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March 29, 2012

Ms. Ruth Jean
Permits Section
Office of Land Quality
Indiana Department of
Environmental Management
100 North Senate Avenue
Indianapolis, IN 46206

RE: **Tradebe Treatment and Recycling, LLC**
IND 000646943
Part B Permit Compliance Schedule Conditions
Subpart AA Requirements

Dear Ms. Jean:

This letter is written with respect Section VII Compliance Schedule Conditions, found on page 50 of the recently renewed Tradebe Treatment and Recycling, LLC (Tradebe) Part B Permit. As required under Item F, on page 52 of the permit, Tradebe is providing information as outlined below.

Information provided includes:

1. Certification stating compliance with:
   a. Applicable Regulations (parts 60, 61, or 63);
   b. Required control of air emissions by use of control equipment, as required by the applicable Clean Air Act (CAA) regulations;
2. Identification of regulated units;
3. Regulatory analysis and identification of applicable regulations (refer to Subpart AA Regulation Analysis and Tradebe Requirement summary);
4. Summary of actions, methods, equipment taken to comply with the applicable Part 60, 61 or 63 CAA regulations; and
5. Copies of documents used to demonstrate compliance by virtue of emission control equipment and /or work practices.

Tradebe Treatment and Recycling, LLC
4343 Kennedy Avenue • East Chicago, IN 46312 • Phone: (800) 388-7242 • (219) 397-3951 • Fax: (219) 397-6411 • www.tradebe.com

IDEM –R Jean
Subpart AA
March 29, 2012

Should you have any questions, please contact me at 219.397.3951 or email at tita.lagrimas@tradebe.com .

Respectfully,
Tradebe Treatment and Recycling, LLC

Tita LaGrimas
Executive Vice President of Regulatory Affairs

CC: Dave Jordan, ERM

Attachments

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RCRA Part B Permit Compliance Schedule

Item F 1- Process Vents

Certification Statement

This certification statement is submitted, as per required by the Compliance Schedule Conditions, Item F of the Tradebe Treatment and Recycling, LLC (Tradebe) Part B RCRA permit, issued in December 2011. Item F requires Tradebe to submit information (refer to attached Items F2 through F5) to the Indiana Department of Environmental Management (IDEM) regarding the regulatory status of Process Vents associated with recycling units as they pertain to the Clean Air Act Subpart AA regulations and applicable regulations in parts 60, 61 and 63 and the use of air emission control equipment required and/or allowed by these regulations.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Tita LaGrimas
Executive Vice President of Regulatory Affairs

3/29/2012
Date

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Tradebe T R LLC

Process Vent Summary

Item F #2

Equipment Name	Equipment ID	Process Vent - ID	System Design	By-Pass Line	Control Equipment	Monitoring	Monitoring Document	Applicable CAA Regulations
Solids Distillation System	SDS (ATDU)/ Vapor Recovery Unit	SDS/VRU off gas line	Closed Vent System	No	Flare	Hourly	*Log sheet for SDS Processing*	Part 63
SDS- Distillation Column	Area 8 Distillation Unit	Skid 1 Skid 2 Heat Exchanger 3	Closed Vent System	No	Carbon Canisters in series (non regenerative; with off site disposal)	2 times a day and at least annually	*SDS CARBON CHANGE OUT LOG & Subpart DD Checklist Monitoring Sheet*	Part 63
SDS Distillation Process Bottoms receiver	Tank 55	Process Bottoms receiver tank	Closed Vent System	No	Carbon Canisters in series (non regenerative; with off site disposal)	2 times a day and at least annually	*SDS CARBON CHANGE OUT LOG & Subpart DD Checklist Monitoring Sheet*	Part 63
SDS-Pot Still	Area 8 Pot Still Unit	Emergency relief Vent-top	Closed Vent System	No	Carbon Canisters in series (non regenerative; with off site disposal)	2 times a day and at least annually	*SDS CARBON CHANGE OUT LOG & Subpart DD Checklist Monitoring Sheet*	
Pot Still Process Bottoms Receiver	Tank 55	Process Bottoms receiver tank	Closed Vent System	No	Carbon Canisters (non regenerative; with off site disposal)	2 times a day and at least annually	*SDS CARBON CHANGE OUT LOG & Subpart DD Checklist Monitoring Sheet*	
Thin Film Evaporator	Area 1 Thin Film Unit	Emergency Vent - top	Closed Vent System	No	Carbon Canisters in series (non regenerative; with off site disposal)	Daily* and at least annually	Area 1 Carbon Adsorption Monitoring Log & Subpart DD Checklist Monitoring Sheet Monitoring Sheet	Part 63
Thin Film Process Bottoms Receiver	Tank 55	Bottoms receiver discharge line (tote)	Closed Vent System	No	Carbon Canisters in series (non regenerative; with off site disposal)	Daily* and at least annually	Area 1 Carbon Adsorption Monitoring Log & Subpart DD Checklist Monitoring Sheet Monitoring Sheet	

