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By Certified U.S. Mail

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http://etc.org/media/7229/ETC-Letter-to-Cynthia-Giles-re-TDUs.pdf

July 29, 2016

Ms. Cynthia Giles, Assistant Administrator
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency (Mail Code 2201A)
1200 Pennsylvania Ave. NW
Washington, DC 20460

Re: Request For A Meeting To Discuss Inconsistent Compliance For Thermal Desorption Units That Process Hazardous Waste

Dear Ms. Giles:

The Environmental Technology Council, the trade association for the hazardous waste management industry, requests a meeting to discuss inconsistent enforcement and compliance policies being applied by different EPA regional offices to so-called Thermal Desorption Units (TDUs) that are used to thermally destroy hazardous wastes. Due to the significance of this matter, a meeting is requested at your earliest opportunity so that we can discuss measures to better insure enforcement consistency for the hazardous waste industry.

Who we are

The Environmental Technology Council (ETC) is a national trade association whose mission is "to promote the protection of public health and the environment through the adoption of environmentally sound procedures and technologies for recycling and detoxifying industrial wastes and by-products and properly managing and disposing of wastes and waste residues." *See www.etc.org*. Consistent with this mission, ETC members have a substantial interest in insuring consistency on how environmental compliance requirements are applied within our industry.

Why we've contacted you

ETC understands that the Office of Enforcement and Compliance Assurance (OECA) will address pollution problems that impact American communities through vigorous civil and criminal enforcement that targets the most serious water, air and chemical hazards. As part of this mission, OECA works to advance environmental justice by protecting communities most vulnerable to pollution. Due to the human health risks and environmental justice concerns of burning hazardous wastes in TDUs without a permit under the Resource Conservation and Recovery Act (RCRA), ETC believes that OECA should be briefed on the serious matter.

Who this matter concerns

Tradebe Treatment and Recycling, LLC ("Tradebe"), located at 4343 Kennedy Avenue, East Chicago, Indiana, owns and operates two TDUs that process significant volumes of hazardous waste. Tradebe's overall operations include hazardous waste fuel blending, lab pack depacking and bulking, tank storage and treatment, and container storage, all of which are subject to RCRA Permit USEPA ID # IND 000646943. However, the two TDUs for thermally destroying hazardous wastes are allegedly "exempted" from the company's RCRA permit. Tradebe uses the TDUs to treat an extensive list of hazardous wastes such as "paint waste, solvent soaked rags, resins, polymers, plastics, production debris, and discarded commercial chemicals" as advertised in their own sales brochure (Attachment A hereto). As EPA is aware, the term "treatment" is broadly defined in RCRA to include "any method, technique, or process" that is designed to change "the physical, chemical, or biological character or composition of any hazardous waste." The Tradebe TDUs are engaged in thermal destruction of a significant portion of the hazardous waste feed to those units in addition to desorbing some organic compounds for recovery. By statute and regulation, any "person owning or operating an existing facility … for the treatment, storage, or disposal of hazardous waste" must have a permit issued under RCRA. 40 C.F.R. § 270.1(b).

Tradebe's TDUs have a combined total maximum throughput rate of 78,000 tons of hazardous waste per year, which is comparable to a large, commercial RCRA-permitted incinerator.

Inconsistent enforcement between EPA Region 5 and other EPA regional offices

EPA Region 5 has not required Tradebe to include the TDUs within the company's current RCRA permit and has not taken any enforcement action with respect to the ongoing thermal destruction of hazardous wastes in those units. In contrast, in 2008 EPA Region 6 pursued an enforcement action against Rineco Chemical Industries in Benton, Arkansas, for thermal destruction of hazardous wastes in a TDU without a RCRA permit. The Federal district court agreed with Region 6 and ordered Rineco to obtain a RCRA permit or cease its TDU operations. *United States v. Rineco Chemical Industries, Inc.*, 2009 WL 801608 (E.D. Ark. 2009) (Attachment B). Likewise, EPA Region 6 entered into a Consent Agreement and Final Order with US Ecology Texas, Inc. and TD*X Associates L.P. to require a RCRA permit for thermal destruction of hazardous wastes in a TDU. https://yosemite.epa.gov/OA/RHC/EPAAdmin.nsf/Filings/77636784A15FA1CC85257E05001BBF43/$File/usecology2.pdf. Recently, EPA Region 6 submitted comments on a draft RCRA permit for two TDUs to be operated by Chemical Waste Management in Carlyss, Louisiana, confirming that the RCRA permit should include controls similar to a hazardous waste incinerator (Attachment C).

