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OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

MEMORANDUM **March 25, 2025**

TO: Phillip Fielder, P.E., Chief Engineer

THROUGH: Rick Groshong, Env. Programs Manager, Compliance and Enforcement

THROUGH: Eric L. Milligan, P.E., Engineering Manager, Engineering Section

THROUGH: Alex Johnson, E.I, New Source Permits Section

FROM: Iftekhar Hossain, P.E., New Source Permits Section

SUBJECT: Evaluation of Permit Application No**. 2018-1562-C (M-1)**
American Environmental Landfill, Inc.
Sand Springs Landfill (Facility ID No.: 5933)
207 N. 177th West Avenue, Sand Springs, 74603
S ½ Section 36, Township 20N, Range 10E, Sand Springs, Osage County
Latitude N 36.16412°, Longitude W 96.18892°
Directions: N. 177th West Avenue, approximately ½ mile north of Hwy 412 in Sand Springs, OK.

SECTION I. INTRODUCTION

American Environmental Landfill (AEL) has requested a construction permit to add an Air Curtain Incinerator (ACI) to burn only wood waste, clean lumber, and/or yard waste at the Sand Springs Landfill, an active municipal solid waste (MSW) landfill (SIC 4953/NAICS 562212). The facility is currently operating under DEQ Solid Waste Permit No. 3557021, issued September 14, 1981, and Air Quality Permit No. 2018-1562-TVR2, issued on September 12, 2022.

CONSTRUCTION PERMIT REQUIREMENTS APPLICABILITY
Per OAC 252:100-8-4(a)(1)(b)(iii) and (iv), a construction permit for a facility with a Part 70 permit is required prior to the commencement of any physical change or change in method of operation that would be a significant modification or would increase the potential to emit of a regulated air pollutant by more than 10 tons per year.

Because the opacity monitoring requirements associated with the trench burner significantly change existing monitoring requirements in the permit and the permit will establish a limit on the amount of material combusted in the ACI, the project is considered a significant modification. Additionally, as shown in SECTION VI, the potential emissions associated with the project are greater than 10 TPY for a regulated air pollutant. As such, a construction permit is required and the permit needs to go through a **Tier II** permitting procedure. The applicant requested the "Traditional NSR" process. Public review of the application and the draft permit (when available) are required.

AEL SAND SPRINGS LANDFILL

The facility started receiving waste materials in 1981 with an initial permitted design capacity of 2.17 million megagrams (Mg). On September 16, 2003, AEL received approval for a vertical expansion from the LPD, ODEQ, to increase the total capacity of the landfill to 2.6 million Mg. Pursuant to the requirements of NSPS, an initial design capacity report was submitted to the AQD in December 2003, reflecting the increase in capacity above the 2.5 million Mg and 2.5 million cubic meters threshold. The modification and increased capacity of the landfill made the facility subject to the requirements of NSPS subpart WWW and the permitting requirements of Part 70. After receiving the initial Title V permit application in December 2004, LPD approved a lateral expansion increasing the total capacity of the facility to 10.11 million Mg. Between 2004 and 2017, the facility was granted approval for additional expansions of increasing the total capacity of the facility to 12.23 million Mg. AEL received another modification to the solid waste permit on July 24, 2015, which increased the total capacity from 12.23 million Mg to the current level of 15.69 million Mg. AEL commenced construction on September 15, 2015, based on the latest approved modification. As a result of this modification, the facility is no longer subject to NSPS Subpart WWW and became subject to NSPS Subpart XXX. AEL submitted an Air Quality construction permit modification application (Permit No. 2013-0454-C (M-1)) on January 26, 2022. In that permit modification, AEL requested to expand permitted landfill design capacity from 12.23 million megagrams (Mg) to 15.69 million Mg. All modification issues and updated emission figures in Permit No. 2013-0454-C (M-1), were incorporated into Title V permit renewal (Permit No. 2018-1562-TVR2). The expanded landfill capacity of 15.69 million Mg is estimated to generate 282 Mg/yr of NMOC in 2034.

TULSA LANDFILL GAS COLLECTION CONTROL SYSTEM (GCCS)

Through a gas collection and control system (GCCS), LFG generated from AEL is sent to the Tulsa LFG, LLC, (Tulsa LFG), which uses two LFG-fired engines to generate electricity. Tulsa LFG is currently operating under a Title V permit, Permit No. 2019-0801-TVR2, which was issued on September 14, 2021.

AIR CURTAIN INCINERATOR (ACI) OPERATIONS

The landfill acquired a 10 ton/hr (TPH) air curtain incinerator (ACI) in July 2023. The ACI consists of a diesel-fired Air Burners Inc., a T-300 model trailer-mounted trench burner (trench burner). The ACI operated in July 2023 to burn storm debris accepted as part of disaster relief efforts as documented in the June 2023 and May 2024 Emergency Disposal Site (EDS) and Emergency Debris Management (EDM) site evaluations. The landfill proposes to begin commercial use of the trench burner to burn wood waste and yard waste in addition to continuing use of the trench burner for disaster relief purposes. Ash generated from the incinerator will be beneficially used for the solidification process. The trench burner is located in a cleared area in the northwest part of the landfill property and will remain stationary until the surrounding vegetation is developed which is expected to occur in approximately 10 years.

AQD considers the collocated Sand Springs Landfill and Tulsa Landfill GCCS, a single stationary source for purposes of PSD and Title V permits. Modifications to the permit of each facility are based on the combined emissions from all operations and must be considered in making a determination for each permitting action.

The collocated facility emits more than 100 TPY of a regulated pollutant and is subject to Title V permitting requirements. The landfill proposes to limit the operation of the trench burner (ACI) to an annual processing limit of 17,350 TPY. Limiting the operation of the trench burner will limit collocated facility emissions to below the PSD major source threshold of less than 250 TPY for carbon monoxide (CO), and the facility will not be subject to PSD permitting. However, the collocated facility is a major source of HAPs (see SECTION VI).

SECTION II. REQUESTED CHANGES

The applicant intends to add an ACI (Project) to burn only wood waste, clean lumber, and mixture of only wood waste, clean lumber, and/or yard waste.

SECTION III. PERMIT HISTORY

Permits	Date Issued	Description
2004-338-TV	10/9/2008	Initial Part 70 Permit
2013-0454-TVR	5/13/2014	First Part 70 Renewal Permit
2013-0454-C M-1	6/7/2022	Construction Permit to increase design capacity to 15.69 million Mg
2018-1562-TVR2	9/12/2022	Second Part 70 Renewal Permit

SECTION IV. FACILITY AND PROCESS DESCRIPTION

The AEL encompasses approximately 220 acres of land area for landfill operation. There are approximately 70 acres located on the east side of N. 177th West Avenue, and 150 acres located on the west side of N. 177th West Avenue. AEL closed the landfill operation on the east side of N. 177th West Avenue in April 2013 and moved all landfill operations to the west side. Currently, the facility operates 6 days a week and receives nonhazardous solid waste from five (5) states, Arkansas, Oklahoma, Missouri, Kansas, and Texas. The facility typically receives approximately 2,000 ton/day of municipal, commercial, and industrial nonhazardous waste. The AEL waste acceptance record shows 584,988 Mg (643,486 ton) in 2019, which is about 2,062 ton/day. The facility also accepts nonhazardous liquid and semi-solid waste at its solidification area. In addition, the facility is EPA approved to accept CERCLA (also known as superfund) waste. At the end of 2021, the facility is estimated to have accepted total waste of 8.93 million Mg since 1981.

LFG is generated by microbiological processes associated with waste decomposition, and LFG is composed primarily of methane (CH_4) and carbon dioxide (CO_2), CO_2 content ranging from 30 to 50% and CH_4 from 40 to 60%. Initial decomposition of waste 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: non-methanogenic and methanogenic. CO_2 is a byproduct of the non-methanogenic process and CH_4 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 treating system (LFGTS) or sent to an on-site flare.

The facility is currently required to operate a landfill gas (LFG) collection control system (GCCS) since non-methane organic compound (NMOC) emissions from the landfill are currently above 34 Mg/yr according to a NMOC report prepared in November 2016. The facility's current GCCS system was installed prior to June 1, 2012, and is operated by Tulsa LFG, LLC. Tulsa LFG has the exclusive rights to extract, process, and sell the LFG generated at the landfill. Tulsa LFG has responsibility for operation and maintenance of the GCCS. The GCCS is located on the east side of N. 177th West Avenue, and currently consists of 73 LFG extraction wells, collection piping, condensation equipment, a utility flare, a blower skid, and two (2) electricity generators. Each generator has 1.6 MW (Megawatt) capacity and is driven by a 2,233-hp Caterpillar G3520 gas engine. The utility has a maximum capacity of 2,000 SCFM. The number of LFG extraction wells will be increased as needed to comply with 40 CFR Part 60, NSPS Subpart XXX.