*Thin Film carbon monitoring done daily due to the limited hours of production

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Item F # 3
Regulatory Analysis and Tradebe Requirements

SUBPART AA REGULATION ANALYSIS AND TRADEBE REQUIREMENTS

40 CFR §264.1030 Applicability.

(b) Except for §264.1034, paragraphs (d) and (e), this subpart applies to process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations that manage hazardous wastes with organic concentrations of at least 10 ppmw, if these operations are conducted in one of the following:

(b)(1) A unit that is subject to the permitting requirements of 40 CFR part 270, or

(b)(2) A unit (including a hazardous waste recycling unit) that is not exempt from permitting under the provisions of 40 CFR 262.34(a) (i.e., a hazardous waste recycling unit that is not a 90-day tank or container) and that is located at a hazardous waste management facility otherwise subject to the permitting requirements of 40 CFR part 270, or

(b)(3) A unit that is exempt from permitting under the provisions of 40 CFR 262.34(a) (i.e., a "90-day" tank or container) and is not a recycling unit under the provisions of 40 CFR 261.6.

...

(e) The requirements of this subpart do not apply to the process vents at a facility where the facility owner or operator certifies that all of the process vents that would otherwise be subject to this subpart are equipped with and operating air emission controls in accordance with the process vent requirements of an applicable Clean Air Act regulation codified under 40 CFR part 60, part 61, or part 63. The documentation of compliance under regulations at 40 CFR part 60, part 61, or part 63 shall be kept with, or made readily available with, the facility operating record.

Based on this applicability statement, the units subject to Subpart AA are:

- SDS Distillation Unit, described in the air permit as "One (1) Anaerobic Thermal Desorption Unit, identified as ATDU, with one (1) 10 mmBtu/hr natural gas fired heaters (burner exhaust discharged through SDS 02) coupled with one Vapor Recovery Unit (VRU) using an enclosed John Zink flare with a demister; process vent and emissions exhausting to Stack SDS 07";

- Distillation Unit, described in the air permit as "One (1) Distillation Unit, constructed in 2004, with a maximum throughput rate of 1.0 tons of liquid waste per hour, controlled by a carbon adsorption system, and exhausting to stack SDS 05";

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- Pot Still, described in the air permit as "One (1) Pot Still, constructed in 2007, with a maximum throughput rate of 70 gallons of liquid waste per hour, controlled by a carbon adsorption system, and exhausting to stack SDS 10"; and

- Thin Film Evaporator, described in the permit as "One (1) Thin Film Evaporator, constructed in 2008, with a 2.4 million Btu/hr natural gas fired burner and a maximum throughput rate of 390 gallons of liquid waste per hour, controlled by a carbon adsorption system, and exhausting to stack S11".

PART 63 REQUIREMENTS

40 CFR §63.680 Applicability And Designation Of Affected Sources.

(a) The provisions of this subpart apply to the owner and operator of a plant site for which both of the conditions specified in paragraphs (a)(1) and (a)(2) of this section are applicable. If either one of these conditions does not apply to the plant site, then the owner and operator of the plant site are not subject to the provisions of this subpart.

(a)(1) The plant site is a major source of hazardous air pollutant (HAP) emissions as defined in 40 CFR 63.2.

(a)(2) At the plant site is located one or more of operations that receives off-site materials as specified in paragraph (b) of this section and the operations is one of the following waste management operations or recovery operations as specified in paragraphs (a)(2)(i) through (a)(2)(vi) of this section.

(a)(2)(i) A waste management operation that receives off-site material and the operation is regulated as a hazardous waste treatment, storage, and disposal facility (TSDF) under either 40 CFR part 264 or part 265.

...

(c)(2) *Process vents.* For each operation specified in paragraphs (a)(2)(i) through (a)(2)(vi) of this section that is located at the plant site, the affected source is the entire group of process equipment associated with the process vents for the processes listed in paragraphs (c)(2)(i) through (c)(2)(vi) of this section.

