

KCLFG 6.2



Kathleen Sebelius, Governor
Roderick L. Bremby, Secretary

DEPARTMENT OF HEALTH
AND ENVIRONMENT

www.kdheks.gov

Division of Environment

December 31, 2008

Source ID No. 0910117

Mr. Jay Martin
Project Engineer
Deffenbaugh Industries, Inc.
P.O. Box 3220
Shawnee, KS 66203

Re: Class I Air Emission Source Operating Permit Renewal

Dear Mr. Martin:

Enclosed is the Class I operating permit renewal and annual certification of compliance for the Deffenbaugh Industries, Inc. Landfill located in Shawnee, Kansas.

The certification shall continue to be submitted to the Kansas Department of Health and Environment (KDHE) on January 21 of each year the permit is in effect. Please use copies of the enclosed form for the required certifications, retaining the original blank form for subsequent certifications. This form will not be mailed to you on a yearly basis. **Semi-annual summary reports will be due on January 21 and July 21** covering the August 22 to December 21 and December 22 to June 21 compliance periods respectively. Deviations for continuous emission monitors or numerical continuous parameter monitors must be determined using a 3 hour monitoring block average [40 C.F.R. 63.1955(c)] as stated in the "Testing, Monitoring, Recordkeeping and Reporting" section of the permit. Submittal of the annual certification does not take the place of the semi-annual report.

Please review the enclosed operating permit carefully since it obligates your source to certain requirements.

In October 2007 KDHE began addressing green house gas (GHG) emissions in Kansas to protect the health and environment of Kansans. To accomplish this task, KDHE will engage industries and stakeholders to establish goals for reducing GHG emissions and strategies to achieve them. Therefore, in accordance with K.S.A. 65-3005(j), KDHE is seeking your cooperation to voluntarily implement strategies, including the development and use of innovative technologies, market-based principles and other private initiatives to reduce or prevent GHG emissions.

DIVISION OF ENVIRONMENT
Bureau of Air & Radiation
Air Permitting Section

CURTIS STATE OFFICE BUILDING, 1000 SW JACKSON ST., STE. 310, TOPEKA, KS 66612-1366

Voice 785-296-1570 Fax 785-291-3953

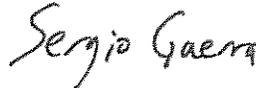
Page 2
Mr. Jay Martin
December 31, 2008

As provided for in K.S.A. 65-3008b(e), an owner or operator may request a hearing within 15 days after affirmations, modification or reversal of a permit decision pursuant to subsection (b) of K.S.A. 65-3008a. In the Request for Hearing, the owner or operator shall specify the provision of this act or rule and regulation allegedly violated, the facts constituting the alleged violation and secretary's intended action. Such request must be submitted to: Director, Office of Administrative Hearings, 1020 S. Kansas Avenue, Topeka, Kansas 66612-1327. Failure to submit a timely request shall result in a waiver of the right to hearing.

The enclosed Class I Operating Permit does not relieve the permittee of the responsibility to obtain air construction permit for future modifications that increase the facilities potential-to-emit of any regulated air pollutants as specified in K.A.R. 28-19-300, or any other modifications that may trigger other applicable air emission requirements.

Please include the source ID number listed above in all communications with KDHE in reference to this permitted facility. If you have any questions about the enclosed permit, or need any additional information, please contact me at (785) 296-0365.

Sincerely,



Sergio Guerra
Engineering Associate
Air Permitting Section

SG:saw
Enclosure
c: JCED
O-7980



Kathleen Sebelius, Governor
Roderick L. Bremby, Secretary

DEPARTMENT OF HEALTH
AND ENVIRONMENT

www.kdheks.gov

Division of Environment

AIR EMISSION SOURCE CLASS I OPERATING PERMIT

Source ID No.: 0910117

Initial Date: December 22, 2003

Renewal Date: December 31, 2008

Expiration Date: December 30, 2013

Source Name: Deffenbaugh Industries, Inc.

SIC Code: 4953; Refuse Systems

NAICS Code: 562212; Solid Waste Landfill

Source Location: 18181 West 53rd Street
Shawnee, KS 66203

Mailing Address: PO Box 3220
Shawnee, KS 66203

Contact Person: Jay Martin
Project Engineer
Tel: (913) 667-8762
Fax: (913) 422-1837

DIVISION OF ENVIRONMENT
Bureau of Air & Radiation
Air Permitting Section
CURTIS STATE OFFICE BUILDING, 1000 SW JACKSON ST., STE. 310, TOPEKA, KS 66612-1366
Voice 785-296-1570 Fax 785-291-3953

Authority

This permit, developed in accordance with the provisions of K.A.R. 28-19-500 et seq., Operating Permit, meets the requirements of K.A.R. 28-19-510 et seq., Class I Operating Permits and Title V of the federal Clean Air Act.

Permit Intent

The purpose of this Class I Air Operating Permit is to identify the emission sources; types of regulated air pollutants emitted from the facility; the emission limitations, standards and requirements applicable to each emission source; and the monitoring, recordkeeping and reporting requirements applicable to each source as of the effective date of this permit. At the time of permit issuance, a Class I Air Emission Source Operating Permit was required by K.A.R. 28-19-722(d) because the landfill met the criteria of K.A.R. 28-19-722(a) and 40 C.F.R. Part 60, Subpart WWW: Standards of Performance for Municipal Solid Waste Landfills.

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
Facility Description	4
Emission Source Information	5
Summary of Applicable Requirements	6
Applicable Requirements	6
Opacity Summary	17
Facility-Wide Applicable Requirements:.....	17
Opacity Limitations and Monitoring	20
Requirements Which Will Become Applicable During the Permit Term	21
Permit Shield	21
Testing, Monitoring, Recordkeeping, and Reporting	22
Reporting of Deviations from Permit Terms	23
General Provisions.....	23
1. K.A.R. 28-19-11, Exceptions Due to Breakdowns or Scheduled Maintenance.....	23
2. K.A.R. 28-19-752a, Hazardous Air Pollutants; Limitations Applicable to Construction of New Major Sources or Reconstruction of Existing Major Sources	24
3. Permit Term and Renewal	24
4. Severability.....	24
5. Property Rights.....	24
6. Compliance.....	24
7. Compliance Certification.....	25
8. Emergency.....	25
9. Inspection and Entry.....	26
10. Permit Amendment, Modification, Reopening, and Changes Not Requiring a Permit Action.....	27
11. Duty to Provide Information	27
12. Duty to Supplement	28
13. Other Permits and Approvals; Applicability	28
14. Submissions:	28

Attachment A: Site Diagram

Attachment B: List of Acronyms and Symbols

Facility Description

The facility is a municipal solid waste (MSW) landfill owned and operated by Deffenbaugh Industries, Inc., pursuant to Solid Waste Disposal Area Permit Number 263 issued by the Bureau of Waste Management (BWM) of the Kansas Department of Health and Environment (KDHE). Current MSW landfill operations are taking place in Phase VI. Phase I Modification is being designed for future landfill operations. The projected closing date for Phase VI is 2027. The facility accepts approximately 4,500 to 6,000 tons of waste per day.

A landfill gas collection and treatment system was installed and operated by a site gas contractor. Requirements of construction permits dated April 17, 1997; April 28, 1998; September 2, 1999; and February 12, 2001 are included within this permit.

The landfill accepts only non-hazardous solid waste. Hazardous or radioactive wastes, as well as whole automobiles, all combustibles, and lead-acid batteries, are not accepted at the landfill. In addition to the landfill, operations include solid waste hauling, fleet maintenance, and painting of miscellaneous items. Site emission sources include, but are not limited to: Landfill, Paint Shop for Waste Containers, Paint Shop for Truck Bodies, Leachate Storage Tanks (insignificant sources), Fuel Storage Tanks, Parts Washers (insignificant sources), Gravel Haul Roads, Sandblasting Operations.

At the time of permit issuance, a Class I Operating Permit was required to comply with New Source Performance Standards for Municipal Solid Waste Landfills, 40 C.F.R. Part 60, Subpart WWW, as adopted by K.A.R. 28-19-720. This standard applies to each municipal solid waste landfill that commenced construction, reconstruction or modification on or after May 30, 1991.

