfill for which construction, re-construction, or modification commenced before May 30, 1991, and has accepted waste at any time since November 8, 1987, or has additional design capacity available for future waste deposition. Landfills for which construction, re-construction or modification commenced on May 30, 1991, or after, are covered under the 40 CFR Part 60, New Source Performance Standards. A vertical expansion approved in 2001 increased the design capacity of the landfill, therefore it is not subject to 10 CSR 10-6.310.

Construction Permit Revisions

The following revisions were made to construction permits for this installation:

Construction Permit 0298-016, Issued Jan 21, 1998 and Construction Permit 122001-005, issued November 8, 2001, each contain one Special Condition requiring the permittee to maintain records on-site for the most recent sixty months and make such records available to Missouri Department of Natural Resources' personnel upon request. These permits were not specifically referenced and this special condition was not included in this operating permit because the General Permit Requirements section of this permit requires maintenance of records for five years.

New Source Performance Standards (NSPS) Applicability

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

The maximum design capacity of the landfill was increased in 2001 to 12,147,700 cubic yards of MSW. This subpart applies to each MSW landfill that commenced construction, re-construction or modification on or after May 30, 1991, and has a maximum design capacity equal to or greater than 2.5 Mg of MSW. Due to the year of modification and size of the landfill, the installation is subject to this provision.

This Subpart requires landfills over 2.5 million Mg to submit annual NMOC emission rates using Tier 1 or Tier 2 calculations. When the NMOC emission rate equals or exceeds fifty Mg per year a collection and control system design must be submitted to the administrator within one year, and the system must be installed within thirty months after the first annual report in which the NMOC emissions exceed this rate.

40 CFR Part 60, Subpart Cc, Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills

The designated facility to which the guidelines apply is each existing MSW landfill for which construction, re-construction or modification was commenced before May 30, 1991. Landfills for which construction, re-construction or modification commenced on May 30, 1991, or after, are covered under the 40 CFR Part 60, New Source Performance Standards. A vertical expansion approved in 2001 increased the design capacity of the landfill, therefore it is not subject to this subpart.

40 CFR Part 60, Subpart Kb, New Source Performance Standards for Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

This subpart applies to each storage vessel with a capacity greater than or equal to seventy-five cubic meters that is used to store volatile organic liquids (VOL) which a maximum true vapor pressure greater than 15.0 kilopascals (kPa). All of the storage tanks at this installation are less than the seventy-five cubic meters capacity threshold, therefore this rule does not apply.

Maximum Available Control Technology (MACT) Applicability

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

This MACT predominantly regulates landfills that use bioreactors. Since this installation does not have a bioreactor, this regulation does not apply. This provision states that all municipal solid waste landfills are subject to Subpart AAAA if the landfill has a design capacity equal to or greater than 2.5 million Mg or 2.5 million cubic meters and has an estimated uncontrolled emissions equal to or greater than fifty Mg per year NMOC. Upon exceedance of the fifty Mg NMOC per year threshold, the installation must meet the requirements in this provision by the date the landfill is required to install a collection and control system by 40 CFR 60.752(b)(2) of Subpart WWW.

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

10 CSR 10-6.080, *Emission Standards for Hazardous Air Pollutants, 40 CFR Part 61 Subpart M, National Standards for Asbestos* – Since this landfill currently accepts asbestos-containing waste, this subpart is applicable. The requirements of this subpart are included in the operating permit under permit condition EU0010-002.

10 CSR 10-6.250, *Asbestos Abatement Projects - Certification, Accreditation, and Business Exemption Requirements* – This regulation does not apply to the landfill because it is not involved with any asbestos projects, monitoring of air-borne asbestos, the conducting of asbestos inspections, or training of individuals involved in any of these activities.

Compliance Assurance Monitoring (CAM) Applicability

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

The CAM rule applies to each pollutant specific emission unit that:

- Is subject to an emission limitation or standard, and
- Uses a control device to achieve compliance, and
- Has pre-control emissions that exceed or are equivalent to the major source threshold.

40 CFR Part 64 is not applicable because none of the pollutant-specific emission units uses a control device to achieve compliance with a relevant standard.

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:

Jill Wade, P.E.
Environmental Engineer