# **Draft/Proposed**

# OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

MEMORANDUM March 27, 2017

**TO:** Phillip Fielder, P.E., Permits and Engineering Group Manager

**THROUGH:** Rick Groshong, Senior Environmental Manager

Compliance and Enforcement

**THROUGH:** Phil Martin, P.E., Engineering Manager, Existing Source Permits Section

**THROUGH:** Jian Yue, P.E., New Source Permits Section

**FROM:** Mark Chen, P.E., New Source Permits Section

SUBJECT: Evaluation of Title V Permit Renewal Application No. 2016-1375-TVR3

Oklahoma City Landfill, LLC

Southeast OKC Landfill Facility (Facility ID: No. 2141)

7001 South Bryant Ave., Oklahoma City

Latitude N 35.39586°, Longitude W 97.45930°

Section 25, Township 11N, Range 3W

Oklahoma City, Oklahoma County, Oklahoma

Directions: From the intersection of Interstate I-35 and Interstate I-240 at Oklahoma City, take I-240 east for 2.0 miles, take Bryant Road Exit, go

north on Bryant Road for 0.5 mile, then, turn west into the facility.

# SECTION I. INTRODUCTION

Through Weaver Consultants Group, LLC, Oklahoma City Landfill, LLC requested renewal of their Part 70 Title V operating permit for the Southeast OKC Landfill Facility (Southeast OKC Landfill) (SIC 4953, NAICS 562212). The Southeast OKC Landfill is an active municipal solid waste (MSW) landfill under DEQ Land Protection Division (LPD) Solid Waste Permit ID No. 3555028. The original Title V Permit, No. 99-401-TV, was issued to the facility on May 29, 2001. Currently, the facility is currently operating under Air Quality Permit No. 2011-1085-C (M-1) issued on February 27, 2013, and Permit No. 2011-1085-TVR2 (M-2) issued on June 5, 2015. Air Quality Division (AOD) received the Title-V permit renewal application on December 28, 2016. Southeast OKC Landfill is collocated with Southeast OKC RNG, which was permitted in Permit No. 2015-0267-C dated June 16, 2015. Southeast OKC RNG, LLC is a wholly-owned subsidiary of Aria Energy, LLC, and takes landfill gas (LFG) from Southeast OKC Landfill and treats/refines LFG to pipeline quality gas containing 95.5-99% methane. It is a LFG refining facility (LFGRF). The majority of methane in the LFG is recovered for sales and is not sent to the process/utility flares for combustion. AQD considers the two collocated facilities, Southeast OKC Landfill and Southeast OKC RNG, a single stationary source for purposes of PSD and Title-V permitting. The Title-V renewal permit goes through a Tier II permitting procedure. Upon applicant's request, this permit will proceed through a concurrent public and EPA review. AQD also uses this opportunity to update applicable state rules and federal regulations related to the facility.

# SECTION II. TOTAL SITE EMISSIONS

Southeast OKC Landfill and Southeast OKC RNG are two separate entities; however, emissions from Southeast OKC Landfill and Southeast OKC RNG facilities are aggregated for purposes of PSD applicability and NSPS and NESHAP regulations. The potential facility-wide emissions for the Southeast OKC Landfill are presented in Table 1. The fugitive landfill emissions were revised by assuming that 75% of the landfill gas generated can be reasonably collected by GCCS at the landfill, and the remaining 25% will be emitted as fugitive emissions.

Potential Emissions (tons/yr)<sup>a</sup> VOC  $GHG^c$  $PM_{2.5}$  $PM_{10}$ Non-Non-Non-Non-NO<sub>x</sub>  $co_{\mathbf{p}}$ SO<sub>2</sub> Fugitive HAP Fugitive Fugitive Fugitive fugitive fugitive 16.93 **Emissions** 21.08 20.07 52.71 249.00 101.31 1.86 12.93 12.93 1.26 282,138 176,517

Table 1. - Potential-to-Emit Emissions at Southeast OKC Landfill

In Permit No. 2015-0267-C, the LFGRF has a design capacity of 3,000 SCFM of LFG to extract/recover and purify approximately 90% of the methane in the LFG stream. There are three emission sources: one (1) thermal oxidizer (20 MMBTUH), one (1) backup utility flare (3,000 SCFM), and one (1) standby emergency generator with a diesel-fired engine (100 KW Caterpillar Engine Model No. D100-6). The potential facility-wide emissions for the LFGRF, which are estimated in Permit No. 2015-0267-C, are presented in Table 2.

Table 3. – Potential-to-Emit Emissions at Southeast OKC RNG in No. 2015-0267-C

Potential Emissions (tons/yr) <sup>a</sup>								
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Maximum Emissions	0.78	3.95	27.39	249.00	52.47	6.59	6.59	89,776

The site is not a major source with respect to the PSD program for all criteria pollutants or for lead, fluorides, hydrogen sulfide, total reduced sulfur, reduced sulfur compounds, or sulfuric acid mist pollutants.

Table 3 shows the total site-wide emissions which include the emissions from the Southeast OKC Landfill and Southeast OKC RNG facilities in emissions. The LFG generation at the

<sup>&</sup>lt;sup>a</sup> The site is not a major source with respect to the PSD program for all criteria pollutants or for lead, fluorides, hydrogen sulfide, total reduced sulfur, reduced sulfur compounds, or sulfuric acid mist pollutants.

<sup>&</sup>lt;sup>b</sup> The estimated emissions for CO are 240.33 TPY. However, the Facility was permitted in Permit No. 2011-1085-C (M-1) to 249.00 TPY as a limit for facility-wide CO emissions to avoid becoming a PSD major source.

<sup>&</sup>lt;sup>c</sup> GHG emissions are not considered for major source determination based on U.S. Supreme Court's ruling dated July 23, 2014 in Utility Air Regulatory Group vs. Environmental Protection Agency (UARG vs. EPA).

The estimated emissions for CO are 146.13 TPY. However, the Facility was permitted in Permit No. 2011-1085-C (M-1) to 249.00 TPY as a limit for facility-wide CO emissions to avoid becoming a PSD major source, including emissions from LFGRF.

<sup>&</sup>lt;sup>c</sup> GHG emissions are not considered for major source determination based on U.S. Supreme Court's ruling dated July 23, 2014 in Utility Air Regulatory Group vs. Environmental Protection Agency (UARG vs. EPA).

Southeast OKC Landfill is not enough to operate both facilities, one facility is at the Landfill to supply the three LFG flares at the same time at their maximum capacities, and the other facility is to supply Southeast OKC RNG facility for LFG purification. That means, the methane in the LFG can either be burned through one of the two flares, or can be extracted/purified in the LFGRF and sold to the pipeline, but the methane in the LFG can not be used in both ways. In order to avoid the emissions being counted twice, for NOx, CO, PM<sub>10</sub>, PM<sub>2.5</sub>, and GHG emissions, the greater emissions of the two facilities is chosen as the total site emissions. For HAP, SO<sub>2</sub>, and VOC, the combined emissions from both facilities are counted as the total site emissions. The total site-wide emissions of CO and SO<sub>2</sub> are higher than the major source threshold of 100 TPY and less than the PSD threshold of 250 TPY. For the rest of criteria pollutants and HAP, the total site-wide emissions are less than the major source threshold of 100 TPY. GHG emissions are shown for information purposes only.

Total Site Potential Emissions (tons/yr)<sup>a</sup> VOC  $GHG^{c}$  $PM_{2.5}$  $PM_{10}$ HAP  $NO_x$  $CO_p$  $SO_2$ Non-Non-Non-Non-**Fugitive Fugitive Fugitive Fugitive** fugitive<sup>b</sup> fugitive<sup>b</sup> fugitive fugitive Proposed 21.08 2.04 24.02 52.71 249.00 153.78 1.86 12.93 16.93 12.93 282,138 Site-wide 176,517 Emissions

Table 3. Total Site Potential-to-Emit Emissions

## SECTION III. FACILITY AND PROCESS DESCRIPTION

The Southeast OKC Landfill began operations to receive municipal solid waste in 1965. The first Air Quality permit, Permit No. 95-226-AD, was issued on 2/12/1996. The first Title-V permit, Permit No. 99-401-TV, was issued on 5/29/2001. In a solid waste permit modification issued by LPD on May 9, 2014, Southeast OKC Landfill was permitted to increase their permit boundary from 153 acres to a total of 373.96 acres, their waste disposal area from 145 acres to a total of 227.4 acres, and their waste disposal capacity from 26,128,150 cubic yards to a total capacity of 46,628,150 cubic yards. Currently, the facility operates 5.5 days a week and receives nonhazardous solid waste from the greater metropolitan Oklahoma City area. The facility typically receives approximately 2,100 ton/day of municipal, commercial, and nonhazardous industrial waste (NHIW). Among the received waste, the MSW constitutes 72% - 76% of the total weight, the construction and demolition waste constitutes 15% - 16% of the total weight, the special wastes, such as NHIW and asbestos-containing wastes, constitutes 8% - 9%, and the other miscellaneous waste constitutes, 0% -4%. At the end of 2014, the facility is estimated to have accepted total waste of 22.2 million cubic yards (or 16.97 million Mg) since 1965. The remaining permitted capacity is approximately 24.43 million cubic yards (or 18.79 million Mg).

<sup>&</sup>lt;sup>a</sup> The site is not a major source with respect to the PSD program for all criteria pollutants or for lead, fluorides, hydrogen sulfide, total reduced sulfur, reduced sulfur compounds, or sulfuric acid mist pollutants.

b The maximum CO emissions from both facilities is 240.33 TPY. However, the Facility was permitted in Permit No. 2011-1085-C (M-1) to 249.00 TPY as a limit for facility-wide CO emissions to avoid becoming a PSD major source, including emissions from LFGRF.

<sup>&</sup>lt;sup>c</sup> GHG emissions are not considered for major source determination based on U.S. Supreme Court's ruling dated July 23, 2014 in Utility Air Regulatory Group vs. Environmental Protection Agency (UARG vs. EPA).

LFG is usually generated by microbiological processes associated with waste decomposition, and LFG is composed primarily of methane (CH<sub>4</sub>) and carbon dioxide (CO<sub>2</sub>): CO<sub>2</sub> content ranging from 30 to 50% and CH<sub>4</sub> from 40 to 60%. Initial decomposition of the wastes is continuous and rapid until the entrained oxygen within the refuse is depleted. The second stage is anaerobic decomposition that can be divided into two separate and independent processes: nonmethanogenic and methanogenic. CO<sub>2</sub> is a byproduct of the non-methanogenic process and CH<sub>4</sub> is a byproduct of the methanogenic process. LFG may contain small amounts of non-methane organic compounds (NMOC), which include trace volatile organic compounds (VOCs) and hazardous air pollutants (HAPs). The production of LFG begins a few months after initial waste placement and continues until the microbial reactions are limited by substrate or moisture availability. LFG production is also affected by the solid waste disposal rate and varies over the life of the landfill. Generally, LFG production increases with time until a peak volume is reached shortly after landfill closure. In general, the LFG collection system consists of a network of vertical extraction wells, horizontal header pipes, and gas condensate sumps, and the collected LFG is processed and is either transported to a LFG treat/refine/recovery system or sent to on-site flares.

Currently, Southeast OKC Landfill is permitted to operate two LFG flares, one (1) large utility flare at 3,500 SCFM design capacity, which is permitted in Permit No. 2011-1085-C (M-1), one (1) medium utility flare at 2,400 SCFM design capacity for on-site soil vapor extraction (SVE) operation. Total capacities of two flares would be added up to a total of 5,900 SCFM of LFG if both flares are operated at the same time and at the maximum capacity. However, the large flare was operated at an average rate of 3,200 SCFM in 2016. The medium flare was operated at an average rate of 720 SCFM in 2016. Apparently, there is not sufficient LFG generated to supply both flares. All LFG (50% methane content) is piped to the large flare location and to the LFGRF, and the SVE stream (15% methane content or less) is piped to the medium flare and then combusted.

Southeast OKC Landfill also operates a soil vapor extraction (SVE) system that collects vapors from soils and conveys it to the SVE flare to be combusted or directly vented to the atmosphere. Currently, the facility has approximate 44 SVE wells, which are located at the outskirt of the landfill around the boundary line of the disposal area. The SVE system is used to extract the outdiffused LFG, which escapes from the landfill boundary into the surrounding soil. The SVE system is for LFG migration control and not for surface emissions control. As such, the SVE system is excluded from NSPS Subpart WWW and NESHAP Subpart AAAA requirements per DEQ approval in June 2005.

