

INSPECTION REPORT

|                                                        |                                                                                                                                          |                                                                                                 |                |
|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------|
| <b>Inspection Date(s):</b>                             | 04/13/2021 -<br>04/15/2021                                                                                                               | Announced: Yes                                                                                  |                |
| <b>Time:</b>                                           | Entry: 09:05 AM (MT)                                                                                                                     | Exit: 10:30 AM (MT)                                                                             |                |
| <b>Program:</b>                                        | RCRA                                                                                                                                     |                                                                                                 |                |
| <b>Regulatory Program(s):</b>                          | Title 40 - ENVIRONMENTAL PROTECTION AGENCY; COLORADO STATE REGULATIONS                                                                   |                                                                                                 |                |
|                                                        |                                                                                                                                          |                                                                                                 |                |
| <b>Company Name:</b>                                   | VEOLIA ES TECHNICAL SOLUTIONS LLC                                                                                                        |                                                                                                 |                |
| <b>Facility or Site Name:</b>                          | VEOLIA ES TECHNICAL SOLUTIONS LLC – HENDERSON, CO                                                                                        |                                                                                                 |                |
| <b>Facility/Site Physical Address:</b>                 | 9131 EAST 96TH AVENUE                                                                                                                    |                                                                                                 |                |
| <b>(city, state, zip code)</b>                         | HENDERSON, CO 80640                                                                                                                      |                                                                                                 |                |
| <b>Type of Operation:</b>                              | Solvent Recovery Facility                                                                                                                |                                                                                                 |                |
| <b>Size of Facility:</b>                               | 8.64 acres footprint; about 18,000 sq. ft. of office space; 6,004 drum storage capacity; 150,000 gallons rail car capacity (6 rail cars) |                                                                                                 |                |
| <b>Length of Facility at Location:</b>                 | Constructed in 1981                                                                                                                      |                                                                                                 |                |
| <b>Geographic Coordinates:</b>                         | 39.87075, -104.88168                                                                                                                     |                                                                                                 |                |
| <b>County:</b>                                         | Adams County                                                                                                                             |                                                                                                 |                |
|                                                        |                                                                                                                                          |                                                                                                 |                |
| <b>Facility/Site Identifier:</b>                       | COD980591184                                                                                                                             |                                                                                                 |                |
| <b>NAICS:</b>                                          | 562211 (Hazardous Waste Treatment and Disposal), 325998 (All Other Miscellaneous Chemical Product and Preparation Manufacturing)         |                                                                                                 |                |
|                                                        |                                                                                                                                          |                                                                                                 |                |
| <b>Lead Inspector:</b>                                 |                                                                                                                                          |                                                                                                 |                |
| Cindy Schafer                                          | [Signature]                                                                                                                              | <b>CYNTHIA SCHAFER</b> Digitally signed by CYNTHIA SCHAFER<br>Date: 2021.06.11 09:32:38 -06'00' |                |
|                                                        | REGION 8                                                                                                                                 | Schafer.Cynthia@epa.gov                                                                         | (303) 312-6035 |
|                                                        |                                                                                                                                          |                                                                                                 |                |
| <b>Additional Persons Participating in Inspection:</b> |                                                                                                                                          |                                                                                                 |                |
| Kristin McNeill                                        | REGION 8                                                                                                                                 | Mcneill.Kristin@epa.gov                                                                         | (303) 312-6278 |
|                                                        |                                                                                                                                          |                                                                                                 |                |
| <b>Supervisor Review:</b>                              |                                                                                                                                          |                                                                                                 |                |
| Janice Pearson                                         | [Signature]                                                                                                                              | <b>JANICE PEARSON</b> Digitally signed by JANICE PEARSON<br>Date: 2021.06.11 09:06:25 -06'00'   |                |
|                                                        | REGION 8                                                                                                                                 | Pearson.Janice@epa.gov                                                                          | (303) 312-6354 |

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**SECTION I – INTRODUCTION****Purpose of the Inspection/Objective**

Type of inspection: FCI - Focused Compliance Inspection

RCRA National Compliance Inspection at Veolia ES Technical Solutions. Focused inspection on compliance with 40 CFR Part 264, Subparts AA, BB and CC [6-CCR 1007-3 – Part 264, Subparts AA, BB and CC].

