



Mike Dewine, Governor
Jon Husted, Lt. Governor
Laurie A. Stevenson, Director

July 29, 2019

Veolia ES Technical Solutions, LLC
4301 Infirmary Road
West Carrollton, OH 45449

**Re: Veolia ES Technical Solutions, LLC
Director's Final Findings and Orders
(DFFO)
DFFO
RCRA C - Hazardous Waste
Montgomery County
OHD093945293**

Subject: Final Findings and Orders of the Director

To Whom It May Concern:

Transmitted herewith are the Final Findings and Orders of the Director concerning the matter indicated for Veolia ES Technical Solutions, LLC.

Enclosed is the invoice for the total penalty amount of \$20,000.00 required by the orders. The penalty payment(s) shall be made by official check(s) made payable to "Treasurer, State of Ohio."

If you have any questions, please contact Todd Anderson at (614) 644-3037.

Sincerely,

A handwritten signature in black ink that reads "Tonya Andrews". The signature is written in a cursive, flowing style.

Tonya Andrews, Administrative Professional 3
Division of Environmental Response & Revitalization

Enclosure

cc: Tammy Heffelfinger, DERR, CO
Pat Willoughby, DERR, SWDO
Cathy Altman, DERR, SWDO
Randall Kirkland, DERR, SWDO
Todd Anderson, Legal

Ohio EPA Invoice/Receipt

Date Printed: July 30, 2019

Revenue ID: 1298923

Please include this Revenue ID with all correspondence.

Place ID: 31395

Information: Veolia ES Technical Solutions LLC
4301 Infirmary Rd
West Carrollton, OH 45449-1278

Due Date: August 30, 2019

Amount Due: \$20,000.00

Effective Date: July 30, 2019

Revenue Description: DHWM- Findings and Orders - hazardous waste cleanup

Program Name: RCRA C - Hazardous Waste

Reason: Fund 541 (3734.281) RCRA C-Hazardous Waste Program, Veolia ES Technical Solutions, LLC

For some Revenues, Interest and/or Penalties may be charged for late payment.

Next Interest Date (if applicable):

Next Penalty Date (if applicable):

Remittance Advice

Detach Here - Please Return This Portion With Your Payment

Place ID: 31395

Information: Veolia ES Technical Solutions LLC
4301 Infirmary Rd
West Carrollton, OH 45449-1278

Due Date: Aug 30, 2019

Amount Due: \$20,000.00

Secondary Type/Id: RCRA / OHD093945293

Revenue Type: FFOHW

Amount Enclosed: \$ _____

Many Ohio EPA fee invoices are payable online. For online credit card or ACH payment, go to <https://eBiz.epa.ohio.gov>, login or create an account and from the "Available Services" window choose "Pay Ohio EPA Fees Online".

Please write this number on your check. Revenue ID: 1298923
Make check or money order payable to "Treasurer, State of Ohio"

Remit to: Ohio Environmental Protection Agency - OFA
Department L-2711
Columbus, OH 43260-2711

For Ohio EPA use only

Check ID: _____

Check Date: _____

Check Number: _____

Check Amount: \$ _____

2000000

FFOHW 1298923

**BEFORE THE
OHIO ENVIRONMENTAL PROTECTION AGENCY**

In the Matter of:

Veolia ES Technical Solutions, LLC
4301 Infirmiry Road
West Carrollton, Ohio 45449

Respondent

**Director's Final
Findings and Orders**

PREAMBLE

It is agreed by the parties hereto as follows:

 7/29/19

I. JURISDICTION

These Director's Final Findings and Orders (Orders) are issued to Veolia ES Technical Solutions, LLC (Respondent) pursuant to the authority vested in the Director of the Ohio Environmental Protection Agency (Ohio EPA) under Ohio Revised Code (ORC) §§ 3734.13, 3734.02(G) and 3745.01.

II. PARTIES BOUND

These Orders shall apply to and be binding upon Respondent and successors in interest liable under Ohio law. No change in ownership of Respondent or of the Facility shall in any way alter Respondent's obligations under these Orders.

III. DEFINITIONS

Unless otherwise stated, all terms used in these Orders shall have the same meaning as defined in ORC Chapter 3734. and the rules promulgated thereunder.