The soil vapor extraction (SVE) system has a blower, which supplies the vacuum to extract the soil vapors from the soils and discharge it to the SVE flare. The capacity of the blower limits the maximum flow rate to approximately 500 SCFM. When sufficient soil vapor concentration exists, the soil vapor will be combusted, and if insufficient soil vapor composition exists for combusting due to mixing of soil vapor with ambient air, the soil vapor will be directly vented to the atmosphere.

Both flares are open utility flares and each flare is equipped with a flame safeguard and an auto-ignition pilot system that provides automatic flare startup. An electric igniter provides the spark used for automatic flare ignition. A master flow control valve installed along the main header regulates the amount of LFG/SVE flow extracted from the landfill. This valve is also used as an isolation valve to prevent the direct release of LFG/SVE emissions from the collection system during system repairs. Monitoring ports in the main header, upstream from the valve, are used to measure LFG/SVE flow, pressure, and composition.

Because the facility has a landfill design capacity greater than 2.5 million Mg and 2.5 million cubic meters (m³) and has non-methane organic compound (NMOC) emission rate greater than 50 Mg/yr, the facility is required to comply with the New Source Performance Standards (NSPS) in Title 40 Code of Federal Regulations (CFR) Part 60, NSPS, Subpart WWW and 40 CFR Part 63, NESHAP, Subpart AAAA and is required to install and operate a gas collection and control system (GCCS). The facility has an active GCCS that routes collected landfill gas (LFG) from current 118 extraction wells either to the existing two flares or to the LFGRF. The number of LFG extraction wells will be increased with time to comply with 40 CFR Part 60, NSPS Subpart WWW.

# SECTION IV. EQUIPMENT

Emission units (EU) have been arranged into Emission Unit Groups (EUG) in the Equipment Section. Table 5 lists the EUGs.

 EU ID #
 Emission Sources
 EU Group Name

 EUG-1
 Uncollectable LFG Fugitives from Underground & PM10 and PM2.5 Fugitives From Earthmoving Operations
 Landfill Operation

 EUG-2
 Enclosed/Utility Flare Systems and SVE Operations
 GCCS and LFG Flare

 EUG-3
 VOC Storage Tanks and Associate Equipment
 Tanks

Table 4. Emission Unit (EU) Information

There are three main sources of emissions at the facility. Once MSW is placed in the landfill, it is compacted and covered with soil/dirt/earth. The anaerobic decomposition of buried organic wastes within the covered landfill produces a biogas commonly referred to as LFG. EUG-1 includes uncollectable LFG fugitives from underground and PM<sub>10</sub> fugitives, which is caused by earthmoving operation equipment, such as dozers, compactors, dump trucks, excavators, graders, and tractors.

EUG-2 includes GCCS and LFG flare system. The GCCS consists of a network of extraction wells (180 wells) and collection pipes that collect LFG generated within the landfill. The GCCS is also comprised of a blower system which induces negative pressure within the landfill and transfers the collected LFG to the open flare system for burning or to the LFGRF that will be operated by Southeast OKC RNG, LLC. EUG-3 includes all VOC storage tanks and associated equipment, which is not included in the EUG-1 and EUG-2.

## SECTION V. AIR EMISSIONS

This facility includes the following emission sources:

- Landfill Gas Generation and Uncollectable Fugitive LFG
- Flare Operations
- Landfill Gas Refining Facility (LFGRF)
- Earthmoving Equipment Operations
- Insignificant Activities
- Greenhouse Gas (GHG) Emissions

# **Landfill Gas Generation**

Municipal solid waste is accepted and taken directly to the landfill for disposal. The anaerobic decomposition of organic material in the waste results in the generation of a biogas commonly referred to as LFG. Consisting of approximately 50 percent methane and 50 percent carbon dioxide, LFG also includes other trace compounds and water vapor.

The EPA's Landfill Gas Emissions Model (LandGEM) Version 3.02 (5/2005) was used to determine the NMOC and maximum LFG generation for the site, based on the current site conditions and forecasts. The NMOC is determined based on the model's input parameters: (1) landfill's total design capacity of 24,098,132 Mg, (2) waste acceptance data, (3) a methane generation rate constant of 0.05 yr<sup>-1</sup>, (4) a potential methane generation capacity of 170 m<sup>3</sup>/Mg, and (5) a default NMOC concentration of 600 parts per million by volume (ppmv). Based on the results of the modeling, the maximum NMOC generation rate in LFG is estimated at 356.93 TPY or 323.80 Mg per year in 2041, which is greater than 50 Mg per year.

The maximum LFG generation is determined based on LandGEM model's default inventory parameters: (1) landfill's total design capacity of 24,098,132 Mg, (2) waste acceptance data, (3) a methane generation rate constant of 0.04 yr <sup>-1</sup>, (4) a potential methane generation capacity of 100 m<sup>3</sup>/Mg, and (5) a default NMOC concentration of 600 parts per million by volume (ppmv). Based on the results of the modeling, the landfill will generate a maximum of 41.31 million cubic meters per year (m<sup>3</sup>/yr) of methane (CH<sub>4</sub>) in 2039. Methane is assumed to be 50 percent of the total volume of LFG. The maximum projected LFG generation rate for the landfill is estimated to be 7,920 SCFM in 2039. If 74% collection efficiency is used for LFG collection, then, the collected LFG is approximately 5,860 SCFM to flares. The 5,860 SCFM is lower than the total maximum design capacities of two flares at 5,900 SCFM of LFG. Apparently, there is not sufficient LFG generated to supply two flares to be operated at their maximum capacities.

Regarding landfill fugitive emissions, the GCCS may be assumed to have a 74% collection efficiency of generated LFG and the remaining 26% of LFG is considered as uncollectable fugitives to the air from underground in accordance with the EPA AP-42 (11/98), Section 2.4, "MSW Landfills." The uncollectable LFG fugitive rate is 2,060 SCFM. The fugitive VOC and HAP emissions were calculated by using the equations # 3 and # 4 from AP-42, Section 2.4 (11/98) and by using the concentration of the LFG compound. The concentrations for LFG compounds were calculated by using a ratio of each compound's default LandGEM version 3.02 concentration with respect to the default NMOC concentration and then, multiplying by the NMOC default concentration at 600 ppmv. The maximum LFG generation rate of 7,920 SCFM is used for fugitive emissions estimation.

Table 5. Potential Speciated HAP Fugitive Emissions

(Based on 8,760 hours/year of operations)

C1	Molecular		<b>Fugitive Emissions</b>	
Compound	Weight	ppmv	lb/hr	TPY
1,1,1-Trichloroethane	133.41	0.48	0.02	0.09
1,1,2,2-Tetrachloroethane	167.85	1.10	0.06	0.25
1,1-Dichloroethane (ethylidene dichloride)	98.97	2.40	0.07	0.32
1,1-Dichloroethene (vinylidene chloride)	96.94	0.20	0.01	0.03
1,2-Dichloroethane (ethylene dichloride)	98.96	0.41	0.01	0.05
1,2-Dichloropropane (propylene dichloride)	112.99	0.18	0.01	0.03
Acrylonitrile	53.06	6.30	0.10	0.44
Benzene	78.11	1.90	0.04	0.20
Carbon disulfide	76.13	0.58	0.01	0.06
Carbon tetrachloride	153.84	0.004	0.00	0.00
Carbonyl sulfide	60.07	0.49	0.01	0.04
Chlorobenzene	112.56	0.25	0.01	0.04
Chloroethane	64.52	1.30	0.03	0.11
Chloroform	119.39	0.03	0.00	0.00
Chloromethane	50.49	1.20	0.02	0.08
Dichlorobenzene	147.00	0.21	0.01	0.04
Dichloromethane	84.94	14.0	0.36	1.58
Ethylbenzene	106.16	4.60	0.15	0.65
Ethylene dibromide	187.88	0.001	0.00	0.00
Hexane	86.18	6.60	0.17	0.76
Mercury	200.61	0.0003	0.00	0.00
Methyl isobutyl ketone	100.16	1.90	0.06	0.25
Perchloroethylene	165.83	3.70	0.19	0.81
Toluene	92.13	39.00	1.09	4.77
Trichloroethylene	131.40	2.80	0.11	0.49
Vinyl chloride	62.50	7.30	0.14	0.61
Xylenes	106.16	12.00	0.39	1.69
Total HAPs				13.33

Table 6. Estimated Landfill Fugitive Emissions

(Based on 8,760 hours/year of operations)

Pollutants	<b>Emission Rate (TPY)</b>
VOC	21.08
HAP	13.33

# Flare Operations

The LFG utility flares at the Southeast OKC Landfill are each equipped with a flame safeguard and an auto-ignition pilot system that provides automatic flare startup. A master flow control valve installed along the main LFG header regulates the amount of LFG extracted from the

landfill. This valve is also used as an isolation valve to prevent the direct release of LFG emissions from the collection system during system repairs. Monitoring ports in the main header, upstream from the valve, are used to measure LFG flow, pressure, and composition.

Air emissions from the flares are primarily NO<sub>x</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and VOC. The air emission estimates for the flare systems are based on a worst-case scenario when the proposed LGFRF is not in operation and all generated LFG must be sent to the flares and the emission calculation are based on the following conditions:

- 1. The maximum flare flow rate is 3,500 SCFM for the large flare and the maximum flare flow rate is 2,400 SCFM for the medium flare.
- 2. LFG constituents of 50% methane.
- 3. Emission factors for SO<sub>2</sub> is based on a conservative concentration of 400 ppmv sulfur in the LFG.
- 4. Emission factors from manufacturer for  $NO_x$  and CO, and from AP-42 (11/98) Table 2.4-5 for PM. The emission factor is the same for the  $PM_{10}$ , and  $PM_{2.5}$ .
- 5. LFG's heating value of 500 BTU/ft<sup>3</sup>.
- 6. A destruction (combustion) efficiency rate of 98% for VOCs and HAPs.
- 7. Estimates of HAP emissions are based on LFG constituent concentrations in AP-42 (11/98) Table 2.4-1 with the flares, rates (3,500 SCFM and 2,400 SCFM) of LFG being collected and combusted in the flares.

Table 6. Estimated Emissions for the Large Flare, 3,500 SCFM (Based on 8,760 hours/year of operations)

Pollutants	<b>Emission Factors</b>	<b>Emission Rate (TPY)</b>
$NO_x$	0.068 lb/MMBTU	31.27
CO	0.37 lb/MMBTU	142.57
Particulate Matter, PM <sub>10</sub> , or PM <sub>2.5</sub>	0.00104 lb/hr/scfm of CH <sub>4</sub>	7.67
$SO_2$		60.10
HAP		4.00
VOC		0.75

Table 7. Estimated Emissions for the Medium Flare, 2,400 SCFM (Based on 8,760 hours/year of operations)

Pollutants	<b>Emission Factors</b>	<b>Emission Rate (TPY)</b>
NO <sub>x</sub>	0.068 lb/MMBTU	21.44
CO	0.31 lb/MMBTU	97.76
Particulate Matter, PM <sub>10</sub> , or PM <sub>2.5</sub>	0.00104 lb/hr/scfm of CH <sub>4</sub>	5.26
$SO_2$		41.21
HAP		2.74
VOC		0.51

# Landfill Gas Refining Facility (LFGRF)

An active GCCS is installed at the Southeast OKC Landfill and is used to extract and convey the LFG either to the utility flares or to the LFGRF, which is operated by Southeast OKC RNG. The

LFGRF extracts a significant portion of methane from the LFG and purifies it, and then, sells it to the pipeline. The detailed estimation of air emissions from the LFGRF are covered in the Permit No. 2015-0267-C and are not presented and included in this Title-V renewal permit. However, a summary of the air emissions are presented in Table 3, Section II of this Title-V permit renewal.

# **Earthmoving Equipment Operations**

Particulate emissions are generated during on-site earthmoving operations, which include the excavation of landfill cells and the placement of daily cover soil over the freshly placed waste at the landfill's working face. To control particulate emissions from earthmoving operations, water is sprayed on the surfaces by a water truck, as needed. Particulate emissions from the various earthmoving operations are based on the operating hours of the earthmoving equipment and the number and types of vehicles.

Air emissions generated from the landfill's earthmoving operations, which include the emissions from three (3) bulldozers, three (3) compactors, one (1) excavator, two (2) dump trucks, one (1) tractor, and operations at the site. Dozing and compacting operation emissions were estimated using emission factors derived from AP-42 (10/98), Table 11.9-1, for handling overburden materials, Section 11.9, "Western Surface Coal Mining." The emission factor equation is presented below:

$$E = k (s)^{a} / (M)^{b}$$

Where k, a, and b are empirical constants, given in the next page and

E = Emission factor (lb/hr)

s = Mean material silt content (%), 6.9% from Table 11.9-3

M = Mean material moisture content (%), 12% for landfill soil cover

k = 0.75 lb/hr for  $PM_{10}$  and 0.105 lb/hr for  $PM_{2.5}$ 

a = 1.5 for  $PM_{10}$  and  $PM_{2.5}$ 

 $b = 1.4 \text{ for } PM_{10} \text{ and } PM_{2.5}$ 

The emission factors are calculated as 0.4193 lb/hr for  $PM_{10}$  and 0.2403 lb/hr for  $PM_{2.5}$ . The total working hours of bulldozers and compactor are 28,600 hours per year. Each vehicle operates 10 hours/day, 5.5 days/week, and 52 weeks per year.

