# Environmental Technology Council

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**By Certified U.S. Mail**

**Electronic copy of this letter available at:**
**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.
>
> 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,

David Case
Executive Director and General Counsel
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# SOLIDS DISTILLATION SYSTEM (SD

**Attachment A**

## About SDS Technology

**TRADEBE's Solids Distillation System (SDS), is a positive step forward in sustainable waste recycling technology.**

SDS offers generators an effective and cost-efficient method for recycling organic solid waste that might otherwise be disposed of.

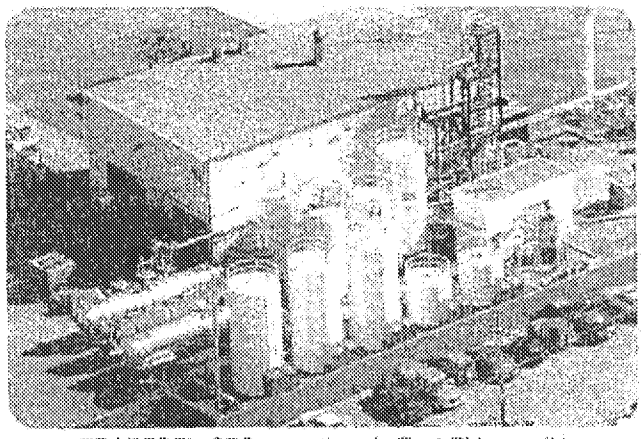
Prior to SDS technology, most organic hazardous waste solids were incinerated in a process designed to destroy the organic content by driving off volatiles and burning excess gases.

**Alternatively, SDS extracts the organics from hazardous waste solids to recover a viable product.**

SDS recycled products are used now in numerous industries throughout the US in place of virgin chemicals.

**Wastes suitable for SDS include:**
Paints, Resins, Polymers, Solvent-soaked Rags, and other Organic Debris

SDS is a multi-stage process including waste container conveyance and shredding, indirect thermal desorption, scrap metal recycling and distillation of recovered organic liquids.



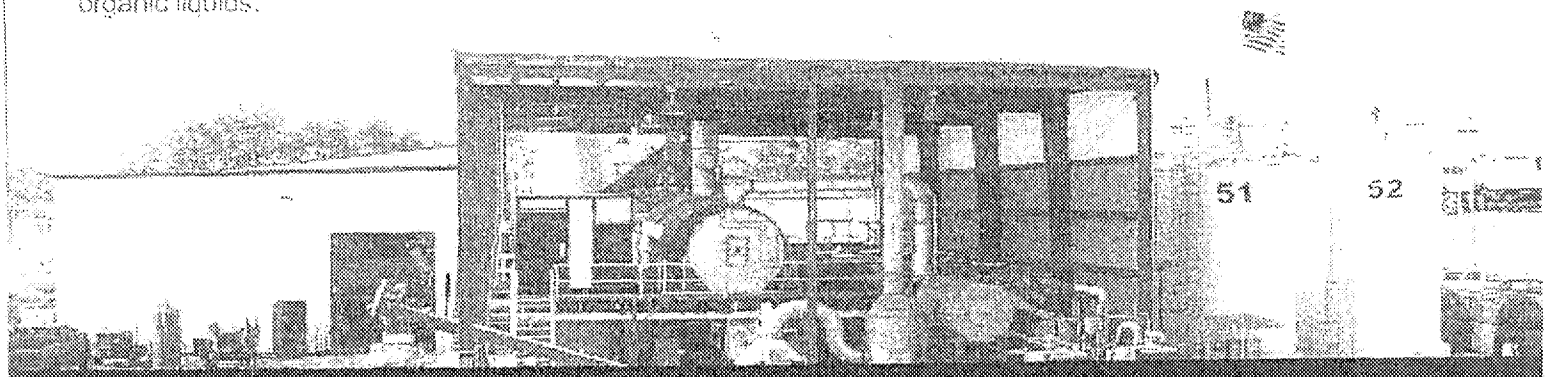
TRADEBE's SDS operations in East Chicago, IN

## SDS²

TRADEBE introduced the original SDS technology in 2004 to address the growing need for recycling of hazardous wastes.

Due to growing demands of the industrial waste market, TRADEBE designed and built a second SDS unit during 2014-2015. This additional unit is SDS²

**SDS² enhanced technology, with new safety standards, offers the same environmental benefits as the original SDS unit; with twice the capacity to produce a quality reclaimed product.**

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**Email: us.cs@tradebe.com Web: www.tradebeusa.com**

TRADEBE
Sustainability at Work

# SDS² - Sustainable Waste Recycling

## SDS² Benefits

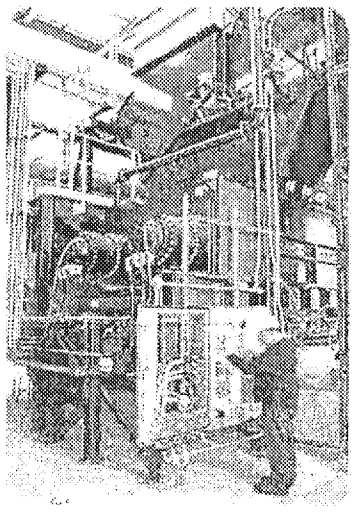
***True Recycling Technology***
*The hazardous waste processed through SDS is recycled - receiving the waste management handling code H020, Solvents Recovery (distillation, extraction); and may be eligible for recycling credits with state regulatory agencies.*

***Versatility***
*Waste can be received in various size containers from small cans to cubic yard boxes. Metal, plastic and fiber drums are processed with equal efficiency, eliminating costly and potentially unsafe handling and repackaging on site at generator locations.*

***Reliability***
*With the addition of the SDS² unit, the SDS total production capacity has increased from 12,000 tons per year to 36,000 tons per year.*

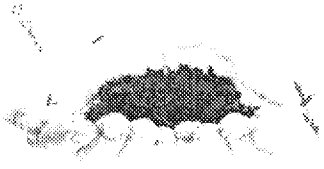
## SDS² Facts

- *SDS promotes recycling, reclamation and reuse.*
- *SDS reclaims valuable constituents found in solid hazardous waste and reduces the demand for virgin chemicals.*
- *SDS conserves energy while keeping waste out of the environment.*



## SDS Annual Stats

Scrap Metal Reclaimed : 7,000+ Tons
Solvents Recycled for Reuse : 2,750,000+ Gals
SDS Haz Waste Received & Processed : 36,000+ Tons



Scan to Watch SDS Now >

How are we doing?

**Please visit us online to take our client satisfaction survey:**
**www.tradebeusa.com/survey**

TRADEBE
Sustainability at Work

**Attachment B**

2009 WL 801608
Only the Westlaw citation is currently available.
United States District Court,
E.D. Arkansas,
Western Division.

UNITED STATES of America, Plaintiff,
v.
RINECO CHEMICAL
INDUSTRIES, INC., Defendant.

No. 4:07cv001189 SWW.
|
March 4, 2009.

West KeySummary

1 **Environmental Law**
Permits, Licenses, and Approvals

Hazardous waste facility through its activities in recycling metals that contained hazardous waste materials was not eligible for the recycling process exemption and the facility was, therefore, operating in violation of the Resource Conservation and Recovery Act ("RCRA") by its failure to obtain the required permit. The facility argued that because the material it recycled was metal and the metal was never burned for energy recovery that the regulation did not apply. However, a substantial percentage of oil and char resulting from the metal reclamation process was blended into hazardous waste derived fuel ("HWDF") and sold to boiler and industrial furnaces ("BIFs") where it was burned for energy recovery. Thus, the facility was considered an intermediary fuel blender that was subject to the permit requirements of the RCRA. Solid Waste Disposal Act, § 3005(a), 42 U.S.C.A. § 6925(a); APCEC Regulation No. 23, §§ 261.6 (a) and (c), 270.1.

Cases that cite this headnote

**Attorneys and Law Firms**

Richard Gladstein, Ronald J. Tenpas, Anita M. Scott, U.S. Department of Justice, Environmental Enforcement, Washington, DC, Terry Sykes, U.S. Environmental Protection Agency, Dallas, TX, for Plaintiff.

Heather M. Corken, Jeffrey D. Palmer, Fulbright & Jaworski, Houston, TX, Kevin A. Crass, Friday, Eldredge & Clark, LLP, Little Rock, AR, for Defendant.

*MEMORANDUM AND ORDER*

SUSAN WEBBER WRIGHT, District Judge.

*1 The United States of America brings this civil action against Rineco Chemical Industries, Inc. ("Rineco") under the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. §§ 6901 *et seq*. The United States seeks injunctive relief and civil penalties against Rineco for violations of RCRA Sections 3005(a) and 3010, 42 U.S.C. §§ 6925(a) and 6930, and Arkansas Pollution Control and Ecology Commission ("APCEC") Regulation No. 23, which incorporates federal regulations approved by the Environmental Protection Agency ("EPA") pursuant to RCRA that are part of the federally-enforceable State hazardous waste program relating to the generation, transportation, treatment, storage, handling, and disposal of hazardous waste.

Now before the Court are cross-motions of the parties for summary judgment [doc. # 's 13, 40] to which responses and replies have been filed. The Court held a hearing on these motions at the request of Rineco on September 4, 2008, and the matter is now ripe for decision. For the reasons that follow, the Court grants the United States' motion for summary judgment [doc. # 40] and denies Rineco's motion for summary judgment [doc. # 13]. [1]

I.

A.

RCRA is a comprehensive environmental statute that governs the treatment, storage, and disposal of solid waste. *Meghrig v. KFC Western, Inc.*, 516 U.S. 479, 483, 116 S.Ct. 1251, 134 L.Ed.2d 121 (1996) (citation omitted).

RCRA's primary purpose is to reduce the generation of hazardous waste and to ensure the proper treatment, storage, and disposal of that waste which is nonetheless generated " 'so as to minimize the present and future threat to human health and the environment.' " *Id.* (quoting 42 U.S.C. § 6902(b)).