(c)(2)(i) Distillation process used for the treatment, recycling, or recovery of off-site material. Distillation means a process, either batch or continuous, separating one or more off-site material feed streams into two or more exit streams having different component concentrations from those in the feed stream or streams. The separation is achieved by the redistribution of the components between the liquid and vapor phases as they approach equilibrium within the distillation unit.

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(c)(2)(ii) Fractionation process used for the treatment, recycling, or recovery of off-site material. Fractionation means a liquid mixture separation process or method used to separate a mixture of several volatile components of different boiling points in successive stages, each stage removing from the mixture some proportion of one of the components.

(c)(2)(iii) Thin-film evaporation process used for the treatment, recycling, or recovery of off-site material. Thin-film evaporation means a liquid mixture separation process or method that uses a heating surface consisting of a large diameter tube that may be either straight or tapered, horizontal or vertical. Liquid is spread on the tube wall by a rotating assembly of blades that maintain a close clearance from the wall or actually ride on the film of liquid on the wall.

(c)(2)(iv) Solvent extraction process used for the treatment, recycling, or recovery of off-site material. Solvent extraction means a separation process or method in which a solid or a solution is contacted with a liquid solvent (the material and the solvent being relatively insoluble in each other) to preferentially dissolve and transfer one or more components into the solvent.

(c)(2)(v) Steam stripping process used for the treatment, recycling, or recovery of off-site material. Steam stripping means a liquid mixture separation process or method in which vaporization of the volatile components of a liquid mixture occurs by the introduction of steam directly into the process.

(c)(2)(vi) Gas stripping process used for the treatment, recycling, or recovery of off-site material. Gas stripping means a desorption process or method used to transfer one or more volatile components from a liquid mixture into a gas stream either with or without the application of heat to the liquid. Packed towers, spray towers, and bubble-cap, sieve, or valve-type plate towers are examples of the process configurations used for contacting the gas and a liquid.

40 CFR §63.681 Definitions.

...

Process vent means an open-ended pipe, stack, or duct through which a gas stream containing HAP is continuously or intermittently discharged to the atmosphere from any of the processes listed in §63.680(c)(2)(i) through (c)(2)(vi) of this section. For the purpose of this subpart, a process vent is none of the following: a pressure-relief vent or other vent that is used as a safety device (as defined in this section); an open-ended line or other vent that is subject to the equipment leak control requirements under §63.691 of this subpart; or a stack or other vent that is used to exhaust combustion products from a boiler, furnace, process heater, incinerator, or other combustion device.

Based on the definition of process vent and the descriptions provided in §63.680(c)(2), the process vent requirements of 40 CFR Part 63, Subpart DD are applicable to the Distillation Unit, Pot Still, SDS Distillation (ATDU)/VRU and Thin Film Evaporator.

Applicable standards for process vents under Subpart DD are provided below:

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40 CFR §63.683 Standards: General.

...

(c) *Process vents.* (1) For each process vent that is part of an affected source, the owner or operator must meet the requirements in either paragraph (c)(1)(i) or (c)(1)(ii) of this section except for those process vents exempted under paragraph (c)(2) of this section.

(c)(1)(i) The owner or operator controls air emissions from the process vent in accordance with the standards specified in §63.690 of this subpart.

(c)(1)(ii) The owner or operator determines before placing off-site material in the process equipment associated with the process vent that the average VOHAP concentration of the off-site material is less than ppmw at the point-of-delivery. The owner or operator must perform an initial determination of the average VOHAP concentration of the off- site material using the procedures specified in §63.694(b) of this subpart before any portion of the off-site material stream is placed in the unit. Thereafter, the owner or operator must review and update, as necessary, this determination at least once every calendar year following the date of the initial determination for the off-site material stream.

40 CFR §63.690 Standards: Process Vents.

(a) The provisions of this section apply to the control of air emissions from process vents for which §63.683(c)(1)(i) of this subpart references the use of this section for such air emission control.

(b) The owner or operator must route the vent stream from each affected process vent through a closed-vent system to a control device that meets the standards specified in §63.693 of this subpart. For the purpose of complying with this paragraph (b), a primary condenser is not a control device; however, a second condenser or other organic recovery device that is operated downstream of the primary condenser is considered a control device.

As specified in §63.690, the four process vents must be vented through a closed-vent system to a control device. The exhaust from the ATDU/VRU is directed to a flare while the remaining three units are controlled through the use of carbon adsorption systems. The closed-vent systems and air pollution control devices must meet the following standards:

40 CFR §63.693 Standards: Closed-Vent Systems And Control Devices.

(a) The provisions of this section apply to closed-vent systems and control devices used to control air emissions for which another standard references the use of this section for such air emission control.