Emissions from dump truck and excavator operations were estimated using emission factors derived from AP-42 (11/06), Table 13.2.4-1, Section 13.2.4, "Aggregate Handling and Storage Piles." The emission factor equations, Equation (1) in Section 13.2.4.3 is presented below:

Emission Factor, 
$$E = k(0.0032) \frac{(U/5)^{1.3}}{(M/2)^{1.4}}$$

Where k, U, and M are parameters:

E = Emission factor (lb/ton)

k = Particle size multiplier, 0.35 for PM<sub>10</sub> and 0.053 for PM<sub>2.5</sub>

U = Mean wind speed, 10 miles/hour

M = Mean material moisture content (%), 3.2% for landfill soil/dirt

The emission factors are calculated as 0.00143 lb/ton for  $PM_{10}$  and 0.00022 lb/ton for  $PM_{2.5}$ . The total weight of soil/dirt, which are loaded to the truck and then unloaded to the ground, is estimated to be 493,460 tons per year, which is 293,726 cubic yard (CY) of soil/dirt with the soil density of 1.68 ton/CY.

The emission factor equation for grading operation is from Table 11.9-1 of AP42 (10/98) and presented below:

$$E = k (0.051) (S)^{a}$$

E = Emission factor (lb/VMT)

S = Mean vehicle speed (mph), 5 mph for grader vehicle

k = 0.60 lb/VMT for  $PM_{10}$  and 0.031 lb/VMT for  $PM_{2.5}$ 

 $a = 2.0 \text{ for } PM_{10} \text{ and } PM_{2.5}$ 

The emission factors are calculated as 0.77 lb/VMT for PM<sub>10</sub> and 0.07 lb/VMT for PM<sub>2.5</sub>. The total VMT (Vehicle Mile Traveled) for one grader vehicle is 1,144 miles per year. The vehicle works 4 hours/day, 5.5 days/week, and 52 weeks per year.

Fugitive emissions from vehicle traffic are estimated based on AP-42 (11/2006), Section 13.2.2, "Introduction to Fugitive Dust Sources, Unpaved Roads." The Equation (1a), the formula for industrial roads, is used to calculate the  $PM_{10}$  emissions.

$$E = k (s/12)^a (w/3)^b$$

Where k, a, and b are empirical constants, given below and

E = site-specific emission factor (lb/VMT)

s = surface material silt content (%), 6.4% for MSW Landfills

w = mean vehicle weight (tons), 18 tons

 $k = 1.5 \text{ lb/VMT for } PM_{10} \text{ and } 0.15 \text{ lb/VMT for } PM_{2.5}$ 

 $a = 0.9 \text{ for } PM_{10} \text{ and } PM_{2.5}$ 

 $b = 0.45 \text{ for } PM_{10} \text{ and } PM_{2.5}$ 

The emission factors are determined to be 1.908 lb of PM<sub>10</sub> and 0.191 lb of PM<sub>2.5</sub> per VMT. It is assumed that a 10 wheeler is used to transport in 14 tons of MSW with total vehicle weight at 25 tons and the mean vehicle weight at 18 tons for each trip to the site. The total unpaved road is 0.3 mile from the site entrance to the end of the active landfill area. The two trips in and out of the site traveled by a vehicle are 0.6 miles, one trip is full and one trip is empty. It will take a vehicle 150 times a day to deliver about 2,100 tons MSW/day. Based on 6 day/week and 52 week/year operation, the PM<sub>10</sub> fugitive emissions are estimated to be 26.79 TPY before dust control, such as water spraying. Application of water to the unpaved roads at the facility is considered a reasonable precaution to minimize fugitive dust and is required per OAC 252:100-

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29. Based on the control efficiency of 70% for application of water, the controlled  $PM_{10}$  fugitive emissions are reduced to 8.04 TPY. The corresponding  $PM_{2.5}$  fugitive emissions are 0.81 TPY.

Table 8. PM<sub>10</sub> and PM<sub>2.5</sub> Dust Fugitive Emissions

Emission Source	PM <sub>10</sub> (TPY)	PM <sub>2.5</sub> (TPY)
Bulldozing and Compaction	6.00	0.84
Dump Track, Tractor, & Excavator Loading	0.35	0.05
Dump Track, Tractor, & Excavator Unloading	0.35	0.05
Grading	2.19	0.11
MSW Delivery Truck Travel on Unpaved Roads	8.04	0.81
<b>Total Emissions</b>	16.93	1.86

# **Insignificant and Trivial Activities**

Other minor sources and activities that may generate air emissions at the facility are listed below. These insignificant sources qualify under one or more of the activities listed in the DEQ's Insignificant Activities and Trivial Activities OAC 252:100 Appendices I and J, respectively.

- (1) 8,000-gallon diesel storage tank (throughput  $\leq$  2,175 gallons per day)
- (1) 500-gallon diesel storage tank (throughput  $\leq 2,175$  gallons per day)
- (1) 100,000-gallon leachate storage tank ( $\leq 5$  ton per year emissions)
- (3) 330-gallon engine oil/transmission oil/hydraulic fluid storage tanks
- Liquid waste solidification operations
- Welding and soldering operations (Utilizes less than 100 pounds of solder and 53 tons per year of electrodes)

The appropriate records of hours, quantity, or capacity will be maintained sufficient to demonstrate that the insignificant sources qualify as Insignificant Activities or Trivial Activities. However, their air emissions will not be presented and listed in this section.

# Greenhouse Gas (GHG) Emissions

The Greenhouse Gas (GHG) emissions are estimated based on a worst-case scenario, which assumes 26% of generated LFG are emitted as fugitives from landfill area and 74% of generated LFG are sent to flares. For emissions estimation purpose, the LFG flow rates are 2,060 SCFM as fugitives and 5,900 SCFM (including SVE flow rate) to flares.

## **GHG** Fugitive Emissions

The following conditions are adopted in the estimation:

- Maximum LFG generation rate at 2,060 SCFM.
- Generated LFG constituents of 50% methane and 50% carbon dioxide.
- Becoming fugitives, 10% of CH<sub>4</sub> is oxidized to CO<sub>2</sub> when LFG passes through cover soils via biogenic process.
- Global warming potential (GWP) and emission factors are listed below:

Pollutants	GWP	<b>Emission Factor</b>
Tonutants	Factor	kg/MMBTU
$CO_2$	1	52.07
CH <sub>4</sub>	25	0.0032
$N_2O$	298	0.00063

GHG emissions are expressed as  $CO_2e$ . Table 9 lists annual potential fugitive Greenhouse Gas emissions based on the nature of the generation. The GHG emissions are presented both as metric ton per year (MTPY) and TPY.

Table 9. Potential Fugitive GHG Emissions

Emissions Source	Total CO <sub>2</sub> e		
Emissions Source	MTPY	TPY	
Biogenic CO <sub>2</sub>	30,278	33,376	
GHG Pollutants Excluding Biogenic CO <sub>2</sub>	225,677	248,763	
<b>Total Fugitive Emissions</b>	255,954	282,138	

# **GHG Flare Emissions**

The Greenhouse Gas (GHG) Emissions are estimated based on the following conditions:

- Maximum LFG generation rate at 5,900 SCFM to the utility flare system (two flares)
- LFG constituents of 50% methane and 50% carbon dioxide
- LFG's heating value of 500 BTU/ft<sup>3</sup>
- Global warming potential (GWP) and emission factors are listed below:

Pollutants	GWP	<b>Emission Factor</b>
Tonutants	Factor	kg/MMBTU
$CO_2$	1	52.07
CH <sub>4</sub>	25	0.0032
$N_2O$	298	0.00063

GHG emissions are expressed as CO<sub>2</sub>e. Table 10 lists annual potential flare Greenhouse Gas emissions based on the EUGs. Table 11 lists annual potential facility-wide Greenhouse Gas emissions based on the nature of the generation. Both in Tables 10 and 11, the GHG emissions are presented both as metric ton per year (MTPY) and TPY.

Table 10. Potential Flare GHG Emissions

Emissions Source	Total CO <sub>2</sub> e		
Emissions Source	MTPY	TPY	
Direct Emissions of CO <sub>2</sub> in the Fuel	79,007	87,089	
Residual Emissions of CH <sub>4</sub> from Incomplete Combustion	124	137	
Emissions of CO <sub>2</sub> as Combustion Product	80,713	88,971	
Emissions of N <sub>2</sub> O as Combustion Byproduct	290	320	
Total Flare Emissions	160,135	176,517	

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Table 12. Potential Facility-Wide GHG Emissions

Emissions Source	Total CO <sub>2</sub> e		
Emissions source	MTPY	TPY	
Total Fugitive Emissions	255,954	282,138	
Total Flare Emissions	160,135	176,517	
<b>Total Facility-Wide Emissions</b>	416,089	458,655	

At the time of the submission of this application, there are no additional federal regulatory requirements applicable to greenhouse gas emissions from the OKC Landfill and covered by Title V Permit Program authority. Federal GHG Mandatory Reporting Rule requirements published at 40 CFR Part 98 were enacted under sections 114(a)(1) and 208 of the Clean Air Act and, as such, are not included in the definition of "applicable requirements", as found at 40 CFR 70.2 and 71.2, to be included in a Title V Permit. However, for the worst case scenario, the biogenic carbon dioxide emissions are preferably included and counted in the air emission estimation.

# **Air Emissions Summary**

Table 10 shows the total potential facility-wide emissions of all air pollutants.

Table 10. Total Potential Facility-Wide Air Emissions

Pollutants	Utility Flare Large Flare	Utility Flare Medium Flare	Landfill & Fugitive	Facility	Total
	TPY	TPY	TPY	TPY	TPY
$NO_x$	31.27	21.44			52.71
CO	142.57	97.76			240.33
VOC	0.75	0.51	21.08		22.34
PM <sub>10</sub>	7.67	5.26	16.93		29.86
PM <sub>2.5</sub>	7.67	5.26	1.86		14.79
$SO_2$	60.10	41.21			101.31
HAP	4.00	2.74	13.33		20.07
GHG as CO <sub>2</sub> e				458,655	458,655

The facility-wide CO emission is estimated at 240.33 TPY, which is proven to be lower than 250 TPY, PSD major source threshold. Due to the flare total design capacities, the Southeast OKC Landfill was permitted in Permit No. 2011-1085-C (M-1) to take 249 TPY as a limit for combined CO emissions to avoid becoming a PSD major source when the large flare at 3,500 SCFM was constructed in 2013. This limit of 249 TPY for combined CO emission remains applicable to the facility-wide emissions including the LFGRF facility.

# SECTION VI. INSIGNIFICANT ACTIVITIES

The insignificant activities identified and justified in the application and listed in OAC 252:100-8, Appendix I, are duplicated below. Record keeping for activities indicated with a "\*" is specified in the Specific Conditions. Any activity to which a state or federal applicable requirement applies is not insignificant even if it is included on this list.

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- 1. Space heaters, boilers, process heaters, and emergency flares less than or equal to 5 MMBtu/hr heat input.
- 2. \* Emissions from fuel storage/dispensing equipment operated solely for facility owned vehicles if fuel throughput is not more than 2,175 gallons/day, averaged over a 30-day period. There is an 8,000-gallon diesel storage tank with a maximum daily throughput less than 2,175 gallon.
- 3. \* Storage tanks with less than or equal to 10,000 gallons capacity that store volatile organic liquids with a true vapor pressure less than or equal to 1.0 psia at maximum storage temperature. There are three (3) 330-gallon engine oil/transmission oil/hydraulic fluid storage tanks, which have a true vapor pressures less than 1.0 psia at maximum storage temperature.
- 4. Welding and soldering operations utilizing less than 100 pounds of solder and 53 tons per year of electrodes. There are welding activities in maintenance building.
- 5. \* Activities having the potential to emit no more than 5.0 TPY (actual) of any criteria pollutant. The applicant identified insignificant activities including solidification, leachate pond, and cold degassing operation. Calculated emissions from the activities are less than the de minimis level.

# SECTION VII. OKLAHOMA AIR QUALITY RULES

OAC 252:100-1 (General Provisions)

[Applicable]

Subchapter 1 includes definitions but there are no regulatory requirements.