RCRA's Subtitle C, 42 U.S.C. §§ 6921 *et seq.*, establishes a "cradle-to-grave" regulatory system for the treatment, storage and disposal of hazardous wastes. *Cement Kiln Recycling Coalition v. E.P.A.*, 493 F.3d 207, 211 (C.A.D.C.2007) (citations and internal quotation marks omitted). This system operates through a combination of national standards established by EPA regulations, and a permit program in which permitting authorities-either EPA or states that have hazardous waste programs authorized by EPA-apply those national standards to particular facilities. *Id.*

Permits are generally required under RCRA for any facility that engages in the treatment, storage, or disposal of hazardous waste. *United States v. Manning*, 434 F.Supp.2d 988, 998 (E.D.Wash.2006). Section 3005(a) of RCRA, 42 U.S.C. § 6925, establishes a case-by-case permitting process. *Cement Kiln Recycling Coalition*, 493 F.3d at 211-12. Section 3005(a) directs EPA to promulgate regulations requiring each person owning or operating an existing facility that engages in the treatment, storage, or disposal of hazardous waste, or planning to construct a new facility that engages in the treatment, storage, or disposal of hazardous waste to have a permit pursuant to this section. *Id.* at 212 (quoting 42 U.S.C. § 6925(a)). Pursuant to Section 3005(a), EPA promulgated regulation 40 C.F.R. § 270.1(b), which provides that "[s]ix months after the initial promulgation of the part 261 regulations [Identification and Listing of Hazardous Waste], treatment, storage, or disposal of hazardous waste by any person who has not applied for or received a RCRA permit is prohibited." *See also United States v. Heuer*, 4 F.3d 723, 730 (9th Cir.1993) ("It is fundamental that an entity which performs a hazardous waste activity for which a permit is required under RCRA may not legally perform that activity unless it has a permit for the relevant activity").

*2 As indicated previously, pursuant to RCRA subsection 3006(b), EPA may authorize a state to administer and enforce its own hazardous waste program, so long as the state program is equivalent to and consistent with EPA's program and provides adequate compliance and enforcement measures. 42 U.S.C. § 6926(b). When a state obtains such authorization, the state hazardous waste program operates "in lieu" of the federal program. *Id.*

The State of Arkansas received final authorization to enforce its hazardous waste program on January 25, 1985. 40 C.F.R. § 272.201(a) .[2] The Arkansas Department of Environmental Quality ("ADEQ") is the state agency primarily responsible for carrying out this authority in the State of Arkansas.[3] During the time Arkansas has been authorized to administer the RCRA hazardous waste program, facilities in that state have been regulated under the provisions of APCEC Regulation No. 23, which has adopted and incorporated verbatim from the federal RCRA regulations.[4]

Despite having authorized a state to act, EPA frequently files its own enforcement actions against suspected environmental violators, even after the commencement of a state-initiated enforcement action (a process known as overfiling). *Harmon Indus., Inc. v. Browner*, 191 F.3d 894, 898 (8th Cir.1999).[5] Before initiating any such action, however, RCRA requires that EPA give the authorized state prior notice. RCRA Section 3008(a)(2), 42 U.S.C. § 6928(a)(2).

B.

Rineco owns and operates a facility in Benton, Arkansas that is engaged in the generation, treatment, and storage of hazardous waste. Rineco is the largest single-site hazardous waste fuel blending facility in the United States and receives more than 400 different types of listed and characteristic solid phase and liquid phase hazardous wastes at its facility from a large number of generators of hazardous waste.[6]

Rineco applied for and obtained a permit to operate a hazardous waste management facility at its Benton facility, RCRA Permit No. 28H-M001. Located at this facility is a Thermal Metal Wash Recycling Unit ("TMW"). The TMW is protected by Rineco Patent No. 7,341,155 B2 ("Patent"), which "relates generally to waste processing, and more particularly to systems and methods

for processing heterogeneous waste materials." As noted in the Patent,

> [i]ndustry produces large amounts of waste that must be processed and disposed of by waste operators. Most of this waste is heterogeneous waste, which includes liquids and solids, which is friable and non-friable, which melts at various temperatures, has various solidification temperatures, low auto-ignition temperatures, and high vapor pressure. The waste material also includes ferrous and non-ferrous metals in a wide range of sizes. This waste is often categorized by applicable environmental regulations as "hazardous waste" because of its flammable, corrosive, or toxic nature. Thus, the disposal of such waste is heavily regulated by environmental regulations.
>
> *3 There are inefficiencies associated with currently-available processes for disposing of industrial waste. Thus, a heretofore unaddressed need exists in the industry for systems and methods of processing waste materials.

The original TMW began operation in June 2003 and ceased operation in July 2004. The current TMW commenced operation in March 2005. The operation of both the original and the new TMW are similar, the main difference being, states Rineco, that the external heat source for the original TMW was natural gas while the external heat source for the new TMW is electricity and circulating hot oil.

The operation of the TMW, which does not have a RCRA permit, is at the center of the United States' claims in this action. The United States claims the primary purpose of the TMW is to convert a chemical soup of hazardous waste streams into hazardous waste derived fuel ("HWDF") for sale to boiler and industrial furnaces ("BIFs"), an activity it claims requires a RCRA permit. Rineco, however, claims the TMW is designed to recycle metal from hazardous and non-hazardous materials, an activity it claims is exempt from regulation and does not require a RCRA permit.

Prior to constructing the TMW at its facility, Rineco inquired of ADEQ concerning the TMW's permitting requirements. By letter dated January 10, 2003, ADEQ informed Rineco that it had made a regulatory determination regarding the TMW based on the following assumptions:

- The unit's intended purpose is to recycle metal contaminated with hazardous waste and recover scrap metal from Rineco's waste stream.
- No scrap metal from this unit will be blended into Rineco's fuel or otherwise disposed. The scrap metal will be recycled.
- The waste entering the auger contains metal contaminated with hazardous waste.
- The hazardous waste/constituents leaving the process will be handled properly as hazardous waste.
- The auger used in the process does not grind the hazardous waste entering the system; the auger only moves the waste stream.
- This unit is not intended to decontaminate containers.

ADEQ stated that "[b]ased on these assumptions, the processing unit does not require a permit, at this time" but that "the hopper may be considered a storage unit requiring a permit if the waste stream remains in the hopper for any period of time." *Id.* ADEQ went on to state that "[t]his determination is based on information submitted by Rineco for this specific unit for a specific use; the exemption does not apply to a different unit or may not apply if this unit is not utilized as intended, and in accordance with the above assumptions." *Id.*

On February 21, 2003, ADEQ sent a letter to Rineco clarifying at the request of Rineco its position on "scrap metal contaminated with hazardous waste." ADEQ stated that scrap metal, in and of itself, is exempt from hazardous waste regulation. However, ADEQ also stated "when scrap metal is mixed with non-scrap metal material (*i.e.* listed or characteristic hazardous waste), the mixture would not be considered a scrap metal and the entire mixture would be subject to regulation."

*4 By letter dated July 20, 2004, ADEQ informed Rineco that it had reason to believe that the TMW was

> not being operated in a manner that conforms to a regulatory based exclusion from hazardous waste management permitting. Based on the information gathered during our investigation and observations we find that the material being processed in the unit is a mixture of hazardous waste and shredded metal.

> Therefore, the entire mixture is a hazardous waste. This unit is therefore subject to permitting as a hazardous waste management unit.
>
> This letter shall serve as notice to Rineco that the introduction of hazardous waste to the [TMW] must cease immediately. Operation of the [TMW] that does not strictly conform to the January 10, 2003 and February 21, 2003 letters must be suspended until such time as this issue is resolved.

On July 30, 2004, after meeting with Rineco, Marcus Devine ("Devine"), then-Director of ADEQ, wrote to the company stating that

> [t]his letter affirms that the regulatory interpretation provided to Rineco in ADEQ's letters dated January 10 and February 21, 2003, reflect our current position on the issue. Our position, in brief, is that the TMW does not require a Hazardous Waste Management permit provided it is operated in the manner and for the specific purpose that Rineco described in their request for confirmation of this determination. Of course, the assumptions ADEQ stated in the January 10, 2003, letter and further clarified in the February 21, 2003, letter must remain valid, otherwise ADEQ may choose to revisit its position on the regulatory status of the unit.

On January 13, 2005, ADEQ sent a letter to Rineco stating that ADEQ had been informed that the TMW had been removed and, if Rineco had constructed a new TMW, ADEQ had to be officially notified to determine the regulatory status of the new unit. On February 2, 2005, Rineco confirmed that it had revised the TMW and expected the new TMW to be in full production shortly.

On February 9, 2005, Devine wrote to Rineco indicating that he was "disturbed to learn that Rineco has not informed the [ADEQ] staff of the details of this new/revised process," and that "[t]he regulatory determination by this agency in January 2003 was strictly limited to the unit addressed by the determination letter and limited in scope based on the nature of the operation as described at the time the determination was made." ADEQ required Rineco to provide a variety of information describing the operation of the revised unit in order to make a regulatory determination.

On March 22-24, 2005, EPA conducted an inspection of the Rineco facility. The purpose of this inspection was to evaluate Rineco's systems and methods for processing waste materials and facility compliance with RCRA. On June 28, 2005, EPA conducted a followup inspection of the Rineco facility because the TMW was not operating during the first inspection. The purpose of the second inspection was to evaluate the incoming and outgoing streams from Rineco's TMW.

*5 Based on the March 22nd-24th and June 28th inspections and documentation provided by Rineco, EPA determined that the TMW is a thermal treatment device that applies heat (over 1000 degrees Fahrenheit) to vaporize hydrocarbons and water and thereby change the physical and chemical composition of the hazardous waste fed into the unit, by separating the waste into six waste streams after treatment in the unit: water, oil, char, metal, vapor, and "inerts."[7] EPA states that solid and liquid phase wastes are placed in the TMW on a moving conveyor and that materials are then heated in an oxygen-limited chamber using an external heat source to vaporize hydrocarbons and water, and reduce the cohesiveness of the solid and liquid waste material. Vapors are then condensed and cooled, states EPA, and condensed vapors are passed through the oil-water separators to recover liquid hydrocarbons; the recovered hydrocarbons, along with other liquid waste, are transferred to the hydropulper where they are mixed into HWDF. Non-condensable vapors, states EPA, are combined and vented to a thermal oxidation unit ("TOU") for destruction, while solids exit the heated chamber where the materials are cooled, and the cooled material enters a vibratory screen and magnet train that separates the metal from the char. EPA states that the metal is discharged via a conveyor to dump trucks for possible sale and that the char is transferred to the hydropulper where it is mixed, along with the liquid waste, into fuel for sale to BIFs, including cement kilns. The United States argues that the TMW, far from being designed for recycling metal, is an integral part of a fuel blending activity.