The positions of EPA Region 5 and EPA Region 6 with respect to RCRA permits and enforcement for TDUs that thermally destroy hazardous wastes means that human health and environmental protection depends on the region where a TDU is located, not on consistent EPA enforcement and compliance. The conflicting positions of EPA Region 5 and Region 6 also create an unlevel regulatory program for the hazardous waste industry.

Thermal destruction of hazardous waste in TDUs

There can be no doubt that the Tradebe TDUs are engaged in the thermal destruction of a significant portion of the hazardous waste feed, even if they are also engaged in some recovery of liquid organics through desorption. The fact that the TDUs are used to recover organics does not exempt the thermal destruction of hazardous wastes from RCRA requirements. Thermal destruction is demonstrated by the following:

1. A mass balance of the hazardous wastes fed to the Tradebe TDUs compared to the recovered organics, metal, and other residuals, reveals that a significant volume of waste feed is thermally disposed. The court in *U.S. v. Rineco* used this mass balance test to determine that Rineco's TDU was engaged in unregulated thermal destruction in violation of RCRA. The court used Rineco's own documentation to show that a substantial percentage of waste fed to the unit "was unaccounted for, *i.e.*, disposed of, burned, or incinerated in the treatment process". 2009 WL 801608 at 9. Per Tradebe's own advertising brochure (Attachment A), Tradebe processes 36,000 tons of hazardous waste per year in the TDUs and recovers only 7,000 tons of scrap metal and 10,200 tons of solvent. Even accounting for an estimated 10,000 tons of other residuals, primarily water and char, only 27,000 tons of hazardous waste feed can be accounted for on a mass balance basis. That means that at least 9,000 tons of hazardous waste, or 25% of the waste feed, is thermally destroyed in the TDUs per year without a RCRA permit.

2. There are no controls on the hazardous wastes that are fed to the TDUs, and the feed is not restricted to wastes with recoverable hydrocarbons. According to Tradebe, the TDUs can accept a broad range of hazardous wastes including paint waste, rags, resins, polymers, plastics, production debris, and discarded commercial chemicals. Many other types of hazardous wastes are available on-site and no permit or other restrictions apply to the waste feed. It is essential for a RCRA-regulated thermal treatment facility to restrict the composition of the feed so that emissions of hazardous chemical compounds do not exceed prescribed emission limits. A RCRA permit is required so that appropriate feed limits can be established for the TDUs. This is particularly important because, while some of these wastes may yield organics for recovery, the remaining waste materials are thermally destroyed in the TDUs' heated rotating drums, while non-condensable gases are burned in flares that are an integral part of the disposal operation.

3. There are no operating parameter limits on temperature, oxygen, or other conditions to assure that emissions are controlled. Tradebe claims that the TDUs are operated in an "anaerobic atmosphere," but there are no permit limits or other restrictions on oxygen concentration and no public monitoring reports. EPA has stated in technical papers that oxygen levels in thermal desorption units must be maintained at less than 2 percent to limit combustion *How to Evaluate Alternative Cleanup Technologies for Underground Storage Tank Sites, Chapter VI: Low-Temperature Thermal Desorption* (EPA 510-B-95-007). Only through the engineering review and comprehensive performance testing that are part of a RCRA permit can appropriate operating parameter limits (OPLs) be established for the TDUs to assure

continuing compliance with emission limits. Currently no permit limits or other regulatory controls address these parameters.