OAC 252:100-2 (Incorporation by Reference)

[Applicable]

This subchapter incorporates by reference applicable provisions of Title 40 of the Code of Federal Regulations listed in OAC 252:100, Appendix Q. These requirements are addressed in the "Federal Regulations" section.

OAC 252:100-3 (Air Quality Standards and Increments)

[Applicable]

Primary Standards are in Appendix E and Secondary Standards are in Appendix F of the Air Pollution Control Rules. At this time, all of Oklahoma is in attainment of these standards.

OAC 252:100-5 (Registration, Emissions Inventory and Annual Operating Fees) [Applicable] Subchapter 5 requires sources of air contaminants to register with Air Quality, file emission inventories annually, and pay annual operating fees based upon total annual emissions of regulated pollutants. Emission inventories have been submitted and fees paid for the past years.

OAC 252:100-8 (Permits for Part 70 Sources)

[Applicable]

<u>Part 5</u> includes the general administrative requirements for Part 70 permits. Any planned changes in the operation of the facility that result in emissions not authorized in the permit and that exceed the "Insignificant Activities" or "Trivial Activities" thresholds require prior notification to AQD and may require a permit modification. Insignificant activities refer to those

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individual emission units either listed in Appendix I (OAC 252:100) or whose actual calendar year emissions do not exceed the following limits.

- 5 TPY of any one criteria pollutant.
- 2 TPY of any one hazardous air pollutant (HAP) or 5 TPY of multiple HAPs or 20% of any threshold less than 10 TPY for a HAP that the EPA may establish by rule.

The facility is classified a Part 70 source as specified in NSPS Subpart WWW since design capacity of the landfill is greater than 2.5 million megagrams or 2.5 million cubic meters. As such, a Title V (Part 70) operating permit is required.

# OAC 252:100-9 (Excess Emission Reporting Requirements)

[Applicable]

Except as provided in OAC 252:100-9-7(a)(1), the owner or operator of a source of excess emissions shall notify the Director as soon as possible but no later than 4:30 p.m. the following working day of the first occurrence of excess emissions in each excess emission event. No later than thirty (30) calendar days after the start of any excess emission event, the owner or operator of an air contaminant source from which excess emissions have occurred shall submit a report for each excess emission event describing the extent of the event and the actions taken by the owner or operator of the facility in response to this event. Request for affirmative defense, as described in OAC 252:100-9-8, shall be included in the excess emission event report. Additional reporting may be required in the case of ongoing emission events and in the case of excess emissions reporting required by 40 CFR Parts 60, 61, or 63.

# OAC 252:100-13 (Open Burning)

[Applicable]

Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in this subchapter.

## OAC 252:100-17 (Incinerators)

[Not Applicable]

An "incinerator" is defined as "a combustion device specifically designed for the destruction, by high temperature burning, of solid, semi-solid, liquid, or gaseous combustible wastes and from which the solid residues contain little or no combustion material." Under 252:100-17-2.1, flares and other pollution control devices are exempted from Subchapter 17.

# OAC 252:100-19 (Particulate Matter)

[Not Applicable]

This subchapter specifies a PM emissions limitation of 0.51 lb/MMBtu from fuel-burning units with a rated heat input of 70 MMBtu/hr and higher limits for smaller fuel-burning units. The utility flare is not considered a "fuel-burning unit."

This subchapter also limits emissions of PM from industrial processes. Per AP-42 factors, there are no significant PM emissions from any other industrial activities at this facility.

# OAC 252:100-25 (Visible Emissions and Particulates)

[Applicable]

No discharge of greater than 20% opacity is allowed except for short-term occurrences which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity. When burning LFG, this facility has a low potential to exceed these standards.

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OAC 252:100-29 (Fugitive Dust)

[Applicable]

This subchapter states that no person shall cause or permit the discharge of any visible fugitive dust emissions beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards. Precautions are stated in Specific Conditions to minimize fugitive dust.

# OAC 252:100-31 (Sulfur Compounds)

[Applicable]

Part 2 also limits the ambient air impact of hydrogen sulfide emissions from any new or existing source to 0.2 ppmv for a 24-hour average (equivalent to 283  $\mu g/m^3$ ). This standard, however, does not apply to ambient air concentrations occurring on property from which such emission occurs. To estimate  $H_2S$  concentration in the ambient air, a SCREEN 3.0 dispersion model was performed as an area source. The results indicated that the maximum  $H_2S$  concentration in ambient air is 43.59  $\mu g/m^3$  at a distance of 249 meters from the property line, which is less than the standard specified in the subchapter.

$H_2S$	Ambient Impact (1-hour average)		Standard in S	Subchapter 31
lb/hr	(μg/m <sup>3</sup> 1 hour)	(ppm)	$(\mu g/m^3)$	(ppm)
0.247	43.59	0.029	283	0.2

<u>Part 5</u> limits sulfur dioxide emissions from new fuel-burning equipment (constructed after July 1, 1972). For gaseous fuels the limit is 0.2 lb/MMBtu heat input. The flare does not meet the definition of "fuel-burning equipment."

<u>Part 5</u> also limits hydrogen sulfide emissions from new petroleum or natural gas process equipment (constructed after July 1, 1972). Removal of hydrogen sulfide in the exhaust stream, or oxidation to sulfur dioxide, is required unless hydrogen sulfide emissions would be less than 0.3 lb/hr for a two-hour average. Hydrogen sulfide emissions shall be reduced by a minimum of 95% of the hydrogen sulfide in the exhaust gas. Direct oxidation of hydrogen sulfide is allowed for units whose emissions would be less than 100 lb/hr of sulfur dioxide for a two-hour average. The equipment at this facility does not meet the definition of "petroleum or natural gas process equipment" and, therefore, is not subject to this requirement.

<u>Part 5</u> also requires that all thermal devices for petroleum and natural gas processing facilities regulated under OAC 252:100-31-26(a) shall have installed, calibrated, maintained, and operated an alarm system that will signal noncombustion of the gas. The equipment at this facility does not meet the definition of "petroleum or natural gas process equipment" and, therefore, is not subject to this requirement.

# OAC 252:100-33 (Nitrogen Oxides)

[Not Applicable]

This subchapter limits new gas-fired fuel-burning equipment with rated heat input greater than or equal to 50 MMBTUH to emissions of 0.2 lb of NOx per MMBTU. There are no equipment items that exceed the 50 MMBTUH threshold.

### OAC 252:100-35 (Carbon Monoxide)

[Not Applicable]

This facility has none of the affected sources: gray iron cupola, blast furnace, basic oxygen furnace, petroleum catalytic reforming unit or petroleum catalytic cracking unit.

# OAC 252:100-37 (Volatile Organic Compounds)

[Not Applicable]

<u>Part 3</u> requires storage tanks constructed after December 28, 1974, with a capacity of 400 gallons or more and storing a VOC with a vapor pressure greater than 1.5 psia to be equipped with a permanent submerged fill pipe or with an organic vapor recovery system. This facility does not have storage tanks, which store VOCs with a vapor pressure greater than 1.5 psia.

<u>Part 5</u> limits the VOC content of coatings used in coating lines or operations. This facility will not normally conduct coating or painting operations except for routine maintenance of the facility and equipment, which is exempt.

<u>Part 7</u> requires fuel-burning and refuse-burning equipment to be operated to minimize emissions of VOC. The operation of fuel-burning equipment shall base on manufacturer's data and good engineering practice, that the equipment is not overloaded; that it is properly cleaned, operated, and maintained; and that temperature and available air are sufficient to provide essentially complete combustion. The SVE flare at this facility is not a control device and is not refuse-burning equipment. It is also not considered fuel-burning equipment since it is not used to convert the combustion of fuel into usable energy.

# OAC 252:100-42 (Toxic Air Contaminants (TAC))

[Applicable]

This subchapter regulates toxic air contaminants (TAC) that are emitted into the ambient air in areas of concern (AOC). Any work practice, material substitution, or control equipment required by the Department prior to June 11, 2004, to control a TAC, shall be retained, unless a modification is approved by the Director. Since no AOC has been designated there are no specific requirements for this facility at this time.

# OAC 252:100-43 (Testing, Monitoring, and Recordkeeping)

[Applicable]

This subchapter provides general requirements for testing, monitoring and recordkeeping and applies to any testing, monitoring or recordkeeping activity conducted at any stationary source. To determine compliance with emissions limitations or standards, the Air Quality Director may require the owner or operator of any source in the state of Oklahoma to install, maintain and operate monitoring equipment or to conduct tests, including stack tests, of the air contaminant source. All required testing must be conducted by methods approved by the Air Quality Director and under the direction of qualified personnel. A notice-of-intent to test and a testing protocol shall be submitted to Air Quality at least 30 days prior to any EPA Reference Method stack tests. Emissions and other data required to demonstrate compliance with any federal or state emission limit or standard, or any requirement set forth in a valid permit shall be recorded, maintained, and submitted as required by this subchapter, an applicable rule, or permit requirement. Data from any required testing or monitoring not conducted in accordance with the provisions of this subchapter shall be considered invalid. Nothing shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

OAC 252:100-47 (Control of Emissions from Existing MSW Landfills) [Not Applicable] Existing MSW landfills having a design capacity greater than 2.5 million megagrams or 2.5 million cubic meters are required to obtain a Part 70 permit. Landfills having NMOC emissions of at least 50 Mg/yr are required to install a gas collection and control system (GCCS) in

accordance with the requirements of 40 CFR Part 60.752. Currently, this facility is a Part 70 source and subject to the requirements under 40 CFR Part 60, NSPS, Subpart WWW. This subchapter affects existing MSW landfills. Since this landfill was modified after May 30, 1991, this landfill is not considered existing, therefore, this landfill is not subject to this subchapter.

The following Oklahoma Air Pollution Control Rules are not applicable to this facility

OAC 252:100-11	Alternative Reduction	Not requested
OAC 252:100-15	Mobile Sources	Not in source category
OAC 252:100-23	Cotton Gins	Not type of emission unit
OAC 252:100-24	Feed & Grain Facility	Not in source category
OAC 252:100-39	Nonattainment Areas	Not in a subject area

## SECTION VIII. FEDERAL REGULATIONS

PSD, 40 CFR Part 52

[Not Applicable At This Time]

PSD does not apply. The total emissions are less than the threshold level of 250 TPY of any single regulated pollutant and the facility is not one of the 26 specific industries with a threshold of 100 TPY.

NSPS, 40 CFR Part 60

[Subparts A and WWW are Applicable]

<u>Subpart A</u>, General Provisions. This subpart specifies standards only for control devices used to achieve compliance with an applicable NSPS Subpart. A flare is a "Best Demonstrated Technology (BDT)" for landfill gas destruction.  $\S60.18$  specifies that no visible emissions exceed a total of 5 minutes during any two consecutive hours. For non-assisted flare, the net heating value of combusted gas shall be greater than 7.45 MJ/SCM (200 BTU/SCF) and an exit velocity less than 18.3 m/s (60 ft/s). Maximum permitted velocity ( $V_{max}$ ) can be determined by the equation:

$$log_{10}(V_{max}) = \frac{H_T + 28.8}{31.7}$$

<u>Subpart Cc.</u> Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills. This subpart contains emission guidelines and compliance times for the control of certain designated pollutants from certain designated municipal solid waste landfills. OAC 252:100-47 is the state rule covering the same requirements. At the present time, the facility is a Part 70 source and is subject to the requirements under NSPS Subpart WWW. Therefore, this facility is not subject to this subpart.

<u>Subpart Cf</u>, Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills. This subpart affects each landfill that accepts MSW after November 08, 1987, and commences construction, reconstruction, or modification before July 17, 2014. OAC 252:100-47 is the state rule covering the same requirements. These emission guidelines are required to be adopted by AQD and incorporated into AQD's OAC 252:100-47. At the present time, the facility is a Part 70 source and is subject to the requirements under NSPS Subpart WWW. Therefore, this facility is not subject to this subpart.

<u>Subparts K, Ka, Kb, VOL Storage Vessels.</u> Subpart Kb regulates hydrocarbon storage tanks larger than 19,813 gallons capacity and built after July 23, 1984. The VOC storage tanks are below the de minimis of 19,813-gallons for Subpart Kb.