The landfill is required under NSPS Subpart XXX to operate under a Part 70 permit; therefore, Tulsa LFG is also required to operate under a Part 70 permit. The Part 70 permit for each company's portion of the facility will address only the equipment owned or operated by its individual company. Emission inventories are required for both facilities. Tulsa LFG and AEL each pay fees for emissions from their respective facility. Other than for purposes related to co-location, Tulsa LFG is not addressed in this permit.

SECTION V. EQUIPMENT

Emission units (EU) have been arranged into Emission Unit Groups (EUG) in the Equipment Section. Table 1 lists the EUGs.

Table 1. Emission Unit Group (EUG) Information

EU ID #	Emission Sources	EU Group Name
EUG-1	(1) Uncollectable LFG Fugitives from Underground. (2) PM_{10} and $PM_{2.5}$ Fugitives from Earthmoving Operations	AEL Sand Springs Landfill
EUG-2	Tulsa GCCS and Enclosed or Utility Flare Systems (Operated under Permit No. 2019-0801-TVR2).	GCCS and LFG Flare
EUG-3	VOC Storage Tanks and Associate Equipment	Tank, Waste Oil Burner (Part of Landfill).
EUG-4	1) Air Curtain Trench Burner / Air Burners Inc. T-300 2) 74 HP Diesel-Fired Engine / Hatz 4H50TIC	ACI Operations

There are four 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_{10} fugitives, which is caused by

earthmoving operation equipment, such as dozers, compactors, dump trucks, excavators, graders, and tractors.

EUG-2 includes the GCCS and LFG flare system. The GCCS consists of a network of extraction wells (73 wells as of 12/13/2018) 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 LFG-fired engines that are operated by Tulsa LFG. EUG-3 includes all VOC storage tanks and associated equipment, which is not included in the EUG-1 and EUG-2. EUG-4 consists of a T-300 air curtain trench burner manufactured by Air Burners, Inc., and a 74-hp diesel fired HATZ Model 4H50TIC engine to drive the fan.

SECTION VI. AIR EMISSIONS

This landfill facility consists of the following operations and emission sources.

EUG-1: AEL SAND SPRINGS LANDFILL OPERATIONS

(1) LFG Generation and Uncollectable LFG Fugitives
(2) PM_{10} and $PM_{2.5}$ Fugitives from Earthmoving Operations

(1) Landfill Gas Generation and Uncontrolled LFG Fugitives

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 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 15,693,641 Mg, (2) waste acceptance data, (3) a methane generation rate constant of 0.05 yr^{-1}, (4) a potential methane generation capacity of 170 m^3/Mg, and (5) an assumed NMOC concentration of 1,000 parts per million by volume (ppmv). Based on the results of the modeling, the maximum NMOC generation rate in LFG is estimated at 546.7 TPY or 497 Mg per year in 2032, which is greater than 34 Mg per year. The maximum projected LFG generation rate for the landfill is estimated to be 4,885 SCFM in 2032. The GCCS, which is operated by Tulsa LFG, routes collected LFG to the open flare and/or the gas to energy plant. Collected LFG routed to the gas to energy facility is treated prior to combustion in landfill gas fired electric generator sets. The LFG fired engines operate at a combined heat rate of 28.2 MMBTUH. Gas that is collected from the landfill and not routed to the gas to energy plant is sent to a 2,000 scfm open flare for combustion. The engines and flare are permitted under Tulsa LFG's Title V Permit.

Regarding landfill fugitive emissions, the GCCS may be assumed to have a 75% collection efficiency of generated LFG and the remaining 25% of LFG is considered as uncollectable

fugitives to the air from underground in accordance with the EPA's AP-42 (11/98), Section 2.4, "Municipal Solid Waste Landfills." After modification, the total LFG generation is estimated at 4,885 SCFM and the uncollectable LFG fugitive rate is 1,221 SCFM. In accordance with the EPA AP-42 (11/98), Section 2.4, "MSW Landfills", all uncollected LFG is released as fugitive emissions to the air from underground. 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 compounds. 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 multiplying it to the NMOC concentration, which was assumed to be 1,000 ppmv. Table 2 shows the potential fugitive HAP emissions after the most recent landfill expansion.

Table 2. Potential Speciated Fugitive HAP Emissions
(Based on 8,760 hours/year of operations)

Compound	Molecular Weight	Ppmv	Fugitive Emissions	
			lb/hr	TPY
1,1,1-Trichloroethane	133.41	0.48	0.0122	0.053
1,1,2,2-Tetrachloroethane	167.85	1.10	0.0351	0.154
1,1-Dichloroethane (ethylidene dichloride)	98.97	2.40	0.0451	0.198
1,1-Dichloroethene (vinylidene chloride)	96.94	0.20	0.0037	0.016
1,2-Dichloroethane (ethylene dichloride)	98.96	0.41	0.0077	0.034
1,2-Dichloropropane (propylene dichloride)	112.99	0.18	0.0039	0.017
Acrylonitrile	53.06	6.30	0.0635	0.278
Benzene	78.11	1.90	0.0282	0.123
Carbon disulfide	76.13	0.58	0.0084	0.037
Carbon tetrachloride	153.84	0.004	0.0001	0.001
Carbonyl sulfide	60.07	0.49	0.0056	0.025
Chlorobenzene	112.56	0.25	0.0053	0.023
Chloroethane	64.52	1.30	0.0159	0.070
Chloroform	119.39	0.03	0.0007	0.003
Chloromethane	50.49	1.20	0.0115	0.050
Dichlorobenzene	147.00	0.21	0.0059	0.026
Dichloromethane	84.94	14	0.226	0.989
Ethylbenzene	106.16	4.60	0.0927	0.406
Ethylene dibromide	187.88	1.0E-03	3.57E-05	1.56E-04
Hexane	86.18	6.60	0.108	0.473
Methyl isobutyl ketone	100.16	1.90	0.0361	0.158
Mercury	200.61	2.9E-04	1.10E-05	4.84E-05
Perchloroethylene	165.83	3.70	0.116	0.510
Toluene	92.13	39.00	0.682	2.99
Trichloroethylene	131.40	2.80	0.0699	0.306
Vinyl chloride	62.50	7.30	0.0866	0.379
Xylenes	106.16	12.00	0.242	1.06
Total HAPs				**8.38**

Table 3. Estimated Landfill Fugitive Emissions
(Based on 8,760 hours/year of operations)

Pollutants	Emission Rate (TPY)
VOCs	13.21
HAPs	8.38

(2) Earthmoving Equipment Operations

Particulate matter (PM) 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. At least six inches of compacted earthen materials shall be used to cover the freshly placed MSW on a daily basis, which is required by OAC 252:515-19-51. OAC 252:515 is "Management of Solid Waste." The AEL applies cover soil one day per week and utilizes an alternative daily cover the rest of the operating week. To control PM emissions from earthmoving operations, water is sprayed on the surfaces by a water truck, as needed. PM emissions from the various earthmoving operations are based on the operating hours of the earthmoving equipment and the number and types of vehicles. Due to the requirement of OAC 252:515-19-51, earthmoving operations are related to primary business activities and not considered insignificant or trivial. PM emissions shall be counted in the facility-wide emissions.

The AEL received 643,486 tons of MSW in 2019. For emission estimation purposes, the 643,486 tons of MSW per year or 2,062 tons per day is used to estimate the particulate matter emissions. Currently, the AEL is operated 6.0 days per week, and 52 weeks per year.

Air emissions generated from the landfill's earthmoving operations, which include the emissions from bulldozers, compactor, dump trucks, tractors, and grader 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 for dozing and compacting operations is presented below:

$$E = kc\ (s)^a / (M)^b$$

Where k, a, and b are empirical constants, which are presented below:

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 from Table 13.2.4-1
k = 0.75 lb/hr for PM_{10} and 0.105 lb/hr for $PM_{2.5}$
a = 1.5 for PM_{10} and 1.2 for $PM_{2.5}$
b = 1.4 for PM_{10} and 1.3 for $PM_{2.5}$
c = 1.0 for PM_{10} and 5.7 for $PM_{2.5}$

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 assumed to be 4,992 hours per year. The operation hours are 8 hours/day, 6.0 days/week, and 52 weeks/year.

The emission factor equation for grading operation is from AP-42 (10/98), Table 11.9-1 and presented below:

$$E = k\ (0.051)\ (S)^a$$

Where S, k, and a are parameters, which are presented below:

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 for PM_{10} and $PM_{2.5}$

The emission factors are calculated as 0.765 lb/VMT for PM_{10} and 0.040 lb/VMT for $PM_{2.5}$. The total VMT (Vehicle Mile Traveled) for one grader vehicle is 6,240 VMT per year. The vehicle works 4 hours/day, 6.0 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 for materials dropping 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, which are presented below:

E = Emission factor (lb/ton)
k = Particle size multiplier, 0.35 for PM_{10} and 0.053 for $PM_{2.5}$
U = Mean wind speed, 10 miles/hour
M = Mean material moisture content (%), 12% for landfill soil/dirt

The emission factors are calculated as 0.00022 lb/ton for PM_{10} and 0.00003 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 321,743 tons per year (0.5 ton of soil/dirt per ton of MSW accepted), which is 191,514 cubic yard (CY) of soil/dirt with the soil density of 1.68 ton/CY.

