DRAFT/PROPOSED

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

MEMORANDUM **October 27, 2022**

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

THROUGH: Rick Groshong, Sr. Manager, Compliance, Enforcement, & Surveillance

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

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

FROM: William Fulk, E.I., Existing Source Permits Section

SUBJECT: Evaluation of Title V Permit Renewal Application **No. 2021-0499-TVR4**
Pinecrest Landfill OK, LLC
Newcastle Landfill (Facility ID: No. 3263)
Lat. 35.26557°N, Long. 97.58272°W
1741 North Portland Avenue, Newcastle, Oklahoma 73065
Section 11, Township 9N, Range 4W, McClain County, OK
Directions: From downtown Newcastle, take U.S. Highway 62 and go north for 0.5 mile, turn east on 16th Street and go 1.0 mile, turn north on North Portland Avenue and go 0.5 mile, then, turn east to the facility.

SECTION I. INTRODUCTION

Through Weaver Consultants Group, LLC, Pinecrest Landfill OK, LLC requested a renewal of the Part 70 operating permit for their Newcastle Landfill (SIC 4953, NAICS 562212). Newcastle Landfill is an active municipal solid waste (MSW) landfill under DEQ Land Protection Division (LPD) Solid Waste ID No. 3544014. The facility started receiving waste in 1987.

SECTION II. FACILITY DESCRIPTION

The Newcastle Landfill began construction in 1987 and started operation to receive solid waste also in 1987. The total permitted land boundary by LPD is 76.4 acres and 66.3 acres are used for waste proposal or landfill operations. From 1987 to 2005, the Newcastle Landfill received approximately 370 ton/day of municipal, commercial, and industrial nonhazardous waste in 1987 to 575 ton/day in 2005. Since 2007, the Newcastle Landfill was mothballed and received the MSW at a rate approximately at 10-12 ton/month or 120-140 ton/year. Presently, the Newcastle Landfill received approval for suspension status and the site is no longer accepting any waste. The site has a design capacity of approximately 4.20 million cubic yards (or 3.21 million megagrams (Mg)) permitted by LPD. At the end of 2016, the facility is estimated to have accepted total waste of 2.19 million Mg.

Landfill gas (LFG) is usually generated by microbiological processes associated with solid 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 the wastes is continuous and rapid until the entrained oxygen within the refuse is depleted. The second stage is anaerobic decomposition that can be divided into two separate and independent processes: 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. The collected LFG is processed and transported to either a LFG treating system or an on-site flare.

In Permit No. 99-400-TV issued on June 5, 2001, the LFG utility flare at the Newcastle Landfill had been equipped with a flame safeguard and an auto-ignition pilot system that provided automatic flare startup. A master flow control valve installed along the main LFG header regulates the amount of LFG extracted from the landfill. This valve is also used as an isolation valve to prevent the direct release of LFG emissions from the collection system during system repairs. Monitoring ports in the main header, upstream from the valve, are used to measure LFG flow, pressure, and composition.

The facility has a landfill design capacity greater than 2.5 million Mg and 2.5 million cubic meters (m^3) and has non-methane organic compound (NMOC) emission rate greater than 34 Mg/yr; making it subject to Title 40 Code of Federal Regulations (CFR) Part 62, Subpart OOO, Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 (40 CFR Part 62 Subpart OOO), thus requiring a Part 70 permit. This facility used to be subject to the requirements of New Source Performance Standards (NSPS) Subpart WWW, but as of June 21, 2021, these requirements were supplanted by 40 CFR Part 62 Subpart OOO. The facility has voluntarily installed an active GCCS that routes collected landfill gas (LFG) from 66 extraction wells to the existing utility flare. In Permit No. 99-400-TV, the utility flare has a combustion design capacity of 1,600 SCFM of LFG. At the present time, the facility is a Part 70 source and is subject to the requirements of the Federal Implementation Plan (FIP) which requires the facility to comply with 40 CFR Part 62 Subpart OOO. Once the state's 111(d) Plan is approved by EPA, the facility will be subject to OAC 252:100-47.

SECTION III. PERMIT HISTORY

Permits	Date Issued	Description
99-400-TV	6/5/2001	Initial Title V Permit
99-400-TV M-1	11/29/2006	Modified landfill Title V to remove NMOC emission limitation and revise PM10 emission limitation to more accurately reflect site.
2005-246-TVR	7/16/2007	Company requests that NMOC & PM10 emission limitations be removed from renewal & that all references, calculations, & parameters used to establish limits also be removed.
2005-246-TVR M-1	5/12/2011	Applicant requests minor mod to TV operating permit. Mods include new specific condition regarding the water truck at the facility and the removal of a diesel storage tank at the facility.
2011-916-TVR2	4/13/2012	Applicant requests renewal to Part 70 Permit No. 2005-246-TVR.
2016-1108-TVR3	6/14/2017	Applicant requests renewal to Part 70 Permit No. 2011-916-TVR2.

SECTION IV. REQUESTED CHANGES

The applicant has no requested changes.

SECTION V. EQUIPMENT

Emission units (EU) have been arranged into Emission Unit Groups (EUG) in the Equipment Section. Table 1 and Table 2 list the EUGs.

Table 1. Emission Unit (EU) Information in Landfill Site

EU ID #	Emission Sources	EU Group Name
EUG-1	Uncollectable LFG Fugitives from Underground & PM_{10} and $PM_{2.5}$ Fugitives From Earthmoving Operations	Landfill Operation
EUG-2	Utility Flare System	GCCS and LFG Flare

There are two 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 GCCS and LFG flare system. The GCCS consists of a network of extraction wells and collection pipes that collect LFG generated within the landfill. The GCCS is also comprised of a blower system which induces negative pressure within the landfill and transfers the collected LFG to the open flare system for burning.

SECTION VI. AIR EMISSIONS

This Landfill facility includes the following emission sources:

A. Landfill Gas Generation and Uncollectable Fugitive LFG
B. Flare Operations
C. Earthmoving Equipment Operations
D. Insignificant Activities
E. Greenhouse Gas (GHG) Emissions

A. Landfill Gas Generation

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

The EPA's Landfill Gas Emissions Model (LandGEM) Version 3.03 (06/2020) 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 3,212,784 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) a site-specific NMOC concentration of 116 parts per million by volume (ppmv). The landfill site submitted a Tier 2 NMOC Test on September 9, 2021, a site-specific NMOC concentration of 116 parts per million by volume (ppmv) Based on the results of the modeling, the maximum NMOC generation rate in LFG is estimated at 5.79 Mg per year in 2022, which is less than 34 Mg per year.

The maximum LFG generation is determined based on LandGEM model's default inventory parameters: (1) landfill's total design capacity of 3,212,784 Mg, (2) waste acceptance data, (3) a methane generation rate constant of 0.04 yr^{-1}, (4) a potential methane generation capacity of 100 m^3/Mg, and (5) a default NMOC concentration of 600 parts per million by volume (ppmv). Based on the results of the modeling, the landfill will generate a maximum of 6.43 .million cubic meters per year (m^3/yr) of methane (CH_4) . Methane is assumed to be 50 percent of the total volume of LFG. The maximum projected LFG generation rate for the landfill is estimated to be 864 standard cubic feet per minute (SCFM). The current LFG utility flare at the Newcastle Landfill was constructed in 2001, and has a combustion design flow rate of 1,600 SCFM in Permit No. 99-400-TV. Newcastle Landfill believes that a 1,600 SCFM utility flare is sufficiently good to combust all of the currently generated LFG.

In accordance with the EPA AP-42 (11/98), Section 2.4, "MSW Landfills", the GCCS may be assumed to have a 50% collection efficiency of generated LFG and the remaining 50% of LFG is considered as uncollectable fugitives to the air from underground. The fugitive VOC and HAP emissions were calculated by using the equations # 3 and # 4 from AP-42 (11/98), Section 2.4, "MSW Landfills", and by using the concentration of the LFG compound. The concentrations for LFG compounds were calculated by using a ratio of each compound's default LandGEM version 3.03 concentration to the default NMOC concentration.