Emission Source Information

Emission Source ID	Emission Source Description	Stack/Vent ID	Control Equipment ID	Control Equipment Description	Applicable Requirements
IA-PC01-PC08	33-gallon Closed Loop Parts Cleaner, using Safety-Kleen Premium Solvent	SV-PC01-08	N/A	N/A	K.A.R.28-19-650(a)(3) K.A.R. 28-19-714
EU-LANDFILL	MSW Landfill	N/A	CE-Flare/ CE-Gas System/ CE-Incinerator	Landfill Gas Treatment	40 C.F.R. Part 60, Subpart A 40 C.F.R. Part 60, Subpart WWW 40 C.F.R. Part 63, Subpart A 40 C.F.R. Part 63, Subpart AAAA K.A.R. 28-19-501 (d) K.A.R. 28-19-650 (a)(3) 40 C.F.R. 61.154 (Facility Wide) 40 C.F.R. 82 Subpart F (Facility Wide) Construction Permits and Approval
EU-FD Flare	French Drain Flare	SV-FD Flare	N/A	N/A	K.A.R. 28-19-721 through 727, adopting, in part, 40 C.F.R. Part 60, Subpart WWW 40 C.F.R. Part 60, Subpart A Construction Approval (1/09/2004)
EU-BS Paint	Paint Booth for Body Shop	SV-BS Paint	CE-BS Mat Filter	Mat Filter	K.A.R.28-19-650(a)(3) K.A.R. 28-19-501(d)
EU-CS Paint	Paint Booth for Container Shop	SV-CS Paint	CE-CS Mat Filter	Mat Filter	K.A.R.28-19-650(a)(3) K.A.R. 28-19-501(d) Consent Agreement K.A.R. 28-19-73
FS-Roads	Access Roads within Landfill	N/A	CE-Roads	Water Spray on Road	N/A
FS-Sandblast	Sandblast Operations (760-28,400 lbs/hr)	N/A	N/A	N/A	N/A

Summary of Applicable Requirements

K.A.R. 28-19-30 through K.A.R. 28-19-32, Emission Limitations (Indirect Heating Equipment) 17
K.A.R. 28-19-55 through K.A.R. 28-19-58, Emergency Episode Plans 17
K.A.R. 28-19-202, Annual Fee Payment..... 18
K.A.R. 28-19-210, Calculation of Actual Emissions 18
K.A.R. 28-19-517, Annual Emission Inventory 18
K.A.R. 28-19-645, Open Burning 18
K.A.R. 28-19-650, Emissions Opacity Limits..... 20
K.A.R. 28-19-714, Solvent Metal Cleaning 7
K.A.R. 28-19-720, Adopted by Reference 40 C.F.R. Part 60, Subpart A, and NSPS
for Landfills, Subpart WWW 2
K.A.R. 28-19-735, Adopted by Reference 40 C.F.R. Part 61, Subpart A and NESHP
for Asbestos, Subpart M 18
K.A.R. 28-19-720, Adopted by Reference 40 C.F.R. Part 63, Subpart A, and NSPS
for Municipal Waste Landfills, Subpart AAAA..... 14
40 C.F.R. Part 68, Chemical Accident Prevention Provisions 18
40 C.F.R. Part 82, Protection of Stratospheric Ozone 19

Applicable Requirements

A. The following emission sources are subject to the requirement listed below:

EU-LANDFILL/CE-Flare	Landfill Gas & Control
EU-LANDFILL/CE-Gas System	Landfill Gas & Control
EU-LANDFILL/CE-Incinerator	Landfill Gas & Control
EU-BS Paint/CE-BS Mat Filter	Paint Booth for Body Shop
EU-CS Paint/CE-CS Mat Filter	Paint Booth for Container Shop

1. Limitation or Standard

The control equipment (flares/gas treatment plant/gas collection and control system/fabric filter) shall be continuously operated while operating the emission unit. [K.A.R. 28-19-501(d)(1)]

The gas treatment plant qualifies as proper treatment for landfill gas as long as the process includes compression, filtering, and dewatering of the landfill gas. [40 CFR Part 60.752(b)(2)(iii)]

Monitoring

A written air pollution control equipment (flares/gas treatment plant/gas collection and control system/fabric filter) maintenance plan shall be developed, implemented, and maintained on-site within 30 days of permit issuance to assure proper operation of the air pollution control equipment. [K.A.R. 28-19-501(d)(2)].

Recordkeeping and Reporting

The owner or operator shall maintain a log showing the date of all routine or other maintenance or repairs of the control equipment (flares/gas treatment plant/gas collection and control system/fabric filter), the action taken on such date, and any corrective action or preventative measures taken. [K.A.R. 28-19-501(d)(3)]

B. The following emission sources are subject to the requirements listed below:

IA-PC01/SV-PC01	33-gallon Closed Loop Parts Cleaner, using Safety-Kleen Premium Solvent
IA-PC02/SV-PC02	33-gallon Closed Loop Parts Cleaner, using Safety-Kleen Premium Solvent
IA-PC03/SV-PC03	33-gallon Closed Loop Parts Cleaner, using Safety-Kleen Premium Solvent
IA-PC03/SV-PC04	33-gallon Closed Loop Parts Cleaner, using Safety-Kleen Premium Solvent
IA-PC05/SV-PC05	33-gallon Closed Loop Parts Cleaner, using Safety-Kleen Premium Solvent
IA-PC06/SV-PC06	33-gallon Closed Loop Parts Cleaner, using Safety-Kleen Premium Solvent
IA-PC07/SV-PC07	33-gallon Closed Loop Parts Cleaner, using Safety-Kleen Premium Solvent
IA-PC08/SV-PC08	33-gallon Closed Loop Parts Cleaner, using Safety-Kleen Premium Solvent

1. Limitation or Standard

As of May 1, 2003, only cold cleaning solvents with a vapor pressure less than 1.0 mm Hg at 68°F shall be used. [K.A.R. 28-19-714(c)(2)(A)]

Monitoring

The owner/operator shall be required to maintain a current copy of the Material Safety Data Sheet (MSDS) of the solvent being used in each of degreasing operations.

Recordkeeping and Reporting

The owner/operator shall keep the following additional records for affected degreasers:

- A. Name and address of the solvent supplier.
- B. Date of each solvent purchase for affected degreasers.
- C. Vapor pressure of each solvent purchased in units of mmHg at 68°F.

[K.A.R. 28-19-714(g)(2)]

2. Limitation or Standard

The owner/operator shall store waste solvent only in covered containers and shall not dispose of waste solvent or transfer it to another party, such that the waste solvent can evaporate into the atmosphere. [K.A.R. 28-19-714(c)(11)]

Monitoring

The owner/operator shall maintain on-site and make available for inspection the written procedure or policy which has been put into place to assure that waste solvent is stored in closed containers and that it is properly disposed.

Recordkeeping and Reporting

Records shall be kept of the amount and type of solvent used per month.
[K.A.R. 28-19-714(g)(1)(A)]

3. Limitation or Standard

- a. The owner/operator shall equip each solvent cleaner with a cover to minimize evaporation of the solvent while in the closed position, or with an enclosed reservoir to limit the escape of solvent vapors from the solvent bath if parts are not being processed in the cleaner. [K.A.R. 28-19-714(c)(4)]
- b. The cover to cold solvent cleaner shall be designed to be operated with one hand if the conditions in K.A.R. 28-19-714(c)(5) exist.
- c. The cover to cold solvent cleaner shall remain closed whenever parts are not being handled in the cleaner. [K.A.R. 28-19-714(c)(6)]

- d. The owner/operator shall equip each solvent cleaner an internal drainage facility that enables the cleaned parts to be enclosed under the cover while the cleaned parts are draining; or if the internal drainage facility cannot fit into the cleaning system and the solvent volatility is less than 31.0 mm Hg at 100°F, an external drainage system that allows the solvent to drain from the cleaned parts to an enclosed solvent reservoir. [K.A.R. 28-19-714(c)(7)]
- e. The owner/operator shall drain the cleaned parts for at least 15 seconds or until dripping ceases. [K.A.R. 28-19-714(c)(8)]
- f. The solvent spray used, shall be a solid fluid stream with an operating pressure of 10 psig or less and shall not be an atomized or shower-type spray. [K.A.R. 28-19-714(c)(12)]

Monitoring

Posting a permanent, conspicuous label to the cleaner near the operator's position summarizing the operating requirements of the equipment. [K.A.R. 28-19-714(c)(10)]

Recordkeeping and Reporting

The owner/operator shall maintain records pertaining to the maintenance of the degreaser. [K.A.R. 28-19-714(g)(1)(B)]

C. The following emission source is subject to the requirement listed below:

EU-CS Paint/CE-CS Mat Filter Paint Booth for Container Shop

[Partially Adopted by Consent Agreement on December 29, 1997 (Case No. 97-E-0153)]

1. Limitation or Standard

The owner or operator shall not conduct any surface coating operation that emits VOC to the atmosphere in excess of that which would be emitted by using the following coatings with the VOC content specified: (1) 4.3 pounds per gallon of coating, less water and exempt VOC, delivered to a coating application system that applies clear coatings; (2) 3.5 pounds per gallon of coating, less water and exempt VOC, delivered to a coating application system that is air-dried or forced warm air-dried at temperatures up to 194 degrees Fahrenheit; (3) 3.5 pounds per gallon of coating, less water and exempt VOC, delivered to a coating application system that applies extreme performance coatings except that coatings applied to

the interior of metal pails and metal drums may contain 4.3 pounds per gallon of coating, less water and exempt VOC; (4) 0.4 pounds per gallon of coating, less water and exempt VOC, delivered to a coating application system that applies powder coatings; (5) 3.0 pounds per gallon of coating, less water and exempt VOC, delivered to a coating application system for any other coating. [K.A.R. 28-19-73(c)]

Monitoring

The emissions limits which will result from the use of coatings shall be achieved by: (1) application of coatings which meet or exceed the requirements above per coating application system on a daily weighted average basis; or (2) application of coatings with improved transfer efficiency demonstrated, through testing, by methods approved by the department, to achieve equivalent emissions based on the weight of VOC emitted per gallon of solids applied as would be emitted with the coatings specified above per coating application system on a daily weighted average basis; or (3) application, for the capture and reduction of VOC emissions through either destruction or collection, of a VOC vapor processing system demonstrated through testing as capable of maintaining an overall VOC emission reduction of at least 90 percent; or (4) any combination of methods approved by the department which results in emissions, when calculated as pounds of VOC per gallon of solids applied per coating operation, that are no greater on a daily weighted average basis than those achieved with the appropriate coatings specified above.