The topsoil removal by scrape is best represented by the "Top soil removal by scraper" as shown on AP-42 (10/98), Section 11.9, "Western Surface Coal Mining", Table 11.9-4. The emission factor is 0.058 lb of TSP/ton, and the scaling factors are 0.489 for PM_{10} and 0.102 for $PM_{2.5}$. The usage requirement of top soil is estimated at one half ton of top soil per ton of MSW. Based on the 321,743 tons of top soil per year, the PM_{10} emissions are estimated to be 4.563 TPY and the $PM_{2.5}$ emissions are estimated to be 0.952 TPY. Scraper unloading was estimated using the same equation as the dump truck/excavator operations.

Fugitive emissions from vehicle traffic are estimated based on AP-42 (11/2006), Section 13.2.1, "Introduction to Fugitive Dust Sources, Paved Roads" and Section 13.2.2, "Introduction to Fugitive Dust Sources, Unpaved Roads."

Equation (1) in Section 13.2.1 is used to calculate the PM_{10} and $PM_{2.5}$ emissions for the paved road.

$$E = k\ (sL)^a\ (w)^b$$

Where k, a, and b are empirical constants and the variables SL and w are defined as:

E = site-specific emission factor (lb/VMT)
sL = road surface material silt content (%), 7.40 g/m^2 for MSW Landfills
w = mean vehicle weight (tons), 22.5 tons
k = 0.0022 lb/VMT for PM_{10} and 0.00054 lb/VMT for $PM_{2.5}$
a = 0.91 for PM_{10} and $PM_{2.5}$
b = 1.02 for PM_{10} and $PM_{2.5}$

Equation (1a) in Section 13.2.2, for industrial roads, is used to calculate the PM_{10} and $PM_{2.5}$ emissions for the unpaved road.

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

Where k, a, and b are empirical constants and the variables s and w are defined as:

E = site-specific emission factor (lb/VMT)
s = surface material silt content (%), 6.4% for MSW Landfills
w = mean vehicle weight (tons), 22.5 tons
k = 1.5 lb/VMT for PM_{10} and 0.15 lb/VMT for $PM_{2.5}$
a = 0.9 for PM_{10} and $PM_{2.5}$
b = 0.45 for PM_{10} and $PM_{2.5}$

The emission factors are determined to be 0.326 lb of PM_{10} and 0.080 lb of $PM_{2.5}$ per VMT for the paved portion and 2.109 lb of PM_{10} and 0.211 lb of $PM_{2.5}$ per VMT for the unpaved portion. It is assumed that a 10 wheeler is used to transport 9 tons of MSW with total vehicle weight at 27 tons and the mean vehicle weight at 22.5 tons for each trip to the site. The total paved road is approximately 0.12 miles and the total unpaved road is approximately 0.34 miles from the site entrance to the end of the active landfill area. The total round trip, in and out of the site, traveled by a vehicle is approximately 0.92 miles, one way is full and one way is empty. The AEL received 643,486 tons of MSW (or 2,062 tons per working day) in 2019. It takes approximately 71,498 vehicles a year to deliver about 643,486 tons of MSW in a year. The uncontrolled PM_{10} fugitive emissions are estimated to be 54.065 TPY prior to applying dust control on the unpaved portion, 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 252:100-29. Based on the control efficiency of 70% for application of water, the controlled PM_{10} fugitive emissions are

reduced to 18.177 TPY. The corresponding $PM_{2.5}$ fugitive emissions are 5.815 TPY for uncontrolled emission and 2.225 TPY for controlled emission.

Table 4. Estimated PM_{10} and $PM_{2.5}$ Fugitive Emissions From Earthmoving Operations

Emission Source	PM_{10} (TPY)	$PM_{2.5}$ (TPY)
Bulldozing and Compaction	1.047	0.600
Grading	2.387	0.125
Dump Track, Tractor, & Excavator Loading	0.035	0.005
Dump Track, Tractor, & Excavator Unloading	0.035	0.005
Scraper Top Soil Removal	4.563	0.952
Scraper Unloading	0.035	0.005
MSW Delivery Truck Travel	18.177	2.225
Total Emissions	**26.279**	**3.917**

Table 5 shows the Sand Springs Landfill potential facility-wide emissions of all air pollutants excluding Tulsa LFG.

Table 5. Summary of Sand Springs Landfill Potential Air Emissions

Pollutants	Potential
	TPY
VOC	13.21
PM_{10}	26.28
$PM_{2.5}$	3.92
HAP	8.38
GHG as CO_2e	156,005

EUG-2: TULSA LANDFILL GCCS AND FLARE OPERATIONS

An active GCCS is installed at the AEL and is used to extract and convey the LFG to the utility flare or to the LFGTS, which is operated by Tulsa LFG. The GCCS is located at the east side of N. 177th West Avenue, and currently consists of 73 LFG extraction wells, collection piping, condensation equipment, a utility flare, a blower skid, and two (2) electricity generators. Each generator has 1.6 MW (Megawatt) capacity and is driven by a 2,233-hp Caterpillar G3520 gas engine. The increase of LFG flow has no effect on the potential air emissions from the utility flare and two engines as they are permitted at maximum capacity. The air emissions from the utility flare and two engines are presented in Permit No. 2019-0801-TVR2 and is summarized in the table below.

Table 6. Summary of Tulsa LFG Flare and LFGTS
Potential Air Emissions
(Based on 8,760 hours/year of operations)

Pollutants	Flare	Two Engines	Total
	TPY	TPY	TPY
NO_x	17.87	86.20	104.07
CO	81.47	142.30	223.77
VOC	0.43	43.10	43.53
PM_{10}	4.38	5.93	10.31
$PM_{2.5}$	4.38	5.93	10.31
SO_2	3.94	24.70	28.64
HAP	2.28	20.84	23.12
GHG as CO_2e			19,725

EUG-3: STORAGE TANK AND WASTE OIL BURNER

Facility emission sources include a waste oil burner. Emissions from the commercial waste oil burner (0.35 MMBTUH) were calculated using AP-42 (10/96), Section 1.11, Table 1.11-1 &-2. With waste oil heat content of 150 MMBTU/1,000 gal, and burning approximately 20,000 gallons per year, the burner's and storage tank's emissions are each less than 1.0 TPY. The burner and the storage tank emissions are considered insignificant activities.

Table 7A. Waste Oil Burner Emission Factors, (lb/10^3 gal)

Emission Unit	NOx	CO	PM	SOx	VOC
Waste Oil Burner	19	5	51A	147S	1.0

A = Ash content (wt%) in fuel = 0.89%; assuming PM = PM_{10} = $PM_{2.5}$
S = Sulfur (wt%) in fuel = 0.43%

Table 7B. Waste Oil Burner Emissions

Emission Unit	NOx TPY	CO TPY	PM TPY	SOx TPY	VOC TPY
Waste Oil Burner	0.19	0.05	0.45	0.63	0.01

TANKS

Estimated VOC emissions from the diesel storage tanks (T-1) are based on EPA TANKS 5.1 (10/2024) computer program, incorporating a throughput of 120,000 gallons per year.

Table 8. Storage Tank Emissions

Parameter	T-1
Content	Diesel
Throughput, gal/yr	120,000
Calculation Method/Tool	EPA TANKS 5.1
Control Type	None
VOC Emissions, TPY	**<0.01**

EUG-4: AIR CURTAIN INCINERATOR (ACI) OPERATIONS

EUG-4A: ENGINE

The emissions factors of the 74-hp (55.4 kW) diesel engine are based on manufacturer's specifications, 7,000 Btu/hp-hr (per AP-42, 3.3), and 8,760 hours of operation per year. The formaldehyde emissions have already been added to the VOC emissions.

Table 9A. Engine Emission Factors

NO_X (g/kW-hr)	CO (g/kW-hr)	PM (g/kW-hr)	PM_{10} (g/kW-hr)	$PM_{2.5}$ (g/kW-hr)	SOx (lb/MMBtu)	VOC (lb/MMBtu)	HCHO (lb/MMBtu)
4.7	5.0	0.03	0.03	0.03	0.29	0.36	1.18E-03

Table 9B. Engine Emissions

NO_X (TPY)	CO (TPY)	PM (TPY)	PM_{10} (TPY)	$PM_{2.5}$ (TPY)	SOx (TPY)	VOC (TPY)	HCHO (TPY)
2.51	2.67	0.02	0.02	0.02	0.66	0.82	2.68E-03

EUG-4B: AIR CURTAIN INCINERATOR

BURNER/INCINERATOR

Emissions from the air curtain incinerator are based on the following emission factors, the maximum burning rate of 10 tons/hour, and annual throughput of 17,350 TPY.

Table 10A. Air Curtain Incinerator Emission Factors

PM/PM_{10}	$PM_{2.5}$	NOx	CO	VOC	SO_2	Lead	H_2CO
lb/ton	lb/ton	lb/ton	lb/ton	lb/ton	lb/ton	lb/ton	lb/ton
1.3	1.2	1.0	2.6	0.9	0.1	1.3E-04	7.61E-02

(1) Emission factor from manufacturer provided test data originally from the 04/2017 San Joaquin Valley, CA A*ir Curtain Incinerator Emissions Factors Determination* document. PM2.5 emissions were adjusted using the CEIDARS Appendix A factors for Burning: Forest Management, Timber, and Brush Fire.

