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OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

MEMORANDUM **May 6, 2025**

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

THROUGH: Rick Groshong, Sr. Env. Programs Manager, Compliance & Enforcement

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

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

FROM: Jian Yue, P.E., New Source Permits Section

SUBJECT: Evaluation of Permit Application **No. 2024-0607-TVR2**
Reworld Tulsa, LLC
Facility ID: 1198
Latitude: N 36.13270°, Longitude: W 96.01641°
Section 12, T19N, R12E
2122 S. Yukon, Tulsa, Tulsa County

SECTION I. INTRODUCTION

Reworld Tulsa, LLC (Reworld), formerly doing business as Covanta, has requested renewal of their current Part 70 operating permit for the Walter B. Hall Resource Recovery Facility (SIC 4953). The facility is currently operating under Permit No. 2014-1722-TVR (M-2) issued on May 1, 2025. This facility is a major source for PSD and a minor source of HAPs.

SECTION II. REQUESTED CHANGES

No changes were requested.

SECTION III. PERMIT HISTORY

The following table lists all permitting actions from the issuance of the last Title V renewal permit.

Permits	Date Issued	Description
2014-1722-TVR	12/20/2019	Requested the renewal of the Part 70 permit.
2014-1722-TVR (M-1)	3/14/2023	Minor modification to modify the non-MSW ratio limit in Specific Condition No. 2.A.ii.
2014-1722-TVR (M-2)	5/1/2025	Minor modification to accept and treat regulated medical waste (RMW)

SECTION IV. PROCESS DESCRIPTION

Municipal Waste Process

Waste Delivery, Storage, and Handling System

Refuse arrives at the facility by truck. Trucks enter the facility through a controlled access gate and proceed to a weigh station to determine the total tonnage of waste delivered. Once through the weigh station, the trucks proceed to an assigned tipping bay and deposit the waste in the refuse pit. Facility SOPs require that waste from the refuse pit is mixed, stockpiled, and deposited into the furnace feed hoppers by overhead cranes. If required, certain non-hazardous industrial waste can be placed directly into the hopper to facilitate assured destruction.

Liquid Direct Injection (LDI) was added as a permanent operation of the facility by Solid Waste Permit Modification on December 21, 2012. This allows Reworld to receive bulk liquid phase non-hazardous industrial waste (NHIW) for disposal. Liquids will be stored on-site until being transferred for injection directly into the waste combustors. Liquid waste will be characterized and screened in accordance with Reworld's existing Waste Exclusion Plan.

Combustor Design and Operation

Refuse is continuously fed into the combustion units from the feed hoppers described above. This facility consists of three single pass, mass burn refractory lined waterwall boilers (MB/WW) each having a nameplate capacity of 375 TPD.

Combustor Units 1 and 2 at this facility are equipped with Martin GMBH integrated (single) reciprocating grate stokers, each consisting of a surface of mechanically driven bars upon which the burning waste is transferred through the combustor. Combustor Unit 3 is equipped with a Reworld developed dual drive mechanical moving platform with ancillary equipment.

For Combustion Units 1 and 2, combustion air is only divided into underfire and overfire air. For Combustion Unit 3, combustion air is divided between underfire air and a new overfire air system around the new dual drive platform, and a new tertiary air system higher in the furnace. Underfire air is heated in a steam coil and evenly distributed below the stoker grate on Units 1 and 2 and below the moving platform on Unit 3 before entering the combustion system. Underfire air cools the grates, aids in the suspension of the waste for combustion, and provides a portion of the combustion air. Overfire air, which is added above the stoker grate at the front and rear walls of Combustion Units 1 and 2, facilitates complete combustion of volatile off-gases. The new overfire and tertiary air system of Unit 3, which adds air higher in the furnace to control the formation of NOx, also similarly facilitates the complete combustion of volatile off-gases.

All three combustors are equipped with an auxiliary natural gas burner. The auxiliary burners are used during warm up and to ignite Municipal Solid Waste (MSW) during start-up, shutdown and at other times when necessary and consistent with good combustion practices. An automated combustion control package maintains optimal combustion efficiency. The combustion exhaust gas exits the combustors and passes through the air pollution control devices (APCD), and then is

discharged from the stacks. Exhaust gases from Combustors 1 and 2 are discharged through a common stack. Combustor 3 has a dedicated stack.

MB/WW designs include a heat exchanger consisting of a system of boiler tubes in the furnace walls used to circulate water that recovers heat from the combustion chamber for the production of steam and/or electricity. In the lower actively burning region of the chamber where corrosive conditions exist, the walls are lined with castable refractory and tiles. The combustion chambers of the units at this facility are single pass, refractory lined. Heat can also be recovered in the convective sections of a combustor, such as the second pass, generation section, the superheater, and economizer. With the installation of new pollution controls to meet the NSPS Subpart Cb standards, the electrostatic precipitators on these combustor units were taken out of service. Only the shells remain, through which exhaust gases are routed to the pollution controls.

The facility has the ability to generate electricity with an onsite steam turbine generator having a rated electrical energy production output of 16.5 megawatts (MW), but primarily sells steam to Holly Frontier Tulsa Refineries.

Emission Controls

Emissions from the three units are controlled through good combustion practices and post-combustion air pollution controls. The controls that are now in use at the facility are: selective non-catalytic reduction (SNCR), carbon injection, spray dryer (lime injection), and baghouses (fabric filter). Each combustor has an in-line air pollution control system including materials handling equipment associated with the pollution controls and ash waste production.

Emissions of carbon monoxide (CO) and volatile organic compounds (VOCs) are controlled using good combustion practices. The applicant has submitted that good combustion practices (GCP) as a general term includes the automatic process control system and operating procedures to meet the requirements of 40 CFR § 60.54b (Standards for municipal waste combustor training and certification) and the following three broad goals of good combustion practices:

1. Maximize in-furnace destruction of organics;
2. Minimize particulate matter (PM) carryover out of the furnace, and;
3. Minimize post-boiler reactions that promote formation of chlorinated dibenzo p-dioxins/chlorinated dibenzofurans (CDD/CDF).

Compliance with GCP is demonstrated by three parameters:

1. A CO emission limit;
2. A steam load limit;
3. A temperature limit at the inlet of the PM control device.

CO has been determined to be a good indicator of CDD/CDF destruction; therefore, the facility continuously monitors CO emissions.

A SNCR system is used to control nitrogen oxides (NO_x). The SNCR system controls NO_X through the injection of aqueous ammonia into the furnace of each MWC. The ammonia reacts selectively with NO_X and oxygen to form molecular nitrogen, carbon dioxide, and water without the use of catalyst. Generally, for MWCs equipped with SNCR, NO_X reductions of 45 percent are achievable (AP-42 (10/96), Section 2.1.4.6).

The flue gas exiting each furnace passes through a spray dryer (SD) where slaked lime is injected for acid gas neutralization including sulfur dioxide, hydrogen chloride and other acid gases. The lime slurry is prepared on-site and injected into the spray dryer where it is mixed with flue gas. The water in the slurry evaporates to cool the flue gas, and the lime reacts with acid gases to form calcium salts that can be removed by a PM control device. The SD is designed to provide sufficient contact and residence time to produce a dry product before leaving the SD absorber vessel. The residence time in the absorber vessel is typically 10 to 15 seconds.

The key design and operating parameters that significantly affect SD performance are SD outlet temperature and lime-to-acid gas stoichiometric ratio. The SD outlet approach-to-saturation temperature is controlled by the amount of water in the slurry. More effective acid gas removal occurs at lower approach-to-saturation temperatures, but the temperature must be high enough to ensure the slurry and reaction products are adequately dried prior to collection in the PM control device. For MWC flue gas containing significant chlorine, a minimum SD outlet temperature of around 115 °C (240 °F) is required to control agglomeration of PM and sorbent by calcium chloride. Outlet gas temperature from the SD is usually around 140 °C (285 °F).

The stoichiometric ratio is the molar ratio of calcium in the lime slurry fed to the SD divided by the theoretical amount of calcium required to completely react with the inlet HCl and SO_2 in the flue gas. At a ratio of 1.0, the moles of calcium are equal to the moles of incoming HCl and SO_2. However, because of mass transfer limitations, incomplete mixing, and differing rates of reaction (SO_2 reacts more slowly than HCl), more than the theoretical amount of lime is generally fed to the SD. The stoichiometric ratio used in SD systems varies depending on the level of acid gas reduction required, the temperature of the flue gas at the SD exit, and the type of PM control device used. Lime is fed in quantities sufficient to react with the peak acid gas concentrations expected without severely decreasing performance. The lime content in the slurry is generally about 10 percent, but cannot exceed approximately 30 percent by weight without clogging of the lime slurry feed system and spray nozzles.

A fabric filter, located downstream of the spray dryer, is designed to collect particulate matter from the combustion process (fly ash) and solid reaction products and un-reacted products including activated carbon, reacted salts, and un-reacted lime contained in the discharge gas from the spray dryer. Captured PM collected from the spray dryer and fabric filter is discharged into either the pug mill or residue discharger, wetted and combined with bottom ash. To implement these controls, the facility has also installed storage silos for lime and carbon. Both units have a bin-vent type of filter for control of particulate emissions during reagent loading. These sources are insignificant activities.

A carbon injection system pneumatically conveys activated carbon to ductwork located upstream of the spray dryer to control mercury and dioxin/furan. With activated carbon injection, mercury

is adsorbed onto the carbon particle, which is then captured in the PM control device. Test programs using activated carbon injection on MWCs in the United States have shown mercury removal efficiencies of 50 to over 95 percent, depending on the carbon feed rate (AP-42 (10/96), Section 2.1).

Ash Management

Each of the three combustors has an ash discharger that receives residual burnout from the combustion grate. The ash discharger also receives flyash from the generation bank, the super heater section and the economizer. It also receives siftings from under the grate. The ash discharger serves two primary functions; 1) to quench and cool the burned-out material (bottom ash, flyash and siftings) which prevents fugitive dusting while conveyed, and 2) provide a water seal to maintain negative pressure in the boiler which is necessary for effective combustion. Bottom ash residuals consisting of siftings, boiler fly ash and bottom ash are then discharged onto the main residue conveyor which transfers the material to the grizzly for bulky removal (items larger than 6") and onto the incline conveyor that connects the boiler building with the ash building where ferrous and non-ferrous metals are separated and collected on site for subsequent shipment to recycle operations or their equivalent. The residue from the spray dryer and baghouse are managed by a fly ash handling system for each combustion train that transports this residue to a pug mill in the ash storage building where it is conditioned with water to minimize fugitive dust.