IV. FINDINGS

The Director of Ohio EPA has determined the following findings:

1. Pursuant to ORC § 3734.02(G) and rule 3745-50-31 of the Ohio Administrative Code (OAC), the Director may, by order, exempt any person generating, storing, treating, or disposing of hazardous waste in such quantities or under such circumstances that, in the determination of the Director, it is unlikely that the public health or safety or the environment will be adversely affected thereby, from any requirement to obtain a permit or comply with other requirements of ORC Chapter 3734. Any such exemption shall be consistent with and equivalent to rules promulgated under the Resource Conservation and Recovery Act of 1976, 90 Stat. 2806, 42 U.S.C. § 6921 et seq., as amended.
2. Respondent is a "person" as defined in ORC § 3734.01(G) and Ohio Administrative Code (OAC) rule 3745-50-10(A).
3. Respondent owns and operates a hazardous waste treatment and storage facility located at 4301 Infirmary Road, West Carrollton, Montgomery County, Ohio (Facility), where it receives hazardous waste and non-hazardous waste from generators. On December 31, 2013, Respondent renewed its hazardous waste facility installation and operation permit (Permit) for treatment (reclamation of spent solvents and fuel blending) and storage of hazardous waste at the Facility. The Facility is assigned U.S. EPA identification number OHD093945293.
4. Throughout the month of February 2017, Ohio EPA received six unmanifested waste reports from a facility not authorized to receive hazardous waste identifying Respondent as the generator. Respondent had received the hazardous waste from other generators prior to shipping it to this facility without hazardous waste manifests, and the hazardous waste was identified by the initial generators as non-hazardous. The unmanifested waste reports documented, in total, the receipt of 28, 55-gallon drums of hazardous waste and one cubic yard tote of hazardous waste carrying hazardous waste codes D001 (ignitability) as described in OAC rule 3745-51-21, and D002 (corrosivity) as described in OAC rule 3745-51-22, based on analysis conducted by the receiving facility. These hazardous wastes were transported back to Respondent's Facility using hazardous waste manifests.
5. On February 23, 2017, Ohio EPA conducted a compliance evaluation inspection at the Facility. During this inspection, Ohio EPA observed the area where non-hazardous waste received from off-site is accumulated, and Respondent informed Ohio EPA that typically when it unloads a truck, it segregates waste labeled as non-hazardous and places it in this area. While the containers of hazardous waste

were no longer present, Ohio EPA did not observe any evidence of releases from the hazardous waste containers that were previously stored in this non-hazardous waste area and the floor was in good condition with no evidence of cracks. The non-hazardous waste storage area is not an area identified in the Facility's Permit for storage of hazardous waste.

6. As a result of the inspection referenced in Finding No. 5. of these Orders and review of the unmanifested waste reports referenced in Finding No. 4. of these Orders, Ohio EPA determined that Respondent, *inter alia*:
 - a. Stored hazardous waste in an unpermitted area of the Facility, in violation of ORC § 3734.02(E) and (F) and OAC rules 3745-50-41 and 3745-50-45. Specifically, Respondent stored hazardous waste in the non-hazardous waste storage area, establishing this area as a hazardous waste management unit; and
 - b. Failed to comply with the terms and condition of the Permit, in violation of OAC rule 3745-50-58(A) and Permit Condition A.5.
7. By letter dated March 16, 2017, Respondent was notified of the violations referenced in Finding No. 6. of these Orders.
8. During the months of April and May 2017, Respondent lawfully transported the returned hazardous wastes to authorized, off-site facilities for proper management.
9. By letter dated May 10, 2017, Respondent submitted a response to Ohio EPA's letter regarding the violations referenced in Finding No. 6. of these Orders. This response included, among other things, a description of the voluntary sampling and analysis Respondent plans to conduct of the non-hazardous waste received from its customers.
10. Further deliberation by Ohio EPA of the events that transpired led Ohio EPA to determine that Respondent, *inter alia*:
 - a. Transported hazardous waste to a facility not authorized to received hazardous waste, in violation of ORC § 3734.02(F);
 - b. Failed to comply with the hazardous waste manifest requirements, in violation of OAC rules 3745-52-20(A)(1) and Permit Condition B.24(a);
 - c. Failed to submit an unmanifested waste report to the Director, in violation of OAC rule 3745-54-76 and Permit Condition B.24(c); and