“Daily weighted average” is the total weight of VOC emitted from a coating application system per day divided by the volume of coating used or volume solids applied per day, depending on the units of the emission limitation.

Demonstration of continuous compliance per coating application system by sections (2) through (4) above shall be based on the finding that the results obtained by the formula (b) below are equal to or less than the results obtained by formula (a) below, both results on a daily weighted average.

$$a) \quad \frac{\text{VOC, lbs}}{\text{gal of solids applied}} = \frac{(\text{EL})}{(\text{TE})(\text{VS})}$$

Where:

EL = the coating characteristics established above, expressed as pounds of VOC per gallon of coating, less water and exempt VOC.

TE = baseline transfer efficiency as defined at K.A.R. 28-19-61, expressed as a decimal.

VS = volume fraction of solids in EL, expressed as a decimal, where the density of coating solvents is assumed to be 7.36 pounds per gallon.

b)

$$\frac{\text{VOC, lbs}}{\text{gal of solids applied}} = \frac{(\text{AC})(1 - \text{E})}{(\text{vs})(\text{te})}$$

Where: AC = pounds of VOC per gallon of the coating as delivered to the coating application system, less exempt VOC and water.

E = the demonstrated efficiency of installed vapor processing system determined by the actual vapor collection system efficiency multiplied by the actual VOC emissions control device efficiency, expressed as a decimal.

vs = volume fraction of solids of the coating as delivered to the coating application system, expressed as a decimal. For water-borne coatings the volume fraction is determined without water.

te = the actual demonstrated transfer efficiency of the coating application system, expressed as a decimal.

Reference Test Methods

The owner or operator shall determine AC and vs by using Reference Method 24 data supplied by the coating manufacturer, adjusted by the VOC used for thinning purposes or from an applied coating analysis conducted by the owner or operator in accordance with Reference Method 24. If the manufacturer's formulation data is used, verification of the data may be required by Reference Method 24, or a department approved equivalent method, and at the expense of the owner or operator.

Recordkeeping and Reporting

The owner or operator shall keep and maintain records at the facility and make available for inspection by a department representative to determine continuous compliance of the facility with this regulation. The records shall include the following information: (1) the type and amount of coatings delivered daily to each coating application system; (2) the manufacturer's coating formulation data, and other test data, including density, weight percent volatiles (as determined using a one hour bake), weight percent water, and weight percent exempt VOC, determined by Reference Method 24 for each coating; (3) the coating's solids content as delivered to the coating application system, in volume percent; (4) the results of any testing conducted at the facility pertaining to transfer efficiencies or control equipment reduction efficiencies; (5) the type, density and amount of solvents used daily for coating, thinning, purging and equipment cleaning; (6) amount, components and density of waste solvents reclaimed daily; (7) those records as required in K.A.R. 28-19-73(f)(3)(A) through K.A.R. 28-19-73(f)(3)(C); (8) maintenance records of the temperature monitoring equipment.

The daily record-keeping requirements may be waived if the owner or operator: (1) demonstrates that it uses only coatings that have been determined to be in compliance with K.A.R. 28-19-73(c) and; (2) has received written approval from the department for a waiver from this requirement.

D. The following emission source is subject to the requirement listed below:

EU-LANDFILL/CE-Flare NAO Model No. NCG elevated flare 50 feet high
with a residence time of 0.57 seconds.

[Construction Permit issued on April 28, 1998]

Limitation or Standard

1. The flare shall be designed for an operated with no visible emissions as determined by 40 C.F.R. 60.18 (f), except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours.

Monitoring

1. The flare shall be operated in accordance with 40 C.F.R. 60.18.
2. The flare shall be operated at a flow rate no greater than 5500 cubic feet per minute of landfill gas.

Recordkeeping and Reporting

1. The permittee shall maintain records of the occurrence of any startup, shutdown, or malfunction, in accordance with 40 C.F.R. 60.7(b).
2. Records must be kept in accordance with the requirements of K.A.R. 28-19-721 through 727, adopting, in part, 40 C.F.R. Part 60, Subpart WWW.
3. Records must be kept of the quantity of landfill gas fed to the flare to verify compliance with the limit of 5500 cubic feet per minute of landfill gas. These records shall be maintained at the facility for a period of as least two years from the date of record.

E. The following emission source is subject to the requirement listed below:

EU-FD Flare French Drain Flare with at a design heat rate of 11.4 MM Btu per hour, discharging approximately 23.5 feet above grade through a stack 0.33 feet in diameter.

[Construction Approval issued on January 9, 2004]

Limitation or Standard

1. The flare shall be designed for an operated with no visible emissions as determined by 40 C.F.R. 60.18 (f), except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours.

Monitoring

1. The flare shall be operated in accordance with *40 C.F.R. 60.18*.
2. The flare shall be operated at a landfill gas flow rate no greater than 350 dry standard cubic feet per minute.

Recordkeeping and Reporting

1. The permittee shall maintain records of the occurrence of any startup, shutdown, or malfunction, in accordance with 40 C.F.R. 60.7(b).
2. Records must be kept in accordance with the requirements of K.A.R. 28-19-721 through 727, adopting, in part, 40 C.F.R. Part 60, Subpart WWW.
3. Records must be kept of the quantity of landfill gas fed to the flare to verify compliance with the limit of 210 dry standard cubic feet per minute. These records shall be maintained at the facility for a period of as least two years from the date of record.

F. The following emission sources are subject to the requirements listed below:

EU-Landfill/CE-Flare	Landfill Gas & Control
EU-Landfill/CE-Gas System	Landfill Gas & Control
EU-Landfill/CE-Incinerator	Landfill Gas & Control

1. Limitation or Standard

The owner or operator shall comply with 40 C.F.R. Part 60, Subpart A, and 40 C.F.R. Part 60, Subpart WWW.

Deffenbaugh Industries Inc. collects and processes landfill gas into pipeline quality gas at the gas treatment plant. The facility's obligation under NSPS and NESHAP may be met as long as the treatment process includes compression, filtering and de-watering of the landfill gas. [40 CFR Part 60.752(b)(2)(iii)]

Recordkeeping and Reporting

The owner or operator shall keep, for at least 5 years, up-to-date, readily accessible, on-site records of the maximum design capacity.

If the landfill is permanently closed, then a closure notification shall be submitted by the permittee to the Administrator, as provided for in Subpart WWW, §60.757(d).

2. Limitation or Standard

The owner or operator shall comply with 40 C.F.R. Part 63, Subpart AAAA- *National Emission Standards for Hazardous Air Pollutants: Municipal Waste Landfills* including the relevant provisions of 40 C.F.R. Part 63, Subpart A, General Provisions. The landfill was required to install a collection and control system after the facility exceeded the 50 Mg per year emission rate for non-methane organic compounds. Thus, the facility shall comply with the requirements in 40 C.F.R. Part 63.1960 through 40 C.F.R. Part 63. [40 C.F.R. Part 63.1945]

Compliance

The applicability requirements of 40 C.F.R. Part 63, Subpart AAAA are detailed in 40 C.F.R. 63.1955. The source must demonstrate compliance with this standard by compliance with the requirements of 40 C.F.R. Part 60, Subpart WWW. [40 C.F.R. Part 63.1955 (a)(1)] The source is required to comply with the requirements of this subpart as long as the source is required to apply controls as specified in 40 C.F.R. Part 60, Subpart WWW. [40 C.F.R. Part 63.1950]

The applicable General Provisions (40 C.F.R. 63.1 through 63.15) are detailed in 40 C.F.R. Part 63, Subpart AAAA, Table 1.