(b) For each closed-vent system and control device used to comply with this section, the owner or operator shall meet the following requirements:

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(b)(1) The owner or operator must use a closed-vent system that meets the requirements specified in paragraph (c) of this section.

(b)(2) The owner or operator must use a control device that meets the requirements specified in paragraphs (d) through (h) of this section as applicable to the type and design of the control device selected by the owner or operator to comply with the provisions of this section.

...

(b)(4) The owner or operator must inspect and monitor each closed-vent system in accordance with the requirements specified in either paragraph (b)(4)(i) or (b)(4)(ii) of this section.

(b)(4)(i) The owner or operator inspects and monitors the closed-vent system in accordance with the requirements specified in §63.695(c) of this subpart, and complies with the applicable recordkeeping requirements in §63.696 of this subpart and the applicable reporting requirements in §63.697 of this subpart.

(b)(4)(ii) As an alternative to meeting the requirements specified in paragraph (b)(4)(i) of this section, the owner or operator may choose to inspect and monitor the closed-vent system in accordance with the requirements under 40 CFR part 63, subpart H--National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks as specified in 40 CFR 63.172(f) through (h), and complies with the applicable recordkeeping requirements in 40 CFR 63.181 and the applicable reporting requirements in 40 CFR 63.182.

(b)(5) The owner or operator must monitor the operation of each control device in accordance with the requirements specified in paragraphs (d) through (h) of this section as applicable to the type and design of the control device selected by the owner or operator to comply with the provisions of this section.

(b)(6) The owner or operator shall maintain records for each control device in accordance with the requirements of §63.696 of this subpart.

(b)(7) The owner or operator shall prepare and submit reports for each control device in accordance with the requirements of §63.697 of this subpart.

(b)(8) In the case when an owner or operator chooses to use a design analysis to demonstrate compliance of a control device with the applicable performance requirements specified in this section as provided for in paragraphs (d) through (g) of this section, the Administrator may request that the design analysis be revised or amended by the owner or operator to correct any deficiencies identified by the Administrator. If the owner or operator and the Administrator do not agree on the acceptability of using the design analysis (including any changes requested by the Administrator) to demonstrate that the control device achieves the applicable performance requirements, then the disagreement must be resolved using the results of a performance test conducted by the owner or operator in accordance with the requirements of §63.694(l) of this subpart. The Administrator may choose to have an authorized representative observe the

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performance test conducted by the owner or operator. Should the results of this performance test not agree with the determination of control device performance based on the design analysis, then the results of the performance test will be used to establish compliance with this subpart.

(c) Closed-vent system requirements.

(c)(1) The vent stream required to be controlled shall be conveyed to the control device by either of the following closed-vent systems:

(c)(1)(i) A closed-vent system that is designed to operate with no detectable organic emissions using the procedure specified in §63.694(k) of this subpart; or

(c)(1)(ii) A closed-vent system that is designed to operate at a pressure below atmospheric pressure. The system shall be equipped with at least one pressure gage or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system when the control device is operating.

(c)(2) In situations when the closed-vent system includes bypass devices that could be used to divert a vent stream from the closed-vent system to the atmosphere at a point upstream of the control device inlet, each bypass device must be equipped with either a flow indicator as specified in paragraph (c)(2)(i) of this section or a seal or locking device as specified in paragraph (c)(2)(ii) of this section. For the purpose of complying with this paragraph (c)(2), low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, or pressure relief valves needed for safety reasons are not subject to the requirements of this paragraph (c)(2).

(c)(2)(i) If a flow indicator is used, the indicator must be installed at the entrance to the bypass line used to divert the vent stream from the closed-vent system to the atmosphere. The flow indicator must indicate a reading at least once every 15 minutes. The owner or operator must maintain records of the following information: hourly records of whether the flow indicator was operating and whether flow was detected at any time during the hour; and records of all periods when flow is detected or the flow indicator is not operating.

(c)(2)(ii) If a seal or locking device is used to comply with paragraph (c)(2) of this section, the device shall be placed on the mechanism by which the bypass device position is controlled (*e.g.*, valve handle, damper lever) when the bypass device is in the closed position such that the bypass device cannot be opened without breaking the seal or removing the lock. Examples of such devices include, but are not limited to, a car-seal or a lock-and-key configuration valve.

(d) Carbon adsorption control device requirements.

(d)(1) The carbon adsorption system must achieve the performance specifications in either paragraph (d)(1)(i) or (d)(1)(ii) of this section.