- d. Failed to report this instance of noncompliance to the Director within 30 days of which Respondent became aware of the noncompliance, in violation of OAC rule 3745-50-58(L)(10) and Permit Condition A.22.
11. By letter dated December 18, 2017, Respondent was notified of the violations referenced in Finding No. 10. of these Orders.
12. By letter dated January 12, 2018, Respondent submitted unmanifested waste reports for the hazardous wastes received by Respondent and a notice of noncompliance for the transportation of these unmanifested hazardous wastes to a facility not authorized to receive hazardous waste as referenced in Finding No. 4. of these Orders.
13. On January 19, 2018, Ohio EPA was verbally notified by Respondent that it unknowingly received three cylinders of nitric oxide (P076) and three cylinders of nitrogen dioxide (P078) as described in OAC rule 3745-51-33, at the Facility on October 3, 2017, and stored them in an area not permitted for storage of this type of hazardous waste. Respondent then transported them to another facility not authorized to receive these hazardous wastes on October 20, 2017.
14. Based upon the information provided by Respondent as described in Finding No. 13. of these Orders, Ohio EPA determined that Respondent, *inter alia*:
 - a. Stored P-listed hazardous waste in an unpermitted area of the Facility, in violation of ORC § 3734.02(E) and (F) and OAC rules 3745-50-41, 3745-50-45 and Permit Condition A.1. Specifically, Respondent has not been permitted to accept or store P-listed hazardous waste in any area of the Facility. The non-hazardous waste storage area is considered a hazardous waste management unit;
 - b. Transported hazardous waste to a facility not authorized to received hazardous waste, in violation of ORC § 3734.02(F);
 - c. Failed to comply with the terms and condition of the Permit, in violation of OAC rule 3745-50-58(A) and Permit Condition A.5; and
 - d. Failed to submit an unmanifested waste report to the Director, in violation of OAC rule 3745-54-76 and Permit Condition B.24(c).
15. By letter dated February 12, 2018, Respondent was notified of the violations referenced in Finding No. 14. of these Orders.
16. By letter dated February 19, 2018, Respondent submitted to Ohio EPA an

unmanifested waste report for the P-listed hazardous waste cylinders referenced in Finding No. 13. of these Orders.

17. By letter dated March 6, 2018, Ohio EPA rescinded the February 12, 2018 letter referenced in Finding No. 15. of these Orders and issued a corrected notice of the violations referenced in Finding No. 14. of these Orders.
18. On March 15, 2018, Respondent submitted to Ohio EPA for review, a draft revision to the waste analysis plan for wastes received from off-site to reduce the likelihood of future mismanagement of hazardous waste.
19. By letter dated March 23, 2018, Respondent provided a response to the violation letter referenced in Finding No. 17. of these Orders. This response outlined procedural and staff changes made to prevent the mismanagement of wastes received at the Facility.
20. By letter dated September 17, 2018, Ohio EPA notified Respondent that the violations referenced in Findings Nos. 10.b., 10.c., and 14.d. of these Orders were resolved.
21. Due to Respondent's establishment and operation of an unpermitted hazardous waste storage area as referenced in Findings Nos. 6.a., 13. and 14.a. of these Orders, Respondent is required to have a hazardous waste facility installation and operation permit and is subject to all general facility standards found in OAC Chapters 3745-54 and 55, including but not limited to, closure in accordance with OAC rules 3745-55-11 through 3745-55-20, the financial assurance for closure requirements contained in OAC rules 3745-55-42 through 3745-55-51 and corrective action for waste management units in accordance with OAC rule 3745-54-101. To obtain a hazardous waste facility installation and operation permit, Respondent is required to submit "Parts A and B" of the application in accordance with OAC Chapter 3745-50.
22. The submittal of a non-hazardous waste analysis plan (NWAP) in lieu of the submittal of an application for a hazardous waste facility installation and operation permit is unlikely to adversely affect the public health or safety or environment. The NWAP will outline steps taken by Respondent to ensure evaluation of wastes received to determine if they are hazardous and prevent mismanagement of wastes received at the Facility from off-site. Therefore, the Director finds that the issuance to Respondent of an exemption from the requirement to submit an application for a hazardous waste facility installation and operation permit for the Facility is unlikely to adversely affect the public health or safety or the environment within the meaning of ORC § 3734.02(G).

23. Because Ohio EPA observed no evidence of releases from the hazardous waste containers stored in the non-hazardous waste area as referenced in Findings Nos. 4. and 6.a., and 13. and 14.a. of these Orders, and this area is considered a waste management unit which will be subject to corrective action pursuant to Respondent's Permit, the Director has determined that hazardous waste closure of this area in accordance with OAC rules 3745-55-11 through 3745-55-20, and the financial assurance for closure requirements contained in OAC rules 3745-55-42 through 3745-55-51 is not required at this time.
24. By electronic mail dated June 10, 2019, Respondent submitted a draft NWAP that prevents mismanagement of wastes received from off-site. On June 10, 2019, Ohio EPA concurred with Respondent's NWAP for the Facility.