Monitoring

Continuous parameter monitoring data, collected under 40 C.F.R. 60.756(b)(1), (c)(1), and (d) of subpart WWW, shall be used to demonstrate compliance with the operating conditions for control systems. If a deviation occurs, the operator has failed to meet the control device operating conditions described in this subpart and has deviated from the requirements of this subpart. [40

C.F.R. 63.1960] Deviations for continuous emission monitors or numerical continuous parameter monitors must be determined using a 3-hour monitoring block average. [40 C.F.R. 63.1955(c)] The 3-hour block average shall be calculated in the same way as they are calculated in 40 C.F.R. Part 60, Subpart WWW, except that the data collected during the events listed in a) through d) below are not to be included in any average computed during this subpart: [40 C.F.R. 63.1975]

- a) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments
- b) Startups
- c) Shutdowns
- d) Malfunctions

For the purposes of the landfill monitoring and Startup, Shutdown, and Malfunction Plan (SSM Plan) requirements, deviations include the items in a) through c) below: [40 C.F.R. 63.1965]

- a) A deviation occurs when the control device operating parameter boundaries described in 40 C.F.R. 60.758(c)(1) of subpart WWW are exceeded. [40 C.F.R. 63.1965(a)]
- b) A deviation occurs when 1 hour or more of the hours during the 3-hour block averaging period does not constitute a valid hour of data. A valid hour of data must have measured values for at least three 15-minute monitoring periods within the hour. [40 C.F.R. 63.1965(b)]
- c) A deviation occurs when a SSM plan is not developed, implemented, or maintained on-site. [40 C.F.R. 63.1965(c)]

Record Keeping & Reporting:

Affected sources must comply with the SSM Plan requirements in 40 C.F.R. Part 63, Subpart A as specified in 40 C.F.R. Part 63, Subpart AAAA, Table 1. All affected sources must submit compliance reports every 6 months as specified in 40 C.F.R. 63.1980(a) and (b), including information on all deviations that occurred during the 6-month reporting period. Summary reports must be submitted at six-month intervals for the duration of the permit.

Semi-annual reporting periods will be due on January 21 and July 21 covering the August 22 to December 21 and December 22 to June 21 compliance periods respectively. Deviations for continuous emission monitors or numerical continuous parameter monitors must be determined using a 3 hour monitoring block average. [40 C.F.R. 63.1955(c)]

The owner/operator shall develop and implement a written SSM Plan according to the provisions in 40 C.F.R. 63.6(e)(3). A copy of the SSM Plan must be maintained on-site. Failure to write, implement, or maintain a copy of the SSM Plan is a deviation from the requirements of this subpart. [40 C.F.R. 63.1960]

The owner/operator must also keep records and reports as specified in the general provisions of 40 C.F.R. Part 60 and 40 C.F.R. Part 63 as shown in Table 1 of 40 C.F.R. 63, Subpart AAAA. Applicable records in the general provisions include items such as SSM plans and the SSM plan reports. [40 C.F.R. 63.1980(b)] All records shall be maintained on site and available for inspection for a period of five years after the date of record.

The source shall keep records and reports as specified in 40 C.F.R. 60, subpart WWW, with one exception: the operator must submit the annual report described in 40 C.F.R. 60.757(f) every six months to the EPA Region VII, KDHE and JCED. [40 C.F.R. 63.1980(a)]

If any liquids other than leachate are added in a controlled fashion to the waste mass and do not comply with the bioreactor requirements in 40 C.F.R. 63.1947, 40 C.F.R. 63.1955(c), and 40 C.F.R. 63.1980(c) through (f) of this subpart, the operator must keep a record of the calculations showing that the percent moisture by weight expected in the waste mass to which liquid is added is less than 40 percent. The calculation must consider the waste mass, moisture content of the incoming waste, mass of water added to the waste including leachate recirculation and other liquids addition and precipitation, and the mass of water removed through leachate or other water losses. Moisture level sampling or mass balances calculations can be used. The owner/operator must document the calculations and the basis of any assumptions. Records must be kept of the calculations until liquids addition are ceased. [40 C.F.R. 63.1980(g)]

If the owner/operator calculates the moisture content to establish the date the bioreactor is required to begin operating the collection and control system under 40 C.F.R. 63.1947(a)(2) or (c)(2), the source shall keep a record of the calculations including the information specified in paragraph (g) of this section for 5 years. Within 90 days after the bioreactor achieves 40 percent moisture content, report the results of the calculation, the date the bioreactor achieved 40 percent moisture content by weight, and the date the owner/operator plans to begin collection and control system operations. [40 C.F.R. 63.1980(h)]

Since qualitative assessments and/or Method 9 evaluations or any other reporting requirements are required in the **Applicable Requirements Section** of this permit, the facility is required to submit a semi-annual report every six months. Refer to the **Testing, Monitoring, Record Keeping and Reporting Section** of this permit for the submittal dates of these reports.

Opacity Summary

Stack / Vent ID	Emission Source ID	Opacity Requirement
SV-PC01-08	IA-PC01-PC08	20%
SV-BS Paint	EU-BS Paint	20%
SV-CS Paint	EU-CS Paint	20%
N/A	CE-Flare	0% ¹
N/A	CE-Incinerator	0% ¹
SV-FD Flare	EU-FD Flare	0% ¹

Facility-Wide Applicable Requirements:

The permittee shall comply with the following when required by the relevant regulation:

K.A.R. 28-19-30 through K.A.R. 28-19-32. Emission Limitations (Indirect Heating Equipment):

Except as provided in K.A.R. 28-19-32, aggregated emissions of particulate matter from indirect heating equipment shall not exceed those specified in table H-1 of K.A.R. 28-19-31(a) or for equipment having intermediate heat input between 10(10⁶) BTU/hr and 10,000(10⁶) BTU/hr the allowable emission rate may be determined by the equation provided at K.A.R. 28-19-31(a)

Records shall be maintained of any recalculations and evaluations. These records shall include the design rate capacity of the unit, emission factors used in calculations and potential/ allowable emission rates.

K.A.R. 28-19-55 through K.A.R. 28-19-58. Emergency Episode Plans:

The permittee shall comply with the requirements of K.A.R. 28-19-55 through 28-19-58, Emergency Episode Plans, and shall maintain on site an emergency episode plan if KDHE requires an emergency episode plan be developed pursuant to K.A.R. 28-19-58.

¹ Except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hour period.

K.A.R. 28-19-202. Annual Fee Payment:

The owner or operator of a permitted emissions unit or stationary source is required to pay fees to the permitting authority consistent with the fee schedule set out in the regulations pursuant to K.A.R. 28-19-202.

K.A.R. 28-19-210. Calculation of Actual Emissions

The following applies to emission control equipment not otherwise addressed in this permit:

If the owner or operator uses air emission control equipment, not otherwise addressed in this permit, to calculate actual emissions, the air emission control equipment shall be maintained in accordance with the manufacturer's recommendation. The owner or operator shall keep a written log recording the date and type of action taken when performing preventive or other maintenance on the air emission control equipment.

K.A.R. 28-19-517. Annual Emissions Inventory

The owner or operator shall submit all operating or relevant information to estimate emissions for the preceding year to the KDHE. This information shall be submitted before the date specified at K.A.R. 28-19-517 or amendments thereto and shall be submitted on forms provided or approved by the KDHE. At the time of permit issuance, the due date for submittal of this information is June 1.

K.A.R. 28-19-645. Open Burning

The permittee is prohibited from conducting open burning, except as allowed by K.A.R. 28-19-647 and K.A.R. 28-19-648.

K.A.R. 28-19-735 Adopted by Reference 40 C.F.R. Part 61, Subpart A & Subpart M

The permittee shall comply with the National Emission Standard for Hazardous Air Pollutants (NESHAP) 40 C.F.R. Part 61, Subpart A, General Provisions and Subpart M, National Emission Standard for Asbestos, adopted by K.A.R. 28-19-735 and K.A.R. 28-50-1 et seq., when conducting any renovation or demolition activities at the facility.

40 C.F.R. Part 68. Chemical Accident Prevention Provisions

Chemical Accident Prevention Provisions, 40 C.F.R. Part 68, is applicable to an owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process, as determined in 40 C.F.R. 68.115.

If the stationary source is subject to 40 C.F.R. Part 68, but is not required to comply with those requirements as of the effective date of this operating permit, the stationary source shall be in compliance with the requirements of 40 C.F.R. Part 68 no later than the latest of the following dates:

- a. Three years after the date on which a regulated substance is first listed in 40 C.F.R. Part 68.130; or
- b. The date on which a regulated substance is first present above a threshold quantity in a process.

40 C.F.R. Part 82, Protection of Stratospheric Ozone

The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. 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 standards for recycling and recovery equipment pursuant to 40 C.F.R. Part 82.156.
- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. Part 82.158.
- c. Persons performing maintenance, service, or repair of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. Part 82.161.