RMW Process

A. RMW Receipt and Inspection Procedure

RMW will be delivered to the Facility by licensed RMW haulers. All loads of RMW delivered to the Facility will be scheduled in advance. Trucks may be of a box truck type design or a tractor/trailered load. Upon arriving at the Facility, each vehicle will be weighed at the scale house located just inside of the security gate.

Like MSW trucks, RMW waste vehicles will be scanned for radioactivity at the scale house. A scale record will include the source (name of the hauler or cartage firm), origin, date, time, and quantity (tons) of the RMW. A Pre-Shipment Notification form provided with each individual delivery will also be signed as the certification of disposal/destruction of the waste. A signed copy of this form will be provided to the driver and another copy will be kept at the Facility for recordkeeping. Once weighed, each truck will be directed to the RMW/Profiled Waste Receiving Area or to the secured staging area.

Any RMW shipment that is not processed within 96 hours of delivery, will be sent to a facility permitted to manage RMW. Reworld's staff will use a yard jockey truck to move full trailered loads from the Staging Area to the enclosed Profiled Waste Receiving Warehouse. Empty trailers will also be moved out of the loading docks using the yard jockey truck and will be relocated to the truck Staging Area. Each customer shipment must be accompanied by a Reworld RMW Load Certification document. On the Load Certification document, the customer certifies that the delivery accompanying the Certification contains only Regulated Medical Waste, as defined in the Waste Disposal Agreement in effect with the customer, contains no Unacceptable Waste as defined

in the Agreement and is not subject to regulations as hazardous waste under Federal Resource Conservation and Recovery Act (RCRA).

Trained staff at the Facility will perform thorough QA/QC inspections on RMW shipments using a prescribed Reworld QA/QC inspection form. This form may be in a paper or an electronic format. The QA/QC inspection form is used to ensure that the proper paperwork is accompanying the load, is used to document the condition of the load, and is used to document any discrepancies. Additionally, a QA/QC inspector will verify that RMW load meets proper waste packaging and labeling requirements and proper Generator and Transporter information markings.

Discrepancies will be recorded by QA/QC staff which will then trigger customer notification and corrective action. Depending upon the severity of the exception, it may trigger a load rejection, customer suspension, and/or automatic inspection of the customer's site. In the event of a leak or spill, the area immediately surrounding the waste shall be disinfected in accordance with the instructions of the disinfectant found in the RMW Process Area Spill Kit. In addition to the spill kit, the Facility will maintain an eye wash station and a storage unit to segregate tools only to be used in the Profiled Waste Receiving Warehouse and the Profiled Waste Processing Building, and not elsewhere in the Facility.
The trucks are scheduled so that traffic, idling, and congestion are minimized. Trucks and trailers, once received, will be staged on a parking lot area that is constructed so as to minimize fugitive dust.

B. RMW Unloading

Trained staff with the proper personal protection equipment will perform the unloading of the trucks/ trailered loads in the Profiled Waste Receiving Warehouse. RMW will then be transferred by forklift through a gallery from the Waste Receiving Warehouse into the new Profiled Waste Processing Building. The RMW will then be loaded onto the new RMW Automated Feed System (AFS). The new Profiled Waste Processing Building will also provide cover for the existing Automatic Pallet Staging Conveyor used to convey profiled waste from the Profiled Waste Receiving Warehouse to the tipping floor.

RMW that arrives in reusable totes will be removed from the truck/trailer then emptied from the tote into a 4-sided enclosed AFS Bin using the forklift. The AFS Bins will be fabricated from ASTM A36 carbon steel that are seam welded and measure 60" x 60" x 72" high. The loaded AFS bin will then be staged or stored as described above. The empty totes will be loaded back into trucks/trailers for return to customer.

The palletized RMW shipments will be unloaded using a forklift into the 3-sided AFS Bins. The unpalletized RMW shipments will be manually unloaded within the trailer into 3-sided AFS Bins. The 3-sided bins will be fabricated from ASTM A36 carbon steel and measure 60" x 60" x 72" high. Forklifts will move the AFS bins to the AFS or to temporary staging/storage in the Profiled Waste Processing Building.

After all RMW has been removed from the trailer, the yard-jockey will relocate the empty trailer to the Staging Area. The next full trailer of RMW material will then be brought to the Profiled Waste Receiving Warehouse.

The AFS will transfer individual bins of RMW up to one of the three (3) MWC feed hoppers for combustion.

C. RMW Automated Feed System (AFS)

A computer-controlled, Automated Feed System (AFS) will transfer RMW from the Profiled Waste Processing Building directly to the feed chutes of the MWC units. This system is designed to minimize potential worker contact with the RMW. The proposed AFS will be enclosed and located adjacent to the south wall of the new Profiled Waste Processing Building. This controlled process has dedicated resources and trained personnel who will process this waste.

The forklift will load the AFS bins from the Profiled Waste Processing Building onto the AFS Tipping Floor Transfer conveyor. This conveyor will then load the AFS elevator.

Radiation screening will be completed when trucks are inspected at delivery. Additional radiation screening is not anticipated.
The elevator system will vertically lift the AFS bin from floor elevation of the Profiled Waste Processing Building to the charging deck elevation of the MWCs.

At the charging deck level, the elevator will feed onto the horizontal Charging Deck Transfer Conveyor. This elevated conveyor allows for sequenced shuttling of full and empty AFS bins back and forth).

The charging deck conveyor loads the AFS bin onto the AFS dumper conveyor which transports the AFS bin and drops the waste into the selected MWC feed chute.

Once in the feed chute, the RMW will mix with MSW and feed by gravity to the integrated MWC furnace feed table. From the feed table, the waste will be hydraulically pushed into the combustion chambers of the MWCs.

The empty AFS bin will then return on these same conveyors/elevator to the Profiled Waste Processing Building and the cycle is repeated.

D. Reworld RMW Processing Rate

Reworld is currently permitted to receive and process 375 tons per day (TPD) of MSW and non-hazardous industrial waste in each of the three (3) MWC units at the Tulsa Facility for an annual maximum throughput rate of 410,625 tons. Reworld proposes to receive and process a maximum of 40,000 tons of RMW per year, which is equal to approximately 9.75 percent of the permitted annual waste processing rate of the Facility. Operationally, the facility will balance and blend RMW, MSW, and any profiled wastes in order to ensure a consistent fuel profile for the burners.

The RMW is considered a component of the nonhazardous industrial waste (NHIW) stream at the facility.

SECTION V. FACILTIY WIDE EQUIPMENT

The following tables list the Emission Units (EUs) at the facility, categorized by Emission Unit Groups (EUGs) that generate emissions at the facility.

EUG No. 1 – Municipal Waste Combustor Units 1, 2, and 3

EUG No. 1 consists of three mass burn waterwall MWCs.

EU Name	Construction Commencement	Initial Operation Commencement	Nameplate Capacity TPD	Regulatory Applicability
Unit 1	05/84	10/86	375	OAC 252:100-17 Part 5
Unit 2	05/84	10/86	375	OAC 252:100-17 Part 5
Unit 3	03/86	10/87	375	OAC 252:100-17 Part 5

EUG No. 2 – Ash Handling

The application lists the ash handling operations as insignificant. Although the applicant's estimate of annual fugitive emissions are well below the level required to produce emissions above the insignificant level, certain ash handling operations will be subject to standards for fugitive ash emissions. OAC 252:100-17-22 incorporates by reference 40 CFR Part 60, Subpart Eb, §60.55b, standards for municipal waste combustor fugitive ash emissions. Any activity to which a state or federal applicable requirement applies is not insignificant even if it meets the criteria of OAC 252:100-8-2 or is included on the insignificant activities list. The permit will contain requirements to ensure that the ash handling operations are in compliance with any applicable federal and state standards.

SECTION VI. EMISSIONS

EUG No. 1 – MSW Combustor Units 1, 2, & 3

The following table lists the emissions limits for Combustor Units 1 and 2, initially authorized by Permits No. PSD-OK-556 M-3 and 84-023T-O (M-2) and the emissions limits for Combustor Unit 3 initially authorized by Permit No. 86-002T-O (M-2).

Permits No. PSD-OK-556 M-3, 84-023T-O (M-2), and 86-002T-O (M-2)				
Pollutant	**Combustor Units 1 & 2 (combined)**		**Unit 3**	
	(lb/hr)	**(TPY)**	**(lb/hr)**	**(TPY)**
TSP	34.2	150	17.1	75.0
SO_2	100.9	441.9	50.45	220.97
NO_X	200.0	876.0	100.0	438.0
VOC	4.6	20.1	2.3	10.1

Permits No. PSD-OK-556 M-3, 84-023T-O (M-2), and 86-002T-O (M-2)				
Pollutant	**Combustor Units 1 & 2 (combined)**		**Unit 3**	
	(lb/hr)	**(TPY)**	**(lb/hr)**	**(TPY)**
CO	41.6	182.2	20.8	91.1
Lead	0.2	0.9	0.1	0.4
Mercury	0.24	1.05	0.12	0.52
Beryllium	5.13×10^{-6}	2.25×10^{-5}	2.565×10^{-6}	1.12×10^{-5}
Fluorides	3.3	14.5	1.65	7.23
Sulfuric acid	18.0	78.8	9.0	39.4
HCl	194.0	849.7	97.0	424.9
TCDD*	1.172×10^{-5}	5.13×10^{-5}	5.86×10^{-6}	2.57×10^{-5}
PCDD* & PCDF*	1.67×10^{-4}	7.31×10^{-4}	8.35×10^{-5}	3.66×10^{-4}
	gr/dscf @ 12% O_2			
TSP	0.06			

*TCDD = tetrachloredibenzodioxin, PCDD = polychlorinated dibenzo-p-dioxins, PCDF = polychlorinated dibenzo-p-furans

In addition to the current pound per hour (lb/hr) and ton per year (TPY) emission limitations in existing permits, the facility is also subject to the emission standards from OAC 252:100-17, Part 5.