(d)(1)(i) Recover 95 percent or more, on a weight-basis, of the total organic compounds (TOC), less methane and ethane, contained in the vent stream entering the carbon adsorption system; or

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(d)(1)(ii) Recover 95 percent or more, on a weight-basis, of the total HAP listed in Table 1 of this subpart contained in the vent stream entering the carbon adsorption system.

(d)(2) The owner or operator must demonstrate that the carbon adsorption system achieves the performance requirements in paragraph (d)(1) of this section by either performing a performance test as specified in paragraph (d)(2)(i) of this section or a design analysis as specified in paragraph (d)(2)(ii) of this section.

(d)(2)(i) An owner or operator choosing to use a performance test to demonstrate compliance must conduct the test in accordance with the requirements of §63.694(l) of this subpart.

(d)(2)(ii) An owner or operator choosing to use a design analysis to demonstrate compliance must include as part of this design analysis the information specified in either paragraph (d)(2)(ii)(A) or (d)(2)(ii)(B) of this section as applicable to the carbon adsorption system design.

(d)(2)(ii)(A) For a regenerable carbon adsorption system, the design analysis shall address the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature and shall establish the design exhaust vent stream organic compound concentration, adsorption cycle time, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total regeneration steam flow over the period of each complete carbon bed regeneration cycle, design carbon bed temperature after regeneration, design carbon bed regeneration time, and design service life of the carbon.

(d)(2)(ii)(B) For a nonregenerable carbon adsorption system (e.g., a carbon canister), the design analysis shall address the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature and shall establish the design exhaust vent stream organic compound concentration, carbon bed capacity, activated carbon type and working capacity, and design carbon replacement interval based on the total carbon working capacity of the control device and emission point operating schedule.

(d)(3) The owner or operator must monitor the operation of the carbon adsorption system in accordance with the requirements of §63.695(e) using one of the continuous monitoring systems specified in paragraphs (d)(3)(i) through (iii) of this section. Monitoring the operation of a nonregenerable carbon adsorption system (*e.g.*, a carbon canister) using a continuous monitoring system is not required when the carbon canister or the carbon in the control device is replaced on a regular basis according to the requirements in paragraph (d)(4)(iii) of this section.

(d)(3)(i) For a regenerative-type carbon adsorption system:

(d)(3)(i)(A) A continuous parameter monitoring system to measure and record the average total regeneration stream mass flow or volumetric flow during each carbon bed regeneration cycle. The integrating regenerating stream flow monitoring device must have an accuracy of ±10 percent; and

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(d)(3)(i)(B) A continuous parameter monitoring system to measure and record the average carbon bed temperature for the duration of the carbon bed steaming cycle and to measure the actual carbon bed temperature after regeneration and within 15 minutes of completing the cooling cycle. The accuracy of the temperature monitoring device must be ±1 percent of the temperature being measured, expressed in degrees Celsius or ±5°C, whichever is greater.

(d)(3)(ii) A continuous monitoring system to measure and record the daily average concentration level of organic compounds in the exhaust gas stream from the control device. The organic monitoring system must comply either with Performance Specification 8 or 9 in 40 CFR part 60, appendix B. The relative accuracy provision of Performance Specification 8, Sections 2.4 and 3 need not be conducted.

(d)(3)(iii) A continuous monitoring system that measures other alternative operating parameters upon approval of the Administrator as specified in 40 CFR 63.8(f)(1) through (f)(5) of this part.

(d)(4) The owner or operator shall manage the carbon used for the carbon adsorption system, as follows:

(d)(4)(i) Following the initial startup of the control device, all carbon in the control device shall be replaced with fresh carbon on a regular, predetermined time interval that is no longer than the carbon service life established for the carbon adsorption system. The provisions of this paragraph (d)(4)(i) do not apply to a nonregenerable carbon adsorption system (*e.g.*, a carbon canister) for which the carbon canister or the carbon in the control device is replaced on a regular basis according to the requirements in paragraph (d)(4)(iii) of this section.

(d)(4)(ii) The spent carbon removed from the carbon adsorption system must be either regenerated, reactivated, or burned in one of the units specified in paragraphs (d)(4)(ii)(A) through (d)(4)(ii)(G) of this section.

(d)(4)(ii)(A) Regenerated or reactivated in a thermal treatment unit for which the owner or operator has been issued a final permit under 40 CFR part 270 that implements the requirements of 40 CFR part 264, subpart X.

