



REGION 3

PHILADELPHIA, PA 19103

Report Title: Clean Air Act Inspection of Universal Environmental Services, LLC
Inspection Date(s): 8/8/2024
Regulatory Program(s): SIP

Company Name: Universal Environmental Services, LLC
Facility Name: Universal Environmental Services
Facility Location: 5501 Pennington Avenue
Baltimore, MD 21226

Latitude: 39.216944 **Longitude:** -76.585556
County/Parish: Baltimore County, MD
AFS/ICIS-Air Number: MD0000002451003465
Permit Number: 510-3465
NAICS Code: 424710 **SIC:** 5171
DSB ID #: ECAD-138

Facility Representatives: Michael Schorr, Director of Governmental Regulatory Affairs **Point of Contact** ☒
Phone: 678-544-2915 Email: mschorr@universalenviro.com

EPA Inspectors:
Stafford Stewart, Environmental Scientist
Phone: 215-814-5352 Email: stewart.stafford@epa.gov
Bruce Augustine, Environmental Scientist
Phone: 215-814-2131 Email: augustine.bruce@epa.gov
Kyle Krall Environmental Engineer
Phone: 215-814-2156 Email: krall.kyle@epa.gov

State/Local Inspectors:
Roland Gorschboth, MDE, Engineer
Phone: 410-537-4130 Email: Roland.gorschboth@maryland.gov

**EPA Lead Inspector
Signature**

Kyle Krall
1600 John F Kennedy Blvd
Philadelphia, PA 19103-2852

Date

**Supervisor
Signature**

Martin Matlin

Date

Table of Contents

I. Introduction	4
A. Summary of the Facility.....	4
B. Inspection Opening Conference.....	4
II. Site Activity/Process Description	4
III. Observations	5
IV. Records Review	7
V. Closing Conference	8
VI. List of Attachments	9

I. Introduction

The United States Environmental Protection Agency (EPA) conducted a Clean Air Act (CAA) inspection at Universal Environmental Services (Universal Environmental Services or Facility) to verify compliance with applicable State and Federal regulations. The MDE was notified of the inspection on July 22, 2024 via email. On August 5, 2024 EPA notified the Facility of the planned inspection via phone and email. EPA emailed a list of records for review to Michael Schorr, prior to the inspection (Attachment 2). These records are listed in the Records Review section of the report.

The inspection included an evaluation of the Facility's processes and its compliance with the CAA. All information included in this report is the result of statements by the Facility representatives, materials shown to the inspectors by the Facility representatives, and/or documents provided by the Facility representatives to the inspectors at the time of, or subsequent to, the inspection. In addition, information gathered prior to the inspection from a review of EPA and State records may be included in Section A. Summary of the Facility.

A. Summary of the Facility

The Facility is located at 5501 Pennington Avenue, Baltimore, MD 21226. Since 2011, Universal Environmental Services (formerly called Origin Baltimore Recycling) is a wholly owned subsidiary of Avista Oil, a German company. Universal Environmental services acquired most of the site from Origin Recycling in 2022. Origin still operates the terminal and port next to the facility. The facility is a used motor oil (UMO) recovery facility with four permitted 20,000gal processing tanks and one permitted propane-fired thermal oil heat exchanger. There are other tanks for receipt of UMO, blending, and storage pre-shipment in addition to the processing tanks. All tanks are above-ground. The facility dewater UMO providing for motor oil reuse.

The Facility received a Minor Operating Permit (510-3465) from Maryland issued on August 1, 2018.

B. Inspection Opening Conference

At 8:59 AM on August 8, 2024, EPA inspectors arrived at the Facility for a CAA Inspection and conducted a brief opening conference. The facility was represented by Michael Schorr and Will Riser. Also, Roland Gorschboth (MDE) was present. EPA inspectors, Stafford Stewart, Bruce Augustine and Kyle Krall, presented their credentials and explained the purpose of the visit was to conduct a CAA inspection to determine compliance with their permit and any applicable regulations. Additionally, EPA informed the facility representatives of their right to claim any confidential business information (CBI). At that time, Universal Environmental Services did not claim any photos or documentation as CBI.

II. Site Activity/Process Description

The facility was originally owned and operated by Origin Recycling. In 2022, Universal Environmental Services, LLC acquired Origin's business units in Baltimore, MD and Texas. Universal Environmental Services is a wholly owned subsidiary of Avista Oil, a German company. Origin still owns the Baltimore

Terminal and still operates on a portion of the facility. The total facility occupies approximately 41 acres. While Universal Environmental Services leases about seven acres from Origin for their operation. Universal Environmental Services employs 24 people. three for filter crushing, three for plant operations, and the rest are drivers or administrative workers. The typical hours of operation are Monday through Friday, typically 7am – 5pm.

