REGION 3
PHILADELPHIA, PA 19103

Report Title:	Clean Air Act Inspection of Allied Waste Sycamore Landfill, LLC
Inspection Date(s):	04/02/2024
Regulatory Program(s):	SIP, NSPS, MACT
Company Name:	Republic Services
Facility Name:	Sycamore Landfill
Facility Location:	3475 Sycamore Ridge Road, Hurricane, WV 25526
Latitude:	38.369984 **Longitude:** -82.019613
County/Parish:	Putnam County
AFS/ICIS-Air Number:	WV00007900105
Permit Number:	R30-07900105-2021
NAICS Code:	562212 **SIC:** 4953
DSB ID #:	ECAD-54

Facility Representatives*: **Point of Contact**

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Luke Hoffman, Operations Supervisor ☐
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EPA Inspectors*:

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State/Local Inspectors:

Samantha Blair, Environmental Inspector, WVDEP
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EPA Lead Inspector	ALEX EVERHART Digitally signed by ALEX EVERHART Date: 2024.06.03 06:48:32 -04'00'	
Signature	**Alex Everhart**	**Date**
	1600 John F Kennedy Blvd Philadelphia, PA 19103-2852	
Supervisor	KRISTEN HALL Digitally signed by KRISTEN HALL Date: 2024.06.03 06:56:34 -04'00'	
Signature	**Kristen Hall**	**Date**

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I. Introduction

The United States Environmental Protection Agency (EPA) conducted a Clean Air Act (CAA) inspection at Allied Waste Sycamore Landfill, LLC (Sycamore Landfill or Facility) to verify compliance with applicable State and Federal regulations. The West Virginia Department of Environmental Protection (WVDEP) was notified of the inspection on March 18, 2024, via email. On April 1, 2024, EPA notified the Facility of the planned inspection via phone. EPA hand delivered a list of records for review to Chris Bolton, Operations Manager, prior to the inspection (see Attachment 1). 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 3475 Sycamore Ridge Road, Hurricane, WV 25526 and is privately owned and operated by Republic Services (Republic). The landfill gas generated by the decomposition of the waste is collected via vertical and horizontal wells and routed to a flare where it is burned prior to being vented to the atmosphere. The Facility received it's most recent Title V Operating Permit (R30-07900105-2021) from WVDEP on January 12, 2021.

This facility is not a major source of HAPs, nor is it collocated with a major source. It is an area source landfill that has a design capacity equal to or greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters (m3) but its estimated uncontrolled emissions are not equal to or greater than 50 megagrams per year (Mg/yr) NMOC. The Facility is subject to, or potentially subject to the following federal regulations:

- 40 CFR Part 60: Subpart Cf – Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills
- 40 CFR 61: Subpart M – National Emission Standard for Asbestos
- 40 CFR Part 60: Subpart WWW – Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification on or After May 30, 1991, but Before July 18, 2014
- 40 CFR Part 60: Subpart XXX – Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification after July 11, 2014
- 40 CFR Part 63: Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

B. Inspection Opening Conference

At 09:00 AM on April 2, 2024, EPA inspectors arrived at the Facility for a CAA Inspection and conducted a brief opening conference. Sycamore Landfill was represented by Tim Copen, Operations Manager and Luke Hoffman, Operations Supervisor. Also, Samantha Blair, WVDEP Environmental Inspector, was present. EPA inspectors, Alex Everhart and Parmatma Adhikari 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, Mr. Copen did not claim any photos or documentation as CBI.

EPA Inspectors explained to the Facility that the inspection was part of a National Enforcement and Compliance Initiative (NECI), and that the inspection would include an opening meeting, a facility walkthrough, and a records review. The Facility was also informed by EPA inspectors that during the walkthrough, photographs would be taken.

II. Site Activity/Process Description

The Sycamore Landfill is privately owned and operated by Republic Services. The normal hours of operation are from 6:30 AM to 3:00 PM Mondays to Fridays and &:00 AM to 11:00 AM on Saturdays. There are 6 full time employees and no part time employees. Mr. Copen stated the Sycamore Landfill was originally opened in 1972 and was a privately owned and was ultimately bought by Republic Services; however, he was unsure of the dates.

Mr. Copen stated that the Sycamore Landfill encompasses approximately 50 acres of the 87-acre property. He stated that currently the landfill has three cells and five phases and that the overall landfill design is for 12 Cells with a design capacity of approximately 6.5 million megagrams (Mg). He stated that Cell 1 and Cell 2 are both closed and have a High-Density Polyethylene (HDPE) liner on the top, but the bottom of Cell 1 and Cell 2 are unlined. Mr. Copen stated that Cell 3 was constructed with a HDPE liner system in accordance with Subtitle D Regulations. He stated that the Facility accepts municipal solid waste, construction and/or demolition debris excluding asbestos waste, and approved residential waste stream from the Putnam, Cabell, Lincoln, and Kanawha Counties. The Facility typically receives 300 tons of waste per day and an average of 85,000 tons of waste per year. Mr. Copen stated that all waste is delivered via residents or Republic Services felt of hauling trucks and no waste is brought in via railcar. He stated that demolition debris is tracked separately as it is charged at different rates than residential waste. Mr. Copen stated that based on the amount of property owned currently and the associated design of the Facility there are approximately 48 years of life remaining. He stated wastewater treatment sludge is accepted from the following: Salt Rock Waste Water Treatment Plant (WWTP), Hurricane WWTP, Pea Ridge WWTP, and Huntington Sanitary Board. Mr. Copen stated that the Facility has one 300,000-gallon leachate storage tank. He stated leachate is gravity fed from the landfill to a leachate vault and then pumped to the leachate tank. He stated that the Facility produces

approximately 400,000 gallons of leachate per month. All waste is covered at the end of the day and the Facility typically uses tarps as an alternative daily cover to dirt. Mr. Copen stated that the Facility tries to keep a small working face of 100'x150'.

