

Oklahoma Department of Environmental Quality Notice – Proposed Permit

The Oklahoma Department of Environmental Quality (DEQ) gives notice of the opportunity for interested persons to review a proposed Solid Waste permit modification prepared by DEQ and request an administrative hearing. If no request is timely made, the proposed permit will become final.

The proposed permit is based on a Tier III application filed by the Reworld Tulsa, LLC facility, to modify an existing Solid Waste permit to receive and process 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 on November 12, 2023.

The Proposed permit and its conditions will authorize Reworld Tulsa to receive and process RMW 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 containerized RMW material directly to the feed hoppers of the three combustion units,

Tipping Building Modification – Including the addition of a concrete barrier wall and modifications to existing columns to facilitate access,

Refuse Building Modification – Connecting the roof of the Transfer building to the Refuse building's structure, and

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 proposed permit modification:

Radiation Interlock System – OAC 252:515-23-32(c) requires an interlock system on automated waste processing units upon the 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 demonstrates that no radioactive materials are unloaded or accepted for processing and prevents the material from even entering the building.

Time and Temperature requirements – 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 are modeled between 1975°F and 2000°F with a residence time of 1.9 to 2.1 seconds. Further, modeling noted the 99.9999% destruction removal efficiency of monochlorobenzene, a thermally stable compound. 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 interlocks to prevent waste from entering the secondary chamber when temperatures are below 2000°F. Reworld Tulsa's combustion equipment utilizes a single chamber design; therefore, the location of the temperature requirement must be changed. 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 1305°F (determined through the temperature study and modeling), the RMW feed system will cease operation until the flue gas temperature is above the required minimum. The 1305°F at an elevation of 70 feet (40 feet above the grate) ensures a minimum temperature of 2000°F at the grate level.

Testing – OAC 252:515-23-54(a) specifies that the units be constructed with sample injection and collection ports to enable the 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 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 2000°F for destruction and which is introduced under normal operating procedures. Reworld Tulsa requested a variance from this requirement. Reworld provided destruction efficiency calculations 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 1974°F for a residence time of 2 seconds.

Background: DEQ prepared the proposed permit after it reviewed the application for compliance with the Solid Waste Management Act, Title 27A of the Oklahoma Statutes (“O.S.”)§ 2-10-101, *et seq.* and the rules of DEQ, Oklahoma Administrative Code (OAC), Title 252, Chapters 4 and 515, prepared a draft permit and reviewed public comments received on the application and draft permit.

An administrative hearing is an evidentiary individual proceeding held at DEQ’s office by an administrative law judge in accordance with the Administrative Procedures Act at Title 75 O.S. § 309 and DEQ regulations at OAC 252:4. The hearing would determine: (1) if the proposed permit should/should not be issued as final; and (2) if it is finalized, which, if any, of its conditions should be changed prior to issuance.

Who can request: A person (or a group that has 25 or more members who are Oklahoma residents) who claims to hold a demonstrable environmental interest and who alleges that the construction or operation of the proposed facility or activity would directly and adversely affect such interest.

Requesters’ rules: Each requester must participate in the hearing as a party, present testimony and evidence and cross-examine witnesses about the testimony and evidence presented by the applicant’s attorney. An individual may represent himself or be represented by an attorney.

Deadline for request: Must be received by DEQ within 20 days after the date this notice is published.

How to request: Submit a request, in writing, to the Administrative Hearing Clerk, Department of Environmental Quality, P. O. Box 1677, Oklahoma City, OK 73101-1677. All requests for individual proceedings must be in writing, contain a brief statement of the basis of the request, the name and address of each requester, and be signed by the requester or an authorized representative.

For more information on hearing procedures: See 27A of the O.S. § 2-14-304 and Oklahoma Administrative Code, Title 252, Chapter 4, Rules of Practice and Procedure of the DEQ, Subchapter 9.

9. Where proposed permit, response to comments and application may be reviewed:

1. Locally at the Tulsa City County Library, 400 Civic Center, Tulsa, OK 74103.
2. DEQ’s Central Records located on the 2nd floor of the DEQ office building at 707 North Robinson, P. O. Box 1677, Oklahoma City, OK 73101-1677.

3. On DEQ's website at <https://oklahoma.gov/deq/permits/land-permits/permit-public-participation-process.html>.

For more information on proposed permit, contact:

1. For applicant: Contact is Deanne Dutton Hughes, PE, Third Branch Engineering, PO Box 582422, Tulsa, OK 74158-2422, 918.609.3883.
2. For DEQ: Contact is Hillary Young, PE, Chief Engineer, Land Protection Division, 405.702.5100