(2) Emission factor from AP-42 2.1, Table 2.1-12 for wood combustion.

(3) Source Test Report for 2023 Emission Factor Testing - Mobile Air Curtain Incinerator, Submitted to Oregon Department of Environmental Quality on September 11, 2023, Tables 1-2, 1-3, 1-4, 4-1, 4-2, 4-7, and 4-8.

Table 10B. Air Curtain Incinerator Emissions

PM/PM_{10}	$PM_{2.5}$	NOx	CO	VOC	SO_2	Lead	H_2CO
TPY	TPY	TPY	TPY	TPY	TPY	TPY	TPY
11.29	10.42	8.68	22.56	7.81	0.87	<0.001	0.66

Table 11. Summary of ACI Operations
Potential (Limited) Air Emissions

Pollutants	Air Curtain Incinerator	Engine	Total Emissions
	TPY	TPY	TPY
PM	11.29	0.02	**11.31**
PM_{10}	11.29	0.02	**11.31**
$PM_{2.5}$	10.42	0.02	**10.44**
NOx	8.68	2.51	**11.19**
CO	22.56	2.67	**25.23**

Pollutants	Air Curtain Incinerator	Engine	Total Emissions
	TPY	TPY	TPY
VOC	7.81	0.82	**8.63**
SO_2	0.87	0.66	**1.53**
Total HAPs	1.38	8.60E-03	**1.39**
Single Highest HAP (HCHO)	0.66	<0.01	**0.67**

TOTAL COLLOCATED FACILITYS' EMISSIONS

AEL and Tulsa LFG are separate entities; however, emissions from the AEL, and Tulsa LFG will be aggregated for purposes of PSD applicability and NSPS and NESHAP regulations. The potential to emit from the AEL in Permit No. 2018-1562-TVR2 are presented in Table 6 above. The potential emissions from the Tulsa LFG are estimated in Permit No. 2019-0801-TVR2. The potential emissions from the ACI Operations are taken from Table 11 above. Table 12 below shows the total facility-wide emissions which include the emissions from all three operations discussed above.

Table 12. FW Potential Emissions

Pollutants	Existing Sand Springs FW PTE Emissions (TPY)	Existing Tulsa LFG FW PTE Emissions (TPY)	ACI Operations (Project) PTE Emissions (TPY)	New FW PTE Emissions (TPY)
NOx	--	104.07	11.19	**115.26**
CO	--	223.77	25.23	**249.00**
VOC	13.21	43.53	8.63	**65.37**
PM	--	--	11.31	**11.31**
PM_{10}	26.28	10.31	11.31	**47.90**
$PM_{2.5}$	3.92	10.31	10.44	**24.67**
SO_2	--	28.64	1.53	**30.17**
Lead	--	--	5.7E-03	**0.0057**
Total HAPs	8.38	23.12	1.39	**38.47**
Single HAP*	--	18.54	0.67	**21.87**

* Formaldehyde
-- Not listed in the memo/permits.

The total site-wide emissions shown in Table 7 are more than 100 TPY of a regulated pollutant and are subject to Title V permitting requirements. The wood throughput of the ACI will be limited to 17,350 TPY to limit emissions below 250 TPY; therefore, the facility is not subject to PSD permitting. HAP emissions are above major source levels (10/25 TPY) for HAPs.

SECTION VIII. INSIGNIFICANT ACTIVITIES

The insignificant activities identified and justified in the application and listed in OAC 252:100-8, Appendix I, are duplicated below. Recordkeeping, for activities indicated with an "*", is required 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.

1. Emissions from stationary internal combustion engines rated less than 50 hp output. None identified but may be used in the future.
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 are two 10,000-gallon diesel storage tanks with a maximum daily throughput less than the threshold of 2,175 gallon per day.
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.
4. *Bulk gasoline or other fuel distribution with a daily average throughput less than 2,175 gallons per day, including dispensing, averaged over a 30-day period.
5. * Welding and soldering operations utilizing less than 100 pounds of solder and 53 tons per year of electrodes. None identified but may be used in the future.
6. Wood chipping operations not associated with primary process operation. None identified but may be used in the future.
7. * Torch cutting and welding or under 200,000 tons of steel fabricated per year. None identified but may be used in the future.
8. *Non-commercial water washing operations (less than 2,250 barrels/year) and drum crushing operations of empty barrels less than or equal to 55 gallons with less than 3 percent by volume of residual material. None identified but may be used in the future.
9. * Surface coating operations which do not exceed a combined total usage of more than 60 gallons/.month of coatings, thinners, and clean-up solvents at any one emissions unit. None identified but may be used in the future.
10. Exhaust systems for chemical, paint, and/or solvent storage rooms or cabinets, including hazardous waste satellite (accumulation) areas. None identified but may be used in the future.
11. Hand wiping and spraying of solvents from containers with less than 1 liter capacity used for spot cleaning and/or degreasing in ozone attainment areas. None identified but may be used in the future.
12. * Activities having the potential to emit no more than 5.0 TPY (actual) of any criteria pollutant. There is a commercial waste oil burner, which has less than 5 TPY emissions.

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.

SECTION IX. 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]
Part 5, Section 8-3 (a) - Covered sources. Except as exempted from the requirement to obtain a permit under OAC 252:100-8-3(b) or elsewhere in OAC 252:100-8, the sources listed in OAC 252:100-8-3(a)(1-6) are subject to the permitting requirements under OAC 252:100-8. This facility is subject to NSPS and is not exempt from the requirement to get a Part 70 source permit under OAC 252:100-8-3(b) or in the applicable NSPS standard. This facility is subject to NSPS Subpart XXX 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.

Section 8-4 requires facilities subject to the Part 70 operating permit requirements to get a construction permit prior to the following:

- Construction of a new source that would require an operating permit under 40 CFR Part 70;
- Reconstruction of a major HAP source under 40 CFR Part 63;
- Any physical change or change in method of operation that would be a significant modification under OAC 252:100-8-7.2(b)(2); or
- Any physical change or change in method of operation that would increase the PTE of any one regulated air pollutant by more than 10 TPY, calculated using the approach in 40 CFR § 49.153(b).

Because the opacity monitoring requirements associated with the trench burner significantly change existing monitoring requirements in the permit, and the permit will limit the amount of material combusted in the ACI, the project is considered a significant modification. Additionally, as shown in SECTION VI, the potential emissions associated with the project are greater than 10 TPY for a regulated air pollutant. As such, a construction 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 mitigation, 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]
The open burning of refuse and combustible materials is prohibited unless conducted in strict accordance with the conditions and requirements contained in OAC 252:100-13-7, 8, and 9. Under no circumstances shall the open burning of tires be allowed.

OAC 252:100-13-7 Allowed open burning
When not prohibited by law or ordinance, the following types of burning are allowed, provided the conditions and requirements in OAC 252:100-13-9 have been met:

(1) Fire training.
(2) Elimination of hazards.
(3) Recreational and ceremonial fires.
(4) Land management and land clearing operations.
(5) Burning of domestic refuse.
(6) Hydrocarbon burning.
(7) Yard brush.
(8) Certain medical marijuana plant refuse.
(9) Wood waste or clean lumber.

OAC 252:100-13-8. Use of air curtain incinerators
Except for hazardous material, any combustible material or refuse that is allowed to be burned under this Chapter may be burned in an air curtain incinerator that is properly designed and operated for the control of smoke and particulate matter. The owner or operator of an air curtain incinerator shall not accept any material owned by other persons and shall not transport any material to the property where the air curtain incinerator is located in order to burn the material, except the following:

(1) The owner or operator of the air curtain incinerator may accept and/or transport:

(A) 100 percent wood waste,
(B) 100 percent clean lumber, or
(C) 100 percent mixture of wood waste and clean lumber.

(2) In addition to the requirements in this subchapter, the owner or operator of the air curtain incinerator must comply with the requirements of OAC 252:100-17 and 40 CFR Part 60.

OAC 252:100-13-8.1. Transported material
(a) Combustible material obtained from land clearing operations, yard brush, and clean wood waste may be transported from where it is generated to another location in order to perform open burning. Material transported in order to perform open burning must meet the following conditions:

(1) The open burning shall not be conducted in counties or areas that are or have been designated nonattainment, or in MSAs with a population of greater than five hundred thousand.
(2) The material shall be burned within 90 days of being transported.

(3) The volume of material shall not exceed 10,000 cubic feet (total accumulation) at any one time.

(b) Except in accordance with OAC 252:100-13-8(a) or 252:100-13-8.1(a) above, no person shall accept any material owned by other persons nor transport combustible material from where it is generated to another location in order to perform open burning.

Persons who conduct open burning in accordance with the provisions of this subchapter are not exempt or excused from the consequences, damages, or injuries that may result from such conduct, nor are they exempt or excused from complying with all applicable laws, ordinances, rules, and orders.