Regarding a motor vehicle under the control of the permittee and used in conjunction with regular operations of the facility, the permittee shall ensure that any person who services the MVAC is currently certified pursuant to a program satisfying the requirements of 40 C.F.R. Part 82.40.

Regarding any device (except a MVAC) belonging to or located at the facility which contains a class I or class II substance as a refrigerant and which is used for household or commercial purposes, including any air conditioner, refrigerator, chiller or freezer, the permittee shall ensure that any person who maintains, services or repairs the device is able to produce proof of certification in accordance with 40 C.F.R. Part 82.161.

Regarding any device (except a MVAC, small appliance or room air conditioner) belonging to or located at the facility which contains a class I or class II substance as a refrigerant and which is used for household or commercial purposes, the permittee shall ensure that any person who disposes of the device is able to produce proof of certification in accordance with 40 C.F.R. Part 82.161.

Opacity Limitations and Monitoring

Except as otherwise provided in K.A.R. 28-19-9, K.A.R. 28-19-11, K.A.R. 28-19-650 (c) or as otherwise identified in the applicable requirements portion of this permit, K.A.R. 28-19-650(a) limits visible air emissions from each emission unit to 20%. K.A.R. 28-19-31 (b)(2) limits air emissions from any indirect heating equipment to less than 20%.

Except as otherwise provided in the applicable requirements portion of this permit, emissions from the following or similar activities do not require routine periodic monitoring: emissions vented inside an enclosed building or structure, from cooling towers and from evaporative VOC sources; when burning natural gas, propane/LPG, or refinery gas, emissions from turbines, reciprocating internal combustion engines, burners in indirect heating applications and space heaters.

Routine periodic monitoring requirements: Except as otherwise provided in the applicable requirements portion of this permit or as provided above, the owner or operator shall perform a qualitative assessment at least once per calendar month, with at least one week between assessments. The monthly qualitative assessment shall include each activity at the facility, which is operating at the time scheduled. For each activity from which the opacity of visible emissions appears to exceed the limit, the permittee shall take appropriate action to correct process operating parameters, after which the permittee shall perform an additional qualitative assessment for that unit. If, at the end of ten operating days from the date of the possible exceedance, opacity of visible emissions appear to continue to exceed the limit, the owner or operator shall notify the agency, within 7 days of the end of the ten operating day period, and shall schedule a test utilizing EPA Method 9, of visible emissions from the unit appearing to exceed the limit, within 30 days of the end of the ten operating day period.

The person responsible for making qualitative opacity assessments shall be knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting and wind, and the presence of uncombined water in the plume.² The permittee shall keep records of each qualitative assessment, which shall include the time and date of the assessment, a description of the emission point from which any unusual emissions emanated, the steps taken to correct any abnormal emissions, and the name of the person conducting the assessment.

²For basic information about opacity observations, refer to 40 C.F.R. Part 60 Appendix A Method 9.

BAR does not consider a qualitative assessment in which emissions appear to exceed the applicable opacity limits to be a violation or deviation subject to reporting in accordance with the Reporting of Deviations from Permit Terms section of this permit. A Method 9 evaluation that shows opacity exceeding the emission limit would be subject to reporting in accordance with the Reporting of Deviations from Permit Terms section of this permit.

Requirements Which Will Become Applicable During the Permit Term

The owner or operator, in accordance with the provisions of K.A.R. 28-19-511(b)(16)(C)(ii) and K.A.R. 28-19-512(a)(23) shall comply in a timely manner with those applicable requirements that become effective during the permit term, unless a detailed schedule is expressly required by the applicable requirements.

Permit Shield

Compliance with the conditions of this permit shall be deemed in compliance with the applicable requirements of the Kansas Air Quality Program as of the date of permit issuance. This shield applies only to:

- a. applicable requirements included, and specifically identified in the permit;
- b. applicable requirements that the KDHE has specifically identified in writing as not being applicable to the emissions unit or stationary sources and the determination or a concise summary thereof is included in the permit.

Nothing in this permit shall alter or affect:

- a. the liability of a permittee for any violation of an applicable requirement occurring prior to or at the time of issuance of this permit;
- b. U.S. EPA's ability to obtain information under Section 114 of the Clean Air Act; or
- c. the provisions of Section 303, Emergency orders, of the Clean Air Act, including the authority of the administrator of the U.S. EPA under that section of the air pollution emergency provisions of the Kansas Air Quality Program regulations, K.A.R. 28-19-55 through 28-19-58.
- d. the applicable requirements of the acid rain program, consistent with section 408(a) of the Act.

[K.A.R. 28-19-512(b)]

Testing, Monitoring, Recordkeeping, and Reporting

Testing, monitoring, recordkeeping, and reporting requirements sufficient to assure compliance with the terms and conditions of the permit are required.

In addition to any testing, monitoring, recordkeeping, or reporting requirement contained in the “Applicable Requirements” section of this permit, monitoring and reporting may be required under the provisions of K.A.R. 28-19-12, “Measurement of emissions,” or as required by any other provision of the federal Clean Air Act.

Records to support all monitoring and copies of all reports required by the permit must be maintained for a period of at least five years from the date of the activity. Summary reports of any routine, continuous or periodic monitoring must continue to be submitted at six-month intervals, 30 days after each subsequent six month period for the duration of the permit— unless otherwise specified in the “Applicable Requirements” section of this permit. All instances of deviations from permit requirements, including perceived opacity exceedances, shall be clearly identified in the report.

[K.A.R. 28-19-512(a)(11)(A)]

Submission of quarterly or semi-annual reports required by any applicable requirement which are duplicative of the reporting required in the previous paragraph will satisfy the reporting requirements of the previous paragraph if noted on the submitted report.

[K.A.R. 28-19-512(a)(9)]

Records of required monitoring shall include:

- a. the date, place, and time of sampling or measurement;
- b. the date(s) analyses were performed;
- c. the company or entity which performed the analyses;
- d. the analytical techniques or methods used;
- e. the result of the analyses; and
- f. the operating conditions that existed at the time of sampling or measurement.

[K.A.R. 28-19-512(a)(10)]

Reporting of Deviations from Permit Terms

Unless a different time period is specified in this permit, deviations from the requirements of this permit shall be reported to the KDHE as follows:

- a. Deviations which result in emissions exceeding those allowed in this permit shall be reported the next business day following the discovery of the release, with follow-up written notice within five business days following discovery of the release. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken.
- b. Deviations which do not result in emissions exceeding those allowed in this permit shall be reported in writing within 10 business days following discovery of the deviation.

Oral notifications may be made to the air program field staff at the Johnson County Environmental Department in Olathe or to the KDHE central office in Topeka. Written notifications shall be made to the KDHE central office with a copy to the Johnson County Environmental Department.

[K.A.R. 28-19-512(a)(11)]

General Provisions

1. K.A.R. 28-19-11, Exceptions Due to Breakdowns or Scheduled Maintenance
 - (a) Abnormal operating conditions resulting from malfunction breakdown, or necessary repairs to control or processing equipment and appurtenances which cause emissions in excess of the limitations specified at K.A.R. 28-19-20, K.A.R. 28-19-30 through K.A.R. 28-19-32, and K.A.R. 28-19-650 shall not be deemed violations provided that:
 - i) The person responsible for the operation of the emission source notifies the department of the occurrence and nature of such malfunctions, breakdown, or repairs, in writing, within 10 days of noted occurrence.
 - ii) The number of occurrences of such breakdowns is not deemed excessive by the department and appropriate reasonable action is taken to initiate and complete any necessary repairs and place the equipment back in operation as quickly as possible.
 - (b) Emissions in excess of the limitations specified at K.A.R. 28-19-20, K.A.R. 28-19-30 through K.A.R. 28-19-32, and K.A.R. 28-19-650 resulting from scheduled maintenance of control equipment and appurtenances will be permitted only on the basis of prior approval by the department and upon demonstration that such maintenance cannot be accomplished by maximum reasonable effort, including off-shift labor where required, during periods of shutdown of any related equipment.

2. K.A.R. 28-19-752a, Hazardous Air Pollutants; Limitations Applicable to Construction of New Major Sources or Reconstruction of Existing Major Sources

This regulation shall continue in effect for an emissions unit or stationary source until a standard has been promulgated which is applicable to such source pursuant to section 112(d) of the federal Clean Air Act.

This regulation shall apply whenever construction of a new major source or reconstruction of an existing major source of hazardous air pollutants is proposed.

3. Permit Term and Renewal

This permit has a term of five years unless otherwise stated in this permit. A complete application, as defined in K.A.R. 28-19-518, and any applicable fee, must be submitted to the KDHE not less than six months and not more than 18 months prior to the expiration date. This operating permit shall not expire on the expiration date if a complete and timely application has been filed with the KDHE.