(d)(4)(ii)(B) Regenerated or reactivated in a thermal treatment unit equipped with and operating air emission controls in accordance with this section.

(d)(4)(ii)(C) Regenerated or reactivated in a thermal treatment unit equipped with and operating organic air emission controls in accordance with a national emission standard for hazardous air pollutants under another subpart in 40 CFR part 63 or 40 CFR part 61.

(d)(4)(ii)(D) Burned in a hazardous waste incinerator for which the owner or operator has been issued a final permit under 40 CFR part 270 that implements the requirements of 40 CFR part 264, subpart O.

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(d)(4)(ii)(E) Burned in a hazardous waste incinerator for which the owner or operator has designed and operates the incinerator in accordance with the interim status requirements of 40 CFR part 265, subpart O.

(d)(4)(ii)(F) Burned in a boiler or industrial furnace for which the owner or operator has been issued a final permit under 40 CFR part 270 that implements the requirements of 40 CFR part 266, subpart H.

(d)(4)(ii)(G) Burned in a boiler or industrial furnace for which the owner or operator has designed and operates the unit in accordance with the interim status requirements of 40 CFR part 266, subpart H.

(d)(4)(iii) As an alternative to meeting the requirements in paragraphs (d)(3) and (d)(4)(i) of this section, an owner or operator of a nonregenerable carbon adsorption system may choose to replace on a regular basis the carbon canister or the carbon in the control device using the procedures in either paragraph (d)(4)(iii)(A) or (d)(4)(iii)(B) of this section. For the purpose of complying with this paragraph (d)(4)(iii), a nonregenerable carbon adsorption system means a carbon adsorption system that does not regenerate the carbon bed directly onsite in the control device, such as a carbon canister. The spent carbon removed from the nonregenerable carbon adsorption system must be managed according to the requirements in paragraph (d)(4)(ii) of this section.

(d)(4)(iii)(A) Monitor the concentration level of the organic compounds in the exhaust vent from the carbon adsorption system on a regular schedule, and when carbon breakthrough is indicated, immediately replace either the existing carbon canister with a new carbon canister or replace the existing carbon in the control device with fresh carbon. Measurement of the concentration level of the organic compounds in the exhaust vent stream must be made with a detection instrument that is appropriate for the composition of organic constituents in the vent stream and is routinely calibrated to measure the organic concentration level expected to occur at breakthrough. The monitoring frequency must be daily or at an interval no greater than 20 percent of the time required to consume the total carbon working capacity established as a requirement of paragraph (d)(2)(ii)(B) of this section, whichever is longer.

(d)(4)(iii)(B) Replace either the existing carbon canister with a new carbon canister or replace the existing carbon in the control device with fresh carbon at a regular, predetermined time interval that is less than the design carbon replacement interval established as a requirement of paragraph (d)(2)(ii)(B) of this section.

...

(h) Flare control device requirements.

(h)(1) The flare must be designed and operated in accordance with the requirements in 40 CFR 63.11(b).

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(h)(2) The owner or operator must demonstrate that the flare achieves the requirements in paragraph (h)(1) of this section by performing the procedures specified in paragraph (h)(2)(i) of this section. A previous compliance demonstration for the flare that meets all of the conditions specified in paragraph (h)(2)(ii) of this section may be used by an owner or operator to demonstrate compliance with this paragraph (h)(2).

(h)(2)(i) To demonstrate that a flare achieves the requirements in paragraph (h)(1) of this section, the owner or operator performs all of the procedures specified in paragraphs (h)(2)(i)(A) through (h)(2)(i)(C) of this section.

(h)(2)(i)(A) The owner or operator conducts a visible emission test for the flare in accordance with the requirements specified in 40 CFR 63.11(b)(4).

(h)(2)(i)(B) The owner or operator determines the net heating value of the gas being combusted in the flare in accordance with the requirements specified in 40 CFR 63.11(b)(6); and

(h)(2)(i)(C) The owner or operator determines the flare exit velocity in accordance with the requirements applicable to the flare design as specified in 40 CFR 63.11(b)(7) or 40 CFR 63.11(b)(8).

(h)(2)(ii) A previous compliance demonstration for the flare may be used by an owner or operator to demonstrate compliance with paragraph (h)(2) of this section provided that all conditions for the compliance determination and subsequent flare operation are met as specified in paragraphs (h)(2)(ii)(A) and (h)(2)(ii)(B) of this section.

(h)(2)(ii)(A) The owner or operator conducted the compliance determination using the procedures specified in paragraph (h)(2)(i) of this section.