Section	Pollutant	Limit
§ 17-16(a)(2)	PM	25 mg/dscm @ 7% O_2
§ 17-16(b)	Opacity	10%, 6-minute average
§ 17-17(a)(2)	Cadmium	35 µg/dscm @ 7% O_2
§ 17-17(b)(3)	Lead	400 µg/dscm @ 7% O_2
§ 17-17(c)(2)	Mercury	50 µg/dscm @ 7% O_2 (1)
	OR	15% of Hg PTE @ 7% O_2 (1) (85% reduction by weight)
§ 17-18(a)(2)	Sulfur Dioxide	29 ppm_v (1), (2)
	OR	25% of SO_2 PTE @ 7% O_2 (1), (2) (75% reduction by weight or volume)
§ 17-18(b)(2)	HCl	29 ppm_v @ 7% O_2 (1)
	OR	5% of SO_2 HCl @ 7% O_2 (1) (95% reduction by weight or volume)
§ 17-19(a)(3)	Dioxins/Furans	30 ng/dscm @ 7% O_2 w/o ESP (3)
§ 17-20(a)	NO_X	205 ppm_v @ 7%O_2 (4), (5)
§ 17-21(a)	CO	100 ppm_v @ 7% O_2 (4), (6)
§ 17-22	Fugitive Ash	5% opacity

(1) Whichever is less stringent
(2) Based on a 24-hr daily geometric mean
(3) Large MWCs achieving less than 15 ng/dscm @7% O_2 may elect alternative performance testing as specified by 40 CFR §60.58b(g)(5)(iii)
(4) Mass burn waterwall MWC
(5) Based on a 24-hr arithmetic average
(6) Based on a 4-hr block arithmetic average

In a document dated 5/17/2007, Reworld requested overlapping emission limits to be streamlined so that using the most stringent limitation will assure compliance with all limitations. Existing permit emission limits were converted to the same unit basis as NSPS emission limits as shown in the following table.

Pollutants	Existing Permit Limits (Each Unit) lb/hr	Conversion Factor[a]	NSPS Limit at 7% O_2 ppmvd or (as indicated)	Converted NSPS Limits (Each Unit) lb/hr
PM	17.1	$8.06x10^{-6}$	25 mg/dscm	3.15
SO_2	50.45	$2.15x10^{-2}$	29	9.74
NOx	100	$1.54x10^{-2}$	205	49.33
CO	20.8	$9.4x10^{-3}$	100	14.69
Lead	0.1	$8.06x10^{-6}$	400 µg/dscm	0.05
Mercury	0.12	$8.06x10^{-6}$	50 µg/dscm	0.006
HCL	97	$1.23x10^{-2}$	29	5.57
Dioxins/Furans	8.94E-05	$8.06x10^{-6}$	0.03 µg/dscm	3.78E-6

[a] from AP-42 (10/96), Table 2.1-10. Conversion is done using the following formula:
lb/hr = (ppm or µg/dscm) × conversion factor × maximum ton refuse/day ÷ 24 hr/day.

NSPS emission limits are more stringent than previous permit limits. The following table lists emissions in both lb/hr and TPY converted from NSPS limits. These numbers are listed here for reference**.** The Specific Conditions will list only NSPS limits, except for VOC, sulfuric acid, beryllium, and fluorides. The pound per hour and tons per year limits on beryllium and fluorides will be carried over from the existing permit, since there are no NSPS standards for them.

For particulate emissions, this permit lists both the existing permit limit of 17.1 lb/hr and 0.06 gr/dscf @12% O_2 for each combustor and the NSPS standard, because existing permits required the compliance tests to include the back-half condensable of Method 202 while NSPS requires only Method 5.

Pollutants	Emissions Converted from NSPS Standards (Each Unit)		Emissions Converted from NSPS Standards (All Three Units)	
	lb/hr	TPY	lb/hr	TPY
PM (without condensables)	3.15	13.80	9.45	41.39
SO_2	9.74	42.66	29.22	127.98
NOx	49.33	216.07	147.99	648.20
CO	14.69	64.34	44.07	193.02
Lead	0.05	0.22	0.15	0.66
Mercury	0.006	0.03	0.018	0.079
HCL	5.57	24.40	16.71	73.19
Dioxins/Furans	3.78E-6	1.66E-5	1.13E-5	4.96E-5

EUG No. 2 – Ash Handling

The ash handling operations are not currently permitted. Regardless, as noted earlier, certain ash handling operations will be subject to standards for fugitive ash emissions. §17-22 incorporates by reference 40 CFR Part 60, Subpart Eb, §60.55b, Standards for municipal waste combustor fugitive ash emissions. The permit contains requirements to ensure that the ash handling operations are in compliance with any applicable federal and state standards.

The application states that Reworld studied the potential fugitive dust emissions of residue (ash) at their facilities and compared the predictions of AP-42 with actual measurements of dust collected during various ash handling operations. Field measurements did not demonstrate that dumping of ash creates fugitive dust. The applicant concludes this is practical given the concrete-like nature of combined ash with a moisture content of 20 to 25%. A worse case estimate of fugitive dust (PM_{10}) was done for the facility using Equation 1 from AP-42, Section 13.2.4-3, January 1995.

$$E = k\,(0.0032)\,\frac{(U/5)^{1.3}}{(M/2)^{1.4}} = 0.35\,(0.0032)\,\frac{(10.2/5)^{1.3}}{(27/2)^{1.4}} = 7.4 \times 10^{-5}$$

Where:

E = Emission factor, lbs of PM_{10} per ton of ash handled, lbs/ton.
k = Particle size multiplier (dimensionless) = 0.35 for < 10 μm
U = Mean wind speed (mph) = 10.2 mph for Tulsa, Oklahoma
M = Material moisture content = 27%, Fly Ash

The maximum annual facility wide permitted MSW incineration rate is 410,625 tons, based on three incinerators each running at 375 TPD. Assuming all waste were converted to ash (highly overestimated), then the resulting emissions from the fly ash dumping operation would be 30 pounds per year, or 0.02 tons per year. The applicant believes that this is a worst-case estimate and does not necessarily reflect actual operating conditions.

Ferrous Metals Recovery

Ferrous metal objects are recovered from the combined ash at the facility. As discussed in Ash Handling, the combined ash is maintained in a wetted state. The application states that studies have shown minimal emissions from ash handling operations. Therefore, emissions from ferrous metal recovery are also minimal. However, inasmuch as there may be conveyance systems in the Ferrous Metals Recovery operations associated with ash handling, these will be subject to the same requirements as the Ash Handling operations.

Cooling Tower

The cooling tower is not routinely used, but the applicant provided the following emissions calculations based on limited operational hours, since the facility retains the capability to use the cooling tower,

Cooling Tower					
TDS (1) (ppm)	**Drift Rate (2) (%)**	**Re-circulation (3) Rate (lbs/hr)**	**PM Drift (4) (lbs/hr)**	**PM_{10} Drift (5) (lbs/hr)**	**PM_{10} Drift (TPY)**
3	3.84	6,571,924	0.76	0.76	3.32

(1) TDS based on 0.49 NTU maximum for City of Tulsa wastewater (per 2002 WQ Report) and 7 x concentration rate.
(2) Drift Rate calculated by dividing the evaporation/drift rate (assuming it is 100% drift) by the re-circulation rate.
(3) Re-circulation Rate of 13,125 gpm (6,571,924).
(4) PM Drift calculated as Drift Rate x Re-circulation Rate x TDS.
(5) PM_{10} Drift rate assumed to be 100% of PM Drift rate.

Carbon and Lime Storage Silos

Emissions from carbon and lime storage silos are controlled via bin-vent type filters. The table below presents the estimated maximum emissions from the silos.

Parameters	**Lime Silo (1)**	**Carbon Silo (2)**
Amount of Reagent per Delivery (tons)	24	20
Amount of Carrier Air (scf/lb)	2	2
Total Amount of Carrier Air per Delivery (scf)	96,000	80,000
Worse Case Particulate Emissions Factor (gr/scf)	0.01	0.01
Emissions Factor per Fill Operation (lbs/fill)	0.137	0.114
Deliveries per Year	125	11
Annual Particulate Emissions Factor (lbs/yr; TPY)	17.1; 0086	1.3; 0.00063

(1) Based on a blower displacing 628 cfm at 8 psig for 90 minutes and a load of 24 tons of lime.
(2) Based on a blower displacing 600 cfm at 5 psig for 90 minutes and a load of 20 tons of carbon.

Roads

Fugitive emissions from truck traffic at the facility have been estimated using AP-42 Section 13.2.1.3, Equation 1, (10/97) for paved roads, average vehicle weight of 15 tons, and a silt loading factor of 0.4 g/m^2. The maximum truck traffic is 200 trucks per day, all surfaces are paved, each truck is assumed to weigh 15 tons, and trucks are conservatively assumed to travel a total of 1 mile while at the facility.

	Annual VMT (miles)	**% Road Paved**	**Emission Factor**	**Emissions**	
				lbs/yr	**TPY**
Paved Road PM Emissions	73,000	100	55.9646 g/VMT	9,008	4.5
Paved Road PM_{10} Emissions	73,000	100	10.7511 g/VMT	1,731	0.9

VMT = vehicle miles traveled: 1 mile/day/truck x 200 trucks x 365 days/yr = 73,000

Hazardous Air Pollutants (HAPs)

HAPs emissions from MWCs are mainly total dioxins/furans and heavy metals. Emissions were estimated based on facility stack test conducted in 2015 and 2016.

CDD/CDF Emission Evaluation		
Parameter	**Emission Rate (lb/hr)**	**Emission Rate (TPY)**
AP-42 CDD/CDF Emissions Estimate	3.10E-06	1.36E-05
Unit 1 Stack Test for Total CDD/CDF	1.26E-07	5.09E-07
Unit 2 Stack Test for Total CDD/CDF	5.46E-07	2.24E-06
Unit 3 Stack Test for Total CDD/CDF	2.53E-08	7.43E-07

Heavy Metals Calculated from Stack Tests						
Pollutant Name	**Unit 1**		**Unit 2**		**Unit 3**	
	(lb/hr)	**(TPY)**	**(lb/hr)**	**(TPY)**	**(lb/hr)**	**(TPY)**
Total CDD/CDF	1.26E-07	5.09E-07	5.46E-07	2.24E-06	2.53E-08	7.43E-07
Arsenic compounds	--	--	--	--	--	--
Cadmium compounds *	5.72E-04	2.29E-03	3.51E-04	1.43E-03	2.85E-5	3.09E-03
Chromium compounds, as Cr	--	--	--	--	--	--
Mercury compounds	<1.81E-04	3.41E-03	<1.28E-04	5.24E-04	<1.76E-04	6.77E-04
Nickel compounds	--	--	--	--	--	--
Lead compounds	8.50E-04	3.42E-03	5.55E-04	2.27E-03	0.00183	7.04E-03
Beryllium compounds	<2.01E-06	8.08E-06	<1.86E-06	5.60E-05	<1.99E-06	7.66E-06
Fluorides, as F	0.00357	0.014	0.00603	0.024	0.00361	0.013

* Calculated from mg/dscm @ 7% O_2 data

Although it is likely that organic pollutants that are easier to destroy through a thermal process will break down before dioxins and furans, low levels of dioxins/furans are not necessarily an indication of complete destruction of other organic pollutants. Low levels of dioxins/furans are more an indication of the effectiveness of the controls used to remove those compounds. Low CO level is a surrogate parameter used to indicate combustion conditions conducive to the furnace destruction of trace organics including dioxin/furan. A CO limit, a steam load limit, and a temperature limit at the inlet of the PM control device are used to control PM and dioxins/furans.