Rineco, in turn, states that the TMW is a relatively simple device designed to recycle metal from hazardous and non-hazardous materials. Rineco states that metal-containing materials are placed in the TMW on a moving conveyor and that materials are then heated in an oxygen-depleted chamber via an external heat source to break the adhesive bonds of the materials that are attached to the surface of the metal. By heating the material, states Rineco, the adhesive bonds are broken, and the material separates from the metal. Rineco states the condensable vapors are captured and sent through a series of condensers/scrubbers, which cool the vapors, remove entrained solids, and carry them back in a liquid form, while the solids are sent through a series of cooling screws, vibrating screens, and magnets to further separate the metal from other inert materials. The final product of the TMW, states Rineco, is clean metal, which is sold to third parties, and all of the other separated materials (solids, liquids, and gases) are handled in accordance with RCRA and the Clean Air Act, 42 U.S.C. §§ 7401 *et seq.* With respect to these other separated materials-or output-from the TMW, Rineco acknowledges that the oil and char wind up in cement kilns where they are burned for energy recovery.

*6 Two months after EPA's March 2005 inspection, Devine, on April 12, 2005, stated in a one-sentence letter that "I have determined that the unit at the Rineco facility known as the Thermal Metal Wash Recycling Unit does not require a hazardous waste management permit pursuant to the Arkansas Pollution Control and Ecology Commission Regulation No. 23, § 261.6(c)(1)." [8] EPA, however, states that a substantial percentage of oil and char resulting from the treatment process in the TMW is blended into HWDF and provided to BIFs where it is burned for energy recovery and that this activity requires a RCRA permit. EPA states Rineco's RCRA Permit No. 28H-M001 does not include the treatment, storage, or disposal activities connected with the TMW, and that it has asked Rineco to apply for a modification of its RCRA permit to include such activities but that Rineco has not done so. This action followed. [9]

II.

The United States asserts five claims for relief in its original complaint concerning operation of the TMW: (1) unauthorized operation of RCRA treatment unit; (2) unauthorized operation of RCRA storage unit; (3) unauthorized operation of RCRA disposal unit; (4) failure to notify of hazardous waste activity; and (5) failure to provide financial assurances. Rineco moves for summary judgment on each of those claims, its central argument being that the TMW does not require a RCRA permit as the TMW is engaged in the recycling process and, thus exempt from regulation under APCEC Regulation No. 23 § 261.6(c)(1). The United States likewise moves for summary judgment on each of the claims asserted in its original complaint, asserting that two separate grounds entitle it to summary judgment, either of which it states is sufficient for the United States to prevail: first, Rineco's hazardous waste activities are not eligible for the recycling process exemption as a matter of law because, under APCEC Regulation No. 23 § 261.6(a), as an intermediary to a BIF, Rineco is not eligible for the recycling exemption set forth in APCEC Regulation No. 23 § 261.6(c)(1); second, Rineco is not engaged in a recycling activity in the TMW and cannot qualify for the recycling exemption because when waste materials are abandoned by disposal, burning or incineration, they are not recycled. Both parties argue there are no genuine issues of material fact with respect to these issues and that each is entitled to summary judgment as a matter of law.

A.

Summary judgment is appropriate when "the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law." Fed.R.Civ.P. 56(c). As a prerequisite to summary judgment, a moving party must demonstrate "an absence of evidence to support the non-moving party's case." *Celotex Corp. v. Catrett,* 477 U.S. 317, 325, 106 S.Ct. 2548, 91 L.Ed.2d 265 (1986). Once the moving party has properly supported its motion for summary judgment, the nonmoving party must "do more than simply show there is some metaphysical doubt as to the material facts." *Matsushita Elec. Indus. Co. v. Zenith Radio,* 475 U.S. 574, 586, 106 S.Ct. 1348, 89 L.Ed.2d 538 (1986). The nonmoving party may not rest on mere allegations or denials of his pleading, but must "come forward with 'specific facts showing that there is a *genuine issue for trial.*' " *Id.* at 587 (quoting Fed.R.Civ.P. 56(e) and adding emphasis). *See also Anderson v. Liberty Lobby, Inc.,* 477 U.S. 242, 256, 106 S.Ct. 2505, 91 L.Ed.2d 202

(1986). The inferences to be drawn from the underlying facts must be viewed in the light most favorable to the party opposing the motion. *Matsushita*, 475 U.S. at 587 (citations omitted). However, "[w]here the record taken as a whole could not lead a rational trier of fact to find for the nonmoving party, there is no 'genuine issue for trial.' " *Id.* (citation omitted). "Only disputes over facts that might affect the outcome of the suit under the governing law will properly preclude the entry of summary judgment." *Anderson*, 477 U.S. at 248. "Factual disputes that are irrelevant or unnecessary will not be counted." *Id.*

B.

1.

*7 Addressing first the United States' claim of unauthorized operation of RCRA treatment unit, the United States alleges that since 2003 Rineco has been an owner or operator of a unit for the treatment of hazardous waste, without a required permit, in violation of section 3005(a) of RCRA, 42 U.S.C. § 6925(a), and APCEC Regulation No. 23 §§ 270.1, 270.10. Rineco, in turn, argues that as a matter of law, Rineco's TMW is exempt from regulation under APCEC Regulation No. 23 § 261.6(c)(1) and thus operation of the TMW does not require a RCRA permit.

a.

The Court has carefully considered the matter and agrees with the United States that Rineco's hazardous waste activities are not eligible for the recycling process exemption as a matter of law because, under APCEC Regulation No. 23 § 261.6(a), [10] as an intermediary to a BIF, Rineco is not eligible for the recycling exemption set forth in APCEC Regulation No. 23 § 261.6(c)(1). [11] Under § 261.6(a)(2)(ii), recyclable materials, *i.e.* hazardous wastes burned for energy recovery in BIFs, are not subject to the requirements for generators, transporters, and storage facilities listed in §§ 261.6(b) and 261.6(c), but instead are regulated under Subparts C through H of Part 266. Under Subpart H of Part 266, "[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." APCEC Regulation No. 23 § 266.101(c)(1). 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.* Rineco is an intermediary fuel blender that treats hazardous wastes in the TMW that are sold to and burned for energy recovery in BIFs, including cement kilns, which are regulated under Part 266, Subpart H. Thus, the exemption set forth in § 261.6(c)(1) is inapplicable to Rineco.

Rineco concedes that recyclable materials subject to APCEC Regulation No. 23 § 261.6(a) do not qualify for the recycling exemption but argues that § 261.6(a) does not apply in the instant case because Rineco only recycles metal in the TMW. While Rineco admits that a substantial percentage of oil and char resulting from the treatment process in the TMW is blended into HWDF and sent to BIFs where it is burned for energy recovery, Rineco contends that only the percentage of metal resulting from the treatment process should be counted as recyclable materials in assessing whether § 261 .6(a) applies and that focusing on the other materials exiting the TMW that are sent for use as fuel is a "red herring." In support of this argument, Rineco relies on a passage in EPA's Office of Solid Waste and Emergency Response Memorandum 9521.1994(01), entitled "Regulation of Fuel Blending and Related Treatment and Storage Activities" (the "Guidance"), which provides as follows:

> *8 There may be some recycling operations at a fuel blending facility that are exempt from permitting, even though the fuel blending process itself is not exempt. The exemption is only available to units that are solely engaged in permit-exempt recycling; if the reclaimed materials are sometimes sent for use as a fuel, then the recycling unit would be subject to the permitting standards.

Rineco, states that "[a]s the [G]uidance explains, if the reclaimed materials are themselves sometimes sent for use as a fuel, then the recycling unit would be subject to permitting standards (*i.e.* the unit would not "solely" be engaged in recycling activities)." In contrast, states

Rineco, "if the reclaimed materials are *never* sent for use as a fuel, like the reclaimed metal in this case, the recycling unit exemption would apply." Rineco states that because the material recycled in the TMW is metal, and metal recycled in the TMW is never burned for energy recovery, § 261.6(a)(2)(ii) does not apply to metal recycling in the TMW. Consequently, states Rineco, the materials placed into the TMW are subject to the general requirements of APCEC Regulation No. 23 § 261.6, including the recycling unit exemption in § 261.6(c)(1), and the TMW would be exempt from regulation under RCRA.

The Court rejects Rineco's assertion that the word "solely" in the Guidance exclusively refers to the ultimate use of the recycled material and that the focus should be exclusively on the percentage of metal generated from the TMW while ignoring all other outputs from the treatment process. Clearly, metal is not the only material recycled in the TMW, and APCEC Regulation No. 23 § 261.6(a)(2) specifically provides that recyclable materials, *i.e.* hazardous wastes burned for energy recovery in BIFs, are not subject to this section. Rineco points to the word "reclaimed" in the Guidance, but in the preamble to the hazardous waste regulations EPA explained that although "commercial products reclaimed from hazardous wastes are products, not wastes, and so are not subject to the RCRA Subtitle C regulations," waste-derived fuel resulting from the reclamation process continues to be governed by RCRA:

> We caution, though, as we did in the proposal, that this principle does not apply to reclaimed materials that are not ordinarily considered to be commercial products, such as waste-waters or stabilized wastes. The provision also does not apply when the output of the reclamation process is burned for energy recovery or placed on the land. These activities are controlled by the provisions of the definition dealing with using hazardous wastes as ingredients in fuel or land-applied products. For instance, if a spent solvent is treated and blended with oil to sell as a fuel, that waste-derived fuel is still subject to RCRA jurisdiction.

50 Fed.Reg. 614, 634 n. 20, Final Rule-Hazardous Waste Management System: Definition of Solid Waste, January 4, 1985.[12] Thus, if reclaimed materials from the TMW are sometimes sent for use as a fuel, as indisputably occurs with oil and char, then the TMW cannot be exempt from the RCRA permitting requirements of Part 266, Subpart H.

*9 There is certainly evidence in the record showing that a substantial percentage of the output from the TMW is not metal, even though the recovery of metal clearly takes place and is one of the purposes of the TMW. While the metal recycled in the TMW is not burned for energy recovery, the deposition testimony of three former Rineco employees (whom Rineco describes as "disgruntled") and certain Rineco documents support the United States' contention that a substantial percentage of oil and char resulting from the treatment process in the TMW is blended into HWDF and sent to BIFs where it is burned for energy recovery. Michael W. Tallent ("Tallent"), a former Rineco Production Chemist, testified that he worked as senior production chemist/warehouse manager when the first TMW was installed at Rineco and that the primary purpose of the TMW was not to recycle metal, but to blend hazardous waste into fuel which was burned for energy recovery at BIFs. Similarly, S. Bradley Cummock ("Cummock"), a former Rineco Director of Operations and who was an employee of Rineco from January 1996 through July 2003, testified that the primary purpose of the TMW, especially from a financial standpoint, was to blend hazardous waste into fuel for cement kilns, not to recycle metal. Brad Patty ("Patty"), the former Rineco Director of Operations after Cummock and who worked as Director of Operations at Rineco from August 2003 to January 2006, also testified that the primary intent of the TMW was to blend hazardous waste into fuel for cement kilns, not to recycle metal.