Table 2. Potential Speciated 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	0.01	0.04
1,1,2,2-Tetrachloroethane	167.85	1.10	0.02	0.10
1,1-Dichloroethane (ethylidene dichloride)	98.97	2.40	0.03	0.13
1,1-Dichloroethene (vinylidene chloride)	96.94	0.20	0.00	0.01
1,2-Dichloroethane (ethylene dichloride)	98.96	0.41	0.01	0.02
1,2-Dichloropropane (propylene dichloride)	112.99	0.18	0.00	0.01
Acrylonitrile	53.06	6.30	0.04	0.19
Benzene	78.11	1.90	0.02	0.08
Carbon disulfide	76.13	0.58	0.01	0.02
Carbon tetrachloride	153.84	0.004	0.00	0.00
Carbonyl sulfide	60.07	0.49	0.00	0.02
Chlorobenzene	112.56	0.25	0.00	0.02
Chloroethane	64.52	1.30	0.01	0.05
Chloroform	119.39	0.03	0.00	0.00
Chloromethane	50.49	1.20	0.01	0.03
Dichlorobenzene	147.00	0.21	0.00	0.02
Dichloromethane	84.94	14.0	0.15	0.66
Ethylbenzene	106.16	4.60	0.06	0.27
Ethylene dibromide	187.88	0.001	0.00	0.00
Hexane	86.18	6.60	0.07	0.32
Mercury	200.61	0.0003	0.00	0.00
Methyl isobutyl ketone	100.16	1.90	0.02	0.11
Perchloroethylene	165.83	3.70	0.08	0.34
Toluene	92.13	39.00	0.46	2.00
Trichloroethylene	131.40	2.80	0.05	0.20
Vinyl chloride	62.50	7.30	0.06	0.25
Xylenes	106.16	12.00	0.16	0.71
Total HAPs				**5.59**

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

Pollutants	Emission Rate (TPY)
VOC	8.84
HAP	5.59

B. Flare Operations

The LFG utility flare at the Newcastle Landfill has a designed flow rate of 1,600 SCFM and is equipped with a flame safeguard and an auto-ignition pilot system that provides automatic flare startup. A master flow control valve installed along the main LFG header regulates the amount of

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

Air emissions from the flare are primarily NOx, CO, SO_2, PM_{10}, $PM_{2.5}$, and VOC. The air emission estimates for the flare system are based on the following conditions:

1. System's maximum design flowrate at 1,600 SCFM.
2. LFG constituents of 50% methane.
3. Emission factors for SO_2 is based on a conservative concentration of 400 ppmv sulfur in the LFG.
4. Emission factors from manufacturer for NO_x and CO, and from AP-42 (11/98) Table 2.4-5 for PM. The emission factor is the same for the PM_{10}, and $PM_{2.5}$.
5. LFG's heating value of 500 BTU/ft^3 or 48 MMBTUH for the flare.
6. A destruction (combustion) efficiency rate of 98% for VOCs and HAPs.
7. Estimates of HAP emissions are based on LFG constituent concentrations in AP-42 (11/98) Table 2.4-1 or site specific LFG samples with the system's design flow rate (1,600 SCFM) of LFG being collected and combusted in the flares.

Table 4. Estimated Flare Emissions
(Based on 8,760 hours/year of operations)

Pollutants	**Emission Factors**	**Emission Rate (TPY)**
NO_x	0.068 lb/MMBTU	14.30
CO	0.37 lb/MMBTU	77.79
Particulate Matter, PM_{10}, or $PM_{2.5}$	0.00104 lb/hr/scfm of CH_4	3.50
SO_2	--------	27.48
HAP	--------	1.83
VOC		0.34

C. Earthmoving Equipment Operations

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

Air emissions generated from the landfill's earthmoving operations, which include the emissions from 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:

$$E_{PM10} = k\ (s)^a / (M)^b$$

$$E_{PM2.5} = k\ (5.7)\ (s)^a / (M)^b$$

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 $PM_{2.5}$

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 compactors are 9,984 hours per year. Each vehicle operates 8 hours/day, 6 days/week, and 52 weeks per year.

The emission factor equation for grading operation is from Table 11.9-1 and presented below:

$$E_{PM10} = k\ (0.051)\ (S)^a$$
$$E_{PM2.5} = k\ (0.040)\ (S)\text{^}a$$

E = Emission factor (lb/VMT)
S = Mean vehicle speed (mph), 5 mph for grader vehicle
k = 0.60 lb/VMT for PM_{10} and 0.031 lb/VMT for $PM_{2.5}$
a = 2.0 for PM_{10} and 2.5 for $PM_{2.5}$

The emission factors are calculated as 0.77 lb/VMT for PM_{10} and 0.07 lb/VMT for $PM_{2.5}$. The total VMT (Vehicle Mile Traveled) for one grader vehicle is 1,248 miles per year. The vehicle works 4 hours/day, 6 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:

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

Where k, U, and M are parameters, given in the next page :

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 (%), 3.2% for landfill soil/dirt

The emission factors are calculated as 0.00143 lb/ton for PM_{10} and 0.00022 lb/ton for $PM_{2.5}$. The total weight of soil/dirt, which are loaded to the truck and then unloaded to the ground, is estimated to be 215,051 ton/year, or 128,000 yd^3/year (CY/yr) assuming density of 1.68 ton/CY.

Fugitive emissions from vehicle traffic are estimated based on AP-42 (11/2006), Section 13.2.2, "Introduction to Fugitive Dust Sources, Unpaved Roads." The Equation (1a), the formula for industrial roads, is used to calculate the PM_{10} and $PM_{2.5}$ emissions.

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

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

E = site-specific emission factor (lb/VMT)
s = surface material silt content (%), 6.4% for MSW Landfills
w = mean vehicle weight (tons), 18 tons
k = 1.5 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 1.908 lb of PM_{10} and 0.191 lb of $PM_{2.5}$ per VMT. It is assumed that a 10 wheeler is used to transport in 14 tons of MSW with total vehicle weight at 25 tons and the mean vehicle weight at 18 tons for each trip to the site. The total unpaved road is 0.25 mile from the site entrance to the end of the active landfill area. The two trips in and out of the site traveled by a vehicle are 0.50 miles, one trip is full and one trip is empty. It takes a vehicle 42 times a day to deliver about 588 tons of MSW per day. The 588 ton/day acceptance rate is calculated based on the actual maximum record of 182 M ton/year in 2004. Based on 6 day/week and 52 week/year operation, the PM_{10} fugitive emissions are estimated to be 6.34 TPY before dust control, such as water spraying. Application of water to the unpaved roads at the facility is considered a reasonable precaution to minimize fugitive dust and is required per OAC 252:100-29. Based on the control efficiency of 70% for application of water, the controlled PM_{10} fugitive emissions are reduced to 1.87 TPY. The $PM_{2.5}$ fugitive emissions are 0.19 TPY.

Table 5. PM_{10} and $PM_{2.5}$ Dust Fugitive Emissions

Emission Source	**PM_{10} (TPY)**	**$PM_{2.5}$ (TPY)**
Bulldozing and Compaction	2.09	1.20
Dump Track, Tractor, & Excavator Loading	0.15	0.02
Dump Track, Tractor, & Excavator Unloading	0.15	0.02
Grading	2.39	0.12
MSW Delivery Truck Travel on Unpaved Roads	1.87	0.19
Total Emissions	**6.65**	**1.55**

D. Insignificant and Trivial Activities

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

- (1) 10,000-gallon diesel storage tank (throughput ≤ 2,175 gallons per day)

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.

E. Greenhouse Gas (GHG) Emissions

The potential fugitive Greenhouse Gas (GHG) emissions are estimated based on a worst-case scenario, which assumes all generated LFG are emitted as fugitives including the LFG sent to the flare before combustion. The conversion of CH_4 to CO_2 in a combustion process reduces GHG emissions as measured by CO_2e because CH_4 has higher GWP factor (25) than that of CO_2 (1). Therefore, the GHG generated from the utility flare is not estimated and not included in the total GHG estimation. The following conditions are adopted in the estimation:

- Maximum LFG generation rate at 946 SCFM.
- Generated LFG constituents of 50% methane and 50% carbon dioxide.
- No LFG is combusted/burned.
- Becoming fugitives, 10% of CH_4 is oxidized to CO_2 when LFG passes through cover soils via biogenic process
- Global warming potential (GWP) and emission factors are listed below:

Pollutants	**GWP Factor**	**Emission Factor kg/MMBTU**
CO_2	1	52.07
CH_4	25	0.0032
N_2O	298	0.00063

GHG emissions are expressed as CO_2e. Table 6 lists annual potential facility-wide Greenhouse Gas emissions based on the nature of the generation. The GHG emissions are presented both as metric ton per year (MTPY) and TPY.