V. ORDERS

Respondent shall achieve compliance with Chapter 3734. of the ORC and the regulations promulgated thereunder according to the following compliance schedule:

1. Respondent is hereby exempted from the requirement to submit an application for a hazardous waste facility installation and operation permit for the areas where non-hazardous waste is managed.
2. Within 90 days of the effective date of these Orders, Respondent shall implement the attached NWAP (Attachment 1) referenced in Finding No. 24. of these Orders. Implementation of the NWAP shall resolve the violations referenced in Findings Nos. 6.a. and 6.b., 10.a., 10.d., and 14.a., 14.b. and 14.c. of these Orders.
3. Within 30 days after the effective date of these Orders, Respondent shall pay Ohio EPA the amount of \$20,000.00 in settlement of Ohio EPA's claims for civil penalties, which may be assessed pursuant to ORC Chapter 3734. and which will be deposited into the environmental protection remediation fund established pursuant to ORC § 3734.281. Payment shall be made by an official check made payable to "Treasurer, State of Ohio" for \$20,000.00. The official check shall be submitted to Ohio EPA, Office of Fiscal Administration, Department L-2711, Columbus, Ohio 43260-2711, together with a letter identifying the Respondent. A copy of the check shall be sent to the Financial Program Manager, Ohio EPA, Division of Environmental Response and Revitalization, P.O. Box 1049, Columbus, Ohio 43216-1049.

4. Notwithstanding Section VI. of these Orders:
- a. The Director may revoke the exemption granted in Order No. 1. of these Orders for any reason including but not limited to, a determination that Respondent's activities at the Facility adversely affect public health or safety or the environment, and/or activities are not being conducted in accordance with these Orders and/or the NWAP. Upon termination of these Orders or revocation of the exemption, Respondent shall be required to submit an application for a hazardous waste facility installation and operation permit for the areas where non-hazardous waste is managed.
 - b. During the effective term, the NWAP may be modified by agreement of the parties hereto. Modifications shall be in writing and shall be effective on the date entered into the journal of the Director of Ohio EPA.

VI. TERMINATION

Respondent's obligations under these Orders shall terminate when Respondent certifies in writing and demonstrates to the satisfaction of Ohio EPA that Respondent has performed all obligations under these Orders and the Chief of Ohio EPA's Division of Environmental Response and Revitalization acknowledges, in writing, the termination of these Orders. If Ohio EPA does not agree that all obligations have been performed, then Ohio EPA will notify Respondent of the obligations that have not been performed, in which case Respondent shall have an opportunity to address any such deficiencies and seek termination as described above.

The certification shall contain the following attestation: "I certify that the information contained in or accompanying this certification is true, accurate and complete."

This certification shall be submitted by Respondent to Ohio EPA and shall be signed by a responsible official of Respondent. For purposes of these Orders, a responsible official is a [e.g., corporate officer] who is in charge of a principal business function of Respondent.

VII. OTHER CLAIMS

Nothing in these Orders shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person, firm, partnership or

corporation, not a party to these Orders, for any liability arising from, or related to, the operation of Respondent's Facility.

VIII. OTHER APPLICABLE LAWS

All actions required to be taken pursuant to these Orders shall be undertaken in accordance with the requirements of all applicable local, state and federal laws and regulations. These Orders do not waive or compromise the applicability and enforcement of any other statutes or regulations applicable to Respondent.

IX. MODIFICATIONS

These Orders may be modified by agreement of the parties hereto. Modifications shall be in writing and shall be effective on the date entered in the journal of the Director of Ohio EPA.

X. NOTICE

All documents required to be submitted by Respondent pursuant to these Orders shall be addressed to:

Ohio Environmental Protection Agency
Southwest District Office
Division of Environmental Response and Revitalization
401 East Fifth Street
Dayton, Ohio 45402
Attn: Hazardous Waste Program Manager

and Ohio EPA Central Office at the following address:

For mailings, use the post office box number:

Manager, Hazardous Waste Compliance Assurance Section
Ohio Environmental Protection Agency
Lazarus Government Center
Division of Environmental Response and Revitalization
P.O. Box 1049
Columbus, Ohio 43216-1049

For deliveries to the building:

Manager, Hazardous Waste Compliance Assurance Section
Ohio Environmental Protection Agency
Lazarus Government Center
Division of Environmental Response and Revitalization
50 West Town Street
Columbus, Ohio 43215

or to such persons and addresses as may hereafter be otherwise specified in writing by Ohio EPA.