Certain Rineco documents concerning operation of the TMW corroborate the testimony of Rineco's former Production Chemist and Directors of Operations. Between 2003 and 2008, the annual TMW Mass Balance Reports show that the TMW treatment process produced more than twice as much oil and char as metal. In addition, a TMW Monthly Profit Analysis for the month of January 2006 (which is under seal) shows the percentage of Rineco's profit from the TMW that was derived from metal sales, a percentage that certainly seems inconsistent

with Rineco's claim that the primary purpose of the TMW is to recycle metal. Rineco characterizes its own Mass Balance Reports as "incomplete and inaccurate" and its TMW Monthly Profit Analysis as "incomplete and based on mere speculation," but Rineco cannot create facts issues with its own conflicting assertions. [13]

In sum, the Court determines that Rineco's TMW unit does not qualify for the recycling process exemption set forth in APCEC Regulation No. 23 § 261.6(c)(1) because, under APCEC Regulation No. 23 § 261.6(a)(2)(ii), hazardous wastes that are burned for energy recovery in a BIF (as are the wastes managed in Rineco's TMW unit), are subject to APCEC Regulation No. 23 Part 266, Subpart H. Were the Court to uphold Rineco's interpretation, any 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. *Meghrig*, 516 U.S. at 483. [14]

b.

*10 The Court additionally agrees with the United States that the TMW is not eligible for the recycling exemption for a second reason because substantial hazardous wastes that are treated in the TMW are destroyed by thermal treatment and not recycled in the TMW. With respect to such activity, EPA has stated:

> [W]e wish to clarify that materials being burned in incinerators or other thermal treatment devices, other than boilers and industrial furnaces, 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 (other than in boilers and industrial furnaces) 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.

48 Fed.Reg. 14472, 14484, Proposed Rules, April 4, 1983.

Rineco claims that burning cannot occur in the TMW because the "materials are indirectly heated in an oxygen-depleted chamber." Rineco's use of the phrase "oxygen-depleted" is ambiguous, however, and Rineco has provided no actual evidence that oxygen is absent from the TMW. Carl Wikstrom, Director of Research and Development for Rineco, only states that the materials are heated in an "oxygen-depleted chamber via an external heat source to break the adhesive bonds of the materials that are attached to the surface of the metal." In contrast, the TMW Patent indicates that waste materials are placed in an oxygen limited chamber, not an oxygen depleted chamber. The Patent states:

> The feed hopper provides the waste material to a first chamber through an airlock. The airlock, for some embodiments, is a knife gate, which largely isolates the first chamber from the feed hopper. The airlock limits air infusion into the first chamber, which is, for some embodiments, a sub-ambient pressure chamber. This isolation removes dependence on a dynamic seal. Also, the improved seals limit or prevent appreciable influx of air into the system, thereby reducing the chances for unplanned oxidation and also reducing the amount of non-condensable gases that flow through the system.... For some embodiments, an inerting gas (e.g. carbon dioxide, nitrogen, etc.) is injected into the airlock to displace air or other oxidizing agents. This reduces the oxidation that can occur in the subsequent stages of the waste processing system.

Rineco's own documentation evidences destruction or burning of materials in the TMW. On December 28, 2005, EPA asked Rineco to "complete the attached table regarding volumes of waste managed at your facility for 2003, 2004 and 2005." EPA provided a table, based on Rineco's description of the TMW, showing yearly volume of hazardous waste received (liquid and solid phases), yearly volume into the TMW, yearly volume from the

TMW divided in six outputs (water, oil, char, metal, vapors and inerts), and yearly volume into and out of the cryogenic unit. In a letter to EPA dated January 17, 2006, Rineco stated that its responses to the table were based on pounds, the numbers provided were Rineco's "best estimate," and the vapor and inerts categories were combined because Rineco was unable to separate them. The United States notes that the table showed that between 2003 and 2005, of the approximately 18.7 million lbs. of waste fed into the TMW annually, more than 2.6 million lbs. or at least 13.9% was unaccounted for, *i.e.* disposed of, burned, or incinerated in the treatment process, and that during the same period approximately 2 million lbs. or 10.7% of the output from the TMW was vapor/inerts, which are vented to the TOU where they are destroyed through burning and incineration. The United States notes as well that the presence of more than 4.4 million lbs. or at least 23.5% char indicates that the destruction of organic materials takes place in the TMW.[15]

***11** Rineco does not specifically dispute the above percentages but contends that the table "does not reflect all of the materials exiting the TMW and, thus, any attempt to create a mass-balance report from this information is fatally flawed." Rineco states that "[i]mportantly, the chart does not reflect the amount of solids (other than char and metal) exiting the unit" and that "[t]herefore, the [United States'] allegations that 13.9% of the materials placed into the TMW are destroyed based on the numbers in the January 2006 chart are just plain wrong and misleading to the Court."

As previously noted, Rineco's claim that its table "does not reflect all of the materials exiting the TMW" and that its own Mass Balance Reports "are incomplete and inaccurate" fails to create a genuine issue of material fact concerning the evidence indicating that some 13.9% of the materials are burned or destroyed in the TMW. In its January 17th response to EPA's information request, Rineco made no mention that the six outputs from the TMW did not reflect the total output from the TMW and Rineco did not correct the table to add an output for "solids (other than char and metal) exiting the unit." The United States argues that Rineco clearly did not do so because the "inerts" category on the table describes the same waste materials that Rineco is now calling "solids." Certainly, neither Rineco's Patent nor Rineco's Fuel Blending & Recycling Processes flow chart describe "solids (other than char and metal) exiting the unit" but they do identify "inerts." The Patent states "[t]he metal separation system handles non-volatile fractions, including char, metal, and nonmagnetic inert substances such as, for example, glass, gravel, soil, sand, etc," and Rineco's flow chart indicates that "char, metal, and inerts" are the only solid phase materials that exit the TMW. There is no separate reference to "solids" exiting the TMW.

In any case, it is undisputed that vapor from the TMW is vented to the TOU where it is destroyed through burning and incineration.[16] Thus, a portion of inputs to the TMW are volatilized by the high temperature, vented to the TOU, and destroyed through burning and incineration. In addition, the presence of substantial char shows that the destruction of organic materials takes place in the TMW.[17] Accordingly, the exemption for the recycling process found at APCEC Regulation No. 23 § 261.6(c)(1) does not apply because certain of the organic hazardous wastes processed in the TMW are not recycled but instead are destroyed by thermal treatment.[18]

c.

For the foregoing reasons, the Court grants summary judgment to the United States on its First Claim for Relief under RCRA (Unauthorized Operation of RCRA Treatment Unit) as set forth in its original complaint.

2.

The Court now turns to the United States' claim of unauthorized operation of RCRA treatment unit. The United States alleges that since 2003 Rineco has been an owner or operator of a unit for the storage of hazardous waste, without a required permit, in violation of section 3005(a) of RCRA, 42 U.S.C. § 6925(a), and APCEC Regulation No. 23 §§ 270.1, 270.10. Rineco, however, argues that it has a valid and effective RCRA permit for the storage of hazardous waste at its facility that covers hazardous waste related to the TMW.

***12** Under APCEC Regulation No. 23 § 270.1(b), storage of hazardous waste by any person who has not applied for or received a RCRA permit is prohibited. Under

RCRA section 1004(33), 42 U.S.C. § 6903(33), "[t]he term 'storage,' when used in connection with hazardous waste, means the containment of hazardous waste, either on a temporary basis or for a period of years, in such a manner as not to constitute disposal of such hazardous waste." "Storage" is defined as "the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed of, or stored elsewhere." APCEC Regulation No. 23 § 260.10.

Rineco does not dispute that it is storing hazardous waste related to the TMW at its facility and it does not dispute that after shredding, waste materials are placed in totes which are stored near the shredders before treatment in the TMW. Rineco obtained its RCRA hazardous waste permit in August 1999 before it began operation of the TMW and the staging area of the totes for the TMW is not included in the existing permit. Thus, Rineco's failure to modify its existing RCRA permit to expressly include the hazardous waste storage areas related to the TMW is a violation of Section 3005(a) of RCRA, 42 U.S.C. § 6925(a), and APCEC Regulation No. 23 §§ 270.1, 270.10.[19] Accordingly, the Court grants summary judgment to the United States on its Second Claim for Relief under RCRA (Unauthorized Operation of RCRA Storage Unit) as set forth in its original complaint.

3.

The Court now turns to the United States' claim of unauthorized operation of RCRA disposal unit. The United States alleges that since 2003 Rineco has been an owner or operator of a unit for the disposal of hazardous waste, without a required permit, in violation of section 3005(a) of RCRA, 42 U.S.C. § 6925(a), and APCEC Regulation No. 23 §§ 270.1, 270.10. Rineco, however, argues that it does not dispose of any hazardous waste related to the TMW at its facility.

As set forth above, Rineco's January 17th table regarding volumes of waste managed at its facility for 2003, 2004 and 2005 shows that Rineco disposes of hazardous waste related to the TMW. Again, Rineco's claim that its table "does not reflect all of the materials exiting the TMW" fails to create a genuine issue of material fact in the face of the evidence indicating that some 13.9% of the materials are burned or destroyed in the TMW. In addition, Rineco does not dispute that vapor, one of the outputs from the TMW, is vented to the TOU for destruction, nor does Rineco controvert the findings of the recent EPA inspection by Duster or similar testimony from former Rineco employees Tallent, Cummock, and Patty that fugitive VOC air emissions are "leaking" from the TMW and other units at the Rineco facility.