**Attendees**

| Title                             | Name            | Email                       | Present in Opening Conf. | Present in Closing Conf. |
|-----------------------------------|-----------------|-----------------------------|--------------------------|--------------------------|
| Lead EPA RCRA Inspector           | Cindy Schafer   | schafer.cynthia@epa.gov     | Yes                      | Yes                      |
| EPA RCRA Inspector                | Kristin McNeill | mcneill.kristin@epa.gov     | Yes                      | Yes                      |
| NEIC RCRA Inspector               | Craig Lutz      | lutz.craig@epa.gov          | Yes                      | Yes                      |
| EHS Manager                       | Jeff Leleszi    | jeffrey.leleszi@veolia.com  | Yes                      | Yes                      |
| General Manager - Mountain Branch | Tom Anckner     | tom.anckner@veolia.com      | Yes                      | Yes                      |
| Facility Manager                  | Justin Robert   | justin.robert@veolia.com    | Yes                      | Yes                      |
| EHS Supervisor                    | Alex Schick     | alex.schick@veolia.com      | Yes                      | No                       |
| CDPHE RCRA Inspector              | Susan Guiet     | susan.guiet@state.co.us     | Yes                      | No                       |
| CDPHE RCRA Permit Writer          | Randy Perlis    | randy.perlis@state.co.us    | Yes                      | Yes                      |
| CDPHE RCRA Inspector              | Kendall Griffin | kendall.griffin@state.co.us | Yes                      | Yes                      |
| NEIC RCRA Inspector               | Laura Kanopkin  | kanopkin.laura@epa.gov      | Yes                      | Yes                      |
| EHS Specialist                    | Andrew Garcia   | andrew.garcia@veolia.com    | No                       | Yes                      |

**Opening Conference**

Due to ongoing concerns about indoor gatherings due to the COVID-19 pandemic, the opening conference was held virtually from 9:00 – 11:00 AM (MT) on 4/12/2021 and the closing conference was held virtually from 9:00 – 10:00 AM (MT) on 4/15/2021. I gave a CBI warning to the participants, listed in the above table, who were present during the opening conference. During the opening conference, I discussed the Facility operations.

The EPA Lead Inspector, Cindy Schafer, arrived at VEOLIA ES TECHNICAL SOLUTIONS LLC (Veolia - Henderson) at 09:05 AM (MT) on 04/13/2021 for the comparative monitoring portion of the inspection. She presented her credentials to Jeff Leleszi and informed him that this was an EPA RCRA inspection focused on compliance with the RCRA regulations found in 40 CFR Part 264, Subpart AA, BB, CC. NEIC Inspectors, Laura Kanopkin and Craig Lutz, were present during the entire inspection. CDPHE Inspectors, Randy Perlis and Susan Guiet, were present

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during the opening conference and on 4/13/2021. The EPA Inspector, Kristin McNeill, was present during the opening conference on 4/14/2021 and during the closing conference.

**Facility/Site Description**

The Veolia - Henderson Facility provides hazardous waste treatment and handling services, including solvent recovery, waste neutralization, waste blending, waste bulking, and waste transfer. The Facility is located in an industrial area off of Interstate 76 in Henderson, CO.

**Facility Info**

|                                                  |                                                                       |
|--------------------------------------------------|-----------------------------------------------------------------------|
| <b>What type of generator facility notified?</b> | TSDf and LQG                                                          |
| <b>Safety Training Provided to Inspector(s)?</b> | Yes on 4/12/2021                                                      |
| <b>Operating Hours</b>                           | Operates 24/7                                                         |
| <b>Number of employees</b>                       | About 40 employees including operators, lab employees, and management |

**Process Description**

The Veolia - Henderson Facility accepts most hazardous wastes; however, the Facility does not accept radioactive waste or medical waste, explosives, or municipal garbage.

When waste arrives at the Veolia - Henderson Facility, it generally goes into storage in either one of the eight container storage areas or into one of the 35 permitted hazardous waste storage tanks within the four tank farms at the Facility. The exception is 10-day transfer waste, which remains in the 10-day waste area at the Facility.

The Veolia – Henderson Facility performs the following treatment in containers' operations: neutralization, aerosol can treatment, solidification (rarely performed - not currently doing this), container to container blending, and physical separation (to remove insoluble metals from solvents).

A majority of waste received at the Veolia - Henderson Facility leaves the Facility without any processing other than bulking. The Facility bulks liquid and solid debris type material.