(h)(2)(ii)(B) No flare operating parameter or process changes have occurred since completion of the compliance determination which could affect the compliance determination results.

(h)(3) The owner or operator must monitor the operation of the flare using a heat sensing monitoring device (including but not limited to a thermocouple, ultraviolet beam sensor, or infrared sensor) that continuously detects the presence of a pilot flame. The owner or operator must record, for each 1-hour period, whether the monitor was continuously operating and whether a pilot flame was continuously present during each hour as required in §63.696(b)(3) of this subpart.

PART 61 REQUIREMENTS

Subpart FF--National Emission Standard For Benzene Waste Operations

40 CFR §61.340 Applicability.

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...

(b) The provisions of this subpart apply to owners and operators of hazardous waste treatment, storage, and disposal facilities that treat, store, or dispose of hazardous waste generated by any facility listed in paragraph (a) of this section. The waste streams at hazardous waste treatment, storage, and disposal facilities subject to the provisions of this subpart are the benzene-containing hazardous waste from any facility listed in paragraph (a) of this section. A hazardous waste treatment, storage, and disposal facility is a facility that must obtain a hazardous waste management permit under Subtitle C of the Solid Waste Disposal Act.

Tradebe is not currently processing benzene waste at the East Chicago facility.

Subpart J--National Emission Standard For Equipment Leaks (Fugitive Emission Sources) Of Benzene

40 CFR §61.110 Applicability And Designation Of Sources.

(a) The provisions of this subpart apply to each of the following sources that are intended to operate in benzene service: pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, and control devices or systems required by this subpart.

Tradebe is not currently processing benzene waste at the East Chicago facility.

PART 60 REQUIREMENTS

None applicable

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Item F #4
Summary of Tradebe Actions

In order to comply with the requirements of 40 CFR §63.693 - for closed-vent systems, Tradebe performs the following:

- The closed vent system connections that are permanently or semi-permanently sealed are visually inspected at least once per year as outlined in 40 CFR §63.695(c)(1)(ii)(A).
- Other components of the closed vent systems are inspected at least once per year using a portable gas analyzer to verify that these components operate with no detectable emissions.
- Leaking connections identified through either of the procedures above are repaired as specified in Subpart DD.

In order to comply with the requirements of 40 CFR §63.693 above for carbon adsorption systems, Tradebe performs the following:

- The carbon adsorption systems are nonregenerable carbon adsorption systems as described in (d)(4)(iii) found on page 9 in the document identified as Item F #3, Regulatory Analysis and Trade Requirement Summary.
- Each of these carbon adsorption systems consists of two carbon units located in series.
- Tradebe performs at least daily check each operational day of the VOC concentration of the exhaust of the first carbon canister for each unit. In the event that breakthrough it detected on this unit, the first carbon canister is removed from service, through a series of lines the second carbon canister is placed as the primary canister, while the carbon canister or carbon is replaced. The replaced carbon will then operate as the secondary carbon in series. Through this procedure, Tradebe ensures that even if there is breakthrough on the first canister there will not be breakthrough of the entire system.

In order to comply with the requirements for 40 CFR §63.693 above for flares, Tradebe performs the following:

- The flare is designed and operated as required in 40 CFR 63.11(b), including being operated at all times when emissions are vented to it, operating with no visible emissions, and operating with a flame present at all times;
- The flare includes a monitoring device that continuously detects the presence of a pilot flame.
- The flare flame detection is recorded hourly by process personnel.

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Environmental Services™

Item F # 5
Supporting Documentation

- SDS LOG SHEET SUMMARY "FLARE MONITORING"
- D.1. CARBON ADSOPRTION MONITORIN LOG FOR DAILY AND QUARTERLY (for SDS 2 pages)
- SDS CARBON CHANGE OUT LOG
- FORM BB/CC (RCRA) (and used for DD annual)
- AREA 1 Carbon Adsorption Monitoring Log (includes change out log)

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SDS LOG SHEET SUMMARY

"FLARE MONITORING"

DATE: _____

Day	
Night	

Time (Circle AM OR PM	Flare	
	Stack Temp	INWC
6:00 AM/PM		
7:00		
8:00		
9:00		
10:00		
11:00		
12:00		
1:00		
2:00		
3:00		
4:00		
5:00		

Process Manager Signature _____

D. 1. CARBON ADSORPTION MONITORING LOG FOR DAILY AND QUARTERLY

Condition D.1.10 Carbon Adsorber/Canister Monitoring
Condition D.1.17 Record Keeping Requirements (c)
PCI shall document compliance by monitoring for VOC breakthrough at least once per shift when the SDS shredder, the ATDU, the Distillation Unit, and the tanks are in operations. PCI shall replace the carbon canister when breakthrough is detected as stated below under Note.