The facility is a used motor oil (UMO) recovery facility with four permitted 20,000 gal processing tanks and one permitted propane-fired thermal oil heat exchanger. There are other tanks for receipt of UMO, blending, and storage pre-shipment in addition to the processing tanks. None of the other tanks on property are listed in the air permit. Every storage or processing tank at the facility is an above-ground tank. The facility process includes dewatering UMO providing for motor oil reuse. UMO and used oil filters are brought in from quick change garages and automobile dealerships. No volatile materials are handled at the facility. The UMO or burner fuel, is sold primarily to asphalt plants, paper mills, and other customers. The filters are cleaned of UMO and crushed into steel cubes, which are also sold. UMO is typically shipped out by rail, barge, and trucks.

UMO is collected via tanker trucks owned by Universal Environmental Services and brought to the facility. Used oil filters arrive at the facility in standard wheeled trash cans. A sample of the UMO from the tankers is screened for halogens and water content before moving into any of the facility's tanks. The UMO is offloaded into designated tanks before it moves into processing (or "cooking"). Universal Environmental Services tests the initial storage tank for PCB's prior to sending oil to any other processing tanks. Collected UMO is blended with other collected UMO to achieve optimum water content for processing. The blended UMO is heated in one of four process tanks and an emulsifier (CT 49) is added to emulsify the batch. The Facility formerly used an emulsifier that contained Methanol (MeOH), however, the facility stopped using this product in 2023. The used oil tanks are heated to an optimal temperature of 180 degrees Fahrenheit to maximize the breakdown of any emulsions in the tank. A typical batch takes approximately 24 hours from start to completion. Universal Environmental Services maintains temperatures and batch logs each day. Any wastewater is shipped offsite using a third-party. Once the UMO is cooked to a water level below 4%, it is moved into one of three 1,000,000gal tanks. The processed UMO is stored until water vessel shipment is warranted. The finished product goes to an Avista Oil Group facility south of Atlanta, GA.

The facility also collects used antifreeze in nine indoor storage tanks, which is later sold to distillers. No controls are used at the facility or listed in the permit to limit emissions to the atmosphere.

The opening conference concluded at 10:01 AM.

III. Observations

EPA inspectors conducted a walkthrough of the Facility at 10:05AM by Michael Schorr and Facility Manager Will Riser. Roland Gorschboth of MDE was also present for the walkthrough. EPA inspectors noted photos would be taken during the Facility walkthrough (Attachment 1).

The walkthrough commenced at the lab where water content is tested to determine if certain tanks need further processing or if the correct water content has been achieved. Universal Environmental

Services was in the process of conducting water content testing on a load that was being blended. The EPA inspection team then proceeded to the raw material storage area. EPA observed multiple totes containing the CT49 de-emulsifier. EPA also observed a tote containing a small amount of the previous de-emulsifier that contained MeOH. Universal Environmental Services indicated that this tote needs to be removed from the site.. Adjacent to the storage containers were the trash can style containers used for collection of used oil filters. These containers are used to bring in the filters from dealerships and auto body shops for cleaning and crushing at the facility. EPA observed bins filled with oil filters that had been crushed into cubes.

In the next room, nine 2500 gallon used antifreeze tanks were observed. The antifreeze is brought in from the same suppliers at the used oil. The used antifreeze is sold to distillers for processing and re-use. The used antifreeze tanks are not included in the existing air permit.

The next area observed was the truck loading and unloading station. The trucks pull in and a sample of the UMO is tested to determine water content before unloading into the guard tanks. The load and unload station included an office where sample testing used to take place. A hand drawn diagram of the tank farm was observed at this location, including the four 20,000gal permitted tanks and heat exchanger. According to the facility, some diesel comes in as well, however it is a small amount and typically not tracked in the process.

The facility's permitted heat exchanger was observed following the truck loading station. It was not operational on the day of the inspection.