In addition to disposal occurring at the TMW itself, it is not disputed that char and other materials from the TMW are blended into HWDF and sent off-site to BIFs where it is burned and emitted into the atmosphere or disposed or "deposited" as a waste in a landfill after the burning process is completed. Rineco argues that in order for "disposal" to occur, RCRA regulations require that the disposal must take place on the land or water at the Rineco facility. The term "disposal" is not so limited, however, but encompasses "the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters." 42 U.S.C. § 6903(3); APCEC Regulation No. 23 § 260.10. The mere act of sending waste off-site for disposal does not make a unit a disposal unit; rather, Rineco is engaged in the unauthorized operation of a disposal unit because it is incorporating the char into a fuel, and the char is ultimately discharged into the air or deposited in a landfill. Accordingly, the Court grants summary judgment to the United States on its Third Claim for Relief under RCRA (Unauthorized Operation of RCRA Disposal Unit) as set forth in its original complaint.

4.

*13 The Court now turns to the United States' claim of failure to notify of hazardous waste activity. The United States alleges that Rineco has failed to file, with EPA or ADEQ, a notification of hazardous waste activity related to the TMW in compliance with Section 3010 of RCRA, 42 U.S.C. § 6930. Rineco, however, argues it submitted notification of its hazardous waste activity related to the TMW to ADEQ as part of its Hazardous Waste Annual Reports for 2003, 2004, 2005, 2006, and 2007, noting that as to each report, it indicated that the facility was a recycler of hazardous waste, included hazardous wastes recycled in the TMW in the list of regulated hazardous

wastes, and included hazardous wastes recycled in the TMW in the waste generation totals for the facility.

Section 3010 of RCRA requires Rineco to provide notice of the location and a general description of any treatment, storage or disposal activity conducted at the facility. 42 U.S.C. § 6930. Rineco's general reference on the RCRA Subtitle C Site Identification form that it is a recycler of hazardous waste and its reference to the hazardous wastes recycled in the TMW as well as its hazardous waste totals at the facility is not sufficient. Section 3010 requires the operator of a hazardous waste treatment, storage or disposal facility to file specific reports. *McClellan Ecological Seepage Situation v. Perry*, 47 F.3d 325, 329-330 n. 7 (9th Cir.1995). Rineco does not dispute that it has failed to file with EPA or ADEQ a notification of its hazardous waste activity expressly related to the TMW. Accordingly, the Court grants summary judgment to the United States on its Fourth Claim for Relief under RCRA (Failure to Notify of Hazardous Waste Activity) as set forth in its original complaint.

5.

The Court now turns to the United States' claim of failure to provide financial assurances. The United States alleges that Rineco has failed to establish financial assurance requirements for closure of the TMW and related storage units at the facility in violation of section 3004(a) of RCRA, 42 U.S.C. § 6924(a), and APCEC Regulation No. 23 § 264, Subpart H.

Rineco does not dispute that it has failed to establish financial assurances related to the TMW but instead contends that because the TMW is exempt from regulation, Rineco is not required to comply with financial assurances requirements for closure of the TMW. As set forth above, however, Rineco does not qualify for the recycling exemption in APCEC Regulation No. 23 § 261.6(c)(1). As a result, Rineco must establish financial assurances for the TMW.[20] Accordingly, the Court grants summary judgment to the United States on its Fifth Claim for Relief under RCRA (Failure to Provide Financial Assurances) as set forth in its original complaint.

C.

One final matter concerns Rineco's affirmative defenses. Rineco argues that if it is not entitled to summary judgment, genuine issues of fact on Rineco's affirmative defenses preclude the granting of summary judgment in favor of the United States, including whether EPA is equitably estopped from asserting claims against Rineco based on the decision of the delegated authority (*i .e.* ADEQ) that the TMW does not require a RCRA permit, whether EPA is exercising selective enforcement against Rineco, and whether Rineco is being denied equal protection. However, both Rineco and the United States have moved for summary judgment, those motions are ripe for consideration, and Rineco has not come forward with facts to support any of its affirmative defenses. Claims for equitable estoppel do not run against the federal government unless the party claiming estoppel establishes, among other things, that the government engaged in some sort of affirmative misconduct. *Miller v. U.S. Through Farmers Home Admin.*, 907 F.2d 80, 82-83 (8th Cir.1990). To establish a prima facie claim of selective prosecution, a party must demonstrate that others similarly situated to it were not prosecuted and that the decision to enforce the law against it was motivated by discriminatory purpose. *United States v. Perry*, 152 F.3d 900, 903 (8rth Cir.1998). To establish a viable equal protection claim, Rineco must show that it was treated differently than similarly situated entities for purposes of the challenged government action. *Koscielski v. City of Minneapolis*, 435 F.3d 898, 901 (8th Cir.2006). Rineco has shown no evidence of affirmative misconduct or discriminatory purpose by the United States to support its estoppel and selective prosecution claims, and Rineco has shown no evidence that similarly situated entities received favorable treatment so as to establish a viable equal protection claim. As Rineco has shown no evidence to support these or any other affirmative defenses, summary judgment in favor of the United States is not precluded.[21]

III.

*14 For the foregoing reasons, the Court grants the United States' motion for summary judgment [doc. # 40] as to liability on each of the five claims asserted in its original complaint and denies Rineco's motion for summary judgment [doc. # 13]. This matter will proceed

as to any appropriate civil penalties and as to the three remaining claims in the United States' amended and supplemental complaint.[22]

IT IS SO ORDERED.

**All Citations**

Not Reported in F.Supp.2d, 2009 WL 801608

Footnotes

1 The Court deferred ruling on these motions pending a settlement conference before a Magistrate Judge in late October 2008 that proved unsuccessful. Following that settlement conference, the Court, by Order dated November 24, 2008 [doc. # 85], granted a motion of Rineco for leave to file what it claimed to be newly discovered summary judgment evidence. In addition, the Court in that same November 24th Order granted leave of the United States to amend and supplement its complaint to add three additional claims. These additional claims are not addressed in the parties' cross-motions for summary judgment now under consideration.

2 Subsequent program revision applications were later approved. *Id.*

3 APCEC is the environmental policy-making body for Arkansas and ADEQ implements those policies.

4 All paragraph numberings within APCEC Regulation No. 23 are the same as those used in the equivalent Federal Part such that someone seeking, for example, the State equivalent to 40 C.F.R. § 261.3(a)(2)(i) need only refer to APCEC Regulation No. 23 § 261.3(a)(2)(i). Because Arkansas' regulations are substantially identical to EPA's regulations, analysis of the federal scheme can overlay and define that of Arkansas. *Cf. United States v. Power Engineering Co.*, 191 F.3d 1224, 1228 (10th Cir.1999) (determining that because Colorado's regulations are substantially identical to EPA's regulations, analysis of the federal scheme can overlay and define that of Colorado).

5 In *Harmon*, the United States Court of Appeals for the Eighth Circuit held that the federal government's right to pursue an enforcement action under RCRA attaches only when a state's authorization is revoked or when a state fails to initiate any enforcement action, and that EPA's practice of overfiling, in those states where it has authorized the state to act, oversteps the federal agency's authority under RCRA. 191 F.3d at 901-02. The Eighth Circuit's decision in *Harmon* concerning EPA's authority to overfile has not been without some criticism. *See, e.g., United States v. Power Engineering Co.*, 303 F.3d 1232 (10th Cir.2002). Such is of no consequence here, however, as the State of Arkansas has not initiated an enforcement action against Rineco concerning the matters before the Court.

6 These wastes contain variable levels of ignitability, corrosivity, reactivity, and toxicity, and include arsenic, barium, benzene, cadmium, carbon tetrachloride, chromium, cresol, 1, 4-dichlorobenzene, lead, mercury, wastewater treatment sludge, silver, vinyl chloride, spent halogenated and non-halogenated solvents, spent cyanide, acrylic acide, carbamic acid, DDT, sulfuric acid, toluene, xylene, etc.

7 Rineco does not dispute that the TMW is a type of thermal treatment unit (although Rineco states that the TMW does not, as argued by the United States, apply heat to change both the chemical and physical character and composition of the waste fed into the TMW but, rather, that the heat merely breaks the adhesive bonds of the material that are attached to the surface of the metal). Thermal treatment units that do not use internal controlled flame combustion, as the TMW does not, are classified as "miscellaneous units" and subject to the standards for the management of hazardous waste set forth in APCEC Regulation No. 23 Part 264, Subpart X, §§ 264.600-264.603. The United States does not dispute that miscellaneous units may nevertheless be potentially exempt from regulation under RCRA.

8 According to the United States, ADEQ's staff, including the Hazardous Waste Division Director, believe that the TMW requires a permit but that Devine took a different position. Devine's April 12th letter does not, however, revoke ADEQ's previous correspondence with the company stating that the agency's conclusion was based on Rineco's compliance with six conditions and, thus, Devine's determination seemingly was made in the context of Rineco's representations of the specific purpose and operation of the TMW

9 Rineco does not dispute that notice of the commencement of this action was given to the State of Arkansas in accordance with 42 U.S.C. § 6928(a)(2).

10 APCEC Regulation No. 23 § 261.6(a) provides in part:

> (a)(1) Hazardous wastes that are recycled are subject to the requirements for generators, transporters, and storage facilities of paragraphs (b) and (c) of this section, except for the materials listed in paragraphs (a)(2) and (a)(3) of this section. Hazardous wastes that are recycled will be known as "recyclable materials."

(2) The following recyclable materials are not subject to the requirements of this section but are regulated under subsections C through H of section 266 of this regulation and all applicable provisions in section 270 of this regulation and 40 CFR Part 124:

(i) Recyclable materials used in a manner constituting disposal (subsection C);

(ii) Hazardous wastes burned for energy recovery in boilers and industrial furnaces that are not regulated under subsection O of section 264 or 265 of this regulation (subsection H).

11 APCEC Regulation No. 23 § 261.6(c)(1) provides:

(c)(1) Owners or operators of facilities that store recyclable materials before they are recycled are regulated under all applicable provisions of subsections A through L, AA, BB, and CC of sections 264 and 265, and under sections 266, 268, and 270 of this regulation and 40 CFR Part 124, and the notification requirements under section 3010 of RCRA, except as provided in paragraph (a) of this section. (The recycling process itself is exempt from regulation except as provided in § 261.6(d).)

12 Rineco proffers EPA's Revisions to the Definition of Solid Waste, Final Rule, 73 Fed.Reg. 64668-01, October 30, 2008. These revisions are of no help to Rineco, however, as the final rule clarifies that the exclusion for hazardous secondary materials that are legitimately recycled "does not include the recycling of hazardous secondary materials that are ... burned to recover energy or used to produce a fuel or otherwise contained in fuels (40 C.F.R. § 261.2(c)(2))." *Id.* at 64669, 64670, 64710, 64751.