252:100-13-9. General conditions and requirements for allowed open burning:

(1) No public nuisance is or will be created;
(2) The burning is controlled so that a visibility hazard is not created on any roadway, rail track or airfield as a result of the air contaminants being emitted;
(3) The burning is conducted so that the contaminants do not adversely affect the ambient air quality of a city or town; and
(4) The initial burning shall begin only between three hours after sunrise and three hours before sunset and additional fuel shall not be intentionally added to the fire at times outside these limits. This requirement does not apply to the open burning allowed under OAC 252:100-13-7(2), (3), (4)(A), (6)(B), and 252:100-13-8.
(5) An Ozone or PM Alert has not been declared for the day of the burn for the MSA or county in which the burn is to be performed. This requirement does not apply to the open burning allowed under 252:100-13-7(2), (3), and (6)(B).
(6) Open burning of waste generated from commercial operations shall be conducted at least 500 feet from any occupied structure other than those located on the property on which the burning is conducted.

The permit incorporates the applicable restrictions of this subchapter and restricts materials burned and sets opacity limits in the specific conditions of this general permit.

OAC 252:100-17 (Incinerators) [Not Applicable]
Part 11 applies to each individual existing other solid waste incineration (OSWI) unit or air curtain incinerator for which construction was commenced on or before December 9, 2004. Units subject to opacity limits of NSPS Subparts CCCC are exempt from this subchapter. The incinerator at this facility commenced construction after December 9, 2004, and is subject to NSPS Subpart CCCC.

OAC 252:100-19 (Particulate Matter) [Not Applicable]
Section 19-4 limits particulate emissions from fuel-burning units. The emission of particulate matter from the combustion of fuel in any new or existing fuel-burning unit shall not exceed the limits specified in Appendix C of OAC 252:100 as listed below.

Maximum Heat Input (MMBTUH)	Allowable PM Emissions (lb/MMBTU)
≤10	0.60

AP-42, Table 3.3-1 (10/96), lists diesel fuel PM_{10} emissions as 0.31 lb/MMBtu, which is in compliance for sources with heat rates less than 100 MMBtu/hr.

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. Units subject to opacity limits of NSPS Subparts CCCC are exempt from this subchapter.

OAC 252:100-29 (Fugitive Dust) [Applicable]
This subchapter prohibits the handling, transportation, or storage of any substance or material in a way that may enable fugitive dust to become wind-borne, and result in air pollution, without taking reasonable precautions or measures to minimize atmospheric pollution. Subchapter 29 further prohibits discharge of visible fugitive dust beyond the property line on which the emissions originated in such a manner as to damage or interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or to interfere with the maintenance of air quality standards. A list of reasonable precautions is specified in this subchapter.

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 ppm for a 24-hour average (equivalent to 283 $\mu g/m^3$). According to Section III (Emissions), the default amount of sulfur present is 46.9 ppmv, which is also assumed to be the worst case scenario. Assuming that all sulfur is present as hydrogen sulfide in an ambient LFG flow (45.6 % of methane), given 98% destruction efficiency in the flare, and assuming the same efficiency for stoichiometric combustion in the engine with stack temperature at 905ºF, yields a residual concentration of 0.056 ppmv in the engine exhaust stream, which is less than 0.1 ppm.
Part 5 limits sulfur dioxide emissions from new fuel-burning equipment (constructed after July 1, 1972). For liquid fuels the limit is 0.8 lb/MMBTU heat input averaged over 3 hours. The waste oil burner is rated at 0.35 MMBTU heat input and emissions of 0.007 lb/hr which equates to 0.021lb/MMBTU. Diesel fuel contains no greater than 0.5 grains/100 scf total sulfur, which is equivalent to 0.0014 lb/MMBTU SO_2. The facility is in compliance with this part.
Part 5 also limits hydrogen sulfide emissions from new petroleum or natural gas process equipment (constructed after December 31, 1974). There is, and will be, no "petroleum or natural gas process" equipment at this facility, per the definitions of §31-2

OAC 252:100-35 (Carbon Monoxide) [Not Applicable]
This subchapter affects gray iron cupolas, blast furnaces, basic oxygen furnaces, petroleum catalytic cracking units, and petroleum catalytic reforming units. It requires removal of 93% or more of CO by "complete secondary combustion" from new sources and also from existing sources located in or significantly impacting a non-attainment area for CO. There are no affected sources present.

OAC 252:100-37 (Volatile Organic Compounds) [Applicable]
Part 3 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. There are no tanks with a capacity greater than 400 gallons storing organic materials with a vapor pressure greater than 1.5 psia.
Part 5 limits the VOC content of coating of parts and products. There is no coating operation at this facility during normal operations.
Part 7 requires fuel-burning and refuse-burning equipment to be cleaned, operated, and maintained to minimize emissions of VOC. Based on manufacturer's data and good engineering practice, the equipment must not be overloaded, and temperature and available air must be sufficient to provide essentially complete combustion. The waste oil burner, ACI, and any combustion device used by the permittee for energy recovery fuel-burning equipment will be operated to minimize emissions of VOC. Operational and maintenance records are required to be kept to document compliance with this requirement.

OAC 252:100-42 (Toxic Air Contaminants (TAC)) [Applicable]
This subchapter regulates toxic 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 34 Mg/yr are required to install a gas collection and control system (GCCS) in accordance with the requirements of 40 CFR §60.752. This facility is subject to 40 CFR Part 60, NSPS, Subpart XXX. 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 252:100-23	Cotton Gins	Not type of emission unit
OAC 252:100-24	Feed & Grain Facility	Not in source category
OAC 252:100-33	Nitrogen Oxides	Not type of emission unit
OAC 252:100-39	Nonattainment Areas	Not in a subject area

SECTION X. FEDERAL REGULATIONS

PSD, 40 CFR Part 52 [Not Applicable]

Total emissions are less than the PSD major source threshold 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, XXX, CCCC, and IIII are Applicable]

Subpart A, 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. §60.18 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:

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

Subpart Cc, 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 XXX and not subject to this subpart.

Subpart Cf, 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 XXX and not subject to this subpart.

Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills. This subpart applies to each municipal solid waste landfill (MSWL) that commenced construction, reconstruction, or modification, or began accepting waste on or after May 30, 1991 but before July 18, 2014. MSWLs having a design capacity greater than 2.5 million cubic meters and 2.5 million megagrams are subject to Part 70 (Title V) permitting. Installation of an 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. The facility was modified after July 17, 2014; therefore, it is subject to the requirements under NSPS Subpart XXX and is no longer subject to this subpart.

Subpart XXX, Standards of Performance for Municipal Solid Waste Landfills. This subpart affects each landfill that commences construction, reconstruction, or modification after July 17, 2014.

The facility was modified on July 24, 2015; therefore, this facility is subject to this subpart. MSWLs having a design capacity greater than 2.5 million cubic meters and 2.5 million megagrams are subject to Part 70 (Title V) permitting. Installation of an LFG collection and control system is required to minimize NMOC emissions with a destruction efficiency of 98% if NMOC emissions are greater than 34 megagrams per year, based on calculation. Design capacity of this facility is greater than 2.5 million megagrams. This facility has emissions greater than 34 megagrams per year and has in place the required collection and control system. The permit requires the facility to comply with all applicable requirements.

Subpart CCCC. Standards of Performance for Commercial and Industrial Solid Waste Incineration Units (CISWI). This subpart took effect on August 7, 2013, and affects new CISWI units that commenced construction after June 4, 2010, or commenced reconstruction or modification after August 7, 2013. The ACI at this site is subject to this subpart. Per §60.2245, ACIs that burn only the materials listed in paragraphs (b)(1) through (3) of this section are required to meet only the requirements in §60.2242 and §60.2245 through 60.2260 and are exempt from all other requirements of this subpart.

(1) 100 percent wood waste.
(2) 100 percent clean lumber.
(3) 100 percent mixture of only wood waste, clean lumber, and/or yard waste.

The permit will require compliance with all applicable requirements of this subpart.

Subpart IIII, Standards of Performance for Compression Ignition Internal Combustion Engines (CI-ICE). This subpart contains phased-in emissions standards for CI-ICE, performance testing, and recordkeeping requirements for owners and operators.

The engine is a 2023, 74-hp Tier 4 certified diesel engine associated with the trench burner and shall comply with the Tier 4 emission limits. It needs to comply with requirements specified in 40 CFR 60.4211(a). The engine shall use ultra-low sulfur diesel fuel. The landfill will comply with applicable Subpart IIII emission limits, monitoring, and recordkeeping requirements.

NESHAP, 40 CFR Part 61 [Subpart M Applicable]

Subpart M, 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 [Subparts AAAA and ZZZZ 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 §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) area source landfill that has a design capacity of 2.5 million Mg and 2.5 million m^3 and has estimated uncontrolled NMOC emissions of 50 Mg/yr as calculated according to §63.1959 as stated in §63.1935(a)(3); or (4) meeting only the design capacity threshold of 2.5 million Mg and 2.5 million m^3 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, Subparts Cc, Cf, WWW or XXX, 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 §60.762(b)(2) since the facility has uncontrolled NMOC emissions greater than 34 Mg/yr as calculated (317.9 Mg/yr in 2020). A "Start-up, Shutdown, and Malfunction" plan shall be maintained on-site. The permit requires the facility to comply with all applicable requirements.