Table 6. Potential Facility-Wide Greenhouse Gas Emissions

Emissions Source	**Total CO_2e**	
	MTPY	**TPY**
Biogenic CO_2	1,144	1,260
GHG Pollutants Excluding Biogenic CO_2	105,218	115,982
Total Potential Emissions	106,362	117.242

The June 2014 Supreme Court ruling stated that GHG emissions would only be required to be permitted when an existing PSD facility had a project where the criteria pollutants exceeded a PSD significance level/threshold for that pollutant. The site is not a PSD facility and as such, GHG emissions are not included for Title V purposes.

At the time of the submission of this application, there are no additional federal regulatory requirements applicable to greenhouse gas emissions from the Newcastle Landfill and covered by

Title V Permit Program authority. Federal GHG Mandatory Reporting Rule requirements published at 40 CFR Part 98 were enacted under sections 114(a)(1) and 208 of the Clean Air Act and, as such, are not included in the definition of "applicable requirements", as found at 40 CFR 70.2 and 71.2, to be included in a Title V Permit. However, for the worst case scenario, the biogenic carbon dioxide emissions are preferably included and counted in the air emission estimation.

Air Emissions Summary

Table 7 shows the total potential facility-wide emissions of all air pollutants.

Table 7. Total Potential Facility-Wide Air Emissions

Pollutants	Utility Flare	Landfill	Facility	Total
	TPY	TPY	TPY	TPY
NOx	14.30	-----	-----	14.30
CO	77.79	-----	-----	77.79
VOC	0.34	8.84	-----	9.18
PM_{10}	3.50	6.65	-----	10.15
$PM_{2.5}$	3.50	1.55	-----	5.05
SO_2	27.48	-----	-----	27.48
HAP	1.83	5.59	-----	7.42
GHG	-----	-----	117,242	117,242

SECTION VII. INSIGNIFICANT ACTIVITIES

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

1. * Emissions from fuel storage/dispensing equipment operated solely for facility owned vehicles if fuel throughput is not more than 2,175 gallons/day, averaged over a 30-day period. There is an 10,000-gallon diesel storage tank with a maximum daily throughput less than 2,175 gallon.

2. * Activities having the potential to emit no more than 5.0 TPY (actual) of any criteria pollutant. The applicant identified insignificant activities including solidification, leachate pond, and cold degassing operation. Calculated emissions from the activities are less than the de minimis level.

SECTION VIII. 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 includes the general administrative requirements for Part 70 permits. Any planned changes in the operation of the facility that result in emissions not authorized in the permit and that exceed the "Insignificant Activities" or "Trivial Activities" thresholds require prior notification to AQD and may require a permit modification. Insignificant activities refer to those individual emission units either listed in Appendix I (OAC 252:100) or whose actual calendar year emissions do not exceed the following limits.

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

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

OAC 252:100-9 (Excess Emission Reporting Requirements) [Applicable]
Except as provided in OAC 252:100-9-7(a)(1), the owner or operator of a source of excess emissions shall notify the Director as soon as possible but no later than 4:30 p.m. the following working day of the first occurrence of excess emissions in each excess emission event. No later than thirty (30) calendar days after the start of any excess emission event, the owner or operator of an air contaminant source from which excess emissions have occurred shall submit a report for each excess emission event describing the extent of the event and the actions taken by the owner or operator of the facility in response to this event. Request for 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]
Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in this subchapter.

OAC 252:100-17 (Incinerators) [Not Applicable]
An "incinerator" is defined as "a combustion device specifically designed for the destruction, by high temperature burning, of solid, semi-solid, liquid, or gaseous combustible wastes and from which the solid residues contain little or no combustion material." Under 252:100-17-2.1, flares and other pollution control devices are exempted from Subchapter 17.

OAC 252:100-19 (Particulate Matter) [Not Applicable]
This subchapter specifies a PM emissions limitation of 0.51 lb/MMBtu from fuel-burning units with a rated heat input of 70 MMBtu/hr and higher limits for smaller fuel-burning units. The flare is not considered a "fuel-burning unit."

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

OAC 252:100-25 (Visible Emissions and Particulates) [Applicable]
No discharge of greater than 20% opacity is allowed except for short-term occurrences which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity. When burning LFG, this facility has a low potential to exceed these standards.

OAC 252:100-29 (Fugitive Dust) [Applicable]
This subchapter states that no person shall cause or permit the discharge of any visible fugitive dust emissions beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards. Precautions are stated in Specific Conditions to minimize fugitive dust.

OAC 252:100-31 (Sulfur Compounds) [Applicable]
Part 3 sets an H_2S limitation of 0.2 ppm (283 $\mu g/m^3$) ambient air concentration from any new sources at any given point for a 24 hour period. This standard, however, does not apply to ambient air concentrations occurring on property from which such emission occurs. To estimate H_2S concentration in the ambient air, a SCREEN 3.0 dispersion model was performed as an area source. The results indicated that the maximum H_2S concentration in ambient air is 11.82 $\mu g/m^3$ at a distance of 249 meters from the property line, which is less than the standard specified in the subchapter.

H_2S	**Ambient Impact (1-hour average)**		**Standard in Subchapter 31**	
lb/hr	**($\mu g/m^3$ 1 hour)**	**(ppm)**	**($\mu g/m^3$)**	**(ppm)**
0.067	11.82	0.008	283	0.2

Part 5 limits sulfur dioxide emissions from new fuel-burning equipment (constructed after July 1, 1972). For gaseous fuels the limit is 0.2 lb/MMBtu heat input. The flare does not meet the definition of "fuel-burning equipment."
Part 5 also limits hydrogen sulfide emissions from new petroleum or natural gas process equipment (constructed after July 1, 1972). Removal of hydrogen sulfide in the exhaust stream, or oxidation to sulfur dioxide, is required unless hydrogen sulfide emissions would be less than 0.3 lb/hr for a two-hour average. Hydrogen sulfide emissions shall be reduced by a minimum of 95% of the

hydrogen sulfide in the exhaust gas. Direct oxidation of hydrogen sulfide is allowed for units whose emissions would be less than 100 lb/hr of sulfur dioxide for a two-hour average. The equipment at this facility does not meet the definition of "petroleum or natural gas process equipment" and, therefore, is not subject to this requirement.
Part 5 also requires that all thermal devices for petroleum and natural gas processing facilities regulated under OAC 252:100-31-26(a) shall have installed, calibrated, maintained, and operated an alarm system that will signal noncombustion of the gas. The equipment at this facility does not meet the definition of "petroleum or natural gas process equipment" and, therefore, is not subject to this requirement.

OAC 252:100-33 (Nitrogen Oxides) [Not Applicable]
This subchapter limits new gas-fired fuel-burning equipment with rated heat input greater than or equal to 50 MMBTUH to emissions of 0.2 lb of NOx per MMBTU. There are no equipment items that exceed the 50 MMBTUH threshold.

OAC 252:100-35 (Carbon Monoxide) [Not Applicable]
This facility has none of the affected sources: gray iron cupola, blast furnace, basic oxygen furnace, petroleum catalytic reforming unit or petroleum catalytic cracking unit.

OAC 252:100-37 (Volatile Organic Compounds) [Not Applicable]
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. This facility does not have storage tanks, which store VOCs with a vapor pressure greater than 1.5 psia.
Part 3 requires VOC loading facilities with a throughput equal to or less than 40,000 gallons per day to be equipped with a system for submerged filling of tank trucks or trailers if the capacity of the vehicle is greater than 200 gallons. This facility does not have the physical equipment (loading arm and pump) to conduct this type of loading and is not subject to this requirement.
Part 5 limits the VOC content of coatings used in coating lines or operations. This facility will not normally conduct coating or painting operations except for routine maintenance of the facility and equipment, which is exempt.
Part 7 requires fuel-burning and refuse-burning equipment to be operated to minimize emissions of VOC. The operation of fuel-burning equipment shall based on manufacturer's data and good engineering practice, that the equipment is not overloaded; that it is properly cleaned, operated, and maintained; and that temperature and available air are sufficient to provide essentially complete combustion. The flare at this facility is a control device and is not refuse-burning equipment. It is also not considered fuel-burning equipment since it is not used to convert the combustion of fuel into usable energy.