13 Rineco, as previously noted, may not rest on mere allegations or denials of its pleadings, but must come forward with specific facts showing that there is a genuine issue for trial. *Matsushita,* 475 U.S. at 587. *See also* APCEC Regulation No. 23 § 261.2(f) (respondents in actions to enforce regulations implementing subtitle C of RCRA who raise a claim that certain material is conditionally exempt from regulation must demonstrate that they meet the terms of the exemption; in doing so, they must provide appropriate documentation to demonstrate that the material is exempt from regulation).

14 Citing EPA's RCRA Orientation Manual 2006, Rineco argues that EPA has found that distillation units engaged in the recycling of hazardous spent solvents are exempt recycling units under 40 C.F.R. § 261.6(c)(1) even though the sludge created in the distillation process is sent off-site to BIFs. The RCRA Orientation Manual does not support Rineco's position. As the Manual states, "[n]ot all hazardous wastes pose the same degree of hazard when recycled," and "[w]hile RCRA specifically exempts some wastes when recycled, some recycling processes may still pose enough of a hazard to warrant some degree of regulation." It may be true that EPA has concluded that certain unrefined waste-derived fuels and oils from petroleum refineries may justify exemption from RCRA Subtitle C, but EPA also has concluded that "[t]he process of recycling hazardous waste by burning it for energy recovery may pose significant air emission hazards. Therefore, EPA [has] established specific operating standards for units burning hazardous waste for energy recovery." Rineco, it should be noted, does not treat a single predictable pre-distillation waste stream from a petroleum refinery, but rather more than 400 different types of hazardous waste containing variable levels of ignitability, corrosivity, reactivity, and toxicity.

15 Rineco proffers as "newly discovered evidence" a declaration from Dr. W. Roy Penney, a Professor in the Department of Chemical Engineering at the University of Arkansas, who stated that "complete combustion in the TMW is impossible." Dr. Penney does not, however, conclude that *no* combustion occurs in the TMW and he does not dispute that combustion and destruction occurs in the TOU. Rineco has also proffered a declaration from an attorney, David E. Polter, who essentially opines on the legal issues in this matter. However, the Court will not consider for purposes of today's decision legal opinions that "attempt to tell the court what result to reach." *Dow Corning Corp. v. Safety National Cas. Corp.,* 335 F.3d 742, 751-52 (8th Cir.2003).

16 As indicated in the Patent, "[t]he residual non-condensable vapors are directed to a thermal oxidizer unit through an exhauster. As is known in the art, the thermal oxidizer unit destroys air toxics and volatile organic compounds ["VOC"] that are discharged."

17 On April 15-16, 2008, David Duster ("Duster"), an environmental scientist with EPA, conducted a RCRA focused compliance evaluation at the Rineco facility and documented that fugitive VOC emissions were escaping from the TMW and other units at the Rineco facility. Similarly, former Rineco employees Tallent, Cummock, and Patty testified to fires occurring at the TMW and to VOCs and particulates that were leaked and discharged from the TMW into the air at the Rineco facility. Rineco points to the testimony of David Crew ("Crew"), ADEQ's on-site inspector, but Crew only testified that "to the best of my knowledge," there has never been a fire in the TMW. Crew did, however, testify that there have been fugitive emission issues with regard to the TMW, and he also testified that the scrap metal is a by-product of the entire process of the TMW, not the primary process, and that he believed and continues to believe that the TMW requires a RCRA permit. Rineco claims the TMW is "designed" for recycling metal, but the possibility of recycling is mentioned only twice in the 13-page Patent, stating first that certain metal (which can be fairly large, e.g. whole cans,

etc.) moving along on a conveyor belt that progresses beyond the field of a magnet "can be recycled or disposed" and, second, that the systems and processes described in the Patent "permit recycling of various materials, which would otherwise not be permitted." The word "disposal," in contrast, is referenced numerous times throughout the Patent, which, as previously noted, "relates generally to waste processing, and more particularly to systems and methods for processing heterogeneous waste materials."

18 Rineco also references EPA's "A Citizen's Guide to Thermal Desorption" ("Guide"), which describes the use of thermal desorption under the supervision of EPA as a method to clean up pollution at Superfund sites stating that "[t]he dust and harmful chemicals are separated from the gases and disposed of safely. The clean soil is returned to the site." Rineco, however, neither returns "clean soil" to its facility nor disposes of the separated materials in a Subtitle C landfill and so the Guide is not applicable.

19 The Court agrees with the United States that the permit requirements apply to the staging area for the totes given that when material is waiting to be placed in the TMW, there are emissions that can occur that would otherwise not be occurring in the absence of the TMW.

20 During oral argument, Rineco acknowledged that the financial assurances argument turns on the exemption issue and that if the Court finds that the TMW is covered under RCRA, which the Court has today so done, then Rineco is required to establish financial assurances for the TMW.

21 Rineco alludes to seeking additional discovery on its affirmative defenses but a party opposing summary judgment who believes that he or she has not had adequate opportunity to conduct discovery must seek relief pursuant to Fed.R.Civ.P. 56(f), which requires that party to show what specific facts further discovery might unveil. *United States v. Casino Magic Corp.*, 293 F.3d 419, 426 (8th Cir.2002) (citations omitted). This, Rineco has failed to do. In addition, during a telephone conference held on November 19, 2008, Rineco agreed that discovery could be stayed until such time as the Court ruled on the parties' cross-motions for summary judgment on liability.

22 As noted in the November 24th Order, the Court will consider for purposes of determining any appropriate civil penalties the seriousness of the violation, any good faith efforts to comply, the harm caused by the violation, any economic benefit derived from noncompliance, the violator's ability to pay, the government's conduct, and the clarity of the obligation involved. *United States v. Ekco Housewares, Inc.*, 62 F.3d 806, 815 (6th Cir.1995). With respect to economic benefit, the Court reiterates that the goal of the economic benefit analysis is to prevent a violator from profiting from its wrongdoing, level the economic playing field, and prevent violators from gaining an unfair competitive advantage. *United States v. Municipal Authority of Union Township*, 150 F.3d 259, 263-64 (3rd Cir.1998) (citation omitted). *See also Pound v. Airosol Company, Inc.*, 498 F.3d 1089, 1099-1100 (10th Cir.2007) (in determining economic benefit of noncompliance under Clean Air Act ("CAA"), "the better argument" is that "any profits realized through the sale, or offer of sale, of a prohibited product ought to be included when assessing the economic benefit of a CCA violation, the rationale being that one ought not to profit from one's wrongful conduct;" rejecting the argument that "the economic benefit is more properly measured by considering the costs that it would have incurred to comply with the CAA (*i.e.*, the cost of reformulation)"); *Ekco Housewares*, 62 F.3d at 816 (district court did not abuse its discretion in determining that the amount of the RCRA penalty could be based on the economic benefit gained through noncompliance, including cost savings realized by noncompliance, and district court properly considered the deterrence effect not just on defendant but on the regulated community as a whole). Thus, while it may be that the economic benefits calculation ideally begins with the costs that should have been spent to achieve compliance, *Airosol Company*, 498 F.3d at 1100, the Court will consider all relevant documentation that could lead to a reasonable approximation of economic benefit to Rineco during the period that the TMW has been operating without a permit, including: (1) the cost of applying for and obtaining a RCRA permit; (2) TMW profit from the start of its operation to the present; (3) the pollution control costs associated with the RCRA permit; and (4) other benefits such as any competitive advantage Rineco has obtained by charging generators a lower price to dispose of waste in a non-regulated process.

**End of Document**

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**Attachment C**

UNITED STATES ENVIRONMENTAL PROTECT.
REGION 6
1445 Ross Avenue
Dallas, Texas 75202-2733

JUN 3 4 2016

Mr. Estuardo Silva
Louisiana Department of Environmental Quality
Office of Environmental Services
Waste Permits Division
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

RE: Draft Hazardous Waste Modified Operating and Post Closure Permit
Chemical Waste Management, Inc.
7170 John Brannon Road
Carlyss, LA 70665
Permit# LAD00077201-OP-RN-MO-1
AI# 742/PER20140007

Dear Mr. Silva:

EPA has the following comments on the draft Hazardous Waste Operating and Post Closure Permit for the Chemical Waste Management, Inc. facility located at 7170 John Brannon Road, Carlyss, LA 70665 (Draft Permit). Chemical Waste Management, Inc. (Chem Waste) seeks to add two oil recovery units (ORUs), two thermal desorber units (TDUs), and 19 associated tanks to its operations at its Carlyss, Louisiana facility. The ORUs will be utilized to separate recoverable oils from drilling fluids, refinery tank bottoms, commercially exempt waste, and other non-hazardous and hazardous waste. The TDUs will treat contaminated tank bottoms, sludge, catalyst slurry oil, and other non-hazardous and hazardous waste. The TDUs will be designed to separate organic constituents from a waste stream by condensing the organic components, which would allow for the recovery or disposal of the contaminants. The non-condensable gases will be routed to a thermal oxidizer unit (TOU). The TDU is proposed to be permitted as a miscellaneous unit.

Condition II.E.25.e of the Draft Permit provides that "[o]ne hundred and eighty (180) days before planned construction, the Permittee must submit finalized engineering specifications and operating parameters for the proposed Thermal Desorber Units to the Administrative Authority for approval. The information submitted must comply with the requirements of this permit and L.A.C. 33:V. Chapter 32, and all applicable regulations." Chapter 32 is entitled "Miscellaneous Units", and is the State equivalent of 40 C.F.R. Part 264, Subpart X. Due to the absence of any proposed engineering specifications, performance test, operating conditions, operating parameters, monitoring and recordkeeping requirements, we have identified permit requirements for the TDU and TOU below that we believe are required by the regulations for operation of the TDU and TOU.