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Subpart WWW, Municipal Solid Waste Landfills. This subpart was signed on March 12, 1996, and affects each municipal solid waste landfill (MSWL) that commenced construction, reconstruction, or modification, or began accepting waste on or after May 30, 1991, and has a design capacity greater than 2.5 million cubic meters and 2.5 million megagrams. MSWLs with a design capacity greater than the threshold are subject to a Part 70 (Title V) permitting requirement. An installation of a LFG collection and control system is required to minimize NMOC emissions with a destruction efficiency 98% if NMOC emissions are greater than 50 megagrams per year, based on calculation. Design capacity of the facility is greater than 2.5 million Mg and calculated NMOC emissions are 323.80 Mg/year, which is greater than the threshold of 50 Mg/year. The estimates is based on LandGEM Model Version 3.02 (5/2005), the recommended values in AP-42, a default NMOC concentration, and an average waste acceptance rate of 506,375 Mg/yr between years of 2006 and 2016. The facility is in compliance with this subpart because the LFG collection and control system is installed and operated at the facility. Subpart XXX, Municipal Solid Waste Landfills. This subpart affects each landfill that commences construction, reconstruction, or modification after July 17, 2014. This subpart establishes 34 Mg per year generation threshold for NMOC for installation of a GCCS. This facility modified their MSW disposal capacity from 26.1 million cubic yards to 46.6 million cubic yards and expanded their disposal area from 145 acres to 227.4 acres in the LPD Solid Waste Permit ID No. 3555028 in 2014. This is the latest modification and dated on May 9, 2014, which is prior to July 17, 2014. Therefore, this facility is not subject to this subpart.

## NESHAP, 40 CFR Part 61

[Subpart M Applicable]

There are no emissions of any of the regulated pollutants: arsenic, asbestos, beryllium, benzene, coke oven emissions, mercury, radionuclides, or vinyl chloride.

<u>Subpart M</u>, National Emission Standard for Asbestos. Section 61.154, Standard for active waste disposal sites, requires 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 to meet the requirements of this section. This facility is subject to this subpart because it receives asbestos-containing materials. The permit requires the facility to comply with all applicable requirements.

## NESHAP, 40 CFR Part 63

[Subpart AAAA Applicable]

Subpart AAAA, Municipal Solid Waste Landfills. This subpart applies to all municipal solid waste landfills that are: (1) major sources as defined by 40 CFR Part 63.2 of Subpart A as stated in §63.1935(a)(1); (2) collocated with a major source as stated in §63.1935(a)(2); (3) meeting the NSPS WWW applicability thresholds of 2.5 million Mg and 2.5 million m³ and having estimated uncontrolled NMOC emissions of 50 Mg/yr as calculated according to §60.754(a) as stated in §63.1935(a)(3); or (4) meeting only the design capacity threshold of 2.5 million Mg and 2.5 million m³ but have a bioreactor and are not permanently closed as of January 16, 2003, as stated in §63.1935(b)(3). This subpart requires that all affected landfills meet the requirements of 40 CFR Part 60, Subpart Cc or WWW, and requires timely control of bioreactors. The facility is subject to this subpart according to §63.1935(a)(3). This subpart also requires such landfills to meet the startup, shutdown, and malfunction (SSM) requirements of the general provisions of this part and provides that compliance with the operating conditions shall be demonstrated by parameter monitoring results that are within the specified ranges. It also includes additional reporting requirements. These requirements apply under 40 CFR Part 60.752(b)(2) since the facility has uncontrolled NMOC emissions of 50 Mg/yr as calculated. A "Start-up, Shutdown

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and Malfunction" plan shall be maintained on-site. The permit requires the facility to comply with all applicable requirements.

CAM, 40 CFR Part 64 [Not Applicable]

This part applies to any pollutant-specific emission unit at a major source that is required to obtain an operating permit, for any application for an initial operating permit submitted after April 18, 1998, that addresses "large emissions units," or any application that addresses "large emissions units" as a significant modification to an operating permit, or for any application for renewal of an operating permit, if it meets all of the following criteria.

- It is subject to an emission limit or standard for an applicable regulated air pollutant
- It uses a control device to achieve compliance with the applicable emission limit or standard
- It has potential emissions, prior to the control device, of the applicable regulated air pollutant of 100 TPY or 10/25 TPY of HAP.

The utility flare is a control device, however, the utility flare is not used to achieve compliance with an emission limits or standard for an applicable regulated air pollutants. The utility flare serves two purposes, one is to combust methane to avoid safety concern and the other is to burn out sulfur-containing compounds to eliminate odor problems. The facility does not meet the applicability criteria and is therefore not an affected facility.

Chemical Accident Prevention Provisions, 40 CFR Part 68 [Not Applicable] This facility does not process or store more than the threshold quantity of any regulated substance (Section 112r of the Clean Air Act 1990 Amendments). More information on this federal program is available on the web page: <a href="https://www.epa.gov/ceppo">www.epa.gov/ceppo</a>.

Stratospheric Ozone Protection, 40 CFR Part 82 [Subpart A and F Applicable] These standards require phase out of Class I & II substances, reductions of emissions of Class I & II substances to the lowest achievable level in all use sectors, and banning use of nonessential products containing ozone-depleting substances (Subparts A & C); control servicing of motor vehicle air conditioners (Subpart B); require Federal agencies to adopt procurement regulations which meet phase out requirements and which maximize the substitution of safe alternatives to Class I and Class II substances (Subpart D); require warning labels on products made with or containing Class I or II substances (Subpart E); maximize the use of recycling and recovery upon disposal (Subpart F); require producers to identify substitutes for ozone-depleting compounds under the Significant New Alternatives Program (Subpart G); and reduce the emissions of halons (Subpart H).

<u>Subpart A</u> identifies ozone-depleting substances and divides them into two classes. Class I controlled substances are divided into seven groups; the chemicals typically used by the manufacturing industry include carbon tetrachloride (Class I, Group IV) and methyl chloroform (Class I, Group V). A complete phase-out of production of Class I substances is required by January 1, 2000 (January 1, 2002, for methyl chloroform). Class II chemicals, which are hydrochlorofluorocarbons (HCFCs), are generally seen as interim substitutes for Class I CFCs. Class II substances consist of 33 HCFCs. A complete phase-out of Class II substances, scheduled in phases starting by 2002, is required by January 1, 2030.

<u>Subpart F</u> requires that any persons servicing, maintaining, or repairing appliances except for motor vehicle air conditioners; persons disposing of appliances, including motor vehicle air conditioners; refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment comply with the standards for recycling and emissions reduction.

The standard conditions of the permit address the requirements specified at § 82.156 for persons opening appliances for maintenance, service, repair, or disposal; § 82.158 for equipment used during the maintenance, service, repair, or disposal of appliances; § 82.161 for certification by an approved technician certification program of persons performing maintenance, service, repair, or disposal of appliances; § 82.166 for recordkeeping; § 82.158 for leak repair requirements; and § 82.166 for refrigerant purchase records for appliances normally containing 50 or more pounds of refrigerant.

This facility does not utilize any Class I & II substances

# SECTION IX. COMPLIANCE

# **Inspection**

An initial compliance inspection was conducted on March 15, 2017. Present for the inspection were Mr. Karl Evans, Environmental Manager of Southeast OKC Landfill, and Mark Chen of Air Quality Division. The facility was constructed and is operating as described in the permit application. The LFG flow rate to the large flare was recorded at 2,164 SCFM at 9:32 AM on 3/15/2017, which is less than the flare designed value at 3,500 SCFM. The LFG flow rate to the medium flare was recorded at 604 SCFM at 9:40 AM on 3/15/2017, which is less than the flare designed value at 2,400 SCFM. The LFG was collected from 118 wells in approximate 220 landfill acres. The collocated Southeast OKC RNG facility will start their construction in the summer of 2017. All insignificant activities have been confirmed at the landfill site. Operational records, reports, repair and test data are maintained at the landfill office.

# Tier Classification and Public Review

This application has been classified as Tier II based upon a request for renewal of a Title V operating permit. Public review of the application and permit are required. The applicant has submitted an affidavit that they are not seeking a permit for land use or for any operation upon land owned by others without their knowledge. The affidavit certifies that the applicant owns the real property.

The applicant published the "Notice of Filing a Tier II Application" in *The Oklahoman*, a daily newspaper, printed and published in the Oklahoma County, on January 27, 2017. The notice stated that the application was available for public review at the Midwest City Library located at 8143 East Reno Ave., Midwest City, Oklahoma 73110 or at the Air Quality Division's main office in Oklahoma City, Oklahoma. This facility is not located within 50 miles of the border of Oklahoma and any other state. A draft of this permit will also be made available for public review for a period of 30 days as stated in another newspaper announcement and will be available on the AQD Section of the DEQ Web site. This permit has been approved for

concurrent public and EPA review. The EPA review will be conducted concurrently with the public review and if no comments are received from the public, then, the draft permit will be deemed the proposed permit. Public review period will be 30 days and EPA review period will be 45 days. Information on all permit actions is available for review by the public in the Air Quality Section of the DEQ Web Page: <a href="https://www.deq.state.ok.us">www.deq.state.ok.us</a>.

# Fees Paid

Part 70 operating permit renewal application fee of \$7,500 was received on December 28, 2016.

# **SECTION X. SUMMARY**

The landfill facility was constructed and is operating as described in the permit application. Ambient air quality standards are not threatened at this site. There are no active Air Quality compliance or enforcement issues concerning this facility. Issuance of the operating permit is recommended, contingent on EPA and public review.

# **Draft/Proposed**

Permit No.: 2016-1375-TVR3

# PERMIT TO OPERATE AIR POLLUTION CONTROL FACILITY SPECIFIC CONDITIONS

Oklahoma City Landfill, LLC Southeast OKC Landfill Facility

The permittee is authorized to operate in conformity with the specifications submitted to Air Quality on December 28, 2016, and February 1, 2017. The Evaluation Memorandum dated March 27, 2017, explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating limitations or permit requirements. Continuing operations under this permit constitutes acceptance of, and consent to, the conditions contained herein.

- 1. The permittee shall be authorized to operate this facility continuously (24 hours per day, every day of the year). [OAC 252:100-8-6(a)]
- 2. Each of the two flares may be operated at its maximum capacity; however, there is not enough LFG generation to operate both two flares at their maximum capacities. Any portion of the LFG may be sent to any of the flares, but the total emissions from both two flares shall be below the Prevention of Significant Deterioration (PSD) threshold, 249 TPY. Compliance is achieved by using emission factors from U.S. EPA's AP-42 emission factors or from flare manufacturer's factors.
- 3. Collected LFG shall be routed to open flares (utility flares) for combustion or a portion or all of the collected LFG may be sent to LFGRF facility for treatment/refining. The open flares shall be operated in accordance with 40 CFR 60.18. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of 40 CFR 60.752(b)(2)(iii)(A) or (B). [OAC 252:100-8-6(a)]
- 4. When LFG is routed to the utility flares, the following conditions shall apply.

[40 CFR Part 60, §60.752(b)(2)(iii)(A)]

- a. Permittee shall properly operate and maintain each flare in accordance with each corresponding manufacturer's specifications.
- b. The large flare shall be designed for a maximum flow rate of 3,500 SCFM. The medium flare shall be designed for a maximum flow rate of 2,400 SCFM.
- c. Each flare shall achieve a control efficiency of 98%.
- d. Each flare shall have an alarm system to notify operators of pilot malfunction.
- e. Records that document proper maintenance, malfunctions and repairs shall be maintained.
- 5. Whenever the collected LFG is routed to the proposed LFGRF, the requirements of 40 CFR 60.752 shall not apply. The LFGRF shall be designed and operated to compress, de-water, and filter the LFG before refining.

  [OAC 252:100-8-6(a)]
- 6. The facility is subject to NSPS (New Source Performance Standards), 40 CFR Part 60, Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills. The permittee shall comply with all applicable standards contained therein, including but not limited to:

  [40 CFR Part 60, §60.750 §60.759]

# SPECIFIC CONDITIONS No. 2016-1375-TVR2

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- a. §60.750 Applicability, designation of affected facility, and delegation of authority.
- b. §60.751 Definitions.
- c. §60.752 Standards for air emissions from municipal solid waste landfills.
  - If design capacity of either landfill changes or landfill gas emission rates change significantly, an updated collection and control system design plan shall be required; the permittee shall have the updated collection and control system design plan prepared by a professional engineer. The updated plan shall be submitted to Land Protection Division not later than 12 months after the facility determines an updated collection and control system design plan is necessary. As needed, expansions to the existing collection and control system will be made to comply with:

    [§60.752(b)(2)(ii)(A)]
    - (i) The system shall handle the maximum expected gas flow rate from the entire landfill. [\$60.752(b)(2)(ii)(A)(I)]
    - (ii) The system shall collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of:

 $[\S60.752(b)(2)(ii)(A)(2)]$ 

- (A) 5 years or more if active.
- (B) 2 years or more if closed or at final grade.
- (iii) The system shall collect gas at a sufficient extraction rate.