OAC 252:100-42 (Toxic Air Contaminants (TAC)) [Applicable]
This subchapter regulates toxic air contaminants (TAC) that are emitted into the ambient air in areas of concern (AOC). Any work practice, material substitution, or control equipment required by the Department prior to June 11, 2004, to control a TAC, shall be retained, unless a modification is approved by the Director. Since no AOC has been designated there are no specific requirements for this facility at this time.

OAC 252:100-43 (Testing, Monitoring, and Recordkeeping) [Applicable]
This subchapter provides general requirements for testing, monitoring and recordkeeping and applies to any testing, monitoring or recordkeeping activity conducted at any stationary source. To determine compliance with emissions limitations or standards, the Air Quality Director may require the owner or operator of any source in the state of Oklahoma to install, maintain and operate monitoring equipment or to conduct tests, including stack tests, of the air contaminant source. All required testing must be conducted by methods approved by the Air Quality Director and under the direction of qualified personnel. A notice-of-intent to test and a testing protocol shall be submitted to Air Quality at least 30 days prior to any EPA Reference Method stack tests. Emissions and other data required to demonstrate compliance with any federal or state emission limit or standard, or any requirement set forth in a valid permit shall be recorded, maintained, and submitted as required by this subchapter, an applicable rule, or permit requirement. Data from any required testing or monitoring not conducted in accordance with the provisions of this subchapter shall be considered invalid. Nothing shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

OAC 252:100-47 (Control of Emissions from Existing MSW Landfills) [Not Applicable]
Existing MSW landfills with a design capacity greater than 2.5 million megagrams and 2.5 million cubic meters are required to obtain a Part 70 permit and shall comply with all provisions specified in 40 CFR 60.752. Also, the owner or operator of any existing MSW landfill that installs a MSW landfill gas collection and control system is required to obtain a construction permit as provided by OAC 252:100-7-15 or OAC 252:100-8-4. This landfill has design capacity greater than 2.5 million megagrams and 2.5 million cubic meters. Currently, the facility is a Part 70 source and is subject to the requirements under 40 CFR Part 62 Subpart OOO. Therefore, this facility is not subject to this subchapter. The facility will become subject to this subchapter once the rule is revised and the state's 111(d) Plan is approved by EPA.

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

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

SECTION IX FEDERAL REGULATIONS

PSD, 40 CFR Part 52 [Not Applicable At This Time]
PSD does not apply. The total emissions are less than the threshold level of 250 TPY of any single regulated pollutant and the facility is not one of the 26 specific industries with a threshold of 100 TPY.

NSPS, 40 CFR Part 60 [Not Applicable]

Subpart A, General Provisions. This subpart specifies standards only for control devices used to achieve compliance with an applicable NSPS Subpart. The facility is not required under the NSPS WWW to install a flare and as such, this subpart does not apply to the flare at the facility.

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 Federal Plan Subpart OOO. Therefore, this facility is 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 40 CFR Part 62 Subpart OOO. Therefore, this facility is not subject to this subpart.

Subparts K, Ka, Kb, VOL Storage Vessels. Subpart Kb regulates hydrocarbon storage tanks larger than 19,813 gallons capacity and built after July 23, 1984. All diesel storage tanks are 10,000 gallon, which is less than 19,813 gallons.

Subpart WWW, Municipal Solid Waste Landfills. This subpart affects each municipal solid waste landfill (MSWL) that commenced construction, reconstruction, or modification, or began accepting waste on or after May 30, 1991, and has a design capacity greater than 2.5 million cubic meters and 2.5 million megagrams. MSWLs with a design capacity greater than the threshold is required to obtain a Part 70 (Title V) permit. An installation of a LFG collection and control system is not required since the estimated NMOC emissions are less than 50 megagrams per year, based on calculation. This facility was modified after May 30, 1991, and the design capacity of the facility is greater than 2.5 million megagrams but initially calculated NMOC emissions are less than the threshold of 50.0 Mg/year as indicated in the Title V permit application submitted to the DEQ in November 2021. The estimate of NMOC emissions is based on the default values k (0.05 yr^{-1}) and L_0 (170 m^3/Mg) in the subpart, the site-specific NMOC concentration of 116 ppmv (as hexane measured in 2021), and total landfill's design capacity of 3,212,784 Mg. The maximum NMOC generation rate in LFG is estimated at 5.79 Mg per year in 2022, which is less than 34 Mg per year. According to the subpart, another Tier II test for site-specific NMOC concentration is required in 2026 for site-specific NMOC concentration as specified in the subpart. The current Tier II testing result is valid until October 2026. This facility used to be subject to the requirements of New Source Performance Standards (NSPS) Subpart WWW, but as of June 21, 2021, these requirements were supplanted by 40 CFR Part 62 Subpart OOO. N

Subpart XXX, Municipal Solid Waste Landfills. This subpart affects each landfill that commences construction, reconstruction, or modification after July 17, 2014. This subpart establishes 34 Mg per year generation threshold for NMOC for installation of a GCCS. This facility commenced construction prior to July 17, 2014, and has not been reconstructed or modified, and has NMOC at 5.79 Mg/yr, which is less than 34 Mg/yr. Therefore, this facility is not subject to this subpart.

NESHAP, 40 CFR Part 61 [Subpart M Applicable]

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

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.

Federal Plan, 40 CFR Part 62 [Subpart OOO Applicable]

Subpart OOO, Federal Plan Requirements for Municipal Solid Waste Landfills. This subpart establishes emission control requirements and compliance schedules for the control of designated pollutants from certain designated municipal solid waste (MSW) landfills in accordance with section 111(d) of the Clean Air Act and subpart B of 40 CFR Part 60. This facility is subject to the federal plan in 40 CFR Part 62, Subpart OOO, implementing the emission guidelines in 40 CFR Part 60, Subpart Cf. The facility will be subject to OAC 252:100-47 and the state 111(d) plan implementing the emission guidelines upon EPA approval of said plan.

NESHAP, 40 CFR Part 63 [Not Applicable]

Subpart DD, Off-Site Waste and Recovery Operations. This subpart affects facilities that locate at major source of HAPs. This facility is not a major source as defined in 40 CFR Part 63 (10 tons per year or more of any one hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants). Therefore, this facility is not subject to Subpart DD.

Subpart AAAA, Municipal Solid Waste Landfills. This subpart applies to all municipal solid waste landfills that are: (1) major sources as defined by 40 CFR Part 63.2 of Subpart A as stated in §63.1935(a)(1); (2) collocated with a major source as stated in §63.1935(a)(2); (3) meeting the NSPS WWW applicability thresholds of 2.5 million Mg and 2.5 million m^3 and having estimated uncontrolled NMOC emissions of 50 Mg/yr as calculated according to §60.754(a) as stated in §63.1935(a)(3); or (4) meeting only the design capacity threshold of 2.5 million Mg and 2.5 million 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, Subpart Cc or WWW, and requires timely control of bioreactors. Since the facility's emissions are less than 50 Mg/yr, this rule is currently not applicable to this facility.

Subpart GGGGG, Site Remediation Operations. This facility is not involved with site remediation operations. This subpart affects facilities that locate at major source of HAPs. This facility is not a major source as defined in 40 CFR Part 63 (10 tons per year or more of any one hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants). Therefore, this facility is not subject to Subpart GGGGG.

CAM, 40 CFR Part 64 [Not Applicable]

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

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

The utility flare is a control device, however, the utility flare is not used to achieve compliance with an emission limits or standard for an applicable regulated air pollutants. The utility flare serves two purposes, one is to combust methane to avoid safety concern and the other is to burn out sulfur-containing compounds to eliminate odor problem. 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: http://*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 X. COMPLIANCE

The Specific Conditions of this permit contain various testing, monitoring, recordkeeping, and reporting requirements in order to document on-going compliance with emission limits. The specific method used to document compliance was based on the type of emission unit, the type of process equipment, the specific pollutants emitted, and the amount of permitted emissions taking into account other regulatory requirements that an emission unit may be subject to.