SECTION VII. INSIGNIFICANT ACTIVITIES

The insignificant activities identified and justified in the application are duplicated below. Appropriate recordkeeping of activities indicated below with an asterisk (*) is specified in the Specific Conditions.

1. * Emissions units whose actual calendar year emissions do not exceed any one of the three emissions limits listed in (A) through (C) of the definition of "Insignificant activities" as defined in OAC 252:100-8-2. These insignificant activities at this facility are listed below.
   -Cooling Tower
   -Carbon and Lime Storage Silos
   -Ferrous Metals Recovery
   -Roads (fugitive emissions)

2. * Emissions from fuel storage/dispensing equipment operated solely for facility owned vehicles if fuel throughput is not more than 2,175 gallons/day, averaged over a 30-day period. Fuel storage consists of a one 1,000-gallon propane tank and one 1,000-gallon diesel tank. These tanks have a daily throughput of not more than 2,175 gallons per day and are therefore an insignificant activity in accordance with Appendix I.
3. Space heaters, boilers, process heaters, and emergency flares less than or equal to 5 MMBTU/hr heat input (commercial natural gas). There are no combustion space heaters at this time, only electrical. However, the applicant has indicated the possibility of future additions.

SECTION VIII. FEDERAL REGULATIONS

PSD, 40 CFR Part 52 [Not Applicable]

Total potential emissions of NOx are greater than the PSD threshold of 250 TPY. Any future emission increases must be evaluated for PSD if they exceed a significance level listed below.

SO_2 TPY	NOx TPY	CO TPY	VOC TPY	$PM/PM_{10}/PM_{2.5}$ TPY	Lead TPY
40	40	100	40	25/15/10	0.6

The applicant's review of PSD applicability for the project is provided in Section III.

NSPS, 40 CFR Part 60 [Subpart Cb]

Subpart Cb, Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors that are Constructed on or Before September 20, 1994. Subpart Cb applies to each municipal waste combustor unit with a combustion capacity greater than 250 TPY of municipal solid waste for which construction was commenced on or before September 20, 1994. Subpart Cb provides for the establishment of emission standards for the following: particulate matter, opacity, sulfur dioxide, hydrogen chloride, oxides of nitrogen, carbon monoxide, lead, cadmium, mercury, dioxins and dibenzofurans. Subpart Cb incorporates by reference from Subpart Eb, additional standards for operating practices that limit load level and inlet temperature at the PM control device during performance testing for Dioxins/Furans from §§60.53b(b) & (c), standards for operator training and certification from §60.54b, standards for fugitive ash emissions from §60.55b, standards for compliance and performance testing from §60.58b, and reporting and recordkeeping requirements from §60.59b. Definitions are incorporated from Subparts A, B, and Eb.

Under section 129 of the Act, Emissions Guidelines are not federally enforceable. Section 129(b)(2) of the Act provides for states to submit to EPA for approval, plans that implement and enforce the Emissions Guidelines. Oklahoma submitted to EPA on July 10, 1998, its State 111(d)/129 Plan for implementation and enforcement of the Emissions Guidelines for existing MWCs under their direct jurisdiction in the State of Oklahoma pursuant to 40 CFR §§60.23 through 60.26. The Oklahoma Plan covers only large MWC units (capacity of >250 TPD MSW). This facility is the only facility in Oklahoma subject to this rule. It is listed in 40 CFR §62.9150 under the name Ogden-Martin Systems of Tulsa. EPA approval of Oklahoma's plan became effective on January 5, 1999. On July 10, 2006, amendments to NSPS Subpart Cb became

effective. These amendments have been incorporated in OAC 252:100-17, Part 5 and were effective July 1, 2009.

Subpart Ce, Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators, contains emission guidelines and compliance times for the control of certain designated pollutants from hospital/medical/infectious waste incinerator(s) (HMIWI) in accordance with Sections 111 and 129 of the Clean Air Act and subpart B of this part. Emission and compliance guidelines are contained in OAC 252:100-17 Part 7. Regulatory review and applicability is conducted in Section IX of this memo.

Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971 (§§60.40-60.46), affects each fossil-fuel-fired steam generating unit more than 73 megawatts heat input rate (250 million Btu per hour). This facility does not meet the applicability criteria of this subpart in that its primary fuel is not a fossil fuel.

Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978, applies to each electric utility steam generating unit that is capable of combusting more than 73 megawatts (250 million Btu/hour) heat input of fossil fuel (either alone or in combination with any other fuel) for which construction or modification is commenced after September 18, 1978.

Although the three combustor units meet the applicable time frame, they do not meet the applicable equipment rating or the definition of "electric utility steam generating unit" as defined in §60.41a, therefore the three combustors are not subject to this rule.

Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, affects each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 29 MW (100 million Btu/hour), and any affected facility commencing construction, modification, or reconstruction after June 19, 1984, but on or before June 19, 1986.

Only Combustor Unit 3 meets the applicable time frame and the definition of "steam generating unit" as defined in §60.41b. However, 60.40b(k) states that any affected facility that meets the applicability requirements and is subject to an EPA approved State or Federal section 111(d)/129 plan implementing Subpart Cb or Subpart BBBB of this part is not covered by this subpart. Therefore, this facility is not subject to this subpart.

Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, affects each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989, and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million Btu per hour) or less, but greater than or equal to 2.9 MW (10 million Btu/hr). All three combustion units were constructed prior to the applicable date.

Subpart E, Standards of Performance for Incinerators, affects each incinerator of more than 45 metric tons per day charging rate (50 tons/day) that commences construction or modification after August 17, 1971. All three combustor units were constructed during the applicable time frame. However, facilities covered by an EPA approved State section 111(d)/129 implementing subpart Cb of this part is not covered by this subpart. Oklahoma has an EPA approved plan implementing Subpart Cb which the facility is subject to, therefore, it is not subject to this subpart.

Subpart Ea, Standards of Performance for Municipal Waste Combustors for Which Construction is Commenced After December 20, 1989, and on or Before September 20, 1994, affects each municipal waste combustor unit with a municipal waste combustor unit capacity greater than 225 megagrams per day (250 tons per day) of municipal solid waste for which: 1) Construction is commenced after December 20, 1989, and on or before September 20, 1994; and (2) Modification or reconstruction is commenced after December 20, 1989, and on or before June 19, 1996.

None of the three combustor units was constructed during the affected time frame, therefore none are subject to this subpart. §60.50a(f) provides that physical or operational changes made to an existing municipal waste combustor unit primarily for the purpose of complying with emission guidelines under Subpart Cb are not considered a modification or reconstruction and do not result in an existing municipal waste combustor unit becoming subject to this subpart. Therefore, the emissions controls installed on the three combustors did not subject them to this subpart. Additionally, no modification occurred during the listed timeframes.

Subpart Eb, Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994, or for Which Modification or Reconstruction is Commenced After June 19, 1996, affects each municipal waste combustor unit with a combustion capacity greater than 250 tons per day of municipal solid waste for which construction is commenced after September 20, 1994, or for which modification or reconstruction is commenced after June 19, 1996.

None of the combustor units were constructed during the affected time frame, therefore none is subject to this subpart. §60.50b(d) provides that physical or operational changes made to an existing municipal waste combustor unit primarily for the purpose of complying with emission guidelines under Subpart Cb are not considered a modification or reconstruction and do not result in an existing municipal waste combustor unit becoming subject to this subpart. Therefore, the emissions controls installed on the three combustors did not subject them to this subpart. However, as noted previously, Subpart Cb and OAC 252:100-17, incorporate emission standards, reporting and recordkeeping requirements, and definitions from Subpart Eb.

Based on the definition of “modification” in Subpart Eb (§ 60.51b), the proposed project to combust regulated medical waste in the MWC units at the Facility is not a “modification” with respect to the NSPS as no physical changes to the MWC units are necessary to implement the project and no increase in hourly emissions will occur because of the proposed operation. Operation of the proposed automated feed system (“AFS”) for the delivery of regulated medical waste does not affect how the waste is charged to the units. Therefore, the MWC units are not subject to NSPS Subpart Eb.

Subpart Ec, Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996, affects each individual hospital/medical/infectious waste incinerator (HMIWI) for which construction is commenced after June 20, 1996, or for which modification is commenced after March 16, 1998. *Hospital/medical/infectious waste incinerator* or *HMIWI* or *HMIWI unit* means any device that combusts any amount of hospital waste and/or medical/infectious waste. Per §60.50c(e), any combustor which meets the applicability requirements under subpart Cb, Ea, or Eb (standards or guidelines for certain municipal waste combustors) is not subject to this subpart. Therefore, this facility is not subject to this subpart since it's subject to the emission guidelines implementing Subpart Cb.

Subpart AAAA, Standards of Performance for Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999, or for Which Modification or Reconstruction is Commenced After June 6, 2001, affects new municipal waste combustion units having the capacity to combust at least 35 tons per day but no more than 250 tons per day of municipal solid waste or refuse-derived fuel. The combustor units at this facility do not meet the construction date or capacity criteria.

Subpart BBBB, Emission Guidelines and Compliance Times for Small Municipal Waste Combustion Units Constructed on or Before August 30, 1999, establishes emission guidelines and compliance schedules for the control of emissions from existing small municipal waste combustion units. Based on the applicability criteria of Subpart AAAA, a small municipal waste combustion unit would be a waste combustion unit having the capacity to combust at least 35 tons per day but no more than 250 tons per day of municipal solid waste or refuse-derived fuel. The combustor units at this facility are considered to be large municipal waste combustion units.