D.1.14 CARBON ADSORPTION SYSTEM INSPECTION

Inspector:	
Date of Inspection:	Time:
Shift: (First or Second)	
Monitor ID:	
Instrument Calibration Gases:	
Background Instrument Reading:	

Location of Carbon Control Device	Unit Status		Inlet	Exhaust		Visual Insp.	Carbon Replacement			Spent Carbon Placed in Roll Off Box No. for Offsite Combustion
							Y/N	Date	Time	
Vapor Recovery System: CARBON OR FLARE*	Running	Down								
SDS Shredder	Running	Down								
ATDU / OWS	Running	Down								
Area 8 - – Tanks 52,53,54 (Tanks 02 through 04)	Running	Down								
Distillation Unit	Running	Down								
Tank 51	Running	Down								
Tank 55	Running	Down								

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Location of Carbon Control Device	Unit Status	Inlet	Exhaust	Visual Insp.	Carbon Replacement			Spent Carbon Placed in Roll Off Box No. for Offsite Combustion
					Y/N	Date	Time	
Tank 57								
Tank 58								
Tank 59								
Tank 60								
Tank 61								
Pot Still								
Pot Still Pressure Relief								

Note: If outlet port is not 98% less than inlet port, the carbon is considered "spent" and must be changed. When this occurs, the disposal column must be completed identifying disposal route.

Outlet port reading must be <= Inlet port reading x .02 (ppm)

*If FLARE is chosen, please see SDS tracking sheets for required monitoring of flare temperature.

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SDS CARBON CHANGE OUT LOG

Carbon Unit #'s:

1) Tank 51 Carbon
2) Tanks 52, 53, 54 Carbon
3) Tank 55 Carbon
4) OWS/ATDU Carbon
5) Shredder Carbon
6) Distillation Column Carbon
7) VRU Carbon (Back up)
8) Tank 57 Carbon
9) Tank 58 Carbon
10) Tank 59 Carbon
11) Tank 60 Carbon
12) Tank 61 Carbon
13) Pot Still Carbon
14) Pot Still Emergency Relief Carbon

Carbon Unit #	Date/Time Change was Requested	Initials of Person Requesting Carbon Change	Date/Time Carbon Was Changed	Initials of Person Who Changed Carbon

FORM BB/CC3 "DD"

RCRA CAA

SUBPART BB/CC INSPECTION 40CFR 264.1034(b)

Circle Monitoring Reason: Annual / Repair / Modification Inspection For Closed Vent System Form

Inspector (Name or Initials):
Date of Inspection:
Monitor ID(Type of Instrument):
Instrument Calibration Gases : Zero air. Mixture of methane or n-hexane & air at a concentration of approximately, <10,000 ppm methane or n-hexane.
Background Instrument Reading (Method 21):
Management Unit:
Location:
<10-% Total Organics by weight (approximately)
Hazardous Waste State:

Inspection
Annual Visual observation of closed vent system joints: seams, or other connections that are permanently or semi-permanently sealed.
Monitor component or connections using Method 21 in 40 CFR part 60, to demonstrate that it operates without no detectable emissions following any time component is repaired, replaced or connection is unsealed. The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Method 21. The arithmetic difference between the maximum concentration indicated by monitoring and the background level is compared with 500ppm for determining compliance.

Leak Detected			COMMENTS
Component ID	Visual	Monitor >500ppmv	

For Method of compliance: Refer to: 40 CFR 264.1034(b) Test Methods and procedures & Method 21 in 40 CFR part 60.

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AREA 1

Carbon Adsorption Monitoring Log

Date:

Time:

Performed By:

Location	Current activity to carbon (Processing/Not Processing)	Inlet Reading	Outlet 1 Reading	Outlet 2 Reading	Disposed to: (Incineration Roll off Box#)
Thin Film Evaporator					
Area 1-Tank 62					
Area 1-Tank 63					
Area1-Tank 64					
Area1-Tank 65					
Area1-Tank 66					
Area1-Tank 67					
Area1-Sieve					
Area 1 Bottom Receiver Tote					

Note: Breakthrough is detected when the control device is not providing 98% efficiency, using Method 21 in 40 CFR part 60, carbon is considered "spent and must be immediately changed. When carbon is changed out the disposal column must be completed identifying disposal route.