4. The fact that the TDUs produce a large volume of char demonstrates that RCRA-regulated thermal destruction is occurring. EPA asserted in the Rineco case, and the court agreed, that the fact that the Rineco TDU produced a residual char for disposal "indicates that the destruction of organic materials takes place" *U.S. v. Rineco*, 2009 WL 801608 at 9. Likewise, the Tradebe TDUs produce a substantial volume of char, which alone is conclusive evidence that thermal destruction of hazardous wastes is occurring. According to a state inspection report, Tradebe generates approximately 10 to 13 roll-offs of char from the TDUs per week depending upon operations. IDEM Inspection Report (Jan. 7, 2016), IDEM Doc. # 80205392. The char itself must be classified as a hazardous waste under EPA's derived-from rule because it is generated from the treatment and disposal of listed hazardous wastes. 40 CFR §261.3(c). Therefore, the char must meet the treatment standards in 40 CFR Part 268 applicable to the hazardous wastes that are thermally destroyed in the TDUs prior to land disposal in a RCRA-permitted landfill. Based upon information and belief, Tradebe disposes of char at landfills without meeting the treatment standards and land disposal prohibitions of RCRA.

5. The TDUs vent non-condensed hazardous waste gases to flares for combustion as an integral part of their operation, classifying the entire unit as RCRA-regulated thermal treatment. A significant portion of the gas stream from processing hazardous wastes in the TDUs is not recovered, but instead is directed as a non-condensed gas to flares where it is burned. The flares are enclosed devices that use "controlled flame combustion" to destroy organics and therefore are engaged in incineration. The Tradebe TDUs are designed to intentionally drive volatile gases off the hazardous waste and then use the flares as an integral part of the process to combust those gases which are non-condensable. That is different from other units (e.g., tanks) that use flares to control gases which are incidental and not deliberately formed as a primary element of their operation. The court in *U.S. v. Rineco* found that venting of vapor/inerts to a similar TDU constituted "burning and incineration" in violation of RCRA. 2009 WL 801608 at 9. No emission limits for hazardous air pollutants, such as dioxin/furans, hydrochloric acid, mercury and other listed toxic metals apply to the Tradebe TDUs' flare emissions. In fact, Tradebe's Title V Permit only requires that the flares achieve a destruction and removal efficiency (DRE) of 98 percent. RCRA regulations, on the other hand, require that the incineration of hazardous wastes achieve a DRE of 99.99%. 40 CFR § 264.343(a)(1). Thus, the Tradebe TDUs may emit hazardous air pollutants at an amount more than two orders of magnitude greater than regulatory standards and a RCRA permit would allow.

Based on all the foregoing, Tradebe is engaged in the RCRA-regulated thermal destruction of hazardous wastes in the TDUs, and the land disposal of residual char that is a derived-from hazardous waste, in violation of the permitting requirements, air emission standards, and regulatory conditions of RCRA.

Tradebe's TDUs do not qualify for the "recycling process" exemption

Contrary to Tradebe's customer brochures, the TDUs do not qualify for the exemption from RCRA regulations as a "recycling process" under 40 CFR § 261.6(c)(1). First, even assuming the exemption was available for the recovery of organics, the exemption cannot extend to the aspect of the TDU operation that involves the thermal destruction of hazardous wastes. Some recovery of organics does not mean that the substantial treatment and thermal destruction of hazardous wastes in the TDUs is exempt from RCRA permit requirements.

This is exactly what the court ruled in the Rineco case. The court found that the Rineco TDU did not qualify for the recycling exemption in § 261.6(c)(1) "because substantial hazardous wastes that are treated in the [unit] are destroyed by thermal treatment and not recycled in the [unit]." 2009 WL 801608 at 8. The court cited EPA's own explanation in a regulatory preamble:

> [W]e wish to clarify that materials being burned in… thermal treatment devices… are considered to be abandoned by being burned or incinerated under §261.2(a)(1)(ii), whether or not energy or material recovery also occurs…. In our view, any such burning … is waste destruction subject to regulation either under Subpart O of Part 264 or Subpart O and P of Part 265. If energy or material recovery occurs, it is ancillary to the purpose of the unit – to destroy wastes by means of thermal treatment – and so does not alter the regulatory status of the device or the activity [2009 WL 801608 at 8, quoting 48 Fed. Reg. 14472, 14484 (1983) (internal quotes omitted].