Subpart ZZZZ, Stationary Reciprocating Internal Combustion Engines (RICE). This subpart affects any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions. Owners and operators of new or reconstructed RICE must meet the requirements of Subpart ZZZZ by complying with either 40 CFR Part 60 Subpart IIII (for CI engines) or 40 CFR Part 60 Subpart JJJJ (for SI engines). No further requirements apply for these engines All applicable requirements have been incorporated into the permit.

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 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: https://www.epa.gov/rmp.

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).

Subpart A 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.

Subpart F 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 XI. COMPLIANCE

Tier Classification

This application has been classified as **Tier II** based upon a request for construction permit which will result in a significant modification of a Part 70 source. The applicant requested the "Traditional NSR" process. Public review of the application and the draft permit (when available) are required. Information on all permit actions is available for review by the public in the Air Quality section of the DEQ Web page: https://www.deq.ok.gov.

Landowner Affidavit

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.

Public Review

The applicant published the "Notice of Filing a Tier II Application" in *Sand Springs Leader*, a daily newspaper printed and published in the City of Tulsa, Tulsa County, Oklahoma on October 2, 2024. The notice stated that the permit application was available for public review at the Charles Page Library, 551 East 4th Street, Sand Springs, Oklahoma 74063, and at the Air Quality Division's Main Office in Oklahoma City, Oklahoma.

The applicant will publish the "Notice of Tier II Draft Permit" as a legal notice in a newspaper close to where the facility is located. The draft permit will be available for public review in the same county where the facility is located and will also be available for public review in the main office of DEQ in Oklahoma City, Oklahoma, and on the Air Quality section of the DEQ web page at *https://www.deq.ok.gov*.

Neighboring States

This facility is not located within 50 miles of the border of Oklahoma and any other state.

Tribal Nations Review

The Tribal nations will also be notified of the draft permit.

Information on all permit actions is available for review by the public in the Air Quality Section of DEQ Web Page: *https://www.deq.ok.gov*.

Fees Paid

Major Source Construction permit application fee of $5,000 was received on September 30, 2024.

SECTION XII. 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 public review.

DRAFT

PERMIT TO CONSTRUCT
AIR POLLUTION CONTROL FACILITY
SPECIFIC CONDITIONS

American Environmental Landfill, Inc. **Permit No. 2018-1562-C (M-1)**
Sand Springs Facility

The permittee is authorized to operate in conformity with the specifications submitted to Air Quality on September 23, 2024. The Evaluation Memorandum dated March 25, 2025, explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating limitations or permit requirements. Commencing construction and continuing operations under this permit constitutes acceptance of, and consent to, the conditions contained herein.

1. Points of emissions and emission limitations for each point:

Pollutants	Existing Sand Springs FW PTE Emissions (TPY)	ACI Operations (Project) PTE Emissions (TPY)
NOx	--	11.19
CO	--	25.23
VOC	13.21	8.63
PM	--	11.31
PM_{10}	26.28	11.31
$PM_{2.5}$	3.92	10.44
SO_2	--	1.53
Lead	--	5.7E-03
Total HAPs	8.38	1.39
Single HAP *	--	0.66

** Highest HAP is formaldehyde*

2. Upon issuance of the operating permit, the permittee shall be authorized to operate the 15.69 million Mg design capacity facility continuously (24 hours per day, every day of the year). [OAC 252:100-8-6(a)]

3. Compliance with ACI emissions limitations can be demonstrated by compliance with the following limits.

   (a) Total annual burning amount shall not exceed 17,350 tons/year (monthly and 12-month rolling total).
   (b) The engine at this facility is subject to NSPS Subpart IIII.

4. Within 60 days after the air curtain incinerator reaches the charge rate at which it will operate, but no later than 180 days after its initial startup, the operator shall meet the following two limitations:

   (a) Maintain opacity to less than or equal to 10% opacity (6 minute average), except as described below.

(b) Maintain opacity to less than or equal to 35% opacity (6 minute average) during the startup period that is within the first 30 minutes of operation.

5. The facility is subject to NSPS (New Source Performance Standards), 40 CFR Part 60, Subpart XXX, Standards of Performance for Municipal Solid Waste Landfills that Commenced Construction, Reconstruction, or Modification After July 17, 2014. The permittee shall comply with all applicable standards contained therein, including but not limited to:
[40 CFR Part 60, §60.760 – §60.769]

(a) §60.760 Applicability, designation of affected facility, and delegation of authority.
(b) §60.761 Definitions.
(c) §60.762 Standards for air emissions from municipal solid waste landfills.
(d) §60.733 Operational standards for collection and control systems.
(e) §60.764 Test methods and procedures.
(f) §60.765 Compliance provisions.
(g) §60.766 Monitoring of operations.
(h) §60.767 Reporting requirements.
(i) §60.768 Recordkeeping requirements.
(j) §60.769 Specifications for active collection systems.

6. The facility is subject to NSPS, 40 CFR Part 60, Subpart CCCC,Standards of Performance for Commercial and Industrial Solid Waste Incineration Units, Air Curtain Incinerators (ACIs). [40 CFR Part 60, §60.2245 – §60.2260]

(a) § 60.2245 What is an air curtain incinerator?
(b) § 60.2250 What are the emission limitations for air curtain incinerators?
(c) § 60.2255 How must I monitor opacity for air curtain incinerators?
(d) § 60.2260 What are the recordkeeping and reporting requirements for air curtain incinerators?

7. The diesel engine is subject to 40 CFR Part 60, Subpart IIII and shall comply with all applicable requirements including but not limited to the following:
[40 CFR § 60.4200 - § 60.4219]

(a) § 60.4200 Am I subject to this subpart?
(b) § 60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?
(c) § 60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?
(d) § 60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?
(e) § 60.4208 What is the deadline for importing or installing stationary CI ICE produced in the previous model years?
(f) § 60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

(g) § 60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?
(h) § 60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?
(i) § 60.4213 What test methods or other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?
(j) § 60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?
(k) § 60.4217 What engine standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?
(l) § 60.4218 What parts of the General Provisions apply to me?
(m) § 60.4219 What definitions apply to this subpart?

8. 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 permittee shall comply with all applicable standards contained therein, including but not limited to: [40 CFR Part 61, §61.140 - §61.157]

(a) §61.140 Applicability.
(b) §61.141 Definitions.
(c) §61.149 Standard for waste disposal for asbestos mills.
(d) §61.150 Standard for waste disposal for manufacturing, fabricating, demolition, renovation, and spraying operations.
(e) §61.151 Standard for inactive waste disposal sites for asbestos mills and manufacturing and fabricating operations.
(f) §61.153 Reporting.
(g) §61.154 Standard for active waste disposal sites.
    I. 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)]
        (A) At the end of each operating day, or at least once every 24-hour period while the site is in continuous operation, the asbestos-containing waste material that has been deposited at the site during the operating day or previous 24-hour period shall be covered with at least 15 centimeters (6 inches) of compact non-asbestos-containing material. [§61.154(c)(1)]
        (B) Use an alternative emissions control method that has received prior written approval by DEQ. [§61.154(d)]
    II. For all asbestos-containing waste material received, the permittee shall:
        (A) Maintain waste shipment records including following information: [§61.154(e)(1)]
            i. The name, address, and telephone number of the waste generator.
            ii. The name, address, and telephone number of the transporter(s).
            iii. The quantity of the asbestos-containing waste material in cubic meters (cubic yards).

iv. 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.

v. The date of receipt.

(B) 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)]

(C) 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)]

(D) Retain a copy of all records and reports for at least two years. [§61.154(e)(4)]

III. 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)]

IV. Upon closure, comply with all the provisions of §61.151. [§61.154(g)]

V. Submit to DEQ, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities. [§61.154(h)]

VI. Furnish upon request, and make records available during normal business hours for inspection by DEQ personnel. [§61.154(i)]

VII. 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)]

(A) Scheduled starting and completion dates.

(B) Reason for disturbing the waste.

(C) Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material

(D) Location of any temporary storage site and the final disposal site.

(h) §61.156 Cross-reference to other asbestos regulations.

(i) §61.157 Delegation of authority.

9. 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?

(i) §63.1960 How is compliance determined?

I. 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]

General and Continuing Compliance Requirements

(j) §63.1965 What is a deviation?

(k) §63.1975 How do I calculate the 3-hour block average used to demonstrate compliance?

Notifications, Records, and Reports

(l) §63.1981 What records must I submit?

(m) §63.1982 What records and reports must I submit and keep for bioreactors or liquids addition other than leachate?

(n) §63.1983 What records must I keep?

Other Requirements and Information

(o) §63.1985 Who enforces this subpart?

(p) §63.1990 What definitions apply to this subpart?