[K.A.R. 28-19-512(a)(8) and K.A.R. 28-19-514]

4. Severability

The provisions of this permit are severable, and if any portion of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstance, and the remainder of this permit, shall not be affected thereby.

[K.A.R. 28-19-512(a)(13)]

5. Property Rights

This permit does not convey any property rights of any sort or any exclusive privilege.

[K.A.R. 28-19-512(a)(14)(D)]

6. Compliance

The owner or operator shall comply with all conditions of the permit and shall continue to comply with applicable requirements with which the owner or operator is in compliance. Any permit noncompliance shall constitute a violation of the Kansas Air Quality Act and shall be grounds for enforcement action, for permit revocation or amendment, or for denial of a permit renewal application. All permit terms and conditions are federally enforceable.

It shall not be a defense for a permittee in an enforcement action to contend that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.

This permit may contain provisions which require that specific test methods, monitoring, or record keeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 C.F.R. Part 51.212; 40 C.F.R. Part 52, Sec.52.12; 40 C.F.R. Part 52, Sec 52.30; 40 C.F.R. Part 60, Sec 60.11 and 40 C.F.R. Part 61, Sec 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, the State of Kansas has incorporated these provisions in its air quality regulations K.A.R. 28-19-212 (c) and (d), K.A.R. 28-19-350, K.A.R. 28-19-720 and K.A.R. 28-19-735.

[K.A.R. 28-19-512(a)(14)]

7. Compliance Certification

The permittee shall annually submit to the Air Operating Permit and Compliance Section of the KDHE, and a copy to the Air Permitting and Compliance Branch of the U.S. EPA, Region 7, a certification of compliance (Form CR-02, "Annual Certification.") **The due date of the certification is January 21 of each year**, for the period starting December 22 of the previous year to December 21.

The certification shall include the permit term or condition that is the basis of the certification; the current compliance status; whether compliance was continuous or intermittent; the method or methods used for determining the compliance, currently and over the reporting period; and such other facts as the KDHE may require to determine the compliance status of the source. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete.

[K.A.R. 28-19-512(a)(26) and K.A.R. 28-19-512(a)(27)]

8. Emergency

- (a) An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, improper operation, or operator error.
- (b) An emergency shall constitute an affirmative defense to an action brought for noncompliance with such technology-based emission limitation if the conditions of paragraph (c) below are met.
- (c) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs or relevant evidence that:

- i) an emergency occurred and that the permittee can identify the cause or causes of the emergency;
 - ii) the permitted facility was at the time being properly operated;
 - iii) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in the permit; and
 - iv) the permittee submitted notice of the emergency, containing a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken, to the KDHE within two working days of the time when emission limitations were exceeded due to the emergency.
- (d) In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof.
 - (e) These emergency provisions are in addition to any emergency or upset provisions contained in any applicable requirement. Whenever these emergency provisions conflict with the provisions of K.A.R. 28-19-11, these emergency provisions shall control.

[K.A.R. 28-19-512(d)]

9. Inspection and Entry

Upon presentation of credentials and other documents as may be required by law, representatives of the KDHE, including authorized contractors of the KDHE, shall be allowed by the permittee to:

- (a) enter upon the premises where a regulated facility or activity is located or conducted and where records are kept under conditions of this document;
- (b) have access to and copies of, at reasonable times, any records that must be kept under conditions of this document;
- (c) inspect at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this document; and
- (d) as authorized by the Kansas Air Quality Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

[K.A.R. 28-19-512(a)(22)]

10. Permit Amendment, Modification, Reopening, and Changes Not Requiring a Permit Action

- (a) The permit may be modified, revoked, reopened, reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation, re-issuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- (b) The permitting authority will reopen and revise or revoke this permit as necessary to remedy deficiencies in the following circumstances:
 - i) Additional requirements under the Clean Air Act become applicable to the source three or more years prior to the expiration date of this permit. Such a reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the expiration date of this permit.
 - ii) The KDHE determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.
 - iii) The KDHE determines that it is necessary to revise or revoke this permit in order to assure compliance with applicable requirements.
- (c) This document is subject to periodic review and amending as deemed necessary to fulfill the intent and purpose of the Kansas Air Quality Statutes and the Kansas Air Quality Regulations.
- (d) No permit revision shall be required under any approved economic incentives, pollution prevention incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit.
[K.A.R. 28-19-513]

11. Duty to Provide Information

Unless a different time frame is specified in this permit, the permittee shall furnish to the KDHE any information that the KDHE may request in writing within 60 days of the request, unless the KDHE specifies another time period. Submittal of confidential business information must be in accordance with KDHE procedures.

[K.A.R. 28-19-518(c) and K.A.R. 28-19-512(a)(14)(E)]

12. Duty to Supplement

The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in any submittal, shall promptly submit such supplementary facts or corrected information.

[K.A.R. 28-19-518(e)]

13. Other Permits and Approvals; Applicability

(a) A construction permit or approval must be obtained from the KDHE prior to commencing any construction or modification of equipment or processes which results in potential emission increases equal to or greater than the thresholds specified at K.A.R. 28-19-300.

(b) This document does not relieve the permittee of the obligation to obtain other approvals, permits, licenses, or documents of sanction which may be required by other federal, state, or local government agencies.

[42 U.S.C. 7661e(a) and K.A.R. 28-19-512(a)(29)]

14. Submissions:

All reports, notifications, information, and other correspondence (including submission of the Annual Certification Form CR-02) shall be submitted to:

Air Permitting Section
Bureau of Air and Radiation
Kansas Department of Health and Environment
1000 SW Jackson, Suite 310
Topeka, KS 66612-1366
(785) 296-1570

A copy of each Annual Certification Form CR-02 and Part 2 permit application shall be submitted to:

Kansas Compliance Officer
Air Permitting and Compliance Branch
U.S. EPA, Region VII
901 N. 5th Street
Kansas City, KS 66101

The annual certification shall be certified by a responsible official. This certification shall state that, based on the information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. This certification shall be submitted with original signatures.

[K.A.R. 28-19-512(a)(21) and K.A.R. 28-19-512(a)(27)]

When specified in the permit, contact the local agency at:

Johnson County Environmental Department
11811 S. Sunset, Suite 2700
Olathe, KS 66061
(913) 715-6939

Permit Engineer

Sergio Guerra

Sergio Guerra
Engineering Associate
Air Permitting Section

12-31-08

Date Signed

SG:saw
c: JCED
O-7980

**ATTACHMENT A
SITE DIAGRAM**

See Initial Class I Operating Permit Issued:

December 22, 2003

ATTACHMENT B
LIST OF ACRONYMS and SYMBOLS

<u>ACRONYM or SYMBOL</u>	<u>DESCRIPTION</u>
<	less than
>	greater than
Acfm	actual cubic feet per minute
AP-42	U.S. EPA publication of emission factors
BACT	Best Available Control Technology
BAR	Bureau of Air and Radiation
Btu	British thermal unit
CAA	Federal Clean Air Act
CAAA	Clean Air Act Amendments of 1990
CAS	Chemical Abstract Service
CDE	Control Device Efficiency
CEM	Continuous Emission Monitor
CFC	Chlorofluorocarbon
Cfm	cubic feet per minute
C.F.R.	Code of Federal Regulations
CMS	Continuous Monitoring System
CO	Carbon Monoxide
COM	Continuous Opacity Monitor
CTG	Control Techniques Guideline
Dscf	dry standard cubic feet
Dscm	dry standard cubic meters
EG	Emission Guideline
EPA	Environmental Protection Agency
EU	Emission Unit
FGR	Flue Gas Recirculation
G	Gram
GOP	General Operating Permit
Gph	gallons per hour
Gpm	gallons per minute
Gr	Grains
HAP	Hazardous Air Pollutant
HC	Hydrocarbon
Hp	Horsepower
KDHE	Kansas Department of Health and Environment
HON	Hazardous Organic NESHAP
IA	Insignificant Activity
JCED	Johnson County Environmental Department
K.A.R.	Kansas Administrative Regulation
K.S.A.	Kansas Statutes Annotated
kW	Kilowatt
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
MBtu	Thousand Btu
Mg	Megagrams