As described above, at least 25 percent of the hazardous waste feed to the Tradebe TDUs is disposed by thermal treatment, and "any such burning" is RCRA-regulated thermal treatment that does not qualify for the § 261.6(c)(1) exemption.

Second, a major part of Tradebe's business is the blending and processing of hazardous wastes into fuels for burning in cement kilns. Tradebe itself admits that the oil, char, and other residuals from the TDUs are directed into their fuel blending operations. For example, Tradebe's brochures states: "After processing [in the TDUs], a portion of the residual material can be beneficially used in energy recovery." Tradebe Brochure, Attachment D, p.2. However, EPA's regulations are clear that hazardous wastes are not subject to the recycling exemption but are regulated under RCRA permit requirements when "burned for energy recovery in boilers and industrial furnaces [BIFs]" 40 CFR §261.6(a)(2). Because Tradebe processes hazardous wastes in the TDUs and then uses the residuals to produce fuels that are "burned for energy recovery" in cement kilns, the exemption from RCRA permitting for recycling operations is not available.

This was another major holding in the Rineco case. The court carefully analyzed the regulatory language in § 261.6, finding that "recyclable materials, i.e., hazardous wastes burned for energy recovery in BIFs" are not subject to the recycling process exemption, "but instead are regulated under Subparts C through H of Part 266." 2009 WL 801608 at 6. Under Subpart H, "[o]wners and operators of facilities that store or treat hazardous waste that is burned in a boiler or industrial furnace are subject to the applicable provisions of Sections 264, 265, and 270 of this

regulation." *Id.* The Subpart H regulations provide that "[t]hese standards apply to storage and treatment by the burner as well as to storage and treatment facilities operated by intermediaries (processors, blenders, distributors, etc.) between the generator and the burner." *Id.* (emphasis added).

Just like Rineco, Tradebe is an intermediary fuel blender that treats hazardous wastes in the TDUs that are then blended and burned for energy recovery in BIFs. Therefore, the exemption set forth in §261.6(c)(1) for recycling processes is inapplicable to Tradebe.

As the court ruled in the Rineco case, a contrary ruling would mean:

> [A]ny hazardous waste treatment unit that processed an incidental amount of recovered material that is not burned for energy recovery would qualify for the recycling exemption. Such an interpretation is contrary to the regulations and RCRA's purpose to ensure the proper treatment, storage and disposal of hazardous waste so as to minimize the present and future threat to human health and the environment" 2009 WL 801608 at 8.

EPA Region 6 Determination Letter

The Rineco case resulted from an enforcement action taken by EPA Region 6. In addition, EPA Region 6 recently issued a letter of clarification on May 2, 2016, regarding the hazardous waste regulatory standards for TDUs installed at RCRA treatment, storage and disposal facilities (TSDFs) (Attachment E). This letter states in part:

> If a TDU combusts all or a portion of the vent gas, combustion of the TDU vent gas from RCRA hazardous waste or recyclable materials [40 C.F.R. §261.6(a)(l)] is considered thermal treatment that is regulated by RCRA. The material being treated (oil-bearing hazardous waste) is already a hazardous waste. Heating hazardous wastes to a gaseous state is subject to regulation under RCRA as treatment of hazardous waste, and thermal treatment after a material becomes a hazardous waste is fully regulated under RCRA. 54 Fed. Reg. 50968, 50973 (December 11, 1989). Thus, thermal treatment of the vent gas requires a RCRA permit.
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> If the vent gas is combusted in the combustion chamber of the TDU, then a permit under 40 C.F.R. Part 264, Subpart O is required, because the TDU would meet the definition of incinerator in 40 C.F.R. §260.10 (an enclosed device that uses controlled flame combustion). If, on the other hand, the vent gas is vented to and combusted in a thermal oxidizing unit (TOU), the permitting authority may be able to permit the entire unit (TDU and TOU) as a miscellaneous unit under 40 C.F.R. Part 264, Subpart X. A RCRA permit would be required even if the facility is operating as a RCRA exempt recycling activity under 40 C.F.R. §261.6(a)(3)(iv)(C). If the permitting authority decides to issue a 40 C.F.R. Part 264, Subpart X permit, the permitting authority is required to include in the