How the TDU and TOU are permitted determine the appropriate permit requirements for the units. The material being treated in the TDU and the TOU is already a hazardous waste. Thermal treatment after a material becomes a hazardous waste is fully regulated under RCRA, 54 Fed. Reg. 50968, 50973 (December 11, 1989). The combustion of the non-condensable gases in the TOU meets the

definition of "thermal treatment" in L.A.C. 33:V.109 [40 C.F.R. § 260.10] and thus requires a RCRA permit. The TOU would meet the definition of incinerator in L.A.C. 33:V.109 [40 C.F.R. § 260.10] (an enclosed device that uses controlled flame combustion). However, rather than permitting the TOU as an incinerator, LDEQ could permit the TDU and TOU together as a miscellaneous unit under L.A.C. 33:V. Chapter 32 [40 C.F.R. Part 264, Subpart X]. If this occurs, then LDEQ is required to include in the permit requirements from L.A.C. 33:V. Chapters 3, 5, 7, 17, 19, 21, 23, 25, 27, 29, 31, 4301.F, H, 4302, 4303 and 4305, all other applicable requirements of L.A.C. 33:V. Subpart 1, and of 40 C.F.R. Part 63, Subpart EEE and 40 C.F.R. Part 146, that are appropriate for the miscellaneous unit being permitted.[1]

The decisions as to what appropriate requirements would be included in the permit would be left to LDEQ. However, we believe that the permit conditions would be similar to those set forth in the enclosed Consent Agreement and Final Order, In Re: US Ecology Texas, Inc. and TD*X Associates, LP, EPA Docket Nos. RCRA-06-2012-0936 and RCRA-06-2012-0937, filed October 4, 2012. These permit conditions would include, but not be limited to: 1) a startup, shutdown, and malfunction plan; (2) a performance test, which includes meeting a 99.99% destruction removal efficiency for each principle organic hazardous constituent and meeting certain emission limits; (3) automatic waste feed cutoff system; (4) operating parameters; and (5) investigation, recordkeeping, testing, and reporting requirements. This position was also previously communicated to LDEQ in a letter from EPA to Mr. J. D. Head dated May 2, 2016, in which a copy was sent to LDEQ. A copy of this letter is also enclosed.

If you have any questions, please feel free to call me at (214) 665-8022.

Sincerely,

Susan Spalding
Associate Director
Hazardous Waste Branch (6MM-R)
Multimedia Division

Enclosure

[1] The equivalent Federal provisions are 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.
40 C.F.R. § 264.601.

Attachment D

TRADEBE

At Work

# SOLID DISTILLATION SYSTEM

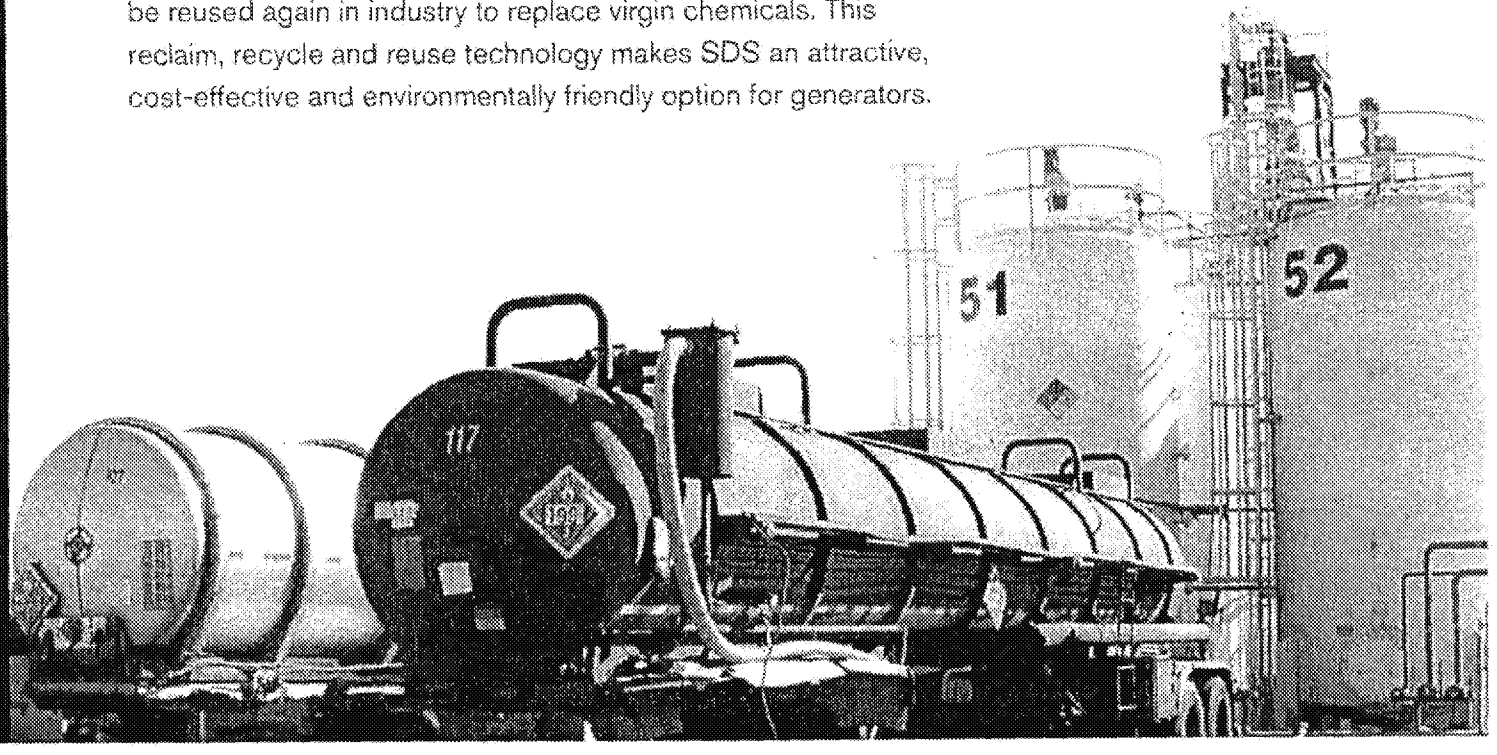
SUSTAINABLE WASTE MANAGEMENT

**Tradebe's Solid Distillation System (SDS) is a positive step forward in waste recycling technology and a new, cost-effective way for generators to recycle their organic solid waste.**

Before SDS, most solid waste was incinerated in a process designed to destroy its hazardous organic content by driving off volatiles and burning excess gases.

After incineration, residual materials were landfilled. Now, SDS offers a more responsible solution. Wastes such as paints, resins, polymers, solvent-soaked rags, and refinery wastes have their hazardous organic content removed and recycled so it can be reused again in industry to replace virgin chemicals. This reclaim, recycle and reuse technology makes SDS an attractive, cost-effective and environmentally friendly option for generators.

*SDS is an attractive, cost-effective and environmentally friendly option for generators.*



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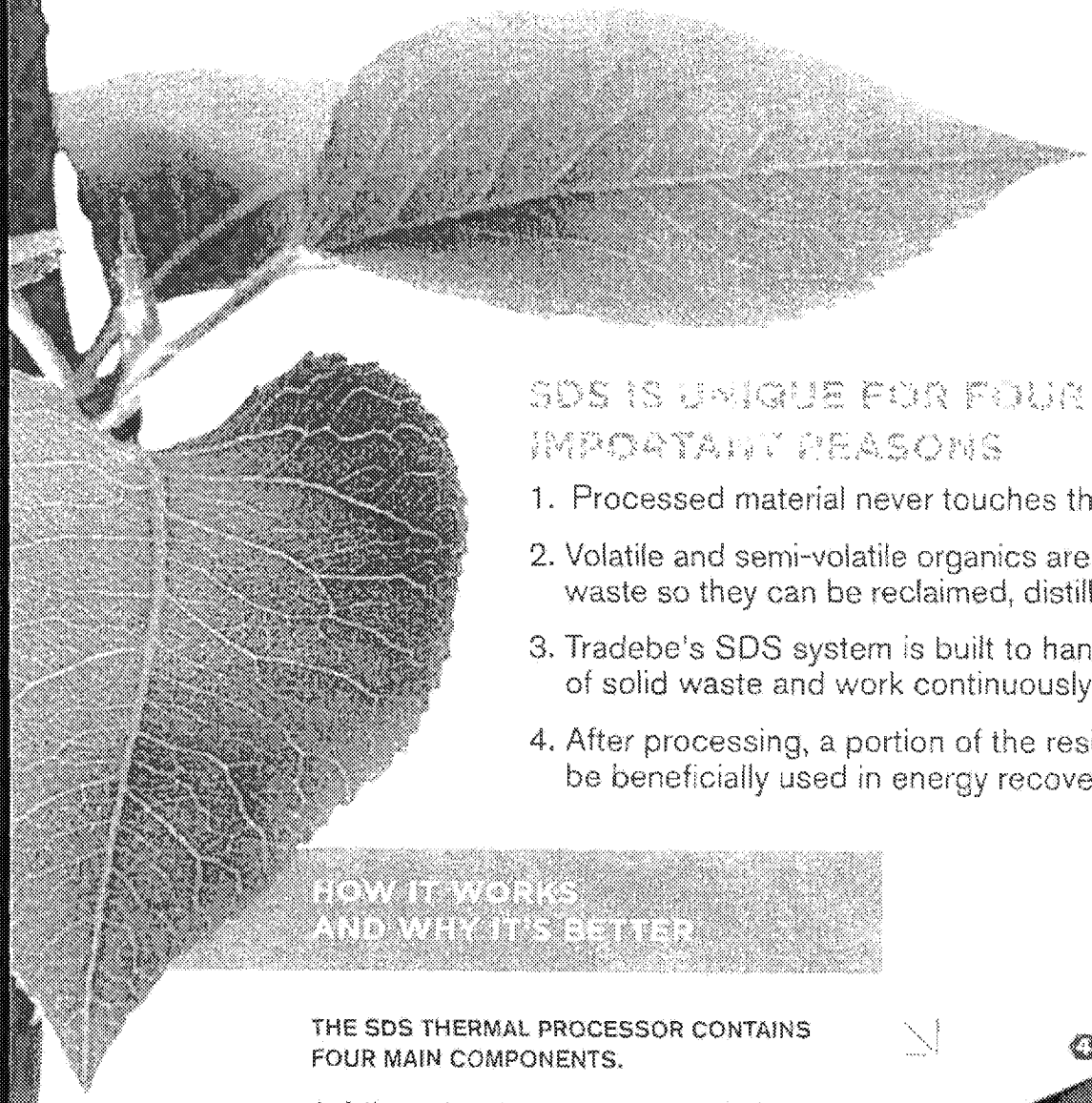


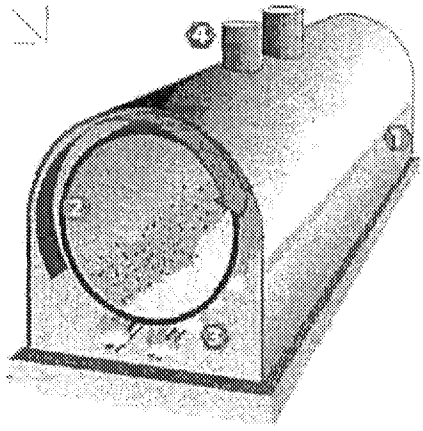
## SDS IS UNIQUE FOR FOUR IMPORTANT REASONS