[§60.752(b)(2)(ii)(A)(3)]

- (iv) The system shall be designed to minimize off-site migration of subsurface gas. [\$60.752(b)(2)(ii)(A)(4)]
- (2) The collected gas shall be routed to either of the following:

[§60.752(b)(2)(iii)]

(i) Open flare(s) designed and operated in accordance with 40 CFR 60.18.

[§60.752(b)(2)(iii)(A)]

- (ii) A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. [§60.752(b)(2)(iii)(B)]
- (iii) A treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to 60.752(b)(2)(iii)(A) or (B). [§60.752(b)(2)(iii)(C)]
- d. §60.753 Operational standards for collection and control systems.
  - (1) The owner or operator shall operate the collection system with negative pressure at each wellhead except under the following conditions or unless otherwise specified in the Design Plan approved by the DEQ. [§60.753(b)]
    - (i) A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid fire. The records shall be submitted with the semi-annual reports as provided in 60.757(f)(1).

[§60.753(b)(1)]

(ii) If a geo-membrane or synthetic cover is used, pressure limits for MSW landfills utilizing these shall be stated in the design plan. [§60.753(b)(2)]

# SPECIFIC CONDITIONS No. 2016-1375-TVR2

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- (iii) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. Wells may be decommissioned as long as the actions are reported to the LPD within ten days of permanent shut in and/or final plugging. [§60.753(b)(3)]
- (2) The permittee shall operate the collection system to control methane concentration less than 500 ppm above background at the surface of the landfill. To determine if this level is exceeded, a surface testing shall be conducted around the perimeter of the collection area along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentration of LFG or unless otherwise specified in the Design Plan approved by the DEQ. [§60.753(d)]
- (3) The permittee shall operate the system to vent all collected gases to an enclosed flare, an open flare, a Treatment System or equivalent combustion device. In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within one hour. [§60.753(e)]
- e. §60.754 Test methods and procedures.
- f. §60.755 Compliance provisions.
  - (1) The permittee shall continue to install a landfill gas collection no later than 60 days after the date on which the initial solid waste has been in place waste for a period of 5 years or more if active; or 2 years or more if closed or at final grade. The system shall be operated properly such that LFG is collected from each area, cell, or group of cells in the landfill in which solid waste has been placed for 5 years or more if active; 2 years or more if closed or at final grade. [§60.755(b)]
- g. §60.756 Monitoring of operations.
  - (1) The permittee shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment or unless otherwise specified in the Design Plan approved by the DEQ: [§60.756(c)]
    - (i) A heat sensing device, such as an ultraviolet beam sensor or thermocouple, shall be installed at the pilot light or the flame itself to indicate the continuous presence of the flame. [§60.756(c)(1)]
    - (ii) A gas flow rate measuring device that provides a measurement of gas flow to or bypass of the control device as specified in 40 CFR §60.756. This measuring device shall be installed to include flow from the gas-to-liquids facility. [§60.756(c)(2)]
  - (2) Each owner or operator seeking to demonstrate compliance with \$60.752(b)(2)(iii) using a device other than an open flare or an enclosed combustor shall provide information satisfactory to the Administrator as proved in \$60.752(b)(2)(i)(B) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator shall review the information and either approve it, or request that additional information be submitted. The Administrator may specify additional appropriate monitoring procedures. [§60.756(d)]
- h. §60.757 Reporting requirements.
- i. §60.758 Recordkeeping requirements.

- (1) The owner or operator shall keep for at least 5 years up-to-date, readily accessible, on-site records of the following information. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable. [§60.758(a)]
  - (i) Maximum design capacity.

[§60.757(a)(2)(ii)]

[40 CFR Part 61, §61.140 - §61.157]

(ii) Current amount of solid waste in-place.

[§60.758(a)]

(iii) Year-by-year waste acceptance rate.

[§60.758(a)]

(iv) Subsequent tests or monitoring.

[§60.758(b)]

(v) Control device vendor specifications until the control device is removed.

[§60.758(b)]

- (vi) Records of the control equipment for the following data:
  - (A) Landfill gas flow, recorded at least once every 15 minutes; and

permittee shall comply with all applicable standards contained therein, including but not

- (B) The presence of the flare pilot flame or flare flame. [§60.758(b)] Specifications for active collection systems.
- 7. The facility is subject to NESHAP (National Emission Standards for Hazardous Air Pollutants), 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos. The
  - a. §61.140 Applicability.
  - b. §61.141 Definitions.

i. §60.759

limited to:

- c. §61.151 Standard for inactive waste disposal sites for asbestos mills and manufacturing and fabricating operations.
- d. §61.153 Reporting.
- e. §61.154 Standard for active waste disposal sites.
  - (1) There must be no visible emissions to the outside air from any active waste disposal site where asbestos-containing waste has been deposited or [§61.154(a)]
    - (i) 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 15 centimeters (6 inches) of compact non-asbestos-containing material. [§61.154(c)(1)]
    - (ii) Use an alternative emissions control method that has received prior written approval by DEQ. [§61.154(d)]
  - (2) For all asbestos-containing waste material received, the permittee shall:
    - (i) Maintain waste shipment records including following information:

[§61.154(e)(1)]

- (A) The name, address, and telephone number of the waste generator.
- (B) The name, address, and telephone number of the transporter(s).
- (C) The quantity of the asbestos-containing waste material in cubic meters (cubic yards).
- (D) The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material nor sealed in leak-tight containers. Report in writing to the local, State, or EPA regional office.
- (E) The date of receipt.

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- (ii) As soon as possible (less than 30 days) after receipt of the waste, send a copy of the signed waste shipment record to the waste generator. [§61.154(e)(2)]
- (iii) Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and quantity acutely received, attempt to reconcile the discrepancy with the waste generator. [§61.154(e)(3)]
- (iv) Retain a copy of all records and reports for at least two years. [§61.154(e)(4)]
- (3) Maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area. [§61.154(f)]
- (4) Upon closure, comply with all the provisions of §61.151. [§61.154(g)]
- (5) Submit to DEQ, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities. [§61.154(h)]
- (6) Furnish upon request, and make records available during normal business hours for inspection by DEQ personnel. [§61.154(i)]
- (7) Notify the DEQ in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. [§61.154(j)]
  - (i). Scheduled starting and completion dates.
  - (ii). Reason for disturbing the waste.
  - (iii). Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material
  - (iv). Location of any temporary storage site and the final disposal site.
- f. § 61.156 Cross-reference to other asbestos regulations.
- g. § 61.157 Delegation of authority.
- 8. The facility is subject to NESHAP (National Emission Standards for Hazardous Air Pollutants), 40 CFR Part 63, Subpart AAAA, Municipal Solid Waste Landfills. The permittee shall comply with all applicable standards contained therein, including but not limited to:

  [40 CFR Part 63, §63.1930 §63.1990]

## **What This Subpart Covers**

- a. §63.1930 What is the purpose of this subpart?
- b. §63.1935 Am I subject to this subpart?
- c. §63.1940 What is the affected source of this subpart?
- d. §63.1945 When do I have to comply with this subpart?
- e. §63.1947 When do I have to comply with this subpart if I own or operate a bioreactor?
- f. §63.1950 When am I no longer required to comply with this subpart?
- g. §63.1952 When am I no longer required to comply with the requirements of this subpart if I own or operate a bioreactor?

# **Standards**

- h. §63.1955 What requirements must I meet?
  - (1) Compliance with the requirements of 40 CFR Part 60, Subpart WWW.

[§63.1955(a)(1)]

(2) Compliance with the requirements in 40 CFR 63.1960 through 63.1985 and with the general provisions specified in Table 1 of 40 CFR 63, Subpart AAAA.

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[§63.1955(b)]

(3) For approval of collection and control systems that include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions, you must follow the procedures in 40 CFR 60.752(b)(2). If alternatives have already been approved under 40 CFR part 60 subpart WWW or the Federal plan, or EPA approved and effective State or tribal plan, these alternatives can be used to comply with this subpart, except that all affected sources must comply with the Startup, Shutdown, and Malfunction (SSM) requirements in 40 CFR 63 Subpart A of this part as specified in Table 1 of the NESHAP and all affected sources must submit compliance reports every 6 months as specified in §63.1980(a) and (b), including information on all deviations that occurred during the 6-month reporting period. Deviations for continuous emission monitors or numerical continuous parameter monitors must be determined using a 3 hour monitoring block average. [§63.1955(c)]

# **General and Continuing Compliance Requirements**

- i. §63.1960 How is compliance determined?
  - (1) Prepare and maintain a Start-up, Shutdown and Malfunction plan for that part of the collection and control system operated by the permittee. [§63.1960]
- j. §63.1965 What is a deviation?
  - (1) A deviation occurs when the control device operating parameter boundaries described in 40 CFR 60.758(c)(1) of subpart WWW are exceeded. [§63.1965(a)]
  - (2) 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. [§63.1965(b)]
  - (3) A deviation occurs when a SSM plan is not developed, implemented, or maintained on site. [§63.1965(c)]
- k. §63.1975 How do I calculate the 3-hour block average used to demonstrate compliance?

# Notifications, Records, and Reports

- 1. §63.1980 What records and reports must I keep and submit?
  - (1) Submit semi-annual "NSPS" reports and annual certification as required.

[§63.1980(a)]

(2) Keeping records of occurrence and duration of any start-up shutdown or malfunction of process source or malfunction of required air pollution control and monitoring equipment, as well as any actions taken during start-up, shutdown or malfunction which are not consistent with procedures in the "Shutdown and Malfunction" plan.

[§63.1980(b)]

# Other Requirements and Information

- m. §63.1985 Who enforces this subpart?
- n. §63.1990 What definitions apply to this subpart?
- 9. The permittee shall take reasonable precautions to minimize fugitive dust from traffic on paved/unpaved road and all activities. These precautions shall include, but are not limited to:

  [OAC 252:100-29-3]

- a. The use, where possible, of water or chemicals for control of dust in the grading of roads, driveways and parking lots or the clearing of land. [OAC 252:100-29-3(1)]
- b. The application of water or suitable chemicals or some other covering on surfaces that can create air-borne dusts under normal conditions. [OAC 252:100-29-3(2)]
- c. The covering or wetting of open-bodied trucks, trailers, or railroad cars when transporting dusty materials in areas where the general public must have access.

[OAC 252:100-29-3(4)]

d. The planting and maintenance of vegetative ground cover as necessary.

[OAC 252:100-29-3(5)]

- 10. The following records shall be maintained on site to verify insignificant activities. Records are not required for trivial activities. [OAC 252:100-8-6(a)(3)(B)]
  - a. Throughputs of the 8,000-gallon diesel storage tank.
  - b. Activities having the potential to emit no more than 5.0 TPY (actual) of any criteria pollutant. List the activity with estimated actual annual emissions.
  - c. Storage tanks with less than or equal to 10,000 gallons capacity that store volatile organic liquids with a true vapor pressure less than or equal to 1.0 psia at maximum storage temperature. List size and contents including vapor pressure of materials stored.
- 11. The permittee shall maintain records of operations as listed below. These records shall be retained on-site or at a local field office for a period of at least five years following dates of recording, and shall be made available to regulatory personnel upon request.

[OAC 252:100-8-6 (a)(3)(B)]

- a. Records as required by NSPS, 40 CFR Part 60, Subpart WWW.
- b. Records as required by NESHAP, 40 CFR Part 61, Subpart M.
- c. Records as required by NESHAP, 40 CFR Part 63, Subpart AAAA.
- d. Records of facility-wide CO emissions, as described and calculated in Specific Condition No. 2 (monthly and 12-month rolling total).
- 12. No later than 30 days after each anniversary date of the issuance of the original Title V permit for this facility (No. 99-401-TV, May 29, 2001), the permittee shall submit to Air Quality Division of DEQ, with a copy to the US EPA, Region 6, a certification of compliance with the terms and conditions of this permit. [OAC 252:100-8-6 (c)(5)(A) & (D)]
- 13. No later than 30 days after each six (6) month period, after the date of the issuance of the original Part 70 operating permit (No. 99-401-TV, May 29, 2001), the permittee shall submit to AQD a report of the results of any required monitoring. All instances of deviations from permit requirements since the previous report shall be clearly identified in the report.

[OAC 252:100-8-6 (a)(3)(C)(i)and (ii)]

14. This permit supersedes all previous Air Quality operating permits for this facility which become cancelled upon the issuance date of this permit.

# TITLE V (PART 70) PERMIT TO OPERATE / CONSTRUCT STANDARD CONDITIONS

(June 21, 2016)

## SECTION I. DUTY TO COMPLY

- A. This is a permit to operate / construct this specific facility in accordance with the federal Clean Air Act (42 U.S.C. 7401, et al.) and under the authority of the Oklahoma Clean Air Act and the rules promulgated there under. [Oklahoma Clean Air Act, 27A O.S. § 2-5-112]
- B. The issuing Authority for the permit is the Air Quality Division (AQD) of the Oklahoma Department of Environmental Quality (DEQ). The permit does not relieve the holder of the obligation to comply with other applicable federal, state, or local statutes, regulations, rules, or ordinances.