In addition to the permitting requirements, the following periodic inspections were conducted since issuance of the last Title V renewal permit.

Inspection Type	Date	Summary/Results
Full Inspection	6/23/2010	In compliance
Partial Compliance Evaluation	1/21/2020	In compliance
Partial Compliance Evaluation	10/12/2021	In compliance
Partial Compliance Evaluation	1/1/2022	In compliance
Partial Compliance Evaluation	2/1/2022	In compliance

There have been no other enforcement actions since issuance of the last Title V renewal permit.

SECTION XI. TIER CLASSIFICATION, PUBLIC AND EPA REVIEW

This application has been determined to be **Tier II** based on the request for renewal of a Part 70 operating permit. Part 70 operating permit renewal fee of $7,500 has been received.

The applicant published the "Notice of Filing a Tier II Application" in *The Newcastle Pacer* newspaper, a local newspaper in McClain County on December 9,2021. The notice stated that the application was available for review at the Air Quality Division's main office in Oklahoma City. The information on all permit actions is available for review by the public in the Air Quality section of the DEQ web page at https://www.deq.ok.gov.

The applicant will publish the "Notice of Tier II Draft Permit" as a legal notice in a newspaper of general circulation in the area where the source is located. The notice of draft permit will state that the draft permit will be available for public review at a location in the county where the facility is located, and that the draft permit will be available for public review at the Air Quality Division main office. The draft permit will also be available for public review on the Air Quality section of the DEQ web page at *https*:/www.deq.ok.gov. The draft permit will be available for a 30-day public review period.

This facility is not located within 50 miles of the border of Oklahoma so no notice to other states is required. Tribal Nations will be notified of the draft permit.

The proposed permit will be sent to EPA for a 45-day review period at the appropriate time.

If the Administrator does not object in writing during the 45-day EPA review period, any person that meets the requirements of OAC 252:100-8-8 may petition the Administrator within 60 days after the expiration of the Administrator's 45-day review period to make such objection. Any such petition shall be based only on objections to the permit that the petitioner raised with reasonable specificity during the public comment period provided for in 27A O.S. § 2-14-302.A.2., unless the petitioner demonstrates that it was impracticable to raise such objections within such period, or unless the grounds for such objection arose after such period. If the Administrator objects to the permit as a result of a petition filed under OAC 252:100-8-8, the DEQ shall not issue the permit until EPA's objection has been resolved, except that a petition for review does not stay the effectiveness of a permit or its requirements if the permit was issued after the end of the 45-day review period and prior to an EPA objection. If the DEQ has issued a permit prior to receipt of an EPA objection under OAC 252:100-8-8, the DEQ will modify, terminate, or revoke such permit, and shall do so consistent with the procedures in 40 CFR §§ 70.7(g)(4) or (5)(i) and (ii) except in unusual circumstances. If the DEQ revokes the permit, it may thereafter issue only a revised permit that satisfies EPA's objection. In any case, the source will not be in violation of the requirement to have submitted a timely and complete application.

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 and EPA review.

PERMIT TO OPERATE
AIR POLLUTION CONTROL FACILITY
SPECIFIC CONDITIONS

Pinecrest Landfill OK, LLC **Permit No. 2021-0499-TVR4**
Newcastle Landfill

The permittee is authorized to operate in conformity with the specifications submitted to Air Quality on November 10, 2021. The Evaluation Memorandum dated October 27, 2022, explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating limitations or permit requirements. Continuing operations under this permit constitutes acceptance of, and consent to, the conditions contained herein.

1. The permittee shall be authorized to operate this facility continuously (24 hours per day, every day of the year). [OAC 252:100-8-6(a)]

2. The collected LFG shall be routed to a flare, and the permittee shall properly operate and maintain the flare in accordance with manufacturer's specifications. [OAC 252:100-8-6(a)]

3. The permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records for the flare in the following information: [OAC 252:100-8-6(a)(3)]

   a. Hours of the flare operation.
   b. Volume of gas burned in the flare (monthly and 12 month rolling total).
   c. Inspection and maintenance of the flare.

4. The facility is subject to 40 CFR Part 62, Subpart OOO, Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014. The permittee shall comply with all applicable standards contained therein, including but not limited to:
   [40 CFR Part 62, §62.16710 – §62.16730]

   a. §62.16710 Scope and delegated authorities
   b. §62.16711 Designated Facilities
   c. §62.16712 Compliance Schedule and Increments of progress
   d. §62.16714 Standards for municipal solid waste emissions
   e. §62.16716 Operational Standards for collection and control systems
   f. §62.16718 Test methods and procedures
   g. §62.16720 Compliance provisions
   h. §62.16722 Monitoring of Operations
   i. §62.16724 Reporting Guidelines
   j. §62.16726 Recordkeeping Guidelines
   k. §62.16728 Specifications for active collection systems
   l. §62.16730 Definitions
   m. Alternatives as outlined in the Design Plan

A. The permittee shall calculate the NMOC emission rate for the landfill using the procedures specified in §62.16718 and compare the calculated NMOC emission rate to the standard of 34 megagrams per year. The NMOC emission rate shall be recalculated annually.

B. For a calculated NMOC emission rate greater than the standard of 34 megagrams per year, the permittee shall comply with §62.16712 or determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the procedures as specified in §62.16718.

(1) If the resulting NMOC emission rate calculated using the site-specific NMOC concentration is less than 34 megagrams per year, the permittee shall:

(i) Submit a periodic estimate of the emission rate report as specified in §62.16724(c) and
(ii) Recalculate the NMOC emission rate annually using the methods specified in §62.16724(a).

(2) If the resulting NMOC emission rate calculated using the site-specific NMOC concentration is equal to or greater than 34 megagrams per year, the permittee shall either:

(i) Submit a collection and control system design plan prepared by a professional engineer to the Administrator within 1 year as specified in §62.16724(d), except for exemptions allowed under §62.16711(g)(3);
(ii) calculate NMOC emissions using a higher tier in §62.16718;
(iii) or conduct a surface emission monitoring demonstration using the procedures specified in §62.16718(a)(6).

(3) If the NMOC mass emission rate as calculated using the site-specific NMOC concentration and site-specific methane generation rate constant is equal to or greater than 34 megagrams per year, the permittee shall comply with §62.16712.

(4) If the NMOC mass emission rate as calculated using the site-specific NMOC concentration and the site-specific methane generation rate constant is less than 34 megagrams per year, the permittee shall:
(i) Submit a periodic estimate of the emission rate report as specified in §62.16724(c) and
(ii) Recalculate the NMOC emission rate annually with the equations in §62.16714(e).
(iii) The calculation of the methane generation rate constant is performed only once, and the value obtained is used in all subsequent annual NMOC emission rate calculations.

C. The permittee shall submit an annual report of the NMOC emission rate to the Air Quality Division of the Department of Environmental Quality. If the estimated NMOC emission rate in the annual report is less than 34 megagrams per year in each of the next 5 consecutive

years, the permittee may elect to submit an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. The NMOC emission rate report shall:

(1) Contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedure as specified in §62.16718(a) or (b), as applicable.
(2) Include all the data, calculations, sample reports, and measurements used to estimate the annual or 5-year emissions.