XI. RESERVATION OF RIGHTS

Ohio EPA and Respondent each reserve all rights, privileges and causes of action, except as specifically waived in Section XII. of these Orders.

XII. WAIVER

In order to resolve disputed claims, without admission of fact, violation or liability, and in lieu of further enforcement action by Ohio EPA for only the violations specifically cited in these Orders, Respondent consents to the issuance of these Orders and agrees to comply with these Orders. Compliance with these Orders shall be a full accord and satisfaction for Respondent's liability for the violations specifically cited herein.

Respondent hereby waives the right to appeal the issuance, terms and conditions, and service of these Orders, and Respondent hereby waives any and all rights Respondent may have to seek administrative or judicial review of these Orders either in law or equity.

Notwithstanding the preceding, Ohio EPA and Respondent agree that if these Orders are appealed by any other party to the Environmental Review Appeals Commission, or any court, Respondent retains the right to intervene and participate in such appeal. In such an event, Respondent shall continue to comply with these Orders notwithstanding such appeal and intervention unless these Orders are stayed, vacated or modified.

XIII. EFFECTIVE DATE

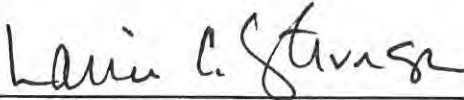
The effective date of these Orders is the date these Orders are entered into the Ohio EPA Director's journal.

XIV. SIGNATORY AUTHORITY

Each undersigned representative of a party to these Orders certifies that he or she is fully authorized to enter into these Orders and to legally bind such party to these Orders.

IT IS SO ORDERED AND AGREED:

Ohio Environmental Protection Agency



Laurie A. Stevenson
Director

IT IS SO AGREED:

Veolia ES Technical Solutions, LLC



Signature

7/15/2019

Date

DEREK BEDLE

Printed or Typed Name

GENERAL MANAGER

Title

Attachment 1

Veolia Environmental Services TS Non-Hazardous Waste Analysis Plan (Non-Hazardous WAP)

1. Scope:

- a. The purpose of this Non-Hazardous Waste Acceptance Plan (Non-haz WAP) is to outline procedures for receiving, sampling, and accepting non-hazardous waste (NH waste) for the Veolia West Carrollton facility.

2. Facility Description:

Company Name and Mailing Address:

Veolia ES Technical Solutions

4301 Infirmary Road

West Carrollton, OH 45449

Phone#: (937) 859-6101

EPA ID #: OHD093945293

Operates a hazardous waste fuel blending and solvent recovery TSDf at this location. In addition, the facility receives non-hazardous waste.

3. Definitions:

- a. Off-spec: The NH waste upon sampling meets the non-hazardous waste characteristics but does not match profile 100%.
 - i. Example 1: A non-hazardous toothpaste stream that is supposed to be green but comes in blue.
 - ii. Example 2: A non-hazardous liquid stream with 40% solids when it is profiled at 5% solids.
- b. Non-conformance: A profiled non-hazardous waste that upon sampling has hazardous waste characteristics
 - i. Non-hazardous liquid stream that upon sampling flashes below 140F, and therefore has to carry the D001 waste code.
 - ii. Non-hazardous liquid stream that upon sampling has a pH of ≤ 2 or ≥ 12.5 and therefore has to carry the D002 waste code.
- c. PCB Suspect:
 - i. Generator Defined PCB Waste
 1. A WIP or other documents that show waste has a PCB level
 - ii. Oil Bearing Waste
 1. Waste containing oil in the WIP or other documentation
 2. Waste with a visual presence of oil
 - a. May include but not limited to, oil emulsion, oil firm, oil phase, or water soluble oil
 - iii. Municipal Waste Water Treatment Facility Sludge
 - iv. Bulk Laboratory Waste
 - v. Bag house dusts from secondary smelters (eg copper aluminum)

- ii. Once the approval is assigned and prior to the waste being received at Veolia West Carrollton the Technical Manager or designee reviews the WIP to verify that Veolia can receive and manage the waste.
- iii. The Technical Manager or designee will review amended or create new WIPs.