All of the tanks are fixed roof tanks that vent emissions to the vapor recovery unit (VRU), which is a nitrogen condenser with a glycol chiller. The fixed roof tanks are required by the Facility's RCRA permit to meet the level 2 tank standards in 6 CCR-1007-3 § 264.1084(d) – fixed roof tanks that vent to a control device. The VRU is required to meet the 95% control efficiency standard in 6 CCR-1007-3 § 264.1032(a)(2). The equipment, including pumps, valves, pressure relief devices, flanges and connectors, used to move hazardous waste with at least 10% by weight organic content between the tanks and the treatment units, which is required to meet the standards in 6 CCR-1007-3 §§ 264.1050-1065.

Treatment Unit #1 is a thin film evaporator and a distillation column used for solvent recovery.

Treatment Unit #2 is a distillation column connected to two pot stills and it is also used for solvent recovery.

Neutralization operations at the Facility involve Tank 9, a liquid-liquid extractor, and Tank 31. Tank 31 contains an H2SO4 injection and recirculation loop.

Process vents from Treatment Units #1 and #2 and the liquid-liquid extractor as well as tanks are routed to the VRU, which controls organic emissions by cooling and condensing the vapors back to liquid and routing the liquid to a storage tank.

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The VRU consists of a nitrogen condenser and a glycol chiller. The glycol chiller is available for use when needed to maintain >95% reduction in volatile organic compounds (VOC).

Before a waste stream can enter the Veolia - Henderson Facility, the customer is required to complete a hazardous waste profile, as required by the Veolia – Henderson waste analysis plan, that is part of the Facility's RCRA permit. Veolia - Henderson Facility receives information about the waste stream and they determine how to manage the waste before it is received. If the Veolia - Henderson Facility can't accept waste, they look for other Veolia Facilities to take the waste, then they look to competitors if no Veolia Facility can accept the waste. If the waste is approved for acceptance at the Veolia - Henderson Facility, it gets assigned an approval code. The approval code indicates what process the waste is accepted for. The approval code is based on the chemistry of the waste and the RCRA permit. When a container arrives, the Veolia – Henderson Facility unloads and inspects the container. Bulk waste is sampled and the container is inspected. If containers are going to be processed by any of the treatment options at the Veolia - Henderson Facility, the waste is sampled. If the waste is going to be shipped off-site, it is not sampled at the Veolia - Henderson Facility. The Facility checks that the hazardous waste manifest matches the profile, shipping name and waste codes.

For containerized wastes that will be blended and set off-site for energy recovery (fuel blending), the waste is received, inspected, sampled and then placed in storage or sent to processing. Once the laboratory results are confirmed, the waste goes into compliant status. When the waste is ready for processing, Veolia – Henderson generates a processing list and pull containers and they pump the contents into a tank. For tanker truck waste that will be blended and sent off-site for energy recovery, a sample is taken and the tanker is inspected; once approved by laboratory employees, the waste is offloaded into a tank.

Wastes going to solvent recovery or neutralization follow the same acceptance process as fuel blending wastes.

For the solvent recovery process there are two options. For option one, the waste is routed to one of the pot stills (Tanks 6 and 10) and then routed through heat exchangers/reboilers to heat the liquid up. Then the liquid is fed directly back into the pot still until it reaches the target temperature then the vapor is taken overhead and goes to a distillation column. The distillation bottoms go back to a tank. Vapors go to a condenser and are routed back to a tank. After vapors are recondensed, then they may go to an intermediate storage tank and will be rerun or may go to a final tank. There is no vent on the condenser system and the entire process is a closed system; all vapors are condensed and routed to a tank. No tanks breathe directly to the atmosphere (except in process upset conditions). For the second option, the thin film evaporator, which is basically a heat exchanger, receives material from a storage tank. The liquid enters the internal cylinder of the thin film evaporator at the top of the unit. There's a rotary vane that splatters the liquid onto the wall of the heat exchanger. The liquid goes down and it is collected and routed to a tank. The vapor is routed to a fractionation column and then to the condenser and then routed to a tank. The Facility has two condenser systems. The pot stills and thin film evaporator can go to either distillation column, but each distillation column is tied to a condenser. Distillation is performed at either atmospheric pressure or vacuum pressure. The vapors condense upon leaving the distillation column. The condenser systems on the distillation columns are different from the VRU.

Material in tanks are in a separate conveyance system to the VRU. Vapors from the tanks bypass the flow meters on the distillation columns and enter the VRU. There is a vent/exhaust out on the VRU that is routed through a blow down tank and then exits to the atmosphere.