<u>ACRONYM or SYMBOL</u>	<u>DESCRIPTION</u>
MMBtu	Million Btu
MON	Miscellaneous Organic NESHAP
MSDS	Material Safety Data Sheet
MWC	Municipal Waste Combustor
MWI	Medical Waste Incinerator
NAAQS	National Ambient Air Quality Standards
NCDO	North Central District Office
NEDO	Northeast District Office
NESHAP	National Emission Standards for Hazardous Air Pollutants
NMOC	Non-Methane Organic Compound
NOX	Nitrogen Oxides
NSPS	New Source Performance Standard
NSR	New Source Review
NWDO	Northwest District Office
OAQPS	Office of Air Quality Planning and Standards
P2	Pollution Prevention
PAL	Plant wide Applicability Limitation
PM	Particulate Matter
PM10	PM with an aerodynamic diameter of less than or equal to 10 microns
PM2.5	PM with an aerodynamic diameter of less than or equal to 2.5 microns
PCD	Pollution Control Device
Ppmv	parts per million, volumetric basis
Ppmw	parts per million, weight basis
PSD	Prevention of Significant Deterioration
Psia	pounds per square inch, absolute
Psig	pounds per square inch, gage
PTE	Potential to Emit
QA/QC plan	Quality Assurance/Quality Control plan
RACT	Reasonable Available Control Technology
RMP	Risk Management Plan
SCDO	South Central District Office
SCHA	Shawnee County Health Agency
SEDO	Southeast District Office
SIC	Standard Industrial Classification
SIP	State Implementation Plan
Sox	Oxides of Sulfur
SOCMI	Synthetic Organic Chemical Manufacturing Industry
STP	Standard Temperature and Pressure
SWDO	Southwest District Office
TOC	Total Organic Carbon
Tph	tons per hour
Tpy	tons per year
TRS	Total Reduced Sulfur

ACRONYM or SYMBOL

DESCRIPTION

TSP

Total Suspended Particulate

VOC

Volatile Organic Compound

VOL

Volatile Organic Liquid

WCHD

Wyandotte County Health Department

WSCDCH

Wichita-Sedgwick County Department of Community Health

Source ID No.: 0910117 Source Name: Deffenbaugh Industries, Inc.

The period of time for which compliance is certified began at 12:01 a.m. on _____,
_____ and ended at 11:59 p.m. on _____, _____.

Certifications of compliance are required to be submitted at least annually. The period of time covered by each certification document can not exceed one year and there can be no period of time during the term of the permit for which compliance is not certified.

The terms or conditions of the permit that is the basis for this certification are those specified in the Class I Operating Permit issued by the Secretary of Health and Environment on _____,
_____.

Compliance status of each term or condition of the permit during the certification period:

1. In continuous compliance with all applicable requirements during the entire certification period.
2. Not in continuous compliance with all applicable requirements during the entire certification period.

If not in continuous compliance with all applicable requirements during the entire certification period, mark the applicable description below.

- One or more instances of non-compliance with any applicable requirement during the certification period.
- Continuous non-compliance with any applicable requirement during the certification period.

Provide a summary of the nature, duration, and frequency of the non-compliance that occurred, including the applicable requirement(s) and emission unit(s).

Compliance status of each term or condition of the permit at the time the certification is signed:

1. In compliance with all applicable requirements at the time of certification.
2. Not in compliance with all applicable requirements at the time of certification.

Provide a description of the nature, duration, and frequency of the non-compliance that occurred, including the applicable requirement(s) and emission unit(s).

Methods used to determine compliance during the certification period and at the time of signing the certification:

1. ____ In accordance with compliance demonstration methods specified in the Class I Operating Permit.
2. ____ Other - In accordance with attachments.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on information and belief formed after reasonable inquiry, including the person or persons who manage the system, or those persons directly responsible for gathering the information, the stated information in this document is true, accurate, and complete.

Name of Responsible Official (print or type):

Title: _____

Signature: _____ Date: ____ / ____ / ____

"Responsible official" means one of the following (From K.A.R. 28-19-200 General provisions; definitions):

- (1) For a corporation, a president, secretary, treasurer or vice-president in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production or operating facilities applying for or subject to permit or other relevant regulatory requirement and either:
 - (A) the facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million, in second quarter, 1980 dollars; or
 - (B) the delegation of authority to such representative is approved in advance by the department;
- (2) for a partnership or sole proprietorship, a general partner or the proprietor, respectively;
- (3) for a municipality, or a state, federal or other public agency, a principal executive officer or ranking elected official. For purposes of this definition, a principal executive officer of a federal agency shall include the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency; or
- (4) for affected sources, the designated representative under title IV, acid deposition control, of the federal clean air act, 42 USC 7401 et seq.

Send certification with original signatures to:

Air Enforcement and Compliance Section
Bureau of Air and Radiation
Kansas Department of Health and Environment
1000 SW Jackson, Suite 310
Topeka, KS 66612-1366

Send a copy of certification to:

Kansas Compliance Officer
Air Permitting and Compliance Branch
U.S. EPA, Region 7
901 N. 5th Street
Kansas City, KS 66101

Bureau of Air
Curtis State Office Building
1000 SW Jackson, Suite 310
Topeka, KS 66612



Phone: 785-296-1581
Fax: 785-291-3953
ttavener@kdheks.gov
www.kdheks.gov/bar

Robert Moser, MD, Secretary

Department of Health & Environment

Sam Brownback, Governor

June 1, 2011

Source ID No. 0910117

Mr. Jay Martin
Project Environmental Engineer
Deffenbaugh Industries, Inc.
P.O. Box 3220
Shawnee, KS 66203

Re: Air Emission Source Construction Approval for Modification of Gas Plant Flare Tip

Dear Mr. Martin:

Enclosed is the Air Emission Source Construction Approval for the modification of the gas plant flare tip at Deffenbaugh Industries, Inc's facility in Johnson County, Kansas.

Please review the enclosed approval carefully since it obligates Deffenbaugh Industries, Inc. to certain requirements.

Please notify the KDHE Air Quality Representative at the Johnson County Environmental Department at (913) 715-6939 upon completion of the flare modification.

The source ID number cited above should be included in all communications with KDHE in reference to this approval.

If you have any questions about the enclosed approval, please contact me at (785) 296-1581. Your cooperation with the air quality program in Kansas is appreciated.

Sincerely,

A handwritten signature in black ink that reads "Terry Tavener". The signature is written in a cursive style and is positioned above the typed name.

Terry Tavener
Environmental Scientist
Air Permitting Section

TTT:saw
Enclosure
c: JCED
C-9482

AIR EMISSION SOURCE CONSTRUCTION APPROVAL

Source ID No.: 0910117

Effective Date: June 1, 2011

Source Name: Deffenbaugh Industries, Inc.

SIC Code: 4953; Refuse System

NAICS: 566212; Refuse Disposal, Landfill

Source Location: 18181 West 53rd Street
Shawnee, KS 66217

Mailing Address: P.O. Box 3220
Shawnee, KS 66203

Contact Person: Jay Martin, Project Engineer
Tel: (913) 667-8762
Fax: (913) 422-1837

This approval is issued pursuant to K.S.A. 65-3008 as amended.

Description of Activity Subject to Air Pollution Control Regulations

Deffenbaugh Industries, Inc. is proposing to modify the existing backup open flare that is used to support the Energy Investors Fund – Kansas City Landfill Gas, LLC (KCLFG) landfill gas treatment plant by increasing the flare tip unobstructed (free) cross sectional area from 1.2667 square feet to 1.59 square feet. The enlarged flare tip size will allow Deffenbaugh to burn greater volumes of treated, partially treated and untreated landfill gas for short periods of time when KCLFG is idle or the pipeline transporting the treated landfill gas is not accepting additional treated gas.

The Kansas Department of Health and Environment (KDHE) has reviewed the air quality requirements for the proposed activity. Potential emissions of nitrogen oxides (NO_x), carbon monoxide (CO), volatile organic compounds (VOCs), particulate matter (PM₁₀), sulfur oxides (SO_x) and hazardous air pollutants (HAPs) were evaluated as part of the review process. The proposed activity is subject to the provisions of **K.A.R. 28-19-300 (Construction permits and approvals; applicability)** because the project's potential increase in NO_x and CO emissions exceeds 50 pounds per day.

Please note that the facility needs to remain in compliance with the Operational and Construction Quality Assurance requirements from KDHE's Bureau of Waste Management.

Significant Applicable Air Pollution Control Regulations

1. K.A.R. 28-19-650(a)(3), Opacity requirements.
2. K.A.R. 28-19-720, New Source Performance Standards, Subpart A – General Provisions, 40 CFR 60.18 – General Control Device and Work Practice Requirements.
3. K.A.R. 28-19-720, New Source Performance Standards, Subpart Cc- Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills, which adopts by reference 40 CFR Part 60, Subpart WWW- Standards of Performance for Municipal Solid Waste Landfills.
4. K.A.R. 20-19-750, Hazardous Air Pollutants; Maximum Achievable control technology, which adopts by reference 40 CFR Part 63, Subpart AAAA-National Emission Standards for Hazardous Air Pollutants: Municipal Waste Landfills.