b. Onsite Procedures

- i. Once onsite Veolia has 72 hours to offload the trailer. The majority of waste shipments consist of a mix of hazardous waste containers and non-hazardous waste containers. Therefore, the majority of the time the NH waste will be offloaded into the permitted storage building where the waste will be sampled to ensure conformance with the WIP.
- ii. If the non-hazardous waste is offloaded and sampled in the non-haz building the sampling and receiving procedures listed below remain the same.

c. Percentage of Containers Sampled:

- i. The percentage of drums sampled will be done in a tiered approach outlined below:
 - 1. **Phase 1**- 1st shipment of WIP - 100% (every container will be sampled)
 - 2. **Phase 2** - 2nd shipment of WIP - minimum of 50%
 - a. If the waste is shipped in an odd number of containers, then the sampling will be more than 50%. The containers that are sampled will be identified using the FMS (Facility Management System), or an equivalent system.
 - b. Example: 5 drums of WIP XXXXXX on 2nd shipment then 3 drums will be sampled. 3 of 5 or 60% of the containers would be sampled.
 - 3. **Phase 3** - 3rd or greater shipment of WIP - minimum of 10%
 - a. Shipments of containers of a WIP shipped in numbers not divisible by 10 will be sampled more than 10%. The containers that are sampled will be identified using the FMS (Facility Management System), or an equivalent system.
 - b. Examples:
 - i. 3 drums of WIP XXXXXX on 3rd shipment then 1 of 3 drums sampled or 33%
 - ii. 27 drums of YYYYYY shipped on 16th shipment then 3 of 27 drums will be sampled or 11%
 - 4. If at any time any sample results in a non-conformance then the sampling percentages will restart at **Phase 1** and follow the tiered approach.
- ii. Veolia will use a homegrown tracking system called the FMS (Facility Management System), to track which phase a WIP is at, and when a WIP was non-conforming.

- ii. If the pH is less than or equal to 3 or greater than or equal to 11 the individual container samples will be confirmed by an appropriately calibrated pH meter
- c. A flammability test will be conducted
 - i. Up to 10 container samples from the same WIP on the same shipment can be composited following the procedure outlined in Appendix A before flammability testing.
 - ii. If the composited sample ignites then a flashpoint test will be completed on the individual container samples according to the method described in Appendix A to determine the ignitable temperature of each container.
- d. If the waste is considered PCB suspect, a sample will be collected and delivered to the lab to run PCB analysis.

2. Solid - If the waste is a solid

- a. A visual assessment will be completed on the waste to verify conformance with WIP. The visual inspection would include color and type of material (solid, debris, or powder). Documentation is limited to confirmation that a visual assessment has been conducted. A "Compliant or Non-Compliant" check box will designate if the sample matches the WIP. If the sample is deemed "Non-Compliant" then any deficiencies will be documented in a comments section on the sheet.
- b. If the waste is PCB suspect
 - i. A Sample will be collected and delivered to the lab to run PCB analysis.

3. Third Party Laboratories

- a. The company has developed a program of analytical quality practices and procedures to ensure that precision and accuracy are maintained throughout its laboratories. Company facility laboratories are required to participate in this program. Contracted laboratories employed by the company demonstrate quality control practices that are comparable to the company's program.

e. Waste exempt from the sampling and analysis

- i. Unused products accompanied by an SDS
- ii. Non-hazardous lab pack waste
- iii. Inner containers excluding overpacks (e.g., latex paint containers in cubic yard boxes)

NH-WAP Appendix A

SAMPLING METHODOLOGIES

The following procedures are recommended for sampling different types of hazardous materials in various containers.

Sampling a Container

Containers such as drums containing liquid materials can be under pressure or vacuum. A bulging drum usually indicates that it is under high pressure and should not be sampled until the pressure can be relieved safely. A heavily corroded or rusted drum can readily rupture and spill its contents when disturbed; it should be sampled only with extreme caution. Opening the bung of a drum can produce a spark that might detonate an explosive gas mixture in the drum. This situation is difficult to predict and must be taken into consideration every time a drum is opened. The need for full protective sampling equipment cannot be overemphasized when sampling a drum.

1. Position the drum so that the bung is up (drums with the bung on the end should be positioned upright; drums with bungs on the side should be placed on their side, with the bung up).
2. Allow the contents of the drum to settle.
3. Slowly loosen the bung with a bung wrench, allowing any gas pressure to release.
4. Remove the bung and collect a sample through the bung hole with a Coliwasa or open tube sampler (or other appropriate sampling device).
5. Place sample into sample container. Sample containers and closures (lids) must be made of materials that will not alter the character of or react with the samples. Polyethylene or glass is preferred.