Containers are unloaded using a stinger wand to pump waste out of a container and into a tank. Vapors from filling the tank are routed to the VRU.

Tanker trucks are unloaded by pumping the liquid into the bottom of the tank. Vapors are circulated back into the tanker for vapor balancing.

For wastes that could go to energy recovery, fuel blending or incineration, the decision of how to treat the waste is based on the solids content of the incoming waste. Solvents that go off-site for energy recovery have too many solids for the Veolia - Henderson Facility to recover. H061 fuel blending is for waste that Veolia - Henderson could have processed, but they chose not to (for example, it could be due to capacity). Wastes going

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off-site for incineration are wastes that do not have any appreciable BTU value or the customer wants incineration. Cement kilns generally don't use low pH solvents to use as a fuel.

The Facility comply with the container standards in 6-CCR 1007-3 § 264.1086 by complying with DOT container requirements to meet the level 1 container standards.

The Facility uses a Leak Detection and Repair (LDAR) software program to record LDAR monitoring activities. Currently, the Facility still uses a separate database to record leaks, repair activities, delay of repair information, and components designated as no detectable emissions. The Facility does not have any difficult-to-monitor or unsafe-to-monitor designated components. The Facility uses a flame ionization detector (FID) for Method 21 monitoring.

## SECTION II – OBSERVATIONS AND RECORDS REVIEW

### Observations

|                                                                                                                                                                                                          |                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| <b>Building:</b> Distillation Column #1                                                                                                                                                                  | <b>Contains CBI:</b> No      |
| <b>Observation #:</b> CS1-OB-017                                                                                                                                                                         | <b>Date/Time:</b> 05/09/2021 |
| Monitored 5 pumps, 51 valves and 126 other connectors using Method 21. Identified 2 leaking components: a connector with tag # 7118 measured at 10,200 ppm and a visual leak at pump P-8110, tag # 6652. |                              |

|                                         |                              |
|-----------------------------------------|------------------------------|
| <b>Building:</b> Distillation Column #1 | <b>Contains CBI:</b> No      |
| <b>Observation #:</b> CS1-OB-021        | <b>Date/Time:</b> 05/09/2021 |
| Open-ended line found near tag # 665.   |                              |

|                                                                                                                    |                              |
|--------------------------------------------------------------------------------------------------------------------|------------------------------|
| <b>Building:</b> Distillation Column #2                                                                            | <b>Contains CBI:</b> No      |
| <b>Observation #:</b> CS1-OB-016                                                                                   | <b>Date/Time:</b> 05/09/2021 |
| Monitored 2 pumps, 2 PRDs, 51 valves and 107 other connectors. Identified one visual leak at a pump, tag # P-8502. |                              |

|                                         |                              |
|-----------------------------------------|------------------------------|
| <b>Building:</b> Distillation Column #2 | <b>Contains CBI:</b> No      |
| <b>Observation #:</b> CS1-OB-019        | <b>Date/Time:</b> 05/09/2021 |
| Open-ended line found near tag # 14052. |                              |

|                                         |                              |
|-----------------------------------------|------------------------------|
| <b>Building:</b> Distillation Column #2 | <b>Contains CBI:</b> No      |
| <b>Observation #:</b> CS1-OB-020        | <b>Date/Time:</b> 05/09/2021 |

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Open-ended line found near tag # 14049.

**Building:** Distillation Column #2

**Contains CBI:** No

**Observation #:** CS1-OB-022

**Date/Time:** 05/09/2021

Open-ended line found near tag # 9241.

**Building:** Liquid-Liquid Extractor

**Contains CBI:** No

**Observation #:** CS1-OB-018

**Date/Time:** 05/09/2021

Monitored 4 pumps, 1 PRD, 77 valves and 134 other connectors. Did not identify any leaking components.

**Building:** Mobile Pump Unit WP 7712

**Contains CBI:** No

**Observation #:** CS1-OB-007

**Date/Time:** 05/09/2021

Monitored 6 valves and 6 other connectors using Method 21. Did not identify any leaking components.

**Building:** Tank Farm #1/Tank # E-1205

**Contains CBI:** No

**Observation #:** CS1-OB-012

**Date/Time:** 05/09/2021

Monitored 1 pump, 2 PRDs, 21 valves and 24 other connectors using Method 21. Did not identify any leaks.