10. The permittee shall comply with all applicable requirements of NESHAP (40 CFR Part 63) for Stationary Reciprocating Internal Combustion Engines (RICE), Subpart ZZZZ, for the diesel engine, including but not limited to:

(a) § 63.6580 What is the purpose of subpart ZZZZ?

(b) § 63.6585 Am I subject to this subpart?

(c) § 63.6590 What parts of my plant does this subpart cover?

(d) § 63.6595 When do I have to comply with this subpart?

(e) § 63.6603 What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

(f) § 63.6604 What fuel requirements must I meet if I own or operate a stationary CI RICE?

(g) § 63.6605 What are my general requirements for complying with this subpart?

(h) § 63.6615 When must I conduct subsequent performance tests?

(i) § 63.6620 What performance tests and other procedures must I use?

(j) § 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?

(k) § 63.6630 How do I demonstrate initial compliance with the emission limitations, operating limitations, and other requirements?

(l) § 63.6635 How do I monitor and collect data to demonstrate continuous compliance?

(m) § 63.6640 How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?

(n) § 63.6645 What notifications must I submit and when?

(o) § 63.6650 What reports must I submit and when?

(p) § 63.6655 What records must I keep?

(q) § 63.6660 In what form and how long must I keep my records?

(r) § 63.6665 What parts of the General Provisions apply to me?
(s) § 63.6670 Who implements and enforces this subpart?
(t) § 63.6675 What definitions apply to this subpart?

11. No person shall cause or allow any fugitive dust source to be operated, or any substances to be handled, transported or stored, or any structure constructed, altered, or demolished to the extent that such operation or activity may enable fugitive dust to become airborne and result in air pollution, without taking reasonable precautions to minimize or prevent pollution. Reasonable precautions include, but are not limited to:

(a) The use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, driveways and parking lots or the clearing of land for commercial, industrial, or residential development.
(b) The application of water or suitable chemicals or some other covering on materials stockpiles and other surfaces that can create airborne dusts under normal conditions.
(c) The installation and use of hoods, fans and dust collectors to enclose and vent the handling of dusty materials or the use of water sprays or other acceptable measures to suppress dust emission during handling. Adequate containment methods shall be employed during sandblasting or other similar operations.
(d) 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.
(e) The removal as necessary from paved street and parking surfaces of materials that have a tendency to become airborne.
(f) The planting and maintenance of vegetative ground cover as necessary.

12. The following records shall be maintained on site to verify insignificant activities.
[OAC 252:100-8-6(a)(3)(B)]

(a) Throughput of the two 10,000 gallon diesel storage tanks
(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.
(d) Non-commercial water washing operations (less than 2,250 barrels/year) and drum crushing operations of empty barrels less than or equal to 55 gallons with less than 3 percent by volume of residual material.

13. 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) Annual amount burned in the ACI (monthly 12-month rolling total).
(b) Records as required by NSPS, 40 CFR Part 60, Subparts XXX, CCCC, and IIII.

(c) Records as required by NESHAP, 40 CFR Part 61, Subpart M.
(d) Records as required by NESHAP, 40 CFR Part 63, Subparts AAAA and ZZZZ.

14. No later than 30 days after each anniversary date of the issuance of the original Title V permit for this facility (October 9, 2008), 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)]

15. AEL is collocated with the equipment owned and operated by Tulsa LGF, LLC., which are permitted under a separate Title V operating permit. Any permit modifications to one or both of the collocated permits shall be evaluated for combined emissions increase. If the resultant emissions equal or exceed the PSD major source thresholds, each facility shall apply for appropriate permit modifications. [OAC 252:100-8-36.2]

16. This construction modification permit does not extend the term of the current Title V permit (No. 2018-1562-TVR2). This operating permit shall expire five (5) years from the date of issuance of Permit No. 2018-1562-TVR2 (September 12, 2022), except as authorized under Section VIII of the Standard Conditions.

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.

Department of Environmental Quality (DEQ)
Air Quality Division (AQD)
Acronym List
11-21-24

ACFM	Actual Cubic Feet per Minute
AD	Applicability Determination
AFRC	Air-to-Fuel Ratio Controller
API	American Petroleum Institute
ASTM	American Society for Testing and Materials
AVO	Audio, Visual, or Olfactory
BACT	Best Available Control Technology
BAE	Baseline Actual Emissions
BBL	Barrel(s)
BHP	Brake Horsepower (bhp)
BTEX	Benzene, Toluene, Ethylbenzene, Xylene
BTU	British thermal unit (Btu)
C&E	Compliance and Enforcement
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CAS	Chemical Abstract Service
CAAA	Clean Air Act Amendments
CC	Catalytic Converter
CCR	Continuous Catalyst Regeneration
CD	Consent Decree
CEM	Continuous Emission Monitor
CFC	Chlorofluorocarbon
CFR	Code of Federal Regulations
CI	Compression Ignition
CNG	Compressed Natural Gas
CO	Carbon Monoxide or Consent Order
COA	Capable of Accommodating
COM	Continuous Opacity Monitor
D	Day
DEF	Diesel Exhaust Fluid
DG	Demand Growth
DSCF	Dry Standard (At Standard Conditions) Cubic Foot (Feet)
EGU	Electric Generating Unit
EI	Emissions Inventory
EPA	Environmental Protection Agency
ESP	Electrostatic Precipitator
EUG	Emissions Unit Group
EUSGU	Electric Utility Steam Generating Unit
FCE	Full Compliance Evaluation
FCCU	Fluid Catalytic Cracking Unit
FEL	Federally Enforceable Limit(s)
FIP	Federal Implementation Plan
FR	Federal Register
GACT	Generally Achievable Control Technology
GAL	Gallon (gal)
GDF	Gasoline Dispensing Facility
GEP	Good Engineering Practice
GHG	Greenhouse Gases
GR	Grain(s) (gr)
H_2CO	Formaldehyde
H_2S	Hydrogen Sulfide
HAP	Hazardous Air Pollutants
HC	Hydrocarbon
HCFC	Hydrochlorofluorocarbon
HFR	Horizontal Fixed Roof
HON	Hazardous Organic NESHAP
HP	Horsepower (hp)
HR	Hour (hr)
I&M	Inspection and Maintenance
IBR	Incorporation by Reference
ICE	Internal Combustion Engine
LAER	Lowest Achievable Emission Rate
LB	Pound(s) [Mass] (lb, lbs, lbm)
LB/HR	Pound(s) per Hour (lb/hr)
LDAR	Leak Detection and Repair
LNG	Liquefied Natural Gas
LT	Long Ton(s) (metric)
LPE	Legally and Practicably Enforceable
M	Thousand (Roman Numeral)
MAAC	Maximum Acceptable Ambient Concentration
MACT	Maximum Achievable Control Technology
MM	Prefix used for Million (Thousand-Thousand)
MMBTU	Million British Thermal Units (MMBtu)
MMBTUH	Million British Thermal Units per Hour (MMBtu/hr)
MMSCF	Million Standard Cubic Feet (MMscf)
MMSCFD	Million Standard Cubic Feet per Day
MSDS	Material Safety Data Sheet
MWC	Municipal Waste Combustor
MWe	Megawatt Electrical
NA	Nonattainment
NAAQS	National Ambient Air Quality Standards
NAICS	North American Industry Classification System
NESHAP	National Emission Standards for Hazardous Air Pollutants

NH_3	Ammonia
NMHC	Non-methane Hydrocarbon
NGL	Natural Gas Liquids
NO_2	Nitrogen Dioxide
NOx	Nitrogen Oxides
NOI	Notice of Intent
NSCR	Non-Selective Catalytic Reduction
NSPS	New Source Performance Standards
NSR	New Source Review
O_3	Ozone
O&G	Oil and Gas
O&M	Operation and Maintenance
O&NG	Oil and Natural Gas
OAC	Oklahoma Administrative Code
OC	Oxidation Catalyst
OGI	Optical Gas Imaging
PAH	Polycyclic Aromatic Hydrocarbons
PAE	Projected Actual Emissions
PAL	Plant-wide Applicability Limit
Pb	Lead
PBR	Permit by Rule
PCB	Polychlorinated Biphenyls
PCE	Partial Compliance Evaluation
PEA	Portable Emissions Analyzer
PFAS	Per- and Polyfluoroalkyl Substance
PM	Particulate Matter
$PM_{2.5}$	Particulate Matter with an Aerodynamic Diameter <= 2.5 Micrometers
PM_{10}	Particulate Matter with an Aerodynamic Diameter <= 10 Micrometers
POM	Particulate Organic Matter or Polycyclic Organic Matter
ppb	Parts per Billion
ppm	Parts per Million
ppmv	Parts per Million Volume
ppmvd	Parts per Million Dry Volume
PSD	Prevention of Significant Deterioration
psi	Pounds per Square Inch
psia	Pounds per Square Inch Absolute
psig	Pounds per Square Inch Gage
RACT	Reasonably Available Control Technology
RATA	Relative Accuracy Test Audit
RAP	Regulated Air Pollutant or Reclaimed Asphalt Pavement
RFG	Refinery Fuel Gas
RICE	Reciprocating Internal Combustion Engine
RO	Responsible Official
ROAT	Regional Office at Tulsa
RVP	Reid Vapor Pressure
SCC	Source Classification Code
SCF	Standard Cubic Foot
SCFD	Standard Cubic Feet per Day
SCFM	Standard Cubic Feet per Minute
SCR	Selective Catalytic Reduction
SER	Significant Emission Rate
SI	Spark Ignition
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SNCR	Selective Non-Catalytic Reduction
SO_2	Sulfur Dioxide
SOx	Sulfur Oxides
SOP	Standard Operating Procedure
SRU	Sulfur Recovery Unit
T	Tons
TAC	Toxic Air Contaminant
TEG	Triethylene Glycol
THC	Total Hydrocarbons
TPY	Tons per Year
TRS	Total Reduced Sulfur
TSP	Total Suspended Particulates
TV	Title V of the Federal Clean Air Act
$\mu g/m^3$	Micrograms per Cubic Meter
US EPA	U. S. Environmental Protection Agency
VFR	Vertical Fixed Roof
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound
VOL	Volatile Organic Liquid
VRT	Vapor Recovery Tower
VRU	Vapor Recovery Unit
YR	Year
2SLB	2-Stroke Lean Burn
4SLB	4-Stroke Lean Burn
4SRB	4-Stroke Rich Burn