Air Emission Unit Technical Specifications

The following equipment or their equivalents are approved:

One (1) existing back-up utility flare with a flare tip inside size equal to 1.2667 square feet and a maximum capacity of 5,500 cfm. The existing back-up utility flare will be modified by increasing the flare tip unobstructed (free) cross sectional area to 1.59 square feet with an increased maximum capacity of 9,788 cfm. This flare is to be used as a backup in cases when the landfill gas treatment plant is idle or the pipeline transporting the treated landfill gas is not accepting additional treated gas.

Air Emission Estimates from the Proposed Activity

Pollutant	PTE ¹ from existing 5,500 cfm flare		PTE ¹ for modified flare (maximum capacity increased to 9,788 cfm)		Net change in PTE for flare tip size increase		PTE for back-up flare
	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	Tons/year
NO _x	11.22	269.28	19.97	479.22	8.75	209.94	40.9
CO	61.05	1465.20	108.65	2607.52	47.60	1142.32	222.6
VOC	0.35	8.32	0.62	14.8	0.27	6.48	1.3
PM/PM ₁₀	2.57	61.78	4.58	109.94	2.01	48.16	9.4
SO _x	2.66	63.76	4.73	113.46	2.07	49.70	9.7
HAPS	1.50	36.08	2.68	64.20	1.18	28.12	4.9

1. Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on a capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable.

The total amount of landfill gas combusted per year by the back-up utility flare will not increase due to increasing the flare tip size. The majority of the collected landfill gas is treated by the gas treatment plant and not flared. There will be no yearly potential to emit increases for the back-up flare emissions due to the modified flare project. Increased amounts of landfill gas will be combusted via the modified flare during short durations when the gas treatment plant is not operating due to maintenance or other unplanned activities. The increase in flare capacity can result in a short duration increase to the lb/hr emission rate during gas treatment plant shut-downs.

Air Emission Limitations

1. K.A.R. 28-19-650(a)(3) limits opacity of visible emissions from the flare to less than 20 percent.
2. The flare shall comply with the applicable requirements from 40 CFR Part 63, Subpart AAAA-National Emission Standards for Hazardous Air Pollutants: Municipal Waste Landfills.
3. The flare shall be designed and operated according to all applicable requirements from 40 CFR 60, General Provisions section 40 CFR 60.18(b) including but not limited to the following:
 - a. The flare shall be designed for and operated with no visible emissions, except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours. [40 CFR 60.18(c)(1)]
 - b. Per 40 CFR 60.18(c)(2), the flare shall be operated with a flame present at all times, as determined by test Method 22 of appendix A. [40 CFR 60.18(f)]
 - c. The flare shall be operated at all times when emissions may be vented to it [40 CFR 60.18(e)] except as provided in 40 CFR 60.753(e).
 - d. The presence of a flare pilot flame or the flare flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. [40 CFR 60.18(f)(2) and 40 CFR 60.756(c)(1)]
 - e. The flare 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 nonassisted.
 - f. The net heating value of the gas being combusted in the flare shall be calculated using the following equation:

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

where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas 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;

$$K = \text{Constant} \cdot 1.740 \times 10^{-7} \left(\frac{1}{\text{ppm}} \right) \left(\frac{\text{g mole}}{\text{scm}} \right) \left(\frac{\text{MJ}}{\text{kcal}} \right)$$

where the standard temperature for $\left(\frac{\text{g mole}}{\text{scm}} \right)$ is 20°C;

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 (Reapproved 1994) (Incorporated by reference as specified in 40 CFR 60.17) or as calculated in 40 CFR 60.754(e) or using a portable hand held analyzer calibrated as recommended by the manufacturer to render a methane content which will be multiplied by the lower heating content of the methane to obtain ongoing V_{max} ; and

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 (incorporated by reference as specified in 40 CFR 60.17) if published values are not available or cannot be calculated.

4. The flare shall be designed and operated with an exit velocity as determined by the following:
 - a. The flare shall be designed for and operated with an exit velocity, as determined by the methods specified in this section, less than 18.3 m/sec (60 ft/sec), except as the following [40 CFR 60.18(c)(4)(i)]:
 - i. The flare shall be designed and operated with an exit velocity as determined by the methods specified in this section, less than the velocity, V_{max} , and less than 122 m/sec (400 ft/sec). [40 CFR 60.18(c)(4)(iii)]
 - b. The actual exit velocity of the flare shall be determined by dividing the volumetric flowrate (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)]
 - c. The maximum permitted velocity, V_{max} , for the flare shall be determined by the following equation [40 CFR 60.18(f)(5)]:

$$\text{Log}_{10}(V_{\text{max}}) = (H_T + 28.8) / 31.7$$

V_{max} = Maximum permitted velocity, M/sec

28.8 = Constant

31.7 = Constant

H_T = The net heating value as determined above.

- d. The maximum flowrate of the flare shall be determined by the following equation:

Maximum flow rate = V_{max} (ft/sec) x Area of the flare tip (square feet) x 60 second/minute

Area of the flare tip = 1.59 ft²

Compliance, Notification, Record Keeping and Reporting

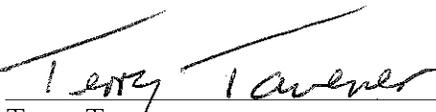
1. The owner or operator shall maintain monthly records of the average heat content of the landfill gas, in Btu/SCF, routed to the flare. This heat content determination shall be based on weekly (once per calendar week) methane concentration monitoring and recording conducted prior to combustion in each flare using a portable gas meter or an equivalent monitoring method (i.e. an instrument permanently mounted instrument) calibrated in accordance with manufacturer instruction or whenever the error in the midrange calibration check exceeds ± 10 percent..
2. The landfill gas treatment system is subject to 40 CFR Part 63, Subpart AAAA. The owner/operator shall develop and implement a written SSM Plan according to the provisions in 40 CFR 63.6(e)(3) and a copy of the SSM Plan must be maintained on-site. Failure to write, implement, or maintain a copy of the SSM Plan is a deviation from the requirements of this subpart. [40 CFR 63.1960]
3. The owner or operator must also keep records and reports for the landfill gas treatment system as specified in the general provisions of 40 CFR Part 60 and 40 CFR Part 63 as shown in Table 1 of 40 CFR 63, Subpart AAAA. Applicable records in the general provisions include items such as SSM plans and the SSM plan reports [40 CFR 63.1980(b)]. All records shall be maintained on site and available for inspection for a period of five years after the date of record. The source shall keep records and reports as specified in 40 CFR 60, subpart WWW, with one exception: the operator must submit the annual report described in 40 CFR 60.757(f) every six months to the EPA Region VII, KDHE and DAQ. [40 CFR 63.1980(a)]
4. The owner or operator shall perform a qualitative assessment at least once per calendar month, with at least one week between assessments.
5. Except as provided in 40 CFR 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the following data as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal. [40 CFR 60.758(b)]
 - a. The flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18;
 - b. Continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame or the flare flame is absent.
6. The permittee shall maintain records of the occurrence of any startup, shutdown, or malfunction, in accordance with 40 CFR 60.7(b).
7. Notify the Johnson County Environmental Department, in Johnson County at (785) 291-2457 after modification of the flare is complete.

General Provisions

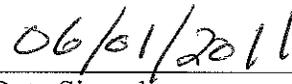
1. This document shall become void if the construction or modification has not commenced within 18 months of the effective date, or if the construction or modification is interrupted for a period of 18 months or longer.

2. A construction permit or approval must be issued by KDHE prior to commencing any construction or modification of equipment or processes, which results in an increase of potential-to-emit equal to or greater than the thresholds specified, by K.A.R. 28-19-300.
3. Upon presentation of credentials and other documents as may be required by law, representatives of KDHE (including authorized contractors of KDHE) shall be allowed to:
 - a. enter upon the premises where a regulated facility or activity is located or conducted or where records must be kept under conditions of this document;
 - b. have access to and copy, at reasonable times, any records that must be kept under conditions of this document;
 - c. inspect at reasonable times, any facilities, equipment (including monitoring and control equipment) practices or operations regulated or required under this document; and
 - d. sample or monitor, at reasonable times, for the purposes of assuring compliance with this document or as otherwise authorized by the Secretary of KDHE, any substances or parameters at any location.
4. The emission unit or stationary source, which is the subject of this document, shall be operated in compliance with all applicable requirements of the Kansas Air Quality Act and the Federal Clean Air Act.
5. This document is subject to periodic review and amendment as deemed necessary to fulfill the intent and purpose of the Kansas Air Quality Statutes and Regulations and rules promulgated in accordance therewith.
6. This document does not relieve the facility of the obligation to obtain other approvals, permits, licenses or documents of sanction, which may be required by other federal, state or local government agencies.

Permit Engineer



Terry Tayener
Environmental Scientist
Air Permitting Section



Date Signed

TTT:saw

c: Mike Boothe, Johnson County Environmental Department representative
Sam Sunderraj, Bureau of Waste Management
C-9482