> permit requirements from 40 C.F.R. Part 264, Subparts I through O, AA, BB, and CC, 40 C.F.R. Part 270, 40 C.F.R. Part 63, Subpart EEE, and 40 C.F.R. Part 146 that are appropriate for the miscellaneous unit being permitted as required in 40 C.F.R.§264.601.

In short, the Region 6 letter clearly states that TDUs which are combusting all or a portion of the TDU vent gas are required to obtain a RCRA permit for such treatment units, and they are required to comply with the HWC MACT in addition to other standards.

Previous efforts to obtain EPA review and action

This letter is not the first attempt that we have made to prompt EPA into enacting a consistent compliance policy towards TDUs like the Tradebe units. In 2006, ETC submitted letters to the Indiana Department of Environmental Management (IDEM) and EPA Region 5 objecting to the apparent RCRA-exempt recycling status of the initial TDU at the Tradebe facility (then operated by Pollution Control Industries, Tradebe's predecessor corporation). In 2010, ETC again submitted a letter to EPA Region 5 seeking a determination on PCI's claim that the TDU was an exempt unit. During 2014, ETC learned that Tradebe was installing a second TDU and in 2015 ETC submitted adverse comments to Region 5 and IDEM on their draft air permit modification which would allow the new TDU to operate. IDEM issued a final air permit modification approval to Tradebe, ignoring ETCs comments, and Region 5 issued its decision in support of IDEMs approval. Consequently, on June 12, 2015, ETC filed a Clean Air Act petition under 40 CFR § 70.8 with Region 5, objecting to the issuance of the air permit modification to Tradebe. To date, more than a year later, EPA Region 5 has not responded to the ETC petition.

Notice of intent to file a RCRA Citizen Suit

After greater than 10 years, ETC is now running out of options to encourage Region 5 to regulate the Tradebe TDUs in a manner consistent with other hazardous waste processing TDUs (i.e., insure they are RCRA permitted and comply with the HWC MACT standards). A legal option that ETC has considered is to submit a citizen suit notice letter under RCRA, 42 U.S.C. § 6972(a), of intent to file suit against the Administrator for failure to perform her non-discretionary duties and against Tradebe for violation of the requirement to obtain a RCRA permit for treatment and disposal of hazardous wastes in its TDUs. Last year the Hoosier Environmental Council (HEC), an environmental group in Indiana, conducted the first comprehensive assessment of environmental justice in the East Chicago, Indiana, region where the Tradebe facility is located, documenting that the community has "long suffered a hugely disproportionate share of Indiana's pollution burden" *Assessment of Environmental Justice Needs In Northern Lake County Communities*, http://www.hecweb.org/wp-content/uploads/2010/04/HEC-Assessment-of-EJ-Needs-in-Northern-Lake-County-Communities-FINAL-REPORT2.pdf, at p. 6. If the Tradebe TDUs were required to obtain a RCRA permit, the East Chicago community would have an opportunity for their environmental justice concerns to be taken into account pursuant to EPA's published guidance on consideration of environmental justice in permitting.

In an attempt to avoid the need to pursue a RCRA citizen suit, ETC is now requesting a meeting with you and your senior staff as a final measure in the hopes of trying to initiate concrete actions that would bring Tradebe into the same permitting and regulatory compliance protocols that other commercial TDUs must meet.

In conclusion, I intend to follow-up with you to set up the requested meeting so that we can discuss actions that will resolve our concerns, while ensuring a consistent compliance policy by EPA with regards to hazardous waste TDUs.

Respectfully submitted,

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