UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604

DATE:	See Date of Section Chief Signature Below
SUBJECT:	CLEAN AIR ACT INSPECTION REPORT US Ecology Michigan, Belleville, Michigan
FROM:	Brianna Fenzl, Environmental Engineer AECAB (IL/IN)
THRU:	Nathan Frank, Section Chief AECAB (IL/IN)
TO:	File

BASIC INFORMATION

Facility Name: US Ecology Michigan

Facility Location: 49350 N. I 94 Service Dr

Date of Inspection: August 17, 2021

EPA Inspector(s):
1. Brianna Fenzl, Environmental Engineer
2. Emma Leeds, Environmental Engineer
3. Daniel Heins, Environmental Scientist
4. Constantinos Loukeris, Environmental Engineer

Other Attendees:
1. Sylwia Scott, Environmental Manager, US Ecology Michigan
2. Corey Graeder, Operations Manager, US Ecology Michigan
3. Nazaret Sandoval, Senior Environmental Engineer, Environment, Great Lakes & Energy Michigan (EGLE)
4. Jim Day, Environmental Quality Analyst, EGLE

Contact Email Address: sylwia.scott@usecology.com

Purpose of Inspection: Compliance with Clean Air Act & LDAR Monitoring

Facility Type: Waste Treatment Plant

Regulations Central to Inspection: RCRA Part CC; NESHAP Part DD

Arrival Time: 10:40 AM
Departure Time: 3:00 PM

Inspection Type:
☒ Unannounced Inspection
☐ Announced Inspection

OPENING CONFERENCE

☒ Presented Credentials
☒ Stated authority and purpose of inspection
☒ Small Business Resource Information Sheet not provided. Reason: Not a small business
☒ Provided CBI warning to facility

The following information was obtained verbally from US Ecology Michigan unless otherwise noted.

Process Description:
US Ecology Michigan (US Ecology) is a waste treatment plant that treats hazardous and nonhazardous materials. It is permitted to handle organic wastes but primarily processes inorganic wastes.

Trucks drive on site to deliver the waste for processing. US Ecology weighs the trucks, collects the waste material profile form, and performs a visual inspection to verify the composition.

There are 4 in-ground treatment tanks located on the east container storage area. These tanks are controlled by a baghouse system, caustic scrubber, and a regenerative thermal oxidizer (RTO). Scrubber effluent goes to the wastewater treatment plant onsite. There is both solid waste and hazardous waste stored at the east container storage area. The west side storage area has 4 in-ground treatment tanks that holds 500 or less parts per million (ppm) organic waste. The west side is controlled by only a baghouse. Each tank is designated a process. Tanks are Level 2 tanks. All treatment tanks require total enclosure with negative pressure.

Onsite, there are 6 storage silos for particulate matter, 4 200,000-gallon waste storage tanks, and 3 smaller waste storage tanks. The 6 storage silos are controlled by a baghouse system.

The site includes an active industrial/hazardous waste landfill, as well as a closed municipal solid waste (MSW) landfill. Solid waste processed on site is primarily disposed of at the landfill. There is a wastewater treatment plant onsite. It treats large amounts of leachate from the landfill due to rain, stormwater runoff, and scrubber effluent. US Ecology approximated a couple

hundred million gallons per year of leachate that is treated. The water goes through sedimentation and carbon filtration before being sent to South Huron Valley Utility Authority.

Staff Interview:
US Ecology operates 24 hours, 7 days a week due to storage processes and wastewater treatment plant. There are approximately 80 employees onsite.

US Army Core of Engineers is the largest supplier of waste to US Ecology from soil remediation. The facility mostly received waste with metals, and also accepts technologically enhanced naturally occurring radioactive material (TENORM), solvent-contaminated soils, incinerator ash, and oil and gas production waste. Small quantities of refinery waste and contaminated soil with benzene are taken infrequently.

The closed MSW landfill has two sites that pre-date RCRA. US Ecology closed active gas collection with EPA's approval. Currently the units have passive vents and passive flares, primarily to prevent gas migration. Site 1 has always had passive collection, and Site 2 stopped gas collection in October 2017. After October 2017, US Ecology no longer did surface emissions monitoring. The site does still accept non-MSW waste at its RCRA Subtitle C landfill unit, which is joined against one of the old MSW units. This unit accepts industrial solid waste and hazardous waste, including asbestos. There are two flares connected, and waste is covered every day. Gas cap visuals are done quarterly.

The landfill section of the air permit is in the process of being removed. Only asbestos section will remain in the permit. US Ecology has one air permit, and two RCRA permits.

US Ecology last tested their RTO in 2017, and they have a 95% destruction limit in their permit. The stack test was tested at 1600 degrees F but currently US Ecology runs the RTO at 1500 degrees F, which is the minimum operating temperature determined by the manufacturer.

TOUR INFORMATION

EPA Tour of the Facility: Yes

Data Collected and Observations:
EPA observed the tanks on the east and west storage areas, and they were empty. Therefore, no LDAR monitoring took place.

Photos and/or Videos: were not taken during the inspection.

Field Measurements: were not taken during this inspection.

RECORDS REVIEW

1. Tank and site monitoring binder, including 2017 RTO Performance Test and sample waste material profile forms

CLOSING CONFERENCE

☒ Provided U.S. EPA point of contact to the facility

Requested documents:

- Tank Summary Sheet
- Semi-annual NESHAP Subpart DD reports

DIGITAL SIGNATURES

Report Author: BRIANNA FENZL Digitally signed by BRIANNA FENZL Date: 2021.10.15 13:37:18 -05'00'

Section Chief: _____