D. The permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the following information: [§62.16718(a)]

(1) Maximum design capacity. [§62.16718 (a)(2)(ii)]
(2) Current amount of solid waste in-place. [§62.16718 (a)]
(3) Year-by-year waste acceptance rate. [§62.16718 (a)]

5. 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. §61.151 Standard for inactive waste disposal sites for asbestos mills and manufacturing and fabricating operations.
d. §61.153 Reporting.
e. §61.154 Standard for active waste disposal sites.
   (1) There must be no visible emissions to the outside air from any active waste disposal site where asbestos-containing waste has been deposited or [§61.154(a)]
      (i) At the end of each operating day, or at least once every 24-hour period while the site is in continuous operation, the asbestos-containing waste material that has been deposited at the site during the operating day or previous 24-hour period shall be covered with at least 15 centimeters (6 inches) of compact non-asbestos-containing material. [§61.154(c)(1)]
      (ii) Use an alternative emissions control method that has received prior written approval by DEQ. [§61.154(d)]
   (2) For all asbestos-containing waste material received, the permittee shall:
      (i) Maintain waste shipment records including following information: [§61.154(e)(1)]
         (A) The name, address, and telephone number of the waste generator.
         (B) The name, address, and telephone number of the transporter(s).
         (C) The quantity of the asbestos-containing waste material in cubic meters (cubic yards).
         (D) The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material nor sealed in leak-tight containers. Report in writing to the local, State, or EPA regional office.

(E) The date of receipt.

(ii) As soon as possible (less than 30 days) after receipt of the waste, send a copy of the signed waste shipment record to the waste generator. [§61.154(e)(2)]

(iii) Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and quantity acutely received, attempt to reconcile the discrepancy with the waste generator. [§61.154(e)(3)]

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

(3) Maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area. [§61.154(f)]

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

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

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

(7) Notify the DEQ in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. [§61.154(j)]

(i). Scheduled starting and completion dates.

(ii). Reason for disturbing the waste.

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

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

f. §61.156 Cross-reference to other asbestos regulations.

g. §61.157 Delegation of authority.

7. The permittee shall take reasonable precautions to minimize fugitive dust from traffic on paved/unpaved road and all activities. These precautions shall include, but are not limited to: [OAC 252:100-29-3]

a. The use, where possible, of water or chemicals for control of dust in the grading of roads, driveways and parking lots or the clearing of land. [OAC 252:100-29-3(1)]

b. The application of water or suitable chemicals or some other covering on surfaces that can create air-borne dusts under normal conditions. [OAC 252:100-29-3(2)]

c. The covering or wetting of open-bodied trucks, trailers, or railroad cars when transporting dusty materials in areas where the general public must have access. [OAC 252:100-29-3(4)]

d. The planting and maintenance of vegetative ground cover as necessary. [OAC 252:100-29-3(5)]

8. The following records shall be maintained on site to verify insignificant activities. Records are not required for trivial activities. [OAC 252:100-8-6(a)(3)(B)]

a. Throughputs of the 10,000-gallon diesel storage tank.

b. Activities having the potential to emit no more than 5.0 TPY (actual) of any criteria pollutant. List the activity with estimated actual annual emissions.

c. Storage tanks with less than or equal to 39,890 gallons capacity that store volatile organic liquids with a true vapor pressure less than or equal to 1.5 psia at maximum storage temperature. List size and contents including vapor pressure of materials stored.

9. The permittee shall maintain records of operations as listed below. These records shall be retained on-site or at a local field office for a period of at least five years following dates of recording, and shall be made available to regulatory personnel upon request.
[OAC 252:100-8-6 (a)(3)(B)]

a. Records as required by Federal Plan, 40 CFR Part 62, Subpart OOO.
b. Records as required by NESHAP, 40 CFR Part 61, Subpart M.

10. No later than 30 days after each anniversary date of the issuance of the original Title V permit for this facility (No. 99-400-TV, June 5, 2001), the permittee shall submit to Air Quality Division of DEQ, with a copy to the US EPA, Region 6, a certification of compliance with the terms and conditions of this permit. [OAC 252:100-8-6 (c)(5)(A) & (D)]

11. No later than 30 days after each six (6) month period, after the date of the issuance of the original Part 70 operating permit (No. 99-400-TV, June 5, 2001), the permittee shall submit to AQD a report of the results of any required monitoring. All instances of deviations from permit requirements since the previous report shall be clearly identified in the report.
[OAC 252:100-8-6 (a)(3)(C)(i) and (ii)]

12. If this facility applies, through the DEQ Land Protection Division, for an expansion of the permitted volume design capacity of the landfill, then they shall apply for an Air Quality major source construction permit prior to beginning construction of the expansion.
[OAC 252:100-8-4(a)(1)(B)]

13. This permit, No. 2021-0499-TVR4, supersedes all previous Air Quality operating permits for this facility which become cancelled upon the issuance date of this permit.

TITLE V (PART 70) PERMIT TO OPERATE / CONSTRUCT
STANDARD CONDITIONS
(June 21, 2016)

SECTION I. DUTY TO COMPLY

A. This is a permit to operate / construct this specific facility in accordance with the federal Clean Air Act (42 U.S.C. 7401, et al.) and under the authority of the Oklahoma Clean Air Act and the rules promulgated there under. [Oklahoma Clean Air Act, 27A O.S. § 2-5-112]

B. The issuing Authority for the permit is the Air Quality Division (AQD) of the Oklahoma Department of Environmental Quality (DEQ). The permit does not relieve the holder of the obligation to comply with other applicable federal, state, or local statutes, regulations, rules, or ordinances. [Oklahoma Clean Air Act, 27A O.S. § 2-5-112]

C. The permittee shall comply with all conditions of this permit. Any permit noncompliance shall constitute a violation of the Oklahoma Clean Air Act and shall be grounds for enforcement action, permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application. All terms and conditions are enforceable by the DEQ, by the Environmental Protection Agency (EPA), and by citizens under section 304 of the Federal Clean Air Act (excluding state-only requirements). This permit is valid for operations only at the specific location listed.
[40 C.F.R. §70.6(b), OAC 252:100-8-1.3 and OAC 252:100-8-6(a)(7)(A) and (b)(1)]

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

SECTION II. REPORTING OF DEVIATIONS FROM PERMIT TERMS

A. Any exceedance resulting from an emergency and/or posing an imminent and substantial danger to public health, safety, or the environment shall be reported in accordance with Section XIV (Emergencies). [OAC 252:100-8-6(a)(3)(C)(iii)(I) & (II)]

B. Deviations that result in emissions exceeding those allowed in this permit shall be reported consistent with the requirements of OAC 252:100-9, Excess Emission Reporting Requirements.
[OAC 252:100-8-6(a)(3)(C)(iv)]

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

SECTION III. MONITORING, TESTING, RECORDKEEPING & REPORTING

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

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

B. Records of required monitoring shall include:

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

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

C. No later than 30 days after each six (6) month period, after the date of the issuance of the original Part 70 operating permit or alternative date as specifically identified in a subsequent Part 70 operating permit, the permittee shall submit to AQD a report of the results of any required monitoring. All instances of deviations from permit requirements since the previous report shall be clearly identified in the report. Submission of these periodic reports will satisfy any reporting requirement of Paragraph E below that is duplicative of the periodic reports, if so noted on the submitted report. [OAC 252:100-8-6(a)(3)(C)(i) and (ii)]

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

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

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

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

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

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

H. The permittee of a facility that is operating subject to a schedule of compliance shall submit to the DEQ a progress report at least semi-annually. The progress reports shall contain dates for achieving the activities, milestones or compliance required in the schedule of compliance and the dates when such activities, milestones or compliance was achieved. The progress reports shall also contain an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted. [OAC 252:100-8-6(c)(4)]

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

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

J. The reporting of total particulate matter emissions as required in Part 7 of OAC 252:100-8 (Permits for Part 70 Sources), OAC 252:100-19 (Control of Emission of Particulate Matter), and OAC 252:100-5 (Emission Inventory), shall be conducted in accordance with applicable testing or calculation procedures, modified to include back-half condensables, for the concentration of particulate matter less than 10 microns in diameter (PM_{10}). NSPS may allow reporting of only particulate matter emissions caught in the filter (obtained using Reference Method 5).