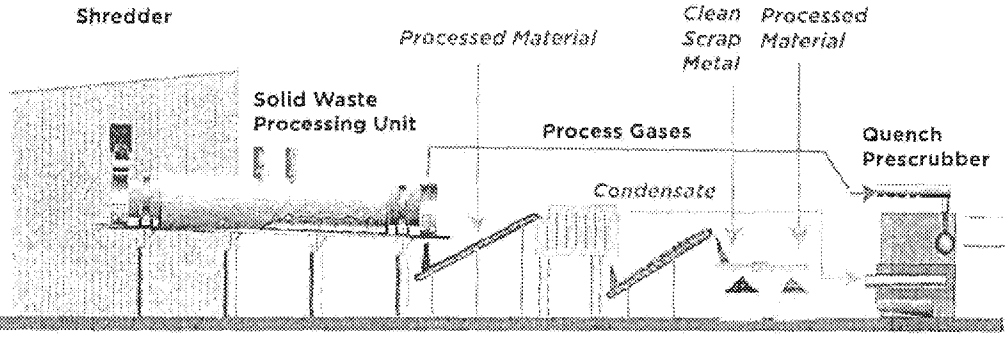
1. Processed material never touches the heat source.
2. Volatile and semi-volatile organics are "baked out" of the waste so they can be reclaimed, distilled and recycled.
3. Tradebe's SDS system is built to handle large volumes of solid waste and work continuously.
4. After processing, a portion of the residual material can be beneficially used in energy recovery.

## HOW IT WORKS AND WHY IT'S BETTER

THE SDS THERMAL PROCESSOR CONTAINS FOUR MAIN COMPONENTS.

1. *A thermal enclosure that surrounds the entire process*
2. *A rotating waste processing chamber located inside the thermal enclosure*
3. *An indirect heating system located under the rotating chamber*
4. *A heat exhaust system that reclaims and reuses process heat*



## RESPONSIBLE MANAGEMENT, START TO FINISH

The waste typically arrives in metal drums. Tradebe chemists sample and profile each shipment to ensure compatibility with the SDS process.

Once accepted, the drums containing waste are processed through a powerful shredder that reduces everything to a uniform size. The shredded waste is fed into an entry valve at the top of the long, oven-like rotating process chamber. The anaerobic atmosphere inside the process chamber is designed to prevent the oxidation of hydrocarbon components as they are driven from the wastes.

As wastes tumble down the rotating cylinder, they are indirectly heated to very high temperatures; the heat is applied to the outside of the rotating chamber so the material on the inside is never exposed to direct flame.

The high internal temperatures drive all volatile and semi-volatile organic chemicals from the solids. The organic components are collected, condensed, and sent to an oil/water separator as a water/organic mixture to be processed.

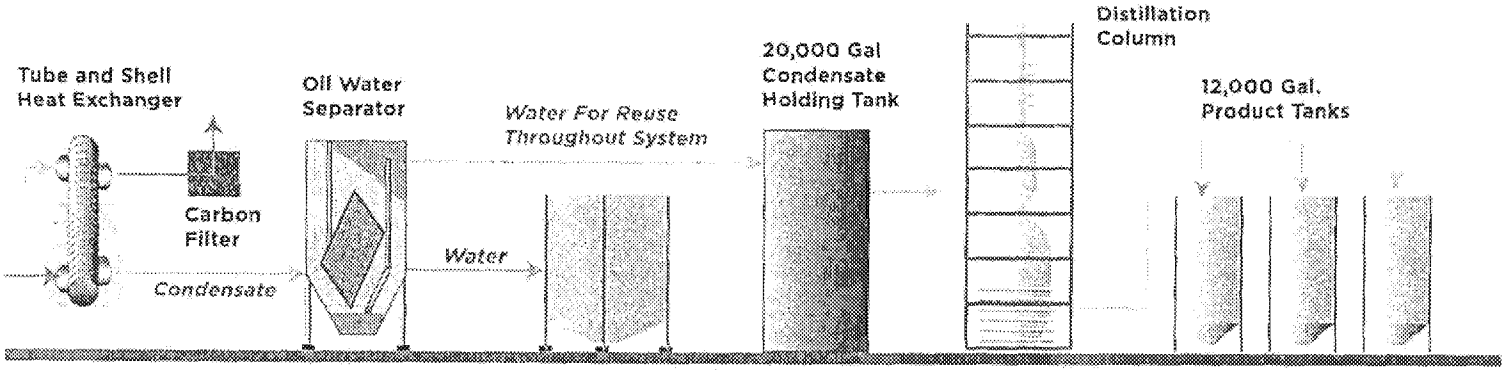
While SDS is a fully automated technology, skilled on-site personnel, working from a control center, monitor the process every step of the way to ensure a high quality end product. From the control terminal the operator can visually monitor and operate every key element in the process.

## WHAT WASTES CAN BE PROCESSED?

Virtually any organic solid waste can be processed through SDS, including paint waste, solvent soaked rags, resins, polymers, production debris, refinery waste and discarded commercial products, and many more similar wastes.

Once waste is processed through SDS, the generator receives a Certificate of Recycling that affirms the waste has been recycled. The generator then has no further liability. The Certificate of Recycling is also beneficial for generators with ISO 14001 programs and Environmental Management System recycling goals.

Returning potentially hazardous chemicals to industry for reuse, rather than simply wasting their valuable organic content through incineration, is what Tradebe's responsible waste management program is all about. SDS technology achieves waste minimization and recycling goals by transforming waste into valuable recycled products.



## SDS BENEFITS

- *SDS can effectively process virtually any solid organic hazardous waste.*
- *SDS helps generators meet Environmental Management Systems objectives.*
- *SDS prevents pollution while promoting recycling and reuse.*
- *SDS helps customers meet US EPA's RCRA Conservation Challenge.*
- *SDS eliminates the release of hazardous constituents into the atmosphere.*
- *SDS conserves energy while keeping waste out of the environment.*
- *SDS reclaims valuable constituents found in solid hazardous waste and reduces the demand for virgin chemicals.*

Solid Distillation System (SDS) is a positive step forward in waste recycling technology. SDS offers customers an effective and cost-efficient method for recycling organic solid waste that might otherwise be incinerated or landfilled. SDS extracts the organics from solid hazardous waste and transforms them into reusable products. SDS recycled products are being beneficially used now in numerous industries throughout the country in place of virgin chemicals.

***SDS...***
***New technology for a new world of waste recycling.***

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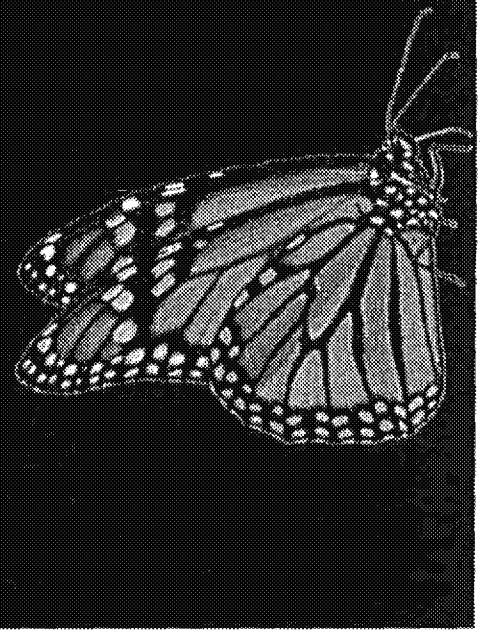

**Attachment E**

UNITED STATES ENVIRONMENTAL PROTECT.
REGION 6
1445 Ross Avenue
Dallas, Texas 75202-2733

2 MAY 2016

Mr. J.D. Head
Fritz, Byrne, Head & Fitzpatrick, PLLC
221 West 6th Street
Suite 960
Austin, Texas 78701

Dear Mr. Head:

Thank you for your October 30, 2015 letter requesting clarification of the hazardous waste regulatory standards for thermal desorption units (TDUs) installed at RCRA treatment, storage, and disposal facilities (TSDFs). I apologize for the delay in responding to your request. In your scenario, the TDU reclaims oil from oil bearing hazardous wastes generated by petroleum refining, production, or transportation practices. You describe a TDU as a device that heats solid material to vaporize, remove, and separate organic constituent materials from solids. In the scenario you describe at a TSDF, the separated organic constituents are typically condensed and recovered as a liquid oil. The TDU process also generates a vent gas after the condensing stream.

Your inquiry also references 40 C.F.R. § 261.6(a)(3)(iv)(C)[1], which provides that:

> Oil reclaimed from oil-bearing hazardous waste from petroleum refining, production, or transportation practices, which reclaimed oil is burned as a fuel without reintroduction to a refining process, so long as the used oil specification under 40 C.F.R. § 279.11 is not subject to regulation under 40 C.F.R. Parts 262 – 268, 270, or 40 C.F.R. Part 124, and is not subject to the notification requirements of Section 3010 of RCRA.

If the above conditions are met, then the reclaimed oil can be burned as a non-hazardous fuel. If the oil-bearing hazardous waste is not from petroleum refining, production, or transportation practices, then the reclaimed oil is subject to RCRA regulation.

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)(1)] 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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[1] Since you did not reference a specific State in which your client may operate a TDU, this letter cites to the applicable federal regulations. If the State has an authorized RCRA program, the corresponding state regulation would be applicable.

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. The decisions as to what appropriate requirements would be included in the permit would be left to the permitting authority. However, EPA would expect that the permit conditions would be similar to those set forth in the enclosed Consent Agreement and Final Order, In Re: US Ecology Texas, Inc. and TD*X Associates, LP, EPA Docket Nos. RCRA-06-2012-0936 and RCRA-06-2012-0937, filed October 4, 2012.

If you have any questions, please feel free to contact Guy Tidmore of my staff at (214) 665-3142 or via e-mail at tidmore.guy@epa.gov.

Sincerely,

John Blevins
Director
Compliance Assurance and
Enforcement Division

Enclosure

Cc: Penny Wilson, ADEQ
Lourdes Iturralde, LDEQ
John Kieling, NMED
Mike Stickney, ODEQ
James Gradney, TCEQ