Subpart CCCC, Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999, or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001, establishes new source performance standards for commercial and industrial solid waste incineration (CISWI) units. *Commercial and industrial solid waste incineration (CISWI) unit* means any combustion device that combusts commercial and industrial waste, as defined in this subpart. *Commercial and industrial waste* means solid waste combusted in an enclosed device using controlled flame combustion without energy recovery that is a distinct operating unit of any commercial or industrial facility (including field-erected, modular, and custom built incineration units operating with starved or excess air), or solid waste combusted in an air curtain incinerator without energy recovery that is a distinct operating unit of any commercial or industrial facility.

The combustor units at this facility do not meet the construction date or operational criteria.

Subpart DDDD, Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units that Commenced Construction On or Before November 30, 1999, establishes emission guidelines and compliance schedules for the control of emissions from commercial and industrial solid waste incineration (CISWI) units. *"Commercial and industrial solid waste incineration (CISWI) unit"* and "*Commercial and industrial waste"* have the same meanings as in Subpart CCCC.

The combustor units at this facility do not meet the operational criteria.

NESHAP, 40 CFR Part 61 [Not Applicable]
Subpart C, National Emission Standard for Beryllium, is applicable to extraction plants, ceramic plants, foundries, incinerators, and propellant plants which process beryllium ore, beryllium, beryllium oxide, beryllium alloys, or beryllium-containing waste; and machine shops which process beryllium, beryllium oxides, or any alloy when such alloy contains more than 5 percent beryllium by weight.
Based on a U.S. EPA memorandum to the Florida DEP, dated April 6, 2000, an incinerator or a MWC would not be subject to Subpart C unless the unit combusted beryllium-containing wastes as defined in 40 CFR Part 61, Subpart C. As defined in Subpart C, beryllium-containing waste means *"material contaminated with beryllium and/or beryllium compounds used or generated during any process or operation performed by a source subject to this subpart*." EPA's memorandum clarified that *"beryllium containing waste does not include materials such as scrap metals and calculators which may be burned at municipal waste incinerators* [combustors]*."*

The applicant stated that the Tulsa facility does not knowingly accept beryllium-containing waste that would trigger the applicability of 40 CFR Part 61, Subpart C, that this standard therefore does not apply, and that the facility can therefore accept refuse (using the U.S. EPA's examples of scrap metals and calculators) that may contain beryllium without triggering 40 CFR Part 61, Subpart C. To ensure that this is the case, specific conditions in the permit will prohibit the combustion of wastes from sources affected by Subpart C.

Subpart E, National Emission Standard for Mercury, affects stationary sources which process mercury ore to recover mercury, use mercury chlor-alkali cells to produce chlorine gas and alkali metal hydroxide, and incinerate or dry wastewater treatment plant sludge.
The facility will not perform any of the listed processes or incinerate or dry wastewater treatment plant sludge.

NESHAP, 40 CFR Part 63 [Not Applicable]
Subpart Q, National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers, affects all new and existing industrial process cooling towers that are operated with chromium-based water treatment chemicals on or after September 8, 1994, and are either major sources or are integral parts of facilities that are major sources as defined in §63.401.

The cooling tower at this facility is not operated with chromium-based water treatment chemicals, therefore, this facility is not subject to this subpart.

Subpart EEE, National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors, applies to all hazardous waste combustors: hazardous waste incinerators, hazardous waste burning cement kilns, and hazardous waste burning lightweight aggregate kilns, except as provided in Table 1 of §63.1200. Hazardous waste combustors are also subject to applicable requirements under Parts 260–270 of this chapter. *Hazardous waste* is defined in §261.3 of this chapter.

The facility is not permitted to burn hazardous wastes.

Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters. On January 31, 2013, the EPA took final action on its reconsideration of certain issues in the emission standards for the control of HAP from industrial, commercial, and institutional boilers and process heaters at major sources of HAP. The compliance dates for the rule are January 31, 2016, for existing sources and, January 31, 2013, or upon startup, whichever is later, for new sources.

This facility is major source of HAPs. §63.7491(l) exempts any boiler or process heater specifically listed as an affected source in any standard(s) established under Section 129 of the Clean Air Act from this subpart. Section 129 is applicable to Solid Waste Combustion therefore Reworld is not subject to this subpart.

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 a HAP

Controls are used to limit emissions of criteria pollutants and HAPs that would otherwise potentially exceed major source thresholds without controls. The combustors are also "large emissions units" in that NO_X emissions are above major source levels with add-on controls. Additionally, certain standards for pollutants having federal and state standards would likely be exceeded without controls. However, per §64.2(b)(i), this part exempts emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to Section 111 or 112 of the Act. This facility is subject to NSPS Subpart Cb that was promulgated after 1990. Even though Emissions Guidelines are not federally enforceable, Section 129(b)(2) of the Act provides for states to submit to EPA for approval, plans that implement and enforce the Emissions Guidelines. These guidelines are implemented as standards through OAC 252:100-17. The following table lists pollutants that are controlled and have potential emissions over major source thresholds prior to control.

Pollutants	Type of Control	Potential Emissions (TPY)	Subject to Emission Limits of NSPS Subpart Cb?
PM	Fabric Filter	>100	Yes
SO_2	Spray Dryer	>100	Yes
NOx	SNCR	>100	Yes
HCL	Spray Dryer	>10	Yes

Thus, this facility is exempt from this part.

Chemical Accident Prevention Provisions, 40 CFR Part 68 [Not Applicable]
This facility will not process or store more than the threshold quantity of any regulated substance (Section 112r of the Clean Air Act 1990 Amendments). The applicant has installed an ammonia tank, however, the solution is maintained at a concentration of 19% or less. Thus, the threshold for ammonia solutions will not be triggered. More information on this federal program is available on the web page: *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. This facility does not utilize any Class I & II substances.
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 Condition XX.C of the permit addresses 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.

SECTION IX. OKLAHOMA AIR POLLUTION CONTROL 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. 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, Emission 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 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

Emission limitations and operational requirements necessary to assure compliance with all applicable requirements for all sources are taken from the operating permit application, or developed from the applicable requirement.

Section 8-4 requires a construction permit prior to the following:

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

The requested modification is not considered construction of a new major source or reconstruction of a new major source of HAP. The requested modification would not be a significant modification under OAC 252:100-8-7.2(b)(2) as indicated in Section XII. The requested modification will not increase the PTE of any one regulated air pollutant by more than 10 TPY, as indicated in Section VII. Based on these determinations, the requested modification does not require a construction permit.

OAC 252:100-9 (Excess Emissions 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) [Part 5 Applicable]
Part 1 contains general provisions.
Part 4 applies to any new or existing biomedical waste incinerator that is not subject to the requirements of Part 7 of this subchapter or is exempted from the requirements of Subpart Ec of 40 CFR Part 60. This facility is not a biomedical waste incinerator for the purposes of this Part, as it is a municipal waste combustor subject to Part 5 of OAC 252:100-17.
Part 5 applies to large municipal waste combustor units with a design capacity greater than 250 tons per day of municipal solid waste. These rules are part of Oklahoma's approved 111(d)/129 plan, to achieve compliance with the emission guidelines in Subpart Cb of 40 CFR Part 60 and are federally enforceable. The specific conditions of this permit contain the compliance requirements for this subchapter.
Part 7 applies to each individual hospital/medical/infectious waste incinerator (HMIWI) for which construction commenced on or before June 20th, 1996. Incineration units that are regulated under Part 5 of this Subchapter are exempt from the requirements of this part.
Part 9 applies to each individual commercial and industrial solid waste incineration unit for which construction was commenced on or before November 30, 1999. Incineration units that are regulated under Part 5 of this Subchapter are exempt from requirements of this part.

OAC 252:100-19 (Particulate Matter (PM)) [Applicable]
Section 19-4 limits particulate emissions from new and existing fuel-burning equipment. Appendix C lists the allowable rates of emissions for indirectly fired fuel-burning units. All indirectly fired fuel-burning equipment at the facility is rated at less than 10 MMBTUH and will achieve compliance with the Appendix C limit of 0.60 lbs/MMBtu by the use of natural gas, i.e., having emissions of about 0.0076 lb/MMBtu.
Section 19-12 limits particulate emissions from new and existing directly fired fuel-burning units and emission points in an industrial process. The emission of particulate matter from any new or existing directly fired fuel-burning unit or from any emission point in an industrial process shall not exceed the limits specified in Appendix G.

Emission Unit	Throughput	Allowable PM Emissions	Estimated/Permitted PM Emissions
	TPH	lb/hr	lb/hr
Emission Units with Process Weight Rate > 60 TPH			
Each Combustor Unit	16	34.61	17.1

Emission Unit	Throughput	Allowable PM Emissions	Estimated/Permitted PM Emissions
	TPH	lb/hr	lb/hr
Emission Units with Process Weight Rate < 60 TPH			
Cooling Tower	7	14.92	0.76
Ash Handling	47	43.98	5.63

OAC 252:100-25 (Visible Emissions and Particulates) [Not Applicable]
No discharge of greater than 20% opacity is allowed except for short-term occurrences that 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. The combustors and ash conveying equipment are not subject to Subchapter 25 since they are subject to an opacity limitation of NSPS Subpart Eb, as incorporated by reference by Subpart Cb and OAC 252:100-2.

OAC 252:100-29 (Fugitive Dust) [Applicable]
No person shall cause or permit the discharge of any visible fugitive dust emissions beyond the property line on which the emissions originated 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 to interfere with the maintenance of air quality standards. Specific permit conditions requiring precautionary measures to prevent fugitive dust emissions will help ensure compliance with this requirement.

As discussed in the memorandum, the refuse pit and tipping hall are maintained at a slightly negative pressure as a result of drawing combustion air from the building. This design feature provides effective odor and dust control for these areas.

OAC 252:100-31 (Sulfur Compounds) [Applicable]
Part 5 limits sulfur dioxide emissions from new equipment (constructed after July 1, 1972). The limit for new solid fuel burning equipment is 1.2 lb/MMBtu heat input, maximum three-hour average. Each combustor is rated at 140.6 MMBtu/hr. Stack testing performed in June 2017, yielded an average emission rate from Unit 1 of 0.137 lb/hr; Unit 2 – 0.011 lb/hr; and testing done in August 2017, Unit 3 - 0.06 lb/hr which are all in compliance.

OAC 252:100-33 (Nitrogen Oxides) [Not Applicable]
This subchapter applies to new fuel-burning equipment that has a rated heat input of 50 million Btu/hr or greater and burns solid fossil, gas, or liquid fuel. The three combustor units are each rated at 140.6 MMBTUH and burn MSW as the primary fuel, natural gas for startup and combustion control. MSW does not meet the definition of fossil fuel.