K. The permittee shall submit to the AQD a copy of all reports submitted to the EPA as required by 40 C.F.R. Part 60, 61, and 63, for all equipment constructed or operated under this permit subject to such standards. [OAC 252:100-8-6(c)(1) and OAC 252:100, Appendix Q]

SECTION IV. COMPLIANCE CERTIFICATIONS

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

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

B. The compliance certification shall describe the operating permit term or condition that is the basis of the certification; the current compliance status; whether compliance was continuous or intermittent; the methods used for determining compliance, currently and over the reporting period; and a statement that the facility will continue to comply with all applicable requirements. [OAC 252:100-8-6(c)(5)(C)(i)-(iv)]

C. The compliance certification shall contain a certification by a responsible official as to the results of the required monitoring. This certification shall be signed by a responsible official, and shall contain the following language: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete." [OAC 252:100-8-5(f) and OAC 252:100-8-6(c)(1)]

D. Any facility reporting noncompliance shall submit a schedule of compliance for emissions units or stationary sources that are not in compliance with all applicable requirements. This schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the emissions unit or stationary source is in noncompliance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the emissions unit or stationary source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based, except that a compliance plan shall not be required for any noncompliance condition which is corrected within 24 hours of discovery. [OAC 252:100-8-5(e)(8)(B) and OAC 252:100-8-6(c)(3)]

SECTION V. REQUIREMENTS THAT BECOME APPLICABLE DURING THE PERMIT TERM

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

SECTION VI. PERMIT SHIELD

A. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC 252:100-8) shall be deemed compliance with the applicable requirements identified and included in this permit. [OAC 252:100-8-6(d)(1)]

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

SECTION VII. ANNUAL EMISSIONS INVENTORY & FEE PAYMENT

The permittee shall file with the AQD an annual emission inventory and shall pay annual fees based on emissions inventories. The methods used to calculate emissions for inventory purposes shall be based on the best available information accepted by AQD.
[OAC 252:100-5-2.1, OAC 252:100-5-2.2, and OAC 252:100-8-6(a)(8)]

SECTION VIII. TERM OF PERMIT

A. Unless specified otherwise, the term of an operating permit shall be five years from the date of issuance. [OAC 252:100-8-6(a)(2)(A)]

B. A source's right to operate shall terminate upon the expiration of its permit unless a timely and complete renewal application has been submitted at least 180 days before the date of expiration. [OAC 252:100-8-7.1(d)(1)]

C. A duly issued construction permit or authorization to construct or modify will terminate and become null and void (unless extended as provided in OAC 252:100-8-1.4(b)) if the construction is not commenced within 18 months after the date the permit or authorization was issued, or if work is suspended for more than 18 months after it is commenced. [OAC 252:100-8-1.4(a)]

D. The recipient of a construction permit shall apply for a permit to operate (or modified operating permit) within 180 days following the first day of operation. [OAC 252:100-8-4(b)(5)]

SECTION IX. SEVERABILITY

The provisions of this permit are severable and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
[OAC 252:100-8-6 (a)(6)]

SECTION X. PROPERTY RIGHTS

A. This permit does not convey any property rights of any sort, or any exclusive privilege.
[OAC 252:100-8-6(a)(7)(D)]

B. This permit shall not be considered in any manner affecting the title of the premises upon which the equipment is located and does not release the permittee from any liability for damage to persons or property caused by or resulting from the maintenance or operation of the equipment for which the permit is issued. [OAC 252:100-8-6(c)(6)]

SECTION XI. DUTY TO PROVIDE INFORMATION

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

terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permit.
[OAC 252:100-8-6(a)(7)(E)]

B. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 27A O.S. § 2-5-105(18). Confidential information shall be clearly labeled as such and shall be separable from the main body of the document such as in an attachment.
[OAC 252:100-8-6(a)(7)(E)]

C. Notification to the AQD of the sale or transfer of ownership of this facility is required and shall be made in writing within thirty (30) days after such sale or transfer.
[Oklahoma Clean Air Act, 27A O.S. § 2-5-112(G)]

SECTION XII. REOPENING, MODIFICATION & REVOCATION

A. The permit may be modified, revoked, reopened and reissued, or terminated for cause. Except as provided for minor permit modifications, the filing of a request by the permittee for a permit modification, revocation and reissuance, termination, notification of planned changes, or anticipated noncompliance does not stay any permit condition.
[OAC 252:100-8-6(a)(7)(C) and OAC 252:100-8-7.2(b)]

B. The DEQ will reopen and revise or revoke this permit prior to the expiration date in the following circumstances: [OAC 252:100-8-7.3 and OAC 252:100-8-7.4(a)(2)]

(1) Additional requirements under the Clean Air Act become applicable to a major source category three or more years prior to the expiration date of this permit. No such reopening is required if the effective date of the requirement is later than the expiration date of this permit.
(2) The DEQ or the EPA determines that this permit contains a material mistake or that the permit must be revised or revoked to assure compliance with the applicable requirements.
(3) The DEQ or the EPA determines that inaccurate information was used in establishing the emission standards, limitations, or other conditions of this permit. The DEQ may revoke and not reissue this permit if it determines that the permittee has submitted false or misleading information to the DEQ.
(4) DEQ determines that the permit should be amended under the discretionary reopening provisions of OAC 252:100-8-7.3(b).

C. The permit may be reopened for cause by EPA, pursuant to the provisions of OAC 100-8-7.3(d). [OAC 100-8-7.3(d)]

D. The permittee shall notify AQD before making changes other than those described in Section XVIII (Operational Flexibility), those qualifying for administrative permit amendments, or those defined as an Insignificant Activity (Section XVI) or Trivial Activity (Section XVII). The

notification should include any changes which may alter the status of a "grandfathered source," as defined under AQD rules. Such changes may require a permit modification.
[OAC 252:100-8-7.2(b) and OAC 252:100-5-1.1]

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

SECTION XIII. INSPECTION & ENTRY

A. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized regulatory officials to perform the following (subject to the permittee's right to seek confidential treatment pursuant to 27A O.S. Supp. 1998, § 2-5-105(17) for confidential information submitted to or obtained by the DEQ under this section):

(1) enter upon the permittee's premises during reasonable/normal working hours where a source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
(2) have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
(3) inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
(4) as authorized by the Oklahoma Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit.
[OAC 252:100-8-6(c)(2)]

SECTION XIV. EMERGENCIES

A. Any exceedance resulting from an emergency shall be reported to AQD promptly but no later than 4:30 p.m. on the next working day after the permittee first becomes aware of the exceedance. This notice shall contain a description of the emergency, the probable cause of the exceedance, any steps taken to mitigate emissions, and corrective actions taken.
[OAC 252:100-8-6 (a)(3)(C)(iii)(I) and (IV)]

B. Any exceedance that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to AQD as soon as is practicable; but under no circumstance shall notification be more than 24 hours after the exceedance.
[OAC 252:100-8-6(a)(3)(C)(iii)(II)]

C. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error. [OAC 252:100-8-2]

D. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that:

(1) an emergency occurred and the permittee can identify the cause or causes of the emergency;
(2) the permitted facility was at the time being properly operated;
(3) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit. [OAC 252:100-8-6 (e)(2)]

E. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [OAC 252:100-8-6(e)(3)]

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

SECTION XV. RISK MANAGEMENT PLAN

The permittee, if subject to the provision of Section 112(r) of the Clean Air Act, shall develop and register with the appropriate agency a risk management plan by June 20, 1999, or the applicable effective date. [OAC 252:100-8-6(a)(4)]

SECTION XVI. INSIGNIFICANT ACTIVITIES

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

(1) 5 tons per year of any one criteria pollutant.
(2) 2 tons per year for any one hazardous air pollutant (HAP) or 5 tons per year for an aggregate of two or more HAP's, or 20 percent of any threshold less than 10 tons per year for single HAP that the EPA may establish by rule.
[OAC 252:100-8-2 and OAC 252:100, Appendix I]

SECTION XVII. TRIVIAL ACTIVITIES

Except as otherwise prohibited or limited by this permit, the permittee is hereby authorized to operate any individual or combination of air emissions units that are considered inconsequential and are on the list in Appendix J. Any activity to which a State or Federal applicable requirement applies is not trivial even if included on the trivial activities list.
[OAC 252:100-8-2 and OAC 252:100, Appendix J]

SECTION XVIII. OPERATIONAL FLEXIBILITY

A. A facility may implement any operating scenario allowed for in its Part 70 permit without the need for any permit revision or any notification to the DEQ (unless specified otherwise in the permit). When an operating scenario is changed, the permittee shall record in a log at the facility the scenario under which it is operating. [OAC 252:100-8-6(a)(10) and (f)(1)]