Sampling a Tank Truck

Most incoming tank trucks will be sampled at the Veolia sampling platform. The sampling of some tank trucks requires the person collecting the sample to climb onto the truck and walk along a narrow catwalk. In other trucks, it requires climbing access rungs to the tank hatch. These situations present accessibility problems to the sample collector, who usually must wear full protective sampling gear. The sample collector should be in position to collect samples only after the hatch has been slowly opened and any pressure released or any vacuum removed.

1. Let the truck driver (or appropriate personnel) open the truck hatch.
2. Using protective sampling gear, assume a stable stance on the tank catwalk or access rung to the hatch.
3. Collect the sample through the hatch opening with a Coliwasa, open tube sampler, weighted bottle, or other appropriate sampling device.

The sample is heated at a slow, constant rate with continual stirring. A small flame is directed into the cup at regular intervals with simultaneous interruption of stirring. The flash point is the lowest temperature at which application of the test flame causes the vapor above the sample to ignite.

PCB analysis- (REFERENCE SW846-8082)

Chromatography columns are used in conjunction with electron capture detectors to determine the concentration of various polychlorinated biphenyls (PCBS) in waste sample extracts from organic, solid and aqueous matrices. PCB concentrations are quantitated as Arochlors.

pH screen- (REFERENCE ASTM D4980-89)

Acidity or alkalinity is determined by using pH paper or a pH meter. When using pH paper a small portion of the sample is introduced onto full range pH paper. The results are visually compared to the appropriate color chart. When using the pH meter, the pH of a sample is determined electrometrically using a previously calibrated pH meter with a combination pH electrode.

Screening Methods

| | |
|---|--------------|
| Flammability potential screen | 3/D4982 |
| pH screen | 3/D4980 |
| Polychlorinated biphenyls (PCBs) screen | 1/4020, 9078 |

| | | |
|---|---|--|
|  | <p><u>TITLE:</u> Flammability Potential Analysis of Waste (Ignitability)</p> | <p><u>NUMBER:</u> Modification for ASTM D4982 Standard Test Methods for Flammability Potential Analysis of Waste Test Method A <u>EFFECTIVE DATE:</u> 11-29-18</p> |
| <p><u>APPROVED BY:</u> Angela Rice</p> | <p><u>TITLE:</u> Laboratory Manager</p> | <p><u>SUPERCEDES:</u> New</p> |

1.0 PURPOSE

- 1.1 Test method used to determine the potential for waste liquids, sludges or solids to ignite and sustain a flame.

2.0 SUMMARY OF METHOD

- 2.1 A sample portion is exposed to heat and a flame for a determined amount of time. The sample is reported as being positive or negative for ignitability based on whether the sample ignites and continues to burn when the heat/flame source is removed.

3.0 USER

- 3.1. Laboratory Personnel

4.0 DOCUMENTATION/FORMS

- 4.1. Ignitability Logbook

5.0 ADDITIONAL PROTECTIVE EQUIPMENT

- 5.1. Refer to SOP 1000, "Personal Protective Equipment" for PPE Requirements.

6.0 SPECIALIZED EQUIPMENT, TOOLS, SUPPLIES

- 6.1. Propane Torch
6.2. Aluminum weighing dishes
6.3. Large Beaker

7.0 PROCEDURES

- 7.1 All tests must be performed in a laboratory hood.
7.2 Place a sufficient amount of sample in an Aluminum weighing dish.

- 7.3 Ignite the propane torch and without touching the sample, hold the flame above it for 3 seconds.
- 7.4 If the sample ignites and burns before or after the flame is removed, the sample is said to be positive for ignitability at 3 seconds.
- 7.5 If the sample does not ignite, apply the flame directly to the sample for 15 seconds to attempt to light the sample.
- 7.6 If the sample ignites and continues to burn, it is said to be positive for ignitability at 15 seconds.
- 7.7 If after the 15 seconds the sample does not ignite or burn the ignitability is reported as negative.
- 7.8 Turn off the propane torch.
- 7.9 To extinguish a burning sample, invert a large beaker over the dish until the flame goes out and it stops burning. Wait until any sample left and the dish to cool before touching and disposing of it.
- 7.10 Quality Control
 - 7.10.1 Quality control check samples should be performed on a routine basis, (at least once each day any samples are run).
 - 7.10.2 Sample duplicates will be performed at the frequency required by the corporate QA policy. (Currently, one duplicate is required for every twenty samples).