OAC 252:100-35 (Carbon Monoxide) [Not Applicable]
None of the following affected processes are located at this facility: gray iron cupola, blast furnace, basic oxygen furnace, petroleum catalytic cracking unit, or petroleum catalytic reforming unit.

OAC 252:100-37 (Volatile Organic Compounds) [Applicable]
Part 3 requires storage tanks constructed after December 28, 1974, with a capacity of 400 gallons or more and storing a VOC with a vapor pressure greater than 1.5 psia to be equipped with a permanent

submerged fill pipe or with an organic vapor recovery system. Hydrocarbon liquid storage consists of a 1,000-gallon diesel tank and a 1,000-gallon propane tank.
Section 37-4 exempts VOCs with vapor pressures less than 1.5 psia from the requirements of this Part. Diesel has a vapor pressure less than 1.5 psia. Therefore, this tank is exempt from Part 3 of the rule. There is one 1,000-gallon propane tank that is a self-contained pressure vessel, exceeding the requirement for submerged fill pipe.
Part 5 limits the VOC content of coating 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 cleaned, operated, and maintained to minimize emissions of VOC. Based on manufacturer's data and good engineering practice, the equipment must not be overloaded and temperature and available air must be sufficient to provide essentially complete combustion. The combustor units are operated using good combustion practices to minimize VOCs and particulate. Add-on controls remove additional VOCs, including dioxins/furans.

OAC 252:100-39 (VOC in Nonattainment and Former Nonattainment Areas) [Applicable]
This subchapter imposes additional conditions beyond those of Subchapter 37 on emissions of organic materials from new and existing facilities in Tulsa and Oklahoma Counties. § 39-4 exempts VOCs with vapor pressures less than 1.5 pounds per square inch absolute (psia) under actual storage conditions from §§ 39-16 through 18, 30, 41, and 48.
Diesel has a vapor pressure less than 1.5 psia. Therefore, this tank is exempt from the rule. The 1,000-gallon propane tank is a self-contained pressure vessel, exceeding the requirement for submerged fill pipe. The two 5-gallon tanks are below the 400-gallon capacity threshold and are not regulated.

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 anywhere in the state, 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.

Each emission unit needs to be evaluated for periodic testing in accordance with the Periodic Testing Standardization guidance issued December 1, 2011, on a pollutant by pollutant basis. The frequency of the periodic testing requirement is based on the quantity of the pollutant permitted. Periodic testing requirements are not required for an emission unit that is subject to an applicable requirement that already requires periodic testing, continuous emission monitoring (CEM), or predictive emission monitoring (PEMS). The three combustors at this facility are subject to NSPS Subpart Cb that already requires periodic testing or CEM, thus are not subject to this subchapter.

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

OAC 252:100-7	Permits for Minor Facilities	Not in source category
OAC 252:100-11	Alternative Reduction	Not requested
OAC 252:100-23	Cotton Gins	Not in source category
OAC 252:100-24	Grain, Feed or Seed Operations	Not in source category
OAC 252:100-47	Landfills	Not in source category

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	6/15/2020	Off-site evaluation due to Covid-19. This inspection covered a period from July 2018 through March 2020. A couple of violations related to excess emission reporting were identified and resolved. No further action was recommended.
Full Inspection	9/27/2023	This inspection covers the period of April 1, 2020 through June 30, 2023. Compliance issues related to excess emission reporting and performance testing report submittal were identified. This resulted in Enforcement Case #12610 which was closed on 5/28/2024.

SECTION XI. TIER CLASSIFICATION, PUBLIC AND EPA REVIEW

Tier Classification

This application has been classified as **Tier II** based on the request for renewal of a Part 70 source operating permit.

The applicant has submitted an affidavit that they are not seeking a permit for land use or for any operation upon land owned by others without their knowledge. The affidavit certifies that the applicant owns the land.

Public Review

The applicant published the "Notice of Filing a Tier II Application" in *Tulsa World*, a daily newspaper published in the City of Tulsa, Tulsa County, Oklahoma, on September 30, 2024, for a 30-day public review. The notices stated that the application can be reviewed at the Tulsa City Cunty Central Library, 400 Civic Center, Tulsa, OK 74103 or at the Air Quality Division's main office.

The applicant will also publish the "Notice of Tier II Draft Permit" as a legal notice in the same newspaper. The notice will state that the draft permit can be reviewed for a 30-day public review period at a location in the county where the facility is located or at the Air Quality Division's main office in Oklahoma City. 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.

State Review

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

Tribal Review

Tribal Nations will be notified of the draft permit.

EPA Review

The permit has been approved for concurrent public and EPA review periods. The draft/proposed permit will be sent to EPA for a 45-day review period. If no comments are received from the public, then the draft/proposed permit will be deemed the proposed permit.

Public Petition

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(j) 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(j), 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(j), 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.

The applicant has submitted an affidavit that they are not seeking a permit for land use or for any operation upon land owned by others without their knowledge. The affidavit certifies that the applicant owns the property.

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

Fee Paid

Title V renewal permit application fee of $7,500.

SECTION XII. SUMMARY

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

PERMIT TO OPERATE
AIR POLLUTION CONTROL FACILITY
SPECIFIC CONDITIONS

Reworld Tulsa LLC **Permit No. 2024-0607-TVR2**

The permittee is authorized to operate in conformity with the specifications submitted to Air Quality on April 13, 2023, and supplemental information submitted on June 22, 2024. The Evaluation Memorandum dated May 6, 2025, explains the derivation of applicable permit requirements and the estimate of emissions; however, it does not contain operating limits or permit requirements. Continuing operation under this permit constitutes acceptance of, and consent to, the conditions herein.

1. Point of emission and limitations.

EUG No. 1: MWC Units 1, 2, and 3

Name	Construction Date	Operation Date	Capacity
Unit 1	Commenced 05/84	Commenced 10/86	375 TPD
Unit 2	Commenced 05/84	Commenced 10/86	375 TPD
Unit 3	Commenced 03/86	Commenced 10/87	375 TPD

A. MWC Units 1, 2, and 3 are each subject to the following limitations:
[OAC 252:100-17-16 – 100-17-22] [40 CFR §60.33b]

Pollutant or Parameter	Emission or Operating Limitation	Compliance Demonstration Method	Emission Limits Converted from NSPS Standards (All 3 Units) TPY
Particulate Matter (PM)	25 mg/dscm @ 7% O_2	Annual Method 5 test	41.39
Opacity	10%, 6-min. avg.	Annual Method 9 test, COMS	N/A
Cadmium (Cd)	35 µg/dscm @ 7% O_2	Annual Method 29 test	N/A
Lead (Pb)	400 µg/dscm @ 7% O_2	Annual Method 29 test	0.66
Mercury (Hg)	50 µg/dscm @ 7% O_2 or 85% reduction	Annual Method 29 test and carbon feed monitoring	0.079
Sulfur Dioxide (SO_2)	29 ppmvd @ 7% O_2 or 75% reduction, 24-hr daily geometric mean	CEMS	127.98

Pollutant or Parameter	Emission or Operating Limitation	Compliance Demonstration Method	Emission Limits Converted from NSPS Standards (All 3 Units) TPY
Hydrogen Chloride (HCl)	29 ppmvd @ 7% O_2 or 95% reduction	Annual Method 26/26A test	73.19
Dioxins/Furans	30 ng/dscm @ 7% O_2	Annual Method 23 test and carbon feed monitoring	4.96E-05
Nitrogen Oxides (NO_x)	205 ppmvd @ 7% O_2, 24-hr avg.	CEMS	648.20
Carbon Monoxide (CO)	100 ppmvd @ 7% O_2, 4-hr avg.	CEMS	193.02
Steam Load	Not to exceed 110 percent of the maximum demonstrated municipal waste combustor unit load as defined in §60.51b	Load level monitoring	N/A
Inlet Temperature	Not to exceed 17 °C above the maximum demonstrated particulate matter control device temperature as defined in §60.51b.	Inlet temperature monitoring	N/A
Carbon Feed	The carbon mass feed rate shall equal or exceed the level(s) documented during the dioxins/furans and mercury performance tests, averaged over a block 8-hour period, per §60.58b(m)(2).	Carbon feed monitoring	N/A

B. MWC Units 1, 2, and 3 are each subject to the following hourly emission limitations and compliance demonstration methods.

[Permits No. PSD-OK-556M-3, 84-023T-O (M-2), and 86-002T-O (M-2)]

Pollutant	Emission Limitation for each Unit	Compliance Demonstration Method
Particulate matter	17.1 pounds per hour. 0.06 grains/dscf @ 12% CO_2	Annual Method 5 & 202
VOC	2.3 pounds per hour	Biennial (i.e., every other year) Method 18.
Beryllium	2.565 x 10^{-6} pounds per hour	Biennial (i.e., every other year) Method 29
Fluorides	1.65 pounds per hour	Biennial (i.e., every other year) Method 13A or 13B.
Sulfuric Acid	9.0 pounds per hour	Biennial (i.e., every other year) Method 8.

C. The permittee shall comply with the standards for MWC operator training and certification requirements outlined below. [OAC 252:100-17-24]

i. Certification requirements per OAC 252:100-17-24(a) and (b).

ii. Requirement to have a certified person on duty per OAC 252:100-17-24(c).

iii. Personnel training requirements per OAC 252:100-17-24(d), (e), and (f).

iv. Operating manual development, training, and accessibility requirements per OAC 252:100-17-24(g), (h), and (i).

D. The standards under Specific Condition (S.C.) 1.A apply at all times except during periods of warm-up, startup, shutdown, and malfunction. Duration of startup, shutdown, or malfunction periods is limited to 3 hours (180 minutes) per occurrence, except as provided in S.C. 1.D.ii. During periods of startup, shutdown, or malfunction, monitoring data shall be dismissed or excluded from compliance calculations, but shall be recorded and reported in accordance with the provisions of 40 CFR §60.59b(d)(7).

[OAC 252:100-17-25] [40 CFR §60.58b(a)(1)]

i. Definitions

a) The Warm-Up Period commences when initiation of the auxiliary burner is completed by an operator, the boiler is only combusting natural gas (Per 40 CFR §60.58b(a)(1)(i) and (ii)) and with a manual input by the operator into CEMS software.

1) CEMS software will begin to code the data as warm-up after operator input.