  [Oklahoma Clean Air Act, 27A O.S. § 2-5-112]
- C. The permittee shall comply with all conditions of this permit. Any permit noncompliance shall constitute a violation of the Oklahoma Clean Air Act and shall be grounds for enforcement action, permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application. All terms and conditions are enforceable by the DEQ, by the Environmental Protection Agency (EPA), and by citizens under section 304 of the Federal Clean Air Act (excluding state-only requirements). This permit is valid for operations only at the specific location listed.

[40 C.F.R. §70.6(b), OAC 252:100-8-1.3 and OAC 252:100-8-6(a)(7)(A) and (b)(1)]

D. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in assessing penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations. [OAC 252:100-8-6(a)(7)(B)]

# SECTION II. REPORTING OF DEVIATIONS FROM PERMIT TERMS

- A. Any exceedance resulting from an emergency and/or posing an imminent and substantial danger to public health, safety, or the environment shall be reported in accordance with Section XIV (Emergencies). [OAC 252:100-8-6(a)(3)(C)(iii)(I) & (II)]
- B. Deviations that result in emissions exceeding those allowed in this permit shall be reported consistent with the requirements of OAC 252:100-9, Excess Emission Reporting Requirements.

  [OAC 252:100-8-6(a)(3)(C)(iv)]
- C. Every written report submitted under this section shall be certified as required by Section III (Monitoring, Testing, Recordkeeping & Reporting), Paragraph F.

[OAC 252:100-8-6(a)(3)(C)(iv)]

# SECTION III. MONITORING, TESTING, RECORDKEEPING & REPORTING

A. The permittee shall keep records as specified in this permit. These records, including monitoring data and necessary support information, shall be retained on-site or at a nearby field office for a period of at least five years from the date of the monitoring sample, measurement, report, or application, and shall be made available for inspection by regulatory personnel upon request. Support information includes all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Where appropriate, the permit may specify that records may be maintained in computerized form.

[OAC 252:100-8-6 (a)(3)(B)(ii), OAC 252:100-8-6(c)(1), and OAC 252:100-8-6(c)(2)(B)]

- B. Records of required monitoring shall include:
  - (1) the date, place and time of sampling or measurement;
  - (2) the date or dates analyses were performed;
  - (3) the company or entity which performed the analyses;
  - (4) the analytical techniques or methods used;
  - (5) the results of such analyses; and
  - (6) the operating conditions existing at the time of sampling or measurement.

[OAC 252:100-8-6(a)(3)(B)(i)]

- C. No later than 30 days after each six (6) month period, after the date of the issuance of the original Part 70 operating permit or alternative date as specifically identified in a subsequent Part 70 operating permit, the permittee shall submit to AQD a report of the results of any required monitoring. All instances of deviations from permit requirements since the previous report shall be clearly identified in the report. Submission of these periodic reports will satisfy any reporting requirement of Paragraph E below that is duplicative of the periodic reports, if so noted on the submitted report.

  [OAC 252:100-8-6(a)(3)(C)(i) and (ii)]
- D. If any testing shows emissions in excess of limitations specified in this permit, the owner or operator shall comply with the provisions of Section II (Reporting Of Deviations From Permit Terms) of these standard conditions.

  [OAC 252:100-8-6(a)(3)(C)(iii)]
- E. In addition to any monitoring, recordkeeping or reporting requirement specified in this permit, monitoring and reporting may be required under the provisions of OAC 252:100-43, Testing, Monitoring, and Recordkeeping, or as required by any provision of the Federal Clean Air Act or Oklahoma Clean Air Act.

  [OAC 252:100-43]
- F. Any Annual Certification of Compliance, Semi Annual Monitoring and Deviation Report, Excess Emission Report, and Annual Emission Inventory submitted in accordance with this permit shall be certified by a responsible official. This certification shall be signed by a responsible official, and shall contain the following language: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete."

[OAC 252:100-8-5(f), OAC 252:100-8-6(a)(3)(C)(iv), OAC 252:100-8-6(c)(1), OAC 252:100-9-7(e), and OAC 252:100-5-2.1(f)]

G. Any owner or operator subject to the provisions of New Source Performance Standards ("NSPS") under 40 CFR Part 60 or National Emission Standards for Hazardous Air Pollutants ("NESHAPs") under 40 CFR Parts 61 and 63 shall maintain a file of all measurements and other information required by the applicable general provisions and subpart(s). These records shall be maintained in a permanent file suitable for inspection, shall be retained for a period of at least five years as required by Paragraph A of this Section, and shall include records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of an affected facility, any malfunction of the air pollution control equipment; and any periods during which a continuous monitoring system or monitoring device is inoperative.

[40 C.F.R. §§60.7 and 63.10, 40 CFR Parts 61, Subpart A, and OAC 252:100, Appendix Q]

- H. The permittee of a facility that is operating subject to a schedule of compliance shall submit to the DEQ a progress report at least semi-annually. The progress reports shall contain dates for achieving the activities, milestones or compliance required in the schedule of compliance and the dates when such activities, milestones or compliance was achieved. The progress reports shall also contain an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

  [OAC 252:100-8-6(c)(4)]
- I. All testing must be conducted under the direction of qualified personnel by methods approved by the Division Director. All tests shall be made and the results calculated in accordance with standard test procedures. The use of alternative test procedures must be approved by EPA. When a portable analyzer is used to measure emissions it shall be setup, calibrated, and operated in accordance with the manufacturer's instructions and in accordance with a protocol meeting the requirements of the "AQD Portable Analyzer Guidance" document or an equivalent method approved by Air Quality.

[OAC 252:100-8-6(a)(3)(A)(iv), and OAC 252:100-43]

- J. The reporting of total particulate matter emissions as required in Part 7 of OAC 252:100-8 (Permits for Part 70 Sources), OAC 252:100-19 (Control of Emission of Particulate Matter), and OAC 252:100-5 (Emission Inventory), shall be conducted in accordance with applicable testing or calculation procedures, modified to include back-half condensables, for the concentration of particulate matter less than 10 microns in diameter ( $PM_{10}$ ). NSPS may allow reporting of only particulate matter emissions caught in the filter (obtained using Reference Method 5).
- K. The permittee shall submit to the AQD a copy of all reports submitted to the EPA as required by 40 C.F.R. Part 60, 61, and 63, for all equipment constructed or operated under this permit subject to such standards. [OAC 252:100-8-6(c)(1) and OAC 252:100, Appendix Q]

# SECTION IV. COMPLIANCE CERTIFICATIONS

A. No later than 30 days after each anniversary date of the issuance of the original Part 70 operating permit or alternative date as specifically identified in a subsequent Part 70 operating permit, the permittee shall submit to the AQD, with a copy to the US EPA, Region 6, a certification of compliance with the terms and conditions of this permit and of any other applicable requirements which have become effective since the issuance of this permit.

[OAC 252:100-8-6(c)(5)(A), and (D)]

- B. The compliance certification shall describe the operating permit term or condition that is the basis of the certification; the current compliance status; whether compliance was continuous or intermittent; the methods used for determining compliance, currently and over the reporting period; and a statement that the facility will continue to comply with all applicable requirements.

  [OAC 252:100-8-6(c)(5)(C)(i)-(iv)]
- C. The compliance certification shall contain a certification by a responsible official as to the results of the required monitoring. This certification shall be signed by a responsible official, and shall contain the following language: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete."

  [OAC 252:100-8-5(f) and OAC 252:100-8-6(c)(1)]
- D. Any facility reporting noncompliance shall submit a schedule of compliance for emissions units or stationary sources that are not in compliance with all applicable requirements. This schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the emissions unit or stationary source is in noncompliance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the emissions unit or stationary source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based, except that a compliance plan shall not be required for any noncompliance condition which is corrected within 24 hours of discovery.

[OAC 252:100-8-5(e)(8)(B) and OAC 252:100-8-6(c)(3)]

# SECTION V. REQUIREMENTS THAT BECOME APPLICABLE DURING THE PERMIT TERM

The permittee shall comply with any additional requirements that become effective during the permit term and that are applicable to the facility. Compliance with all new requirements shall be certified in the next annual certification. [OAC 252:100-8-6(c)(6)]

# SECTION VI. PERMIT SHIELD

- A. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC 252:100-8) shall be deemed compliance with the applicable requirements identified and included in this permit.

  [OAC 252:100-8-6(d)(1)]
- B. Those requirements that are applicable are listed in the Standard Conditions and the Specific Conditions of this permit. Those requirements that the applicant requested be determined as not applicable are summarized in the Specific Conditions of this permit. [OAC 252:100-8-6(d)(2)]

#### SECTION VII. ANNUAL EMISSIONS INVENTORY & FEE PAYMENT

The permittee shall file with the AQD an annual emission inventory and shall pay annual fees based on emissions inventories. The methods used to calculate emissions for inventory purposes shall be based on the best available information accepted by AQD.

[OAC 252:100-5-2.1, OAC 252:100-5-2.2, and OAC 252:100-8-6(a)(8)]

# SECTION VIII. TERM OF PERMIT

- A. Unless specified otherwise, the term of an operating permit shall be five years from the date of issuance. [OAC 252:100-8-6(a)(2)(A)]
- B. A source's right to operate shall terminate upon the expiration of its permit unless a timely and complete renewal application has been submitted at least 180 days before the date of expiration.

  [OAC 252:100-8-7.1(d)(1)]
- C. A duly issued construction permit or authorization to construct or modify will terminate and become null and void (unless extended as provided in OAC 252:100-8-1.4(b)) if the construction is not commenced within 18 months after the date the permit or authorization was issued, or if work is suspended for more than 18 months after it is commenced. [OAC 252:100-8-1.4(a)]
- D. The recipient of a construction permit shall apply for a permit to operate (or modified operating permit) within 180 days following the first day of operation. [OAC 252:100-8-4(b)(5)]

## SECTION IX. SEVERABILITY

The provisions of this permit are severable and if any provision 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 circumstances, and the remainder of this permit, shall not be affected thereby.

[OAC 252:100-8-6 (a)(6)]

## SECTION X. PROPERTY RIGHTS

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

[OAC 252:100-8-6(a)(7)(D)]

B. This permit shall not be considered in any manner affecting the title of the premises upon which the equipment is located and does not release the permittee from any liability for damage to persons or property caused by or resulting from the maintenance or operation of the equipment for which the permit is issued.

[OAC 252:100-8-6(c)(6)]

## SECTION XI. DUTY TO PROVIDE INFORMATION

A. The permittee shall furnish to the DEQ, upon receipt of a written request and within sixty (60) days of the request unless the DEQ specifies another time period, any information that the DEQ may request to determine whether cause exists for modifying, reopening, revoking,

reissuing, terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permit.

[OAC 252:100-8-6(a)(7)(E)]

B. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 27A O.S. § 2-5-105(18). Confidential information shall be clearly labeled as such and shall be separable from the main body of the document such as in an attachment.

[OAC 252:100-8-6(a)(7)(E)]

C. Notification to the AQD of the sale or transfer of ownership of this facility is required and shall be made in writing within thirty (30) days after such sale or transfer.

[Oklahoma Clean Air Act, 27A O.S. § 2-5-112(G)]

# SECTION XII. REOPENING, MODIFICATION & REVOCATION

A. The permit may be modified, revoked, reopened and reissued, or terminated for cause. Except as provided for minor permit modifications, the filing of a request by the permittee for a permit modification, revocation and reissuance, termination, notification of planned changes, or anticipated noncompliance does not stay any permit condition.

[OAC 252:100-8-6(a)(7)(C) and OAC 252:100-8-7.2(b)]

- B. The DEQ will reopen and revise or revoke this permit prior to the expiration date in the following circumstances: [OAC 252:100-8-7.3 and OAC 252:100-8-7.4(a)(2)]
  - (1) Additional requirements under the Clean Air Act become applicable to a major source category three or more years prior to the expiration date of this permit. No such reopening is required if the effective date of the requirement is later than the expiration date of this permit.
  - (2) The DEQ or the EPA determines that this permit contains a material mistake or that the permit must be revised or revoked to assure compliance with the applicable requirements.
  - (3) The DEQ or the EPA determines that inaccurate information was used in establishing the emission standards, limitations, or other conditions of this permit. The DEQ may revoke and not reissue this permit if it determines that the permittee has submitted false or misleading information to the DEQ.
  - (4) DEQ determines that the permit should be amended under the discretionary reopening provisions of OAC 252:100-8-7.3(b).
- C. The permit may be reopened for cause by EPA, pursuant to the provisions of OAC 100-8-7.3(d). [OAC 100-8-7.3(d)]
- D. The permittee shall notify AQD before making changes other than those described in Section XVIII (Operational Flexibility), those qualifying for administrative permit amendments, or those defined as an Insignificant Activity (Section XVI) or Trivial Activity (Section XVII). The

notification should include any changes which may alter the status of a "grandfathered source," as defined under AQD rules. Such changes may require a permit modification.