B. The permittee may make changes within the facility that:

(1) result in no net emissions increases,
(2) are not modifications under any provision of Title I of the federal Clean Air Act, and
(3) do not cause any hourly or annual permitted emission rate of any existing emissions unit to be exceeded;

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

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

SECTION XIX. OTHER APPLICABLE & STATE-ONLY REQUIREMENTS

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

(1) Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in the Open Burning Subchapter. [OAC 252:100-13]

(2) No particulate emissions from any fuel-burning equipment with a rated heat input of 10 MMBTUH or less shall exceed 0.6 lb/MMBTU. [OAC 252:100-19]

(3) For all emissions units not subject to an opacity limit promulgated under 40 C.F.R., Part 60, NSPS, no discharge of greater than 20% opacity is allowed except for:
   (a) Short-term occurrences which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity;
   (b) Smoke resulting from fires covered by the exceptions outlined in OAC 252:100-13-7;
   (c) An emission, where the presence of uncombined water is the only reason for failure to meet the requirements of OAC 252:100-25-3(a); or
   (d) Smoke generated due to a malfunction in a facility, when the source of the fuel producing the smoke is not under the direct and immediate control of the facility and

the immediate constriction of the fuel flow at the facility would produce a hazard to life and/or property. [OAC 252:100-25]

(4) No visible fugitive dust emissions shall be discharged beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards. [OAC 252:100-29]

(5) No sulfur oxide emissions from new gas-fired fuel-burning equipment shall exceed 0.2 lb/MMBTU. No existing source shall exceed the listed ambient air standards for sulfur dioxide. [OAC 252:100-31]

(6) Volatile Organic Compound (VOC) storage tanks built after December 28, 1974, and with a capacity of 400 gallons or more storing a liquid with a vapor pressure of 1.5 psia or greater under actual conditions shall be equipped with a permanent submerged fill pipe or with a vapor-recovery system. [OAC 252:100-37-15(b)]

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

SECTION XX. STRATOSPHERIC OZONE PROTECTION

A. The permittee shall comply with the following standards for production and consumption of ozone-depleting substances:

(1) Persons producing, importing, or placing an order for production or importation of certain class I and class II substances, HCFC-22, or HCFC-141b shall be subject to the requirements of §82.4;
(2) Producers, importers, exporters, purchasers, and persons who transform or destroy certain class I and class II substances, HCFC-22, or HCFC-141b are subject to the recordkeeping requirements at §82.13; and
(3) Class I substances (listed at Appendix A to Subpart A) include certain CFCs, Halons, HBFCs, carbon tetrachloride, trichloroethane (methyl chloroform), and bromomethane (Methyl Bromide). Class II substances (listed at Appendix B to Subpart A) include HCFCs. [40 CFR 82, Subpart A]

B. If the permittee performs a service on motor (fleet) vehicles when this service involves an ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all applicable requirements. Note: The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or the system used on passenger buses using HCFC-22 refrigerant. [40 CFR 82, Subpart B]

C. The permittee shall comply with the following standards for recycling and emissions reduction

except as provided for MVACs in Subpart B: [40 CFR 82, Subpart F]

(1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156;
(2) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158;
(3) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161;
(4) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record-keeping requirements pursuant to § 82.166;
(5) Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to § 82.158; and
(6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

SECTION XXI. TITLE V APPROVAL LANGUAGE

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

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

(9) Any requirements of the construction permit may be reopened for cause after incorporation into the Title V permit by the administrative amendment process, by DEQ as provided in OAC 252:100-8-7.3(a), (b), and (c), and by EPA as provided in 40 C.F.R. § 70.7(f) and (g).

(10) The DEQ shall not issue the administrative permit amendment if performance tests fail to demonstrate that the source is operating in substantial compliance with all permit requirements.

B. To the extent that these conditions are not followed, the Title V permit must go through the Title V review process.

SECTION XXII. CREDIBLE EVIDENCE

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

PART 70 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. 2021-0499-TVR4

Pinecrest Landfill OK, LLC

having complied with the requirements of the law, is hereby granted permission to operate their Newcastle Landfill located at 1741 North Portland Avenue, Newcastle, Section 11, Township 9N, Range 4W, McClain County, Oklahoma, subject to Major Source Standard Conditions dated June 21, 2016, and Specific Conditions, both attached.

This permit shall expire five (5) years from the issuance date below, except as Authorized under Section VIII of the Standard Conditions.

DRAFT

Kendal Stegmann Division Director **Date**

Mr. Karl Evans, Environmental Manager
Pinecrest Landfill OK, LLC
1741 North Portland Road
New Castle, OK 73065

SUBJECT: Title V Operating Permit Renewal **No. 2021-0499-TVR4**
Pinecrest Landfill OK, LLC,
Newcastle Landfill (Facility ID: No. 3263)
Lat. 35.26557°N, Long. 97.58272°W
1741 North Portland Avenue, Newcastle, OK 73065
Section 11, Township 9N, Range 4W
Newcastle, McClain County, Oklahoma

Dear Mr. Evans:

Enclosed is the permit authorizing operation 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 me, william.fulk@deq.ok.gov, or at (405) 702-4194.

Sincerely,

DRAFT

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

Enclosures

Mr. Karl Evans, Environmental Manager
Pinecrest Landfill OK, LLC
1741 North Portland Road
New Castle, OK 73065

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Newcastle, McClain County, Oklahoma

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 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 20 days of publication of the draft permit. Any additional comments or requested changes you have for the draft permit or the application should be submitted within 30 days of publication.

Thank you for your cooperation in this matter. If we may be of further service, please contact William Fulk, at William.Fulk@deq.ok.gov or (405) 702-4194.

Sincerely,

William Fulk, E.I.
Existing Source Permits Section
AIR QUALITY DIVISION

Enclosures

Chickasaw Nation
Attn: Bill Anoatubby, Governor
P.O. Box 1548
Ada, OK 74821

Re: Permit Application No. 2021-0499-TVR4
Pinecrest Landfill OK, LLC, Newcastle Landfill (FAC ID 3263)
McClain County

Dear Mr. Anoatubby:

The Oklahoma Department of Environmental Quality (ODEQ), Air Quality Division (AQD), has received the Tier II/Tier III application referenced above. A Tier II/III application requires the facility provide a 30-day public comment period on the draft Tier II/III permit and a 20-day public comment period on a proposed Tier III permit at a public location within the county of the facility. The process requires the facility to notify the public by newspaper notice in a newspaper in the county of the proposed project. Since the proposed project falls within your Tribal jurisdiction, AQD is providing this direct notice. This letter notification is in addition to the newspaper notice.

Copies of draft permits and comment opportunities are also provided to the public on the ODEQ website at the following location:

https://www.deq.ok.gov/air-quality-division/air-permits/public-participation-issued-permits/

If you prefer a copy of the draft and/or proposed permit, or direct notification by letter for any remaining public comment opportunities, if applicable, on the referenced permit action, please notify me by e-mail at phillip.fielder@deq.ok.gov, or by letter at:

Department of Environmental Quality, Air Quality Division
Attn: Phillip Fielder, Chief Engineer
707 N Robinson
Oklahoma City, OK, 73102

Thank you for your cooperation. If you have any questions, I can also be contacted at (405) 702-4185.

Sincerely,

Phillip Fielder

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

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 page 2.

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

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., significant modification to a Title V permit or Title V/Title V renewal permit)…* **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 operating 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**: , which represents** (*identify the emissions change involved in the modification)*, or add: **. The modification will not result in a change in emissions**]

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.**

In addition to the public comment opportunity offered under this notice, this draft permit is subject to U.S. Environmental Protection Agency (EPA) review, EPA objection, and petition to EPA, as provided by 40 CFR § 70.8.

If the Administrator (EPA) does not object to the proposed permit, the public has 60 days following the Administrator's 45-day review period to petition the Administrator to make such an objection as provided in 40 CFR 70.8(d) and in OAC 252:100-8-8(j).

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.**

Department of Environmental Quality (DEQ)
Air Quality Division (AQD)
Acronym List
9-10-21

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
BACT	Best Available Control Technology
BAE	Baseline Actual Emissions
BBL	Barrel(s)
BHP	Brake Horsepower (bhp)
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
FESOP	Federally Enforceable State Operating Permit
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)
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
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