**Building:** Tank Farm #1/Tank #5-5

**Contains CBI:** No

**Observation #:** CS1-OB-013

**Date/Time:** 05/09/2021

Monitored 11 valves and 27 other connectors using Method 21. Identified 1 leaking other connector; tag # 560 measured at 2,599 ppm.

**Building:** Tank Farm #2/Tank #31

**Contains CBI:** No

**Observation #:** CS1-OB-015

**Date/Time:** 05/09/2021

Monitored 12 valves and 23 other connectors using Method 21. Did not identify any leaking components.

**Building:** Tank Farm #2/Tank #32-3

**Contains CBI:** No

**Observation #:** CS1-OB-014

**Date/Time:** 05/09/2021

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Monitored 1 pump, 2 PRDs, 24 valves and 29 other connectors. Did not identify any leaking components.

**Building:** Tank Farm #3/Tank #102

**Contains CBI:** No

**Observation #:** CS1-OB-008

**Date/Time:** 05/09/2021

Monitored 11 valves and 23 other connectors using Method 21. Did not identify any leaks.

**Building:** Tank Farm #3/Tank #62

**Contains CBI:** No

**Observation #:** CS1-OB-002

**Date/Time:** 05/09/2021

Monitored 2 PRDs, 8 valves and 22 other components using Method 21. Did not identify any leaking components.

**Building:** Tank Farm #3/Tank #71

**Contains CBI:** No

**Observation #:** CS1-OB-004

**Date/Time:** 05/09/2021

Monitored 1 PRD, 19 valves and 16 other connectors using Method 21. Did not identify any leaks.

**Building:** Tank Farm #3/Tank #72

**Contains CBI:** No

**Observation #:** CS1-OB-001

**Date/Time:** 05/09/2021

Monitored 2 PRDs, 13 valves and 30 other connectors using Method 21. Did not identify any leaking components

**Building:** Tank Farm #3/Tank #73

**Contains CBI:** No

**Observation #:** CS1-OB-003

**Date/Time:** 05/09/2021

Monitored 2 PRDs, 16 valves and 32 other connectors. Identified 1 visual leak on another connector; tag #2322.

**Building:** Tank Farm #3/Tank #74

**Contains CBI:** No

**Observation #:** CS1-OB-005

**Date/Time:** 05/09/2021

Monitored 19 valves and 28 other connectors using Method 21. Did not identify any leaks.

**Building:** Tank Farm #3/Tank #91

**Contains CBI:** No

**Observation #:** CS1-OB-006

**Date/Time:** 05/09/2021

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Monitored 16 valves and 17 other connectors. Identified 2 leaking other connectors: tag # 9223 had a leak reading of 2,800 ppm and tag # 9340 had a leak reading of 714 ppm.

**Building:** Tank Farm #4/Tank #44**Contains CBI:** No**Observation #:** CS1-OB-010**Date/Time:** 05/09/2021

Monitored 2 PRDs, 12 valves and 22 other connectors using Method 21. Did not identify any leaks.

**Building:** Tank Farm #4/Tank #47**Contains CBI:** No**Observation #:** CS1-OB-009**Date/Time:** 05/09/2021

Monitored 3 valves and 20 other connectors using Method 21. Did not identify any leaks.

**Building:** Tank Farm #4/Tank #51**Contains CBI:** No**Observation #:** CS1-OB-011**Date/Time:** 05/09/2021

Monitored 9 valves and 23 other connectors using Method 21. Did not identify any leaks.

**Records Review****Record:** Air Emission Subparts AA/BB/CC related documents**AOC:** Yes**Ref #:** CS1-RR-001**Reviewed By:** Cindy Schafer**Reviewed Date:** 05/28/2021 11:06 AM (MT)

A review of the Leak Log provided by Veolia - Henderson found the following areas of concern:

- 3 missed first attempts at repair;
- 115 missed repairs; and
- 5 invalid delay of repair (DOR) reasons (also included in the count for the missed repairs table).

**Document(s)**

1. LDAR Leak Log Review.xlsx
2. Leak Log 2018-2021.xlsx

**Record:** Air Emission Subparts AA/BB/CC related documents**AOC:** No**Ref #:** CS1-RR-002**Reviewed By:** Cindy Schafer**Reviewed Date:** 05/28/2021 11:19 AM (MT)

The inspection team identified 6 leaking components during the inspection. Veolia – Henderson provided records on 4/26/2021 demonstrating that the 6 leaking components had been repaired. All repairs were conducted within the 5- and 15- or 45-day repair timeframe. The leaks on the level gauge for Tank 73 and Pump 8502 were visual leaks.