8.0 RESPONSIBILITY

- 8.1 Method procedure will be followed as written and all data recorded.
- 8.2 Duplicates will be analyzed every twentieth sample.

9.0 USERS PERFORMANCE CRITERIA

- 9.1 Successful analysis and documentation of samples submitted for Ignitability determination.

10.0 CROSS REFERENCES

- 10.1 SOP 1000 Personal Protective Equipment


10.2 ASTM D4982 Standard Test Methods for Flammability Potential Screening Analysis of Waste

11.0 REGULATORY/PERMIT REQUIREMENTS

11.1 All samples must be collected using a sample plan that addresses the considerations discussed in the facility Waste Analysis Plan (WAP) and Non-Hazardous Waste Analysis Plan (NH WAP).

12.0 GLOSSARY OF TERMS

12.1 NA

| | | |
|---|---|--|
|  | TITLE: Compositing of Liquid Non-Hazardous Samples for pH, Flammability or Ignitability | NUMBER: SOP 13 EFFECTIVE DATE: 3-1-19 |
| APPROVED BY: Angela Rice | TITLE: Laboratory Manager | SUPERSEDES: New |

1.0 PURPOSE

1.1 To ensure that a proper subsample of a non-hazardous liquid sample is collected in the Veolia Laboratory.

2.0 SCOPE

2.1 This document describes procedures for collecting subsamples from non-hazardous liquid samples submitted to the laboratory for pH, Flammability or Ignitability.

3.0 USER

- 3.1** Laboratory personnel
- 3.2** Material Handler

4.0 DOCUMENTATION/FORMS

4.1. None

5.0 ADDITIONAL PROTECTIVE EQUIPMENT

5.1. Refer to SOP 1000, "Personal Protective Equipment" for PPE requirements.

6.0 SPECIALIZED EQUIPMENT, TOOLS, SUPPLIES

- 6.1.** Sample jars
- 6.2.** Disposable pipettes
- 6.3.** Laboratory spoons and spatulas
- 6.4.** Labels

7.0 PROCEDURES

- 7.1** As many as ten samples from the same WIP on the same shipment can be composited for the analysis of pH, Flammability or Ignitability.
- 7.2** Representative and equal aliquots of each individual sample must be combined into the final composite based on the number of samples.

7.2.1 For example, if 10 individual samples are being combined, the proportion of each aliquot cannot be more than 10% of the composited sample.

7.3 To begin compositing, agitate or stir the sample and immediately transfer the representative aliquot to the composite sample jar.

7.4 Repeat 7.3 and 7.4 for each individual sample that is being added to the composite.

7.5 Wipe the exterior of the subsample jar and label the container appropriately.

Note: If a reaction occurs during any step of the compositing stop immediately and notify the laboratory manager and/or the supervisor on duty what WIP was being combined and the type of reaction. For example: bubbling, fuming, heat generation or solidification, etc.

8.0 RESPONSIBILITY

8.1 Laboratory Manager

8.1.1 Ensure that all laboratory personnel are trained.

8.1.2 Oversee conformance to the written procedure.

8.2 Laboratory Personnel

8.2.1 All laboratory personnel who collect subsamples must be trained.

8.2.2 Notify Laboratory Manager for any discrepancies with subsampling.

8.3 Material Handler

8.3.1 All material handlers who collect subsamples must be trained.

8.3.2 Notify Laboratory Manager for any discrepancies with subsampling.

9.0 USERS PERFORMANCE CRITERIA

9.1 Successful composite subsampling of non-hazardous samples submitted for pH, flammability or Ignitability.

10.0 CROSS REFERENCES

10.1 SOP 1000 Personal Protective Equipment

10.2 Sampling Protocol #14 Subsampling Liquids

11.0 REGULATORY/PERMIT REQUIREMENTS

- 11.1** All subsampling must be collected using a sampling plan that addresses the considerations discussed in the facility Non-Hazardous Waste Analysis Plan.

12.0 GLOSSARY OF TERMS

- 12.1** Subsample- A small portion that is representative of the original sample.
- 12.2** Representative sample- Sample collected such that it matches the characteristics of the original sample from which it was obtained from.
- 12.3** Aliquot- A portion of a larger whole, especially a sample taken for analysis.