The tank farm was observed, beginning with the tanks that receive used oil from truck offloading. The following tanks were observed in the processing area:

Tank No.	Capacity (gallon)	Use	In Permit
100	100,000	Holding	No
101	100,000	Holding	No
102	100,000	Holding	No
103	100,000	Holding	No
104	500,000	Shipping	No
105	500,000	Shipping	No
121	20,000	Antifreeze	Yes
122	20,000	Processing	Yes
123	20,000	Processing	Yes
124	20,000	Processing	Yes
125	20,000	Holding	No
126	20,000	Antifreeze	No
127	20,000	Holding	No
151	63,000	Holding	No
152	63,000	Holding	No

153	63,000	Antifreeze	No
154	63,000	Holding	No
155	63,000	Holding	No
156	63,000	Holding	No
157	63,000	Holding	No
158	63,000	Holding	No
205	1,000,000	Shipping	No
206	1,000,000	Shipping	No
207	1,000,000	Shipping	No

The facility typically processes 1-2 batches per day. Approximately 20lb of the de-emulsifying agent are added to each batch. The four tanks used for heating were insulated to help maintain their heat in the colder months of the year. When the cooking tanks reach temperature, the de-emulsifier is added to the batch. Universal Environmental Services stated that all vapors from all tanks vent to atmosphere. The EPA inspection team ascended the side of the tanks and noticed that Tank 126 was observed to have its lid slightly ajar. The facility stated that this is a water tank. Piping was observed on a catwalk between storage tanks 100-103 that was open on one end. The facility indicated that it is no longer in use and has been disconnected. Wastewater collected from the used oil is collected in a tank and shipped offsite for processing by PRC from Philadelphia. Finished used oil product is transferred to one of the three 1,000,000gal tanks, located near the waterway used for shipment. Finished product is loaded from these tanks into barges.

No emission controls were observed throughout the process.

The walkthrough concluded at 11:16 AM.

IV. Records Review

The records review commenced immediately after the plant walkthrough at 11:24 AM. EPA inspectors reviewed documents requested in the August 5, 2024 email to Will Riser. Records were provided at the time of the inspection by Michael Schorr and Will Riser. Below are the records requested on August 5, 2024 and what was provided:

1. Process flow diagram and plot plan. **Observed on site, copy to be provided by facility. EPA also requested a list of all storage tanks, their size, and date of construction.**
2. A list of all air emissions sources and corresponding dates of installation **Observed in emission reports on site?, will be provided.**

3. A list of all air pollution control (APC) devices and the pollutant(s) controlled by each **No APC devices at the facility.**
4. A list of all combustion sources, including but not limited to boilers, engines, furnaces, and heaters **Propane heat exchanger data is in emission reports observed on site, copy to be provided.**
5. Provide a list of all applicable NESHAP or NSPS regulations for your air emission source(s) **Not applicable to this facility according to MDE.**
6. For all engines associated with combustion sources identified in item 4 above, as appropriate provide the following information: **Propane heat exchanger data is in emission reports observed on site, copy to be provided.**
 - a. The make, serial number, model number or other model designation, model year and date of installation
 - b. The hours of operations for each month for the past 5 years
 - c. The rated capacity and type(s) of fuel used
 - d. Indicate and describe if each engine has manufacturer installed or add-on emission controls.
7. The annual certificate report for the past 5 years **Observed at the facility, copy will be provided electronically as well.**

V. Closing Conference

After the records review, EPA inspectors, Michael Schorr, Will Riser, and MDE inspector Roland Gorschboth had a brief closing conference to ask additional questions and discuss observations. The EPA inspectors noted that the investigation is on-going, and any areas of concern identified in the final report do not necessarily reflect a violation or deviation, rather, they are areas that will require further investigation. EPA also noted that they would issue an inspection report within 60 days, with a copy to the State. Simultaneously, EPA will perform a detailed review of records and may have additional questions. The inspection concluded at 12:14 PM.

The following have been identified as potential issues during the inspection. They are issues that require either further investigation by EPA or additional information or explanation by Universal Environmental Services.

- EPA observed multiple tanks onsite that are not listed in the facility's air permit issued by MDE. These tanks have the potential to emit Volatile Organic Compounds (VOC), however, the potential to emit for each tank is not clear. It was not clear from the inspection whether the tanks fall below the permitting threshold for MDE.

All storage tanks at the facility vent directly to the atmosphere. Section C.5 of the permit states that for the four 20,000gal processing tanks (121-124), the Permittee shall: a) vent all exhaust gases from the

tanks through the combustion chamber of the facility's hot oil heater unit whenever the heating unit is in operation; or b) provide MDE with valid empirical information (e.g. stack test data) which demonstrates that uncontrolled air emissions from the tanks would consistently comply with all applicable regulatory requirements. Universal Environmental Services indicated that a test may have been performed on these tanks to determine uncontrolled emissions. It is not clear if that test was completed or what the results of the testing were.

VI. List of Attachments

Attachment 1: Photo Log

Attachment 2: Document request

Attachment 3: Sign in Sheet