**Document(s)**

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1. Pump 8502\_RWO5123.pdf
2. Tank 5 Level Gauge\_RWO5122.pdf
3. VB Manway\_RWO5116.pdf
4. Tank 91 PVSV and Level Gauge\_RWO5121.pdf
5. Tank 73 Gauge\_RWO 5124.pdf

|                                                                                                                                                                                                                                                                                                   |                                   |                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|------------------------------------------------|
| <b>Record:</b> Air Emission Subparts AA/BB/CC related documents                                                                                                                                                                                                                                   |                                   | <b>AOC:</b> Yes                                |
| <b>Ref #:</b> CS1-RR-003                                                                                                                                                                                                                                                                          | <b>Reviewed By:</b> Cindy Schafer | <b>Reviewed Date:</b> 05/28/2021 11:31 AM (MT) |
| <p>Veolia – Henderson provided records demonstrating that the 4 open-ended lines identified by EPA were either plugged or capped (votator, tag 665), disconnected (sample cooler; open-ended line near tag 9241), or not in VOC service (HX 8505; open-ended line near tags 14052 and 14049).</p> |                                   |                                                |
| <b>Document(s)</b>                                                                                                                                                                                                                                                                                |                                   |                                                |
| 1. HX-8505.pdf                                                                                                                                                                                                                                                                                    |                                   |                                                |

|                                                                                                                                                                                   |                                   |                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|------------------------------------------------|
| <b>Record:</b> Air Emission Subparts AA/BB/CC related documents                                                                                                                   |                                   | <b>AOC:</b> No                                 |
| <b>Ref #:</b> CS1-RR-004                                                                                                                                                          | <b>Reviewed By:</b> Cindy Schafer | <b>Reviewed Date:</b> 05/28/2021 11:37 AM (MT) |
| <p>Calculations showing that the VRU used by Veolia – Henderson to control emissions of VOCs is capable of achieving 95.5% control efficiency when operating at maximum load.</p> |                                   |                                                |
| <b>Document(s)</b>                                                                                                                                                                |                                   |                                                |
| <ol style="list-style-type: none"> <li>1. R4 Veolia VRU Calcs 10 08 18-agency version DRAFT.xlsx</li> <li>2. Veolia VRU Verification Study Modification - Final.pdf</li> </ol>    |                                   |                                                |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                   |                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|------------------------------------------------|
| <b>Record:</b> Air Emission Subparts AA/BB/CC related documents                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                   | <b>AOC:</b> No                                 |
| <b>Ref #:</b> CS1-RR-005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Reviewed By:</b> Cindy Schafer | <b>Reviewed Date:</b> 05/28/2021 11:57 AM (MT) |
| <p>Based on calculations provided by Veolia - Henderson, the vapor pressure of the worst-case waste scenario is 12.3 psi at 75.8 degrees F (based on a mixture of 50% cyclohexanone, 20% isopropyl alcohol, and 30% ethyl lactate). The records provided show the relief set point on the pressure relief devices on the tanks in Tank Farms 1-4 indicate that the pressure relief set point on the conservation vent is set to 7 in W.C. (0.25 psi). The conservation vent routes' emissions to the VRU. The records provided show the relief set point on the emergency vents indicate the pressure relief set point is set to 12.1 in W.C. (0.44 psi). The inspection team did not identify any leaking pressure relief devices during the inspection, suggesting that the above analysis is missing information.</p> |                                   |                                                |
| <b>Document(s)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                   |                                                |
| 1. PRD 43.44.45.46.pdf                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                   |                                                |

|                                                                                                                                                               |                                     |                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------------------------------|
| <b>Record:</b> Veolia Flammable Waste Manifests                                                                                                               |                                     | <b>AOC:</b> No                                 |
| <b>Ref #:</b> CS1-RR-006                                                                                                                                      | <b>Reviewed By:</b> Kristin McNeill | <b>Reviewed Date:</b> 06/09/2021 10:35 AM (MT) |
| <p>Veolia - Henderson provided information explaining each instance where apparent flammable waste was shipped without a D001 waste code on the manifest.</p> |                                     |                                                |

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**Document(s)**

1. Veolia flammable waste manifests.xlsx

**SECTION III – AREAS OF CONCERN**

The presentation of areas of concern does not constitute a formal compliance determination or violation.