[OAC 252:100-8-7.2(b) and OAC 252:100-5-1.1]

E. Activities that will result in air emissions that exceed the trivial/insignificant levels and that are not specifically approved by this permit are prohibited. [OAC 252:100-8-6(c)(6)]

# SECTION XIII. INSPECTION & ENTRY

- A. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized regulatory officials to perform the following (subject to the permittee's right to seek confidential treatment pursuant to 27A O.S. Supp. 1998, § 2-5-105(17) for confidential information submitted to or obtained by the DEQ under this section):
  - (1) enter upon the permittee's premises during reasonable/normal working hours where a source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
  - (2) have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
  - (3) 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 the permit; and
  - (4) as authorized by the Oklahoma Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit.

[OAC 252:100-8-6(c)(2)]

#### SECTION XIV. EMERGENCIES

A. Any exceedance resulting from an emergency shall be reported to AQD promptly but no later than 4:30 p.m. on the next working day after the permittee first becomes aware of the exceedance. This notice shall contain a description of the emergency, the probable cause of the exceedance, any steps taken to mitigate emissions, and corrective actions taken.

[OAC 252:100-8-6 (a)(3)(C)(iii)(I) and (IV)]

B. Any exceedance that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to AQD as soon as is practicable; but under no circumstance shall notification be more than 24 hours after the exceedance.

[OAC 252:100-8-6(a)(3)(C)(iii)(II)]

C. 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 preventive maintenance, careless or improper operation, or operator error. [OAC 252:100-8-2]

- D. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that:
  - (1) an emergency occurred and the permittee can identify the cause or causes of the emergency;
  - (2) the permitted facility was at the time being properly operated;
  - (3) 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 this permit.

    [OAC 252:100-8-6 (e)(2)]
- E. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [OAC 252:100-8-6(e)(3)]
- F. Every written report or document submitted under this section shall be certified as required by Section III (Monitoring, Testing, Recordkeeping & Reporting), Paragraph F.

[OAC 252:100-8-6(a)(3)(C)(iv)]

# SECTION XV. RISK MANAGEMENT PLAN

The permittee, if subject to the provision of Section 112(r) of the Clean Air Act, shall develop and register with the appropriate agency a risk management plan by June 20, 1999, or the applicable effective date.

[OAC 252:100-8-6(a)(4)]

## SECTION XVI. INSIGNIFICANT ACTIVITIES

Except as otherwise prohibited or limited by this permit, the permittee is hereby authorized to operate individual emissions units that are either on the list in Appendix I to OAC Title 252, Chapter 100, or whose actual calendar year emissions do not exceed any of the limits below. Any activity to which a State or Federal applicable requirement applies is not insignificant even if it meets the criteria below or is included on the insignificant activities list.

- (1) 5 tons per year of any one criteria pollutant.
- (2) 2 tons per year for any one hazardous air pollutant (HAP) or 5 tons per year for an aggregate of two or more HAP's, or 20 percent of any threshold less than 10 tons per year for single HAP that the EPA may establish by rule.

[OAC 252:100-8-2 and OAC 252:100, Appendix I]

# SECTION XVII. TRIVIAL ACTIVITIES

Except as otherwise prohibited or limited by this permit, the permittee is hereby authorized to operate any individual or combination of air emissions units that are considered inconsequential and are on the list in Appendix J. Any activity to which a State or Federal applicable requirement applies is not trivial even if included on the trivial activities list.

[OAC 252:100-8-2 and OAC 252:100, Appendix J]

# SECTION XVIII. OPERATIONAL FLEXIBILITY

A. A facility may implement any operating scenario allowed for in its Part 70 permit without the need for any permit revision or any notification to the DEQ (unless specified otherwise in the permit). When an operating scenario is changed, the permittee shall record in a log at the facility the scenario under which it is operating.

[OAC 252:100-8-6(a)(10) and (f)(1)]

- B. The permittee may make changes within the facility that:
  - (1) result in no net emissions increases,
  - (2) are not modifications under any provision of Title I of the federal Clean Air Act, and
  - (3) do not cause any hourly or annual permitted emission rate of any existing emissions unit to be exceeded;

provided that the facility provides the EPA and the DEQ with written notification as required below in advance of the proposed changes, which shall be a minimum of seven (7) days, or twenty four (24) hours for emergencies as defined in OAC 252:100-8-6 (e). The permittee, the DEQ, and the EPA shall attach each such notice to their copy of the permit. For each such change, the written notification required above shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change. The permit shield provided by this permit does not apply to any change made pursuant to this paragraph.

[OAC 252:100-8-6(f)(2)]

# SECTION XIX. OTHER APPLICABLE & STATE-ONLY REQUIREMENTS

A. The following applicable requirements and state-only requirements apply to the facility unless elsewhere covered by a more restrictive requirement:

- (1) Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in the Open Burning Subchapter.

  [OAC 252:100-13]
- (2) No particulate emissions from any fuel-burning equipment with a rated heat input of 10 MMBTUH or less shall exceed 0.6 lb/MMBTU. [OAC 252:100-19]
- (3) For all emissions units not subject to an opacity limit promulgated under 40 C.F.R., Part 60, NSPS, no discharge of greater than 20% opacity is allowed except for:
  - (a) Short-term occurrences which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity;
  - (b) Smoke resulting from fires covered by the exceptions outlined in OAC 252:100-13-7;
  - (c) An emission, where the presence of uncombined water is the only reason for failure to meet the requirements of OAC 252:100-25-3(a); or

- (d) Smoke generated due to a malfunction in a facility, when the source of the fuel producing the smoke is not under the direct and immediate control of the facility and the immediate constriction of the fuel flow at the facility would produce a hazard to life and/or property.

  [OAC 252:100-25]
- (4) No visible fugitive dust emissions shall be discharged beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards.

  [OAC 252:100-29]
- (5) No sulfur oxide emissions from new gas-fired fuel-burning equipment shall exceed 0.2 lb/MMBTU. No existing source shall exceed the listed ambient air standards for sulfur dioxide.

  [OAC 252:100-31]
- (6) Volatile Organic Compound (VOC) storage tanks built after December 28, 1974, and with a capacity of 400 gallons or more storing a liquid with a vapor pressure of 1.5 psia or greater under actual conditions shall be equipped with a permanent submerged fill pipe or with a vapor-recovery system.

  [OAC 252:100-37-15(b)]
- (7) All fuel-burning equipment shall at all times be properly operated and maintained in a manner that will minimize emissions of VOCs. [OAC 252:100-37-36]

## SECTION XX. STRATOSPHERIC OZONE PROTECTION

- A. The permittee shall comply with the following standards for production and consumption of ozone-depleting substances:
  - (1) Persons producing, importing, or placing an order for production or importation of certain class I and class II substances, HCFC-22, or HCFC-141b shall be subject to the requirements of §82.4;
  - (2) Producers, importers, exporters, purchasers, and persons who transform or destroy certain class I and class II substances, HCFC-22, or HCFC-141b are subject to the recordkeeping requirements at §82.13; and
  - (3) Class I substances (listed at Appendix A to Subpart A) include certain CFCs, Halons, HBFCs, carbon tetrachloride, trichloroethane (methyl chloroform), and bromomethane (Methyl Bromide). Class II substances (listed at Appendix B to Subpart A) include HCFCs.

    [40 CFR 82, Subpart A]
- B. If the permittee performs a service on motor (fleet) vehicles when this service involves an ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all applicable requirements. Note: 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 the system used on passenger buses using HCFC-22 refrigerant. [40 CFR 82, Subpart B]

- C. The permittee shall comply with the following standards for recycling and emissions reduction except as provided for MVACs in Subpart B: [40 CFR 82, Subpart F]
  - (1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156;
  - (2) 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;
  - (3) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161;
  - (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record-keeping requirements pursuant to § 82.166;
  - (5) Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to § 82.158; and
  - (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

## SECTION XXI. TITLE V APPROVAL LANGUAGE

A. DEQ wishes to reduce the time and work associated with permit review and, wherever it is not inconsistent with Federal requirements, to provide for incorporation of requirements established through construction permitting into the Source's Title V permit without causing redundant review. Requirements from construction permits may be incorporated into the Title V permit through the administrative amendment process set forth in OAC 252:100-8-7.2(a) only if the following procedures are followed:

- (1) The construction permit goes out for a 30-day public notice and comment using the procedures set forth in 40 C.F.R. § 70.7(h)(1). This public notice shall include notice to the public that this permit is subject to EPA review, EPA objection, and petition to EPA, as provided by 40 C.F.R. § 70.8; that the requirements of the construction permit will be incorporated into the Title V permit through the administrative amendment process; that the public will not receive another opportunity to provide comments when the requirements are incorporated into the Title V permit; and that EPA review, EPA objection, and petitions to EPA will not be available to the public when requirements from the construction permit are incorporated into the Title V permit.
- (2) A copy of the construction permit application is sent to EPA, as provided by 40 CFR § 70.8(a)(1).
- (3) A copy of the draft construction permit is sent to any affected State, as provided by 40 C.F.R. § 70.8(b).
- (4) A copy of the proposed construction permit is sent to EPA for a 45-day review period as provided by 40 C.F.R.§ 70.8(a) and (c).
- (5) The DEQ complies with 40 C.F.R. § 70.8(c) upon the written receipt within the 45-day comment period of any EPA objection to the construction permit. The DEQ shall not issue the permit until EPA's objections are resolved to the satisfaction of EPA.
- (6) The DEQ complies with 40 C.F.R. § 70.8(d).
- (7) A copy of the final construction permit is sent to EPA as provided by 40 CFR § 70.8(a).

- (8) The DEQ shall not issue the proposed construction permit until any affected State and EPA have had an opportunity to review the proposed permit, as provided by these permit conditions.
- (9) Any requirements of the construction permit may be reopened for cause after incorporation into the Title V permit by the administrative amendment process, by DEQ as provided in OAC 252:100-8-7.3(a), (b), and (c), and by EPA as provided in 40 C.F.R. § 70.7(f) and (g).
- (10) The DEQ shall not issue the administrative permit amendment if performance tests fail to demonstrate that the source is operating in substantial compliance with all permit requirements.
- B. To the extent that these conditions are not followed, the Title V permit must go through the Title V review process.

# SECTION XXII. CREDIBLE EVIDENCE

For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any provision of the Oklahoma implementation plan, nothing shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

Mr. Karl Evans, Environmental Manager Oklahoma City Landfill, LLC Southeast Oklahoma City Landfill 1741 N. Portland Ave. Newcastle, Oklahoma 73065

SUBJECT: Title V Operating Permit Renewal Application No. 2016-1375-TVR3

Oklahoma City Landfill, LLC

Southeast Oklahoma City Landfill (Facility ID: No. 2141)

7001 South Bryant Ave., Oklahoma City

Latitude N 35.39586°, Longitude W 97.45930°

Section 25, Township 11N, Range 3W, Oklahoma City, Oklahoma County, OK

Permit No.: 2016-1375-TVR3

Permit Writer: Mark Chen, P.E.

#### Dear Mr. Evans:

Air Quality Division has completed the initial review of your permit application referenced above. This application has been determined to be a Tier II application. In accordance with 27A O.S. 2-14-301 and 302 and OAC 252:4-7-13(c) the enclosed draft permit is now ready for public review. The requirements for public review of the application and draft permit include the following steps, which <u>you</u> must accomplish:

- 1. Publish at least one legal notice (one day) in at least one newspaper of general circulation within the county where the facility is located. (Instructions enclosed)
- 2. Provide for public review (for a period of 30 days following the date of the newspaper announcement) a copy of the application and draft permit at a convenient location (preferentially at a public location) within the county of the facility.
- 3. Send AQD a written affidavit of publication for the notices from Item #1 above together with any additional comments or requested changes, which you may have for the permit application within 20 days of publication.

The permit review time is hereby tolled pending the receipt of the affidavit of publication. Thank you for your cooperation. If you have any questions, please refer to the permit number above and contact the permit writer at <a href="mark.chen@deq.state.ok.us">mark.chen@deq.state.ok.us</a> or at (405) 702-4196.

Sincerely,

Phillip Fielder, P.E.
Permits and Engineering Group Manager
AIR OUALITY DIVISION

Enclosures