2) 1-minute data during the Warm-Up Period shall have a specific warm-up CEM code

b) The Warm-Up Period ends when the feed chute is opened and Municipal Solid Waste (MSW) is introduced to the boiler.
   1) A manual input by the operator will signal the CEMS software once the feed chute has been opened.
   2) At that time, CEM data shall be coded as Start-Up, per S.C. 1.D.i.d.1 and 1.D.i.d.2.

c) The duration of the Warm-Up Period for each boiler shall not exceed forty-eight (48) hours at a time. (Precedent is 40 CFR Part 60 Subpart DDDD for CISWI, §60.2875)
   1) If the forty-eight (48) hour Warm-Up Period is exceeded, the permittee shall report the time period in excess of the 48 hours, in the quarterly excess emission and semi-annual reports.

d) The Start-Up Period commences when the MWC unit begins the continuous burning of MSW (per 40 CFR §60.58b(a)(1)(i) and (ii)) by opening the feed chute.
   1) A manual input by the operator will signal the CEMS software once the feed chute has been opened.
   2) 1-minute data during the start-up period shall have a specific start-up CEM code.

e) The Start-Up Period ends when either S.C. 1.D.i.e.1 or 1.D.i.e.2 is reached; CEMS software shall remove the start-up code to indicate the unit is online:
   1) The steam flow is greater than or equal to 66K lb/hr for greater than 15 consecutive minutes, or
   2) The three (3) hours start-up period per occurrence has been met.

f) The Shutdown Period commences when the MWC unit terminates the continuous burning of MSW by closing the feed chute.
   1) A manual input by the operator will signal CEMS software once the feed chute has been closed.
   2) 1-minute data during the Shutdown period shall have a specific shutdown CEM code.

g) The Shutdown Period ends when either S.C. 1.D.i.g.1 or 1.D.i.g.2 is reached; CEMS software shall remove the shutdown code and code the unit as offline.
   1) The following three (3) criteria are met upon which the unit shall be coded as offline:
      (I). The feed chute is closed,
      (II). The steam flow is less than or equal to 35 klb/hr, and
      (III). The flue gas oxygen is greater than or equalt to 16%; or

2) The three (3) hour Shutdown Period per occurrence has been met.
3) Upon meeting S.C. 1.D.i.g.1.(I), (II), and (III), the auxiliary burners will be taken out of service.

ii. Per 40 CFR §60.58b(a)(1)(iii), the malfunction period is limited to 15 hours (900 minutes) for the purpose of compliance with the carbon monoxide emission limits in S.C. 1.A if a loss of boiler water level control or a loss of combustion air control (e.g., loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be the malfunction.

iii. Per 40 CFR §60.38b & 40 CFR §60.58b(b)(8), during a loss of boiler water level control or loss of combustion air control malfunction period as specified in paragraph (a)(1)(iii) of 40 CFR §60.58b, a diluent cap of 14 percent for oxygen or 5 percent for carbon dioxide may be used in the emissions calculations for sulfur dioxide and nitrogen oxides.

E. Throughput of waste and fuels shall not exceed 375 TPD for each combustor unit per Specific Condition 9.D.

EUG No. 2: Ash Handling System

F. The ash handling system is subject to the following emission limitations:

i. The permittee shall not cause to be discharged to the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5 percent of the observation period (i.e., 9 minutes per 3-hour period), as determined by annual EPA Reference Method 22 observations, except as provided below.
[OAC 252:100-17-22] [40 CFR §60.55b(a)]

a) The emission limit specified in S.C. 1.F.i does not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; however, the emission limit does cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems.
[OAC 252:100-17-22] [40 CFR §60.55b(b)]

b) The provisions specified in S.C. 1.F.i do not apply during maintenance and repair of ash conveying systems.
[OAC 252:100-17-22] [40 CFR §60.55b(c)]

2. Authorized fuels for MWC Units 1, 2, and 3.

A. The permittee is authorized to combust: [OAC 252:100-8-6(a)(3)(A)(ii)]

i. Municipal solid waste or municipal-type solid waste or MSW as defined in 40 CFR §60.51b.

ii. A mixture of MSW and non-MSW that contains no less than 30 percent MSW by weight (monthly). The non-MSW combusted at the facility shall not contain the unauthorized fuels of S.C. 3.

iii. RMW Processed shall not exceed 40,000 TPY (12-month rolling total).

B. The permittee shall combust only natural gas or LPG (liquefied petroleum gas) in the auxiliary burners. The auxiliary burners may be used at startup during the introduction of solid waste; at shutdowns; and, at other times when necessary and consistent with good combustion practices.

3. Unauthorized fuels for MWC Units 1, 2, and 3.

A. The non-MSW combusted at the facility shall not contain the following: [OAC 252:100-8-6(a)(3)(A)(ii)]

i. Sewage sludge,

ii. Hazardous waste as identified or listed under the regulations in 40 CFR Part 261, or

iii. Any other material that would subject the facility to a solid waste combustor standard different from the currently applicable municipal waste combustion standards.

B. The facility shall not combust any waste excluded by the "Waste Exclusion Plan" approved by ODEQ Land Protection Division.

4. Emission Control.

A. **MWC Units 1, 2, and 3.** Each unit shall be equipped with the following air pollution control devices/technologies: fabric filter system, lime injection system, carbon injection system, and selective non-catalytic reduction (SNCR) system. These air pollution control devices/technologies shall be functional and shall be maintained and operated to meet the emissions limitations under S.C. 1. Controls may be replaced only by those having equivalent or greater efficiency and meeting applicable rules and regulations.

B. **Ash Handling.** The ash handling system shall be operated to meet the emissions limitations under S.C. 1.A.

C. **Fugitive Dust.** No person shall cause or allow any fugitive dust source to be operated, or any substances to be handled, transported or stored, or any structure constructed, altered, or demolished to the extent that such operation or activity may enable fugitive dust to become airborne and result in air pollution, without taking

reasonable precautions to minimize or prevent pollution. Reasonable precautions include, but are not limited to, those actions set forth at OAC 252:100-29-3(1) through (6). [OAC 252:100-29-2]

5. The permittee is authorized to operate the facility continuously (24 hours per day, every day of the year).

6. Testing. Annual performance testing shall be conducted in accordance with the applicable NSPS including the following and 40 CFR Part 60, Subpart A. In addition to any other regulatory and permit requirements for testing, the Director, at his or her discretion and upon their written request may require testing, including stack testing for any emission unit. [OAC 252:100-43-3(a)]

MWC Units 1, 2, and 3

A. The procedures and test methods under 40 CFR 60.58b(c) shall be used to determine compliance with the emission limits for particulate matter and opacity. [OAC 252:100-17-25]

B. The procedures and test methods under 40 CFR §60.58b(d), (f), and (g) shall be used to determine compliance with the emission limits for cadmium, lead, mercury, hydrogen chloride, and dioxin/furan. [OAC 252:100-17-25]

C. During the performance tests for dioxins/furans and mercury, as applicable, permittee shall estimate an average carbon mass feed rate based on carbon injection system operating parameters such as the screw feeder speed, hopper volume, hopper refill frequency, or other parameters in accordance with 40 CFR §60.58b(m)(1). [OAC 252:100-17-25]

D. Per 40 CFR §60.58b(g)(ii) and (iii), when all performance tests over a 2-year period indicate that dioxin/furan emissions are less than or equal to 15 nanograms per dry standard cubic meter (total mass) (ng/dscm) for MWC Units 1, 2, and 3, the permittee may elect to conduct annual performance tests for one MWC unit per year. If this performance testing schedule is selected, the permittee shall follow the procedures specified in S.C. 8 for reporting the selection of this schedule. [OAC 252:100-17-19(b)]

E. The procedures for determining compliance with the emission limit for particulate matter under S.C. 1.B shall be in accordance with S.C. 6.A; however, the Method 5 test required under S.C. 6.A shall include back-half condensables, determined using Method 202. [OAC 252:100-8-6(a)(3)(A)(ii)]

F. Compliance with the pound per hour emission limit under S.C. 1.B shall include a determination of exhaust gas velocity and volumetric flow rate in accordance with EPA Reference Methods 2, 2A, 2B, 2C, 2D, 2F, 2G, or 2H, as applicable. [OAC 252:100-8-6(a)(3)(A)(ii)]

G. Ash Handling. The procedures under 40 CFR §60.58b(k) shall be used for determining compliance with the fugitive ash emission limit on an annual basis (no more than 12 calendar months following the previous performance test). [OAC 252:100-17-25]

7. Monitoring requirements for MWC Units 1, 2, and 3. Continuous emissions monitoring (CEMs) and continuous opacity monitoring (COMs) equipment shall be installed, evaluated, maintained, operated, and calibrated for measuring opacity, sulfur dioxide, nitrogen oxides, carbon monoxide, oxygen/carbon dioxide, load levels, flue gas temperature as follows. Activated carbon usage rates and daily weight rates shall also be monitored as follows. [OAC 252:100-17-21(b) & 25, 40 CFR §60.58b]

A. The permittee shall install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS) and shall follow the procedures outlined in 40 CFR §60.58b(c)(8).

B. The permittee shall install, calibrate, maintain, and operate a continuous emission monitoring system for oxygen or carbon dioxide and shall comply with the procedures outlined in 40 CFR §60.58b(b).

C. The procedures and test methods specified in 40 CFR §60.58b(e) and (h) shall be used for determining compliance with the sulfur dioxide and nitrogen oxide emission limits. [OAC 252:100-17-25] [40 CFR §60.58b(e) and (h)]

D. The procedures specified in 40 CFR §60.58b(i) be used for determining compliance with the carbon monoxide emission limit. [OAC 252:100-17-25] [40 CFR §60.58b(i)]

E. The procedures specified in 40 CFR §60.58b(i)(6) shall be used for monitoring the load level. [OAC 252:100-17-25] [40 CFR §60.58b(i)(6)]

F. The procedures specified in 40 CFR §60.58b(i)(7) shall be used to monitor the temperature of the flue gas stream at the inlet to each particulate matter control device utilized by the MWC unit. Temperature shall be calculated in 4-hour block arithmetic averages. [OAC 252:100-17-25]

G. Activated carbon injection is used to comply with the mercury or dioxins/furans emission limit under Condition 1.A (or the emission level specified under S.C. 6.D), therefore the permittee shall follow the procedures specified in S.C. for measuring and calculating carbon usage per 40 CFR §60.58b(d)(2)(xi) and (g)(7) of Subpart Eb. [OAC 252:100-17-25]

H. The permittee shall estimate the total carbon usage of the plant (kilograms or pounds) for each calendar quarter by two independent methods, according to the procedures below. [OAC 252:100-17-25] [40 CFR §60.58b(m)(3)]

i. The weight of carbon delivered to the plant. [40 CFR §60.58b(m)(3)(i)]

ii. Estimate the average carbon mass feed rate in kilograms per hour or pounds per hour for each hour of operation based on the parameters specified under S.C. 6.C and sum the results for all MWC units for the total number of hours of operation during the calendar quarter. [40 CFR §60.58b(m)(3)(ii)]

I. The permittee shall record the daily weight rate as follows. The total boiler processes weight rate value (i.e., daily weight rate) per each unit is calculated as a twelve-month rolling average and using the following methodology.
[S.C. 3 of Permits No. 86-002T-O (M-2) for Unit 3 and 84-023T-O (M-2) for Units 1 and 2.]

a) Monthly waste processed is the difference between initial and final pit inventory plus scale-house deliveries less waste rejected.

b) All process weights are in tons, and measurements are made at midnight of the last day of each month / first day of the succeeding month.

c) Daily weight rate per unit is then calculated as the previous eleven months waste processed plus current month waste processed, with the total being divided by the sum of the number of days of operation of each unit in the twelve-month period of concern.