**CS1-RR-001**

Veolia – Henderson provided the Leak Log (Leak Log 2018-2021.xlsx) that the EPA reviewed. The EPA found the following areas of concern:

- 3 missed first attempts at repair;
- 115 missed repairs; and
- 5 invalid DOR reasons (also included in the count for the missed repairs table).

**Citation:** First attempt at repair is required to be completed within 5 days of detection according to 6-CCR 1007-3 §§ 264.1057(d)(2) (valves), 264.1052(c)(2) (pumps), and 264.1058(c)(2) (connectors).

**Citation:** Final repair is required to be completed within 15 days of detection according to 6-CCR 1007-3 §§ 264.1057(d)(1) (valves), 264.1052(c)(1) (pumps), and 264.1058(c)(1) (connectors).

**Citation:** Delay of repair is only allowed under 6-CCR 1007-3 § 264.1059 if the repair is technically infeasible without a hazardous waste management unit shutdown; if equipment is isolated from the hazardous waste management unit; for valve if the emissions of purged material resulting from immediate repair are greater than the emissions likely to result from delay of repair; or for pumps if the repair requires the use of a dual mechanical seal system that includes a barrier fluid system. Delay of repair beyond a hazardous waste management unit shutdown is allowed for valves if valve assembly replacement is necessary and valve assembly supplies have been depleted and valve assembly supplies had been sufficiently stocked before the supplies were depleted and repair is made within 6 months of the shutdown.

**CS1-RR-002**

Veolia – Henderson provided records demonstrating the 4 open-ended lines identified by EPA were either plugged or capped (votator, tag 665), disconnected (sample cooler; open-ended line near tag 9241), or not in VOC service (HX 8505; or open-ended line near tags 14052 and 14049).

**Citation:** Open-ended lines are required to be equipped with a cap, blind flange, plug or second valve according to 6-CCR 1007-3 264.1056(a)(1).

Note: Out of the 4 open-ended lines identified by EPA during the inspection, only 2 were in hazardous waste service, the open-ended line on the votator (tag 665) and the open-ended line on the sample cooler (tag 9241).

**CS1-RR-003**

EPA found the leak on the vacuum break side of the conservation vent on Tank 91 (tag 9340) was leaking. The vacuum break side of a conservation vent should only ever allow air in and should never leak.

**Citation:** Each opening in the fixed roof not vented to the control device shall be equipped with a closure device... If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device shall be designed to operate with no detectable organic emissions. [6-CCR 1007-3 264.1084(g)(1)(ii)]

Inspection Date(s):

04/12/2021 - 04/15/2021

**SECTION IV – FOLLOW UP**

Based on calculations provided by Veolia - Henderson, the vapor pressure of the worst-case waste scenario is 12.3 psi at 75.8 degrees F based on a mixture of 50% cyclohexanone, 20% isopropyl alcohol, and 30% ethyl lactate. The records provided show the relief set point on the pressure relief devices on the tanks in Tank Farms 1-4 indicate that the pressure relief set point on the conservation vent is set to 7 in W.C. (0.25 psi). The conservation vent routes' emissions to the VRU. The records provided show the relief set point on the emergency vents indicate that the pressure relief set point is set to 12.1 in W.C. (0.44 psi). The inspection team did not identify any leaking pressure relief devices during the inspection, suggesting that the above analysis is missing information.

**Closing Conference**

The following records were requested during the inspection and provided on 4/26/2021:

- PowerPoint presentation given during opening conference;
- LDAR database in .bak format;
- MS Access database with LDAR records (repairs and repair verification monitoring);
- Pressure relief device (PRD) release set points for the two PRDs on each tank (can note if they are the same);
- 95% VOC reduction calculations (for Subp. AA compliance);
- Repair records for leaks identified during inspection (or notes indicating that component is not in VOC service or other reason why Veolia - Henderson doesn't consider it to be a leak);
- Profiles – Department of Transportation (DOT) flammable wastes without a D001 code on manifest; and
- Records showing that open-ended lines were removed, capped, added second valves, etc.

**SECTION VI – LIST OF APPENDICES****Appendix A: Photo Log****Appendix B: Comparative Monitoring Summary****Appendix C: Missed First Attempt at Repair Components****Appendix D: Missed Final Repair Components****Appendix E: Invalid DOR Components**