NSR PERMIT

AIR QUALITY DIVISION
STATE OF OKLAHOMA
DEPARTMENT OF ENVIRONMENTAL QUALITY
707 NORTH ROBINSON, SUITE 4100
P. O. BOX 1677
OKLAHOMA CITY, OKLAHOMA 73101-1677

Permit No. 2018-1562-C (M-1)

American Environmental Landfill, Inc.,

having complied with the requirements of the law, is hereby granted permission to construct their Sand Springs Facility located at 207 N. 177th West Avenue, Sand Springs, in S ½ Section 36, Township 20N, Range 10E, Osage County, Oklahoma, subject to Major Source Standard Conditions dated June 21, 2016, and Specific Conditions, both attached.

In the absence of commencement of construction, this permit shall expire 18 months from the issuance date, except as authorized under Section VIII of the Standard Conditions.

DRAFT/PROPOSED

Kendal Stegmann, Division Director **Date**

Robert Singletary
Executive Director

OKLAHOMA Environmental Quality

Kevin Stitt
Governor

Attn: Mr. Wade Miller, Engineering Director
American Environmental Landfill, Inc.
1420 W. 35th Street, Suite B.
Tulsa, OK 74107-3814

SUBJECT: NSR Permit No**. 2018-1562-C (M-1)**
Sand Springs Landfill (Facility ID: 5933)
207 N. 177th West Avenue, Sand Springs 74603
Latitude N 36.16412°, Longitude W 96.18892°
SE ¼ Section 36, Township 20N, Range 10E, Sand Springs, Osage County

Dear Mr. Miller:

Enclosed is the permit authorizing construction of the referenced facility above. Please note that this permit is issued subject to standard and specific conditions, which are attached. These conditions must be carefully followed since they define the limits of the permit and will be confirmed by periodic inspections.

Also note that you are required to annually submit an emissions inventory for this facility. An emissions inventory must be completed through DEQ's electronic reporting system by April 1st of every year. Any questions concerning the submittal process should be referred to the Emissions Inventory Staff at (405) 702-4100.

Thank you for your cooperation. If we may be of further service, or you have any questions about this permit, please contact the permit writer, Iftekhar.hossain@deq.ok.gov or at (405) 702-4199.

Sincerely,

DRAFT

Phillip Fielder, P.E.
Chief Engineer
AIR QUALITY DIVISION

Enclosures

Attn: Mr. Wade Miller, Engineering Director
American Environmental Landfill, Inc.
1420 W. 35th Street, Suite B.
Tulsa, OK 74107-3814

SUBJECT: NSR Permit No**. 2018-1562-C (M-1)**
Sand Springs Landfill (Facility ID: 5933)
207 N. 177th West Avenue, Sand Springs 74603
Latitude N 36.16412°, Longitude W 96.18892°
SE ¼ Section 36, Township 20N, Range 10E, Sand Springs, Osage County

Dear Mr. Miller:

Air Quality has received the permit application for the referenced facility and completed initial review. 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 **you** 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. Submit sample notice and provide date of publication to **AQD 5 days prior to notice publishing**
3. 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.
4. Send AQD a signed affidavit of publication for the notice(s) from Item #1 above within 20days of publication of the draft permit. Any additional comments or requested changes, which you may have for the permit application within 30 days of publication.

The permit review time is hereby tolled the permit will be placed into pending facility action until the notice of draft permit is published. Thank you for your cooperation. If you have any questions, please refer to the permit number above and contact me or the permit writer at (405) 702-4100.

Sincerely,

Phillip Fielder

Phillip Fielder, P.E., Chief Engineer
AIR QUALITY DIVISION

Enclosures

NOTICE OF DRAFT PERMIT
TIER II or TIER III AIR QUALITY PERMIT APPLICATION

APPLICANT RESPONSIBILITIES

Permit applicants are required to give public notice that a Tier II or Tier III draft permit has been prepared by DEQ. The notice must be published in one newspaper local to the site or facility. Note that if either the applicant or the public requests a public meeting, this must be arranged by the DEQ.

1. Complete the public notice using the samples provided by AQD below. Please use the version applicable to the requested permit action;
   Version 1 – Traditional NSR process for a construction permit
   Version 2 – Enhanced NSR process for a construction permit
   Version 3 – initial Title V (Part 70 Source) operating permit, Title V operating permit renewal, Significant Modification to a Title V operating permit, and any Title V operating permit modification incorporating a construction permit that followed Traditional NSR process
2. Determine appropriate newspaper local to facility for publishing;
3. Submit sample notice and provide date of publication to AQD 5 days prior to notice publishing.
4. Upon publication, a signed affidavit of publication must be obtained from the newspaper and sent to AQD.

REQUIRED CONTENT (27A O.S. § 2-14-302 and OAC 252:4-7-13(c))

1. A statement that a Tier II or Tier III draft permit has been prepared by DEQ;
2. Name and address of the applicant;
3. Name, address, driving directions, legal description and county of the site or facility;
4. The type of permit or permit action being sought;
5. A description of activities to be regulated, including an estimate of emissions from the facility;
6. Location(s) where the application and draft permit may be reviewed (a location in the county where the site/facility is located must be included);
7. Name, address, and telephone number of the applicant and DEQ contacts;
8. Any additional information required by DEQ rules or deemed relevant by applicant;
9. A 30-day opportunity to request a formal public meeting on the draft permit.

SAMPLE NOTICE: **On the following page**

SAMPLE NOTICE *(Italicized print is to be filled in by the applicant.)***:**

Version 1 – For those using the Traditional NSR Process for a construction permit application review

DEQ NOTICE OF TIER *…II or III…* **DRAFT PERMIT**

A Tier *…II or III…* **application for an air quality** *…type of permit or permit action being sought (e.g., construction permit for a new major facility or construction permit for a modification at an existing major facility)…* **has been filed with the Oklahoma Department of Environmental Quality (DEQ) by applicant,** *…name and address.*

The applicant requests approval to *…brief description of purpose of application…* **at the** *…site/facility name … …***[proposed to be] located at** *…physical address (if any), driving directions, and legal description including county…..*

In response to the application, DEQ has prepared a draft construction permit [modification] (Permit Number: *…xxxx-xxxx-x…***), which may be reviewed at** *…locations (one must be in the county where the site/facility is located)…* **or at the Air Quality Division's main office (see address below). The draft permit is also available for review under Permits for Public Review on the DEQ Web Page: http://www.deq.ok.gov/**

This draft permit would authorize the facility to emit the following regulated pollutants: *(list each pollutant and amounts in tons per year (TPY))***.** [For facility modifications only, either add the phrase**: , which represents** *(identify the emissions change involved in the modification)***.**, or add the sentence: **The modification will not result in a change in emissions.**] [For PSD permits only, add**: The project will consume the following increment levels:** *(list the amount of increment consumption for each pollutant in ug/m^3).*]

The public comment period ends 30 days after the date of publication of this notice. Any person may submit written comments concerning the draft permit to the Air Quality Division contact listed below or as directed through the corresponding online notice. [Modifications only, add: **Only those issues relevant to the proposed modification(s) are open for comment.**] **A public meeting on the draft permit [modification] may also be requested in writing at the same address. Note that all public meetings are to be arranged and conducted by DEQ staff.**

Information on all permit actions including draft permits, proposed permits, final issued permits and applicable review timelines are available in the Air Quality section of the DEQ Web page: https://www.deq.ok.gov/.

For additional information, contact *…names, addresses and telephone numbers of contact persons for the applicant,* **or contact DEQ at: Chief Engineer, Air Quality Division, 707 N. Robinson, Suite 4100, P.O. Box 1677, Oklahoma City, OK, 73101-1677. Phone No. (405) 702-4100.**