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Barnes Johnson, Director
U.S. Environmental Protection Agency
Office of Resource Conservation and Recovery
Mail Code 5301P
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

SUBJECT: Hazardous Waste Regulatory Standards for Thermal Desorption Units

Dear Director Johnson:

Thermal desorption units (TDUs) are broadly used to treat hazardous waste and hazardous secondary materials. The application of thermal desorption technology within a recycling or reclamation process has been reviewed by Region 6 in multiple enforcement cases. The resulting allegations and consent agreements have established EPA's regulatory position that TDUs that combust all or a portion of the process gases derived from the waste materials in the TDU are performing regulated hazardous waste thermal treatment. The combustion of the process gas is not considered part of the recycling process. As such that activity is subject to RCRA permitting including the appropriate technical requirements of 40 CFR Part 63 Subpart EEE. As an urgent matter of national policy, this letter seeks clarification of EPA's position for TDUs that are used to recycle hazardous secondary materials under the "transfer-based exclusion" provision at 40 CFR 261.4(a)(24), or even as a "verified recycler" under the Definition of Solid Waste (DSW) standards published January 13, 2015 that were recently repealed, but remain in effect in some RCRA delegated States.

A TDU is a thermal treatment device that heats solid material to vaporize, remove, and separate organic constituent materials from the solids. The solids are discharged with little or no residual organic contaminants. In the embodiment that is the subject of this letter, the separated organic constituents are typically condensed and recovered as a liquid oil that has considerable value and is an effective substitute for commercial petroleum products; a legitimate recycling activity. The TDU process characteristically generates a process gas after the condensing system. When high organic content material is processed in the TDU it is quite common for the unit to be designed to combust the process gas to destroy the hazardous constituents. When the TDU is operated under a RCRA Part B permit, appropriate technical requirements from Part 264 Subparts I, J, O, AA, BB, CC, Part 270, and Part 63 Subpart EEE are all included in the Part 264 Subpart X permit for the

unit. Through the RCRA permit, comprehensive and stringent EPA standards are implemented for air emissions control and containment of the hazardous materials.

TDUs Recycling HSM at RCRA TSDF under a Part B Permit.

One application of thermal desorption technology is to commercially reclaim oil from various generators of oil bearing hazardous waste. These hazardous wastes are generated by petroleum refining, production and transportation practices, and are typically listed as either K048, K049, K050, K051, K052, K169, K170, K171, K172, F037 or F038, or may be hazardous by characteristic (i.e. "D" coded). If the hazardous waste recycled in the TDU comes exclusively from the above sources, the oil reclaimed from the TDU may be burned as a non-hazardous fuel if it meets the Used Oil Specification at 40 CFR § 279.11, as per 40 CFR §261.6(a)(3)(iv)(C). Or, the oil bearing hazardous waste may also contain constituents that are fuels themselves thereby making their recycling into a fuel a legitimate recycling activity; an application of §261.2(c)(2)(ii). The generator may consider these legitimate recycling activities to be managing hazardous secondary material (HSM) for recycling under both the January 13, 2015 DSW rulemaking, and the recent revisions to the DSW that retain those provisions. If the TDU is being operated under a RCRA permit, by those same standards the TDU would qualify either for the "transfer-based exclusion", or even as a "verified recycler" under the repealed 2015 DSW language that may still be present in an authorized State's regulations, and satisfy the generator's obligation to use such a facility for their HSM recycling. In that regard, the hazardous waste could be classified as HSM and not manifested as RCRA hazardous waste, as long as there is a recycling contract between the generator and the TDU recycler, and all other criteria of the DSW rulemaking are being met, including the filing of appropriate notifications and the performance of legitimacy reviews.

TDUs Recycling HSM at an un-Permitted Facility.

On the other hand, if the TDU were not being operated under a RCRA Part B permit it would not be appropriate for the TDU operator to offer this unpermitted hazardous waste thermal treatment (i.e. the combustion of a portion of the RCRA regulated material in the TDU) under the "transfer-based exclusion." In this case, it would appear that the TDU separation process may be legitimate recycling that could be suitable for a the "transfer-based exclusion," but that the combustion step performed on the process gas, as regulated hazardous waste thermal treatment involving destruction, does not appear to be eligible for excluded operation but rather requires a Part B permit. It seems appropriate for EPA to give specific guidance that authorized States and EPA Regional offices <u>not</u> use either the DSW HSM "transfer-based exclusion" provisions, or the verified recycler exemption, to grant approval for TDUs performing hazardous waste thermal treatment that would otherwise require a RCRA Part B permit. Please confirm this interpretation.

Again, please confirm my understanding of the above enumerated regulatory standards as they apply to the recycling of HSM in a TDU operated either under a RCRA Part B permit, or being operated as an un-permitted recycler under the DSW "transfer-based exclusion," or a delegated State issued verified recycler exemption.

Your support in clarifying these matters is most appreciated. We intend to construct and install one or more TDUs in the near future and we see this as a matter of national precedent requiring regulatory certainty on the issues discussed herein.

Please feel free to contact me by letter, email, or telephone (as provided on the letterhead) should you have and questions regarding this request for regulatory clarification.

Sincerely,

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Carl R. Palmer, P.E.
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