8. Reporting.

A. **MWC Units 1, 2, and 3, and Ash Handling.** Facilities are subject to 40 CFR Part 60, Subpart Eb, §60.59b, Reporting and recordkeeping requirements, except for the provisions of subsection 60.59b(a), (b)(5), and (d)(11), and shall comply with all applicable requirements. The permittee shall submit semiannual reports including all required information, as applicable, no later than August 1 following the first calendar half, if the data for the report were collected during the first calendar half and by February 1 following the second calendar half, if the data for the report were collected during the second calendar half. All deviations from compliance with permit conditions or regulatory requirements will be clearly identified in the report.
[OAC 252:100-17-26] [40 CFR §60.59b]

B. **MWC Units 1, 2, and 3, and Ash Handling.** All reports shall be submitted as a paper copy, postmarked on or before the submittal dates specified under this condition, and maintained on site as a paper copy for a period of 5 years.
[OAC 252:100-17-26] [40 CFR §60.59b(j)]

C. **MWC Units 1, 2, and 3, and Ash Handling.** All records shall be maintained on site in either paper copy or computer-readable format, unless an alternative format is approved by the Administrator. [OAC 252:100-17-26] [40 CFR §60.59b(k)]

D. The operator of a source required to conduct an EPA Reference Method stack test by the Director shall submit a written pre-test plan for the Director's approval thirty (30) calendar days prior to the test or provide information for a pre-test plan in the event the Director elects to perform the test. [OAC 252:100-43-3(c)]

E. The owner or operator of a source required to perform an EPA Reference Method stack test shall notify the Director in writing thirty (30) calendar days prior to the planned date of the test to provide an opportunity for DEQ personnel to observe the test. [OAC 252:100-43-3(d)] [§60.8(d)]

i. AQD must be notified as required by the applicable regulation, but no less than thirty (30) days in advance of annual RATA and must be given an opportunity to observe and approve the procedure.
[Permits No. 84-023T-O(M-2) and 86-002T-O (M-2)] [§60.8(d)]

ii. The owner or operator of a source required to perform an EPA Reference Method stack test shall comply with the audit requirements of §60.8(g).
[§60.8(g)]

F. All test reports required shall be submitted to the Air Quality Division of DEQ, postmarked on or before sixty (60) days after completing the tests.
[OAC 252:100-8-6(a)(3)(A)(ii)]

9. Recordkeeping and Recording. The permittee shall maintain records of operations as required by §60.59b, except for the provisions of subsections 60.59b(a), (b)(5) and (d)(11). These records shall be maintained on-site or at a local field office for at least five (5) years after the date of recording and shall be provided to regulatory personnel upon request.
[OAC 252:100-8-6 (a)(3)(B)]

A. **MWC Units 1, 2, and 3, and Ash Handling.** Facilities are subject to 40 CFR Part 60, Subpart Eb, §60.59b, Reporting and recordkeeping requirements, except for the provisions of subsections 60.59b(a), (b)(5), and (d)(11), and shall comply with all applicable requirements. The permittee shall maintain records of the required information, as applicable, for each MWC unit and ash handling system.
[OAC 252:100-17-26] [40 CFR §60.59b(d)]

B. **MWC Units 1, 2, and 3.** The MWC unit capacity shall be calculated per 40 CFR §60.58b(j) Subpart Eb. [OAC 252:100-17-25]

C. **MWC Unit 1, 2 and 3.** The permittee shall maintain records of the total weight in tons of non-MSW combusted at all three units on a monthly and twelve-month rolling total basis. [OAC 252:100-8-6(a)(3)(A)(ii)]

D. **MWC Unit 1, 2 and 3.** The permittee shall maintain the following records of waste.

i. Initial and final pit inventory (monthly).

ii. Waste received, as scale-house deliveries (monthly).

iii. Non MSW weight percent (monthly)

iv. RMW, as scale house deliveries (monthly)

v. Rejected waste (monthly).

vi. Twelve-month rolling daily average weight rate calculation (monthly). The monthly rolling average calculation shall be completed within 30 days of the end of the preceding month.

vii. Operating days of each unit (monthly and twelve-month rolling total).

10. The following records shall be maintained on-site to verify Insignificant Activities. No recordkeeping is required for those operations which qualify as trivial activities. [OAC 252:100-8-6(a)(3)(B)]

A. For fluid storage tanks with a capacity of less than 39,894 gallons and a true vapor pressure less than 1.5 psia: Records of capacity of the tanks and contents.

B. For activities that have the potential to emit less than 5 TPY (actual) of any criteria pollutant: The type of activity and the amount of emissions from that activity (annual).

11. The permittee shall annually certify compliance with the terms and conditions of this permit. The annual certification of compliance shall be submitted no later than February 1, representing the alternative date after each calendar year anniversary of the issuance of this permit, to Air Quality Division of DEQ, with a copy to U.S. EPA, Region 6. The annual certification shall include a summary of any noncompliance with the permit or applicable regulations for the past year. [OAC 252:100-8-6(c)(5)(A), (C) & (D)]

12. The permit shield (Standard Conditions, Section VI) is extended to the following requirements that have been determined to be inapplicable to this facility at this time. [OAC 252:100-8-6(d)(2)]

OAC 252:100-7	Minor Sources	not in source category
OAC 252:100-11	Alternative Emissions Reduction	not requested
OAC 252:100-23	Cotton Gins	not in source category
OAC 252:100-24	Cotton Gins	not in source category
OAC 252:100-24	Grain, Feed or Seed Operations	not in source category
OAC 252:100-47	Municipal Solid Waste Landfills	not in source category

13. This permit supersedes all previous Air Quality operating permits which are now cancelled. [OAC 252:100-8-6(d)(1)]

MAJOR SOURCE AIR QUALITY PERMIT
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. The compliance certification shall also include such other facts as the permitting authority may require to determine the compliance status of the source.

[OAC 252:100-8-6(c)(5)(C)(i)-(v)]

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

(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.

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: [OAC 252:100-25]

(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.

(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: [40 CFR 82, Subpart A]

(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.

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.

[OAC 252:100-43-6]

PART 70 PERMIT

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

Permit No. 2024-0607-TVR2

Reworld Tulsa LLC,

having complied with the requirements of the law, is hereby granted permission to operate the Walter B. Hall Resource Recovery Facility located at 2122 S. Yukon, Tulsa, Sec. 12-T19N-R12E, Tulsa County, Oklahoma, subject to 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/PROPOSED

Division Director, Air Quality Division **Date**

Reworld Tulsa LLC
Attn: Mr. Chip Robertson
Operation & Maintenance Manager
2122 South Yukon Avenue
Tulsa, OK 74107

SUBJECT: Part 70 Operating Permit **No. 2024-0607-TVR2**
Reworld Tulsa LLC
Facility ID: 1198
2122 S. Yukon, Tulsa, Tulsa County

Dear Mr. Robertson:

Enclosed is the permit authorizing operation of the referenced facility. Please note that this permit is issued subject to the certain standards 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 form or submittal process should be referred to the Emissions Inventory Staff at 405-702-4100.

If you have any questions, please refer to the permit number above and contact the Jian Yue at Jian.Yue@deq.ok.gov or at (405) 702-4205.

Sincerely,

DRAFT/PROPOSED

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

Enclosures

Reworld Tulsa LLC
Attn: Mr. Chip Robertson
Operation & Maintenance Manager
2122 South Yukon Avenue
Tulsa, OK 74107

SUBJECT: Part 70 Operating Permit **No. 2024-0607-TVR2**
Reworld Tulsa LLC
Facility ID: 1198
2122 S. Yukon, Tulsa, Tulsa County

Dear Mr. Robertson:

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. If you have any questions, please refer to the permit number above and contact me or the permit writer at (405) 702-4205.

Sincerely,

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

Enclosures

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

APPLICANT RESPONSIBILITIES

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

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

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

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

SAMPLE NOTICES: **Version 1 on page 2.**
Version 2 on page 3.
Version 3 on page 4.

Version 3 – For initial Title V operating permit, Title V operating permit renewal, Significant Modification to a Title V operating permit, and any Title V operating permit modification incorporating requirements of a construction permit that followed Traditional NSR process

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: http://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.**

Cherokee Nation
Attn: Chuck Hoskin, Jr., Principal Chief
P.O. Box 948 Tahlequah, OK 74465

SUBJECT: Part 70 Operating Permit **No. 2024-0607-TVR2**
Reworld Tulsa LLC
Facility ID: 1198
2122 S. Yukon, Tulsa, Tulsa County

Dear Mr. Hoskin:

The Oklahoma Department of Environmental Quality (ODEQ), Air Quality Division (AQD), has received the Tier II application referenced above. A Tier II application requires the facility provide a 30-day public comment period on the draft Tier II 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, P.E.
Chief Engineer
AIR QUALITY DIVISION

Muscogee Creek Nation
Attn: David Hill, Principal Chief
P.O. Box 580
Okmulgee, OK 74447

SUBJECT: Part 70 Operating Permit **No. 2024-0607-TVR2**
Reworld Tulsa LLC
Facility ID: 1198
2122 S. Yukon, Tulsa, Tulsa County

Dear Mr. Hill:

The Oklahoma Department of Environmental Quality (ODEQ), Air Quality Division (AQD), has received the Tier II application referenced above. A Tier II application requires the facility provide a 30-day public comment period on the draft Tier II 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, P.E.
Chief Engineer
AIR QUALITY DIVISION

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
FEL	Federally Enforceable Limit(s)
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