

## Oklahoma Department of Environmental Quality Notice – Draft Permit Modification

The Oklahoma Department of Environmental Quality (DEQ) received a Tier III application for a solid waste permit modification to receive and process untreated regulated medical waste (RMW) at the Reworld Tulsa facility, 2122 S. Yukon, Tulsa, OK (legal description – located in Northerly nine hundred feet (900 feet) of the easterly one thousand eighty-five feet (1085 feet) of the NW1/4 of NE1/4 of Section 15, Township 19 North, Range 12 East, Tulsa County, Oklahoma). The application was filed by Reworld Tulsa, LLC, formerly known as Covanta, on November 12, 2023.

The DEQ has tentatively found that the application meets the requirements of Title 27A of the Oklahoma Statutes, Section 2-1-101, et seq., and rules of the DEQ, Oklahoma Administrative Code (OAC) Title 252, Chapters 4 and 515, and has prepared a draft permit modification for public review.

The draft permit modification and its conditions propose to authorize Reworld Tulsa to receive and process RMW, as defined in OAC 252:515-1-2, not to exceed 40,000 tons of RMW per year. The RMW will be mixed with municipal solid waste and/or other nonhazardous industrial waste within the feed chutes of the three existing combustion units. The RMW processing operations will be supported with the construction of the following:

Profiled Waste Processing Building – To allow the unloading and transfer of material to conveyors indoors.

Conveyors and Lifts – Conveyors and a lift will be installed to deliver the contained RMW material directly to the feed hoppers of the three combustion units.

Tipping Building Modification – Including the addition of a push wall and modifications to existing columns for access.

Refuse Building Modification – Primarily associated with connecting the roof of the Transfer building to the Refuse building's structure.

Staging & Parking Area – To allow trucks to be received and safely located away from processing areas until the facility is ready to receive the delivered material.

Additionally, in accordance with OAC 252:515-3-32, the following five variance requests were included in the application and have been tentatively approved as part of this draft permit modification:

Radiation Interlock System – OAC 252:515-23-32(c) requires automated waste processing units to have an interlock system to automatically stop upon detection of radiation. Instead, Reworld Tulsa will monitor incoming waste loads for radiation at the time that the truck enters the facility. If radiation is detected, the facility's operating procedures call for additional screening measures to be employed. If radiation is confirmed, the vehicle is not permitted to enter the processing area and will be isolated in the designated holding area for return to the customer. By conducting radiation monitoring at the incoming scales, Reworld Tulsa demonstrates that no radioactive materials are unloaded or accepted for processing.

Time and Temperature – OAC 252:515-25-51 specifies time and temperature requirements for two chamber incinerators when combusting RMW. Reworld Tulsa requested a variance

in recognition of the facility's combustion unit(s) single-chamber design. Reworld Tulsa conducted a temperature profile study demonstrating that portions of the grate temperature exceed 2,500°F. In addition, the flue gas temperatures were modeled between 1,975°F and 2,000°F with a retention time of 1.9 to 2.1 seconds. Further, destruction efficiency modeling was conducted using monochlorobenzene, a thermally stable compound, and indicated a 99.9999% destruction removal efficiency. The temperature at which the wastes are exposed and the time under which that exposure occurs demonstrates the units are capable of achieving microbial inactivation. Further, the Reworld Tulsa Title V Permit issued by DEQ's Air Quality Division contains emission limitations and monitoring and testing requirements to ensure the facility operates with good combustion practices.

Interlocks – OAC 252:515-23-53 specifies automatic loading and protective interlocks to prevent waste from entering the secondary chamber when temperatures are below 2,000°F. Reworld Tulsa's combustion units utilize a single chamber design. Reworld Tulsa will install an interlock system between the upper furnace and the RMW feed system so that if the flue gas temperature in the upper furnace falls below the minimum 1,305°F, the RMW feed system will cease operation until the flue gas temperature is above the required minimum. The 1,305°F at an elevation of 70 feet (40 feet above the grate) was correlated to a minimum temperature of 2,000°F at the grate level. The minimum flue gas temperature of 1,305°F in the upper furnace ensures a minimum temperature of 2,000°F at grate level.

Testing – OAC 252:515-23-54(a) specifies that the units be constructed with sample injection and collection ports to enable the owner/operator or DEQ to conduct periodic tests. Reworld Tulsa requested a variance from this requirement as the combustion units at Reworld Tulsa do not lend themselves to adding new sample collection points where representative samples can be safely collected during operation. Reworld Tulsa is already subject to emission monitoring under its Oklahoma DEQ Air Quality Permit. Additionally, Reworld Tulsa will conduct monthly visual inspections of the ash following processing of RMW to look for indicators of incomplete combustion.

Testing – OAC 252:515-23-54(b) requires a demonstration to be conducted prior to operation showing complete destruction of a chemical which requires 2,000°F for destruction and which is introduced under normal operating procedures. Reworld Tulsa requested a variance from this requirement. Reworld Tulsa provided destruction efficiency calculations in the application for monochlorobenzene using the Thermal Stability Ranking model, the design temperature profile, and actual operating data. The results of the model indicate 99.9999% destruction removal efficiency at a flue gas temperature of 1,974°F for a residence time of 2 seconds.

The application, draft permit modification, and related documents may be reviewed during normal business hours at the Central Records Office, Oklahoma Department of Environmental Quality located on the 2<sup>nd</sup> floor of the DEQ building at 707 North Robinson, PO Box 1677, Oklahoma City, OK 73101-1677. The DEQ contact is Hillary Young, P.E., Chief Engineer, Land Protection Division;(405) 702-5100.

Copies are also on file on DEQ's website at <https://www.deq.ok.gov/land-protection-division/permit-public-participation-process/> and locally at the Tulsa City County Library, 400

Civic Center, Tulsa, OK 74103.

Persons wishing to comment on the draft permit modification should submit their comments in writing to DEQ at the above address or electronically to DEQ at the website address above. Also, any person may request, in writing, a formal public meeting to present written or oral statements and data concerning the draft permit modification. A request for a public meeting must identify the nature of the issues to be raised in the meeting. If DEQ determines, based on the requests it receives, that there is a significant degree of public interest in the draft permit modification, it will schedule a public meeting and provide notice of the date, time, and place.

Written comments and requests for a public meeting must be received by DEQ at the DEQ address given above within 30 days after the date of this publication. More specific information may be obtained by contacting Deanne Dutton Hughes, P.E., Third Branch Engineering, PO Box 582422, Tulsa, OK 74158-2422, (918) 609.3883, or the DEQ contact listed above.