Mr. Copen stated that the Facility has four above ground storage tanks. They are summarized below:

Tank	Size	Contents
Tank 1	2,000 Gallons	Off Road Diesel
Tank 2	500 Gallons	On Road Diesel
Tank 3	500 Gallons	Gasoline
Tank 4	300,000 Gallons	Leachate

Mr. Copen was unsure of the average monthly throughputs of the three fuel tanks; however, he said he would provide the number following the inspection. Mr. Copen stated that there is one emergency generator at the Facility. It is a 22-kilowatt Briggs and Stratton natural gas-powered generator. He stated that it was installed in 2023 after the engine blew up on the previous emergency generator. Mr. Copen stated that the Facility has never been permitted for leachate recirculation.

Mr. Copen stated that the Sycamore Landfill is currently Tier 2 Facility with a NMOC emissions of approximately 7 Mg/yr and the Facility was not required to install an active collection system and control device because of their NMOC emissions; however, they have already installed an active gas collection and control system (GCCS) on a voluntary basis. He stated that the system was installed to manage odors from the landfill and the leachate system. He stated that all the wells in the landfill are vertical wells, and they are spread out over all three of the landfill cells. He stated that all of the LFG is routed to the LFG flare skid located on the western side of the property. Mr. Copen stated that the typical LFG flow to the flare is 400 to 450 standard cubic feet per minute (SCFM). He stated that there are currently 42 LFG gas extraction wells at the Facility although he was unsure of how many were connected to the leachate system. He stated that MCC Gas of Kentucky is utilized by the Facility to perform wellfield monitoring and balancing on a monthly basis. Mr. Copen stated that the Facility has one (1) open flare that is used to destroy the landfill gas. It is a John Zink flare with a design capacity of 1500 SCFM. He stated that it was installed in 2012 but had just been refurbished 2 weeks before the inspection. He stated that the wells are checked once a month for liquid level and liquids are pumped out on an as needed basis. Mr. Copen stated that currently there is no plan for future development of the Landfill Gas.

According to 40CFR§60.750(d), an affected facility must continue to comply with 40 CFR 60 Subpart WWW until it becomes subject to the more stringent requirements in an approved and effective state or federal plan that implements 40 CFR 60 Subpart Cf or it modifies or reconstructs after July 17, 2014 and becomes subject to 40 CFR 60 Subpart XXX. 45CSR23, effective on June 1, 2018, implements 40 CFR 60 Subpart Cf, so the Sycamore Landfill is now subject to the requirements of 45CSR23 instead of 40 CFR 60 Subpart WWW. This Facility is not a major source of HAPs, nor is it collocated with a major

source. It is an area source landfill that has a design capacity equal to or greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters (m3) but its estimated uncontrolled emissions are not equal to or greater than 50 megagrams per year (Mg/yr) NMOC.

The opening conference concluded at 10:10 AM

III. Observations

EPA inspectors were led on a walkthrough of the Facility at 10:15AM by Todd Copen and Luke Hoffman of Republic Services and Samantha Blair WVDEP Inspector was also present for the walkthrough. EPA inspectors noted photos would be taken during the Facility walkthrough (Attachment 2).

EPA inspectors were first led to the flare skid located along the West side of the Facility. The inspection team first observed a new electric air compressor that is used to provide air to the numerous valves that operate on the flare skid. Mr. Copen stated that the fuel for pilot light for the flare is propane. The Yokogawa Chart Recorder was observed, and it was displaying an instantaneous flow of 461 SCFM, a temperature of 991 degrees Fahrenheit and a system vacuum of -26.26 inches of water. The inspection team then observed the flare flow meter which is a Thermal Scientific Company flow meter. The instantaneous flow at the time of inspection from the flare flow meter was 436 SCFM and it displayed a total flow of 5,954,929 standard cubic feet. He stated if the flare shuts down, they get an automated alert via e-mail text and phone call of the event. Mr. Copen stated that MCC Gas of Kentucky maintains the flare and associated flow meters. Following the observation of the flare skid the inspection team was led to the southern end of the Facility where the leachate storage tank and emergency generator is located. One Briggs and Stratton emergency generator was observed to the east of the leachate tank. The total engine operating hours displayed at the time of inspection was 362.8 hours. Two sediment ponds were observed to the south of the leachate storage tank. Mr. Copen stated that water discharges directly into Charlie's Creek from the sediment ponds. Next the inspection team was taken by the working face of the landfill. Mr. Copen stated that Republic Services no longer allows spotters on the active face of the landfill, however they perform spot-checks of loads that are brought to the Facility. Next the inspection team was taken to the maintenance shop at the northern end of the Facility. One portable generator light plant was observed while driving to the maintenance shop from the working face. Mr. Copen stated that the Facility only has one light plant, and it is used all over the Facility on an as needed basis. Mr. Copen stated that no welding, painting, or abrasive blasting is performed in the maintenance shop only minor repairs and preventative maintenance. The inspection team then walked up the north slope of the landfill to observe one of the LFG extraction wells. The LFG well that was observed was and dual extraction well that had a pump in it as well to dewater the well. The pump stroke counter reading at the time of inspection was 336,815. At approximately 11:00 AM we received a Tornado Warning from the National Weather Service and ended the Facility walk through.

IV. Records Review

Due to inclement weather in the immediate vicinity of the Facility and damages from the tornado No records were reviewed at the time of inspection. Mr. Copen agreed to provide the records after the inspection. The records were received electronically on May 17, 2024; however, they have not yet been reviewed as of the time of this report. Below are the records that were requested:

1. Facility plot plan which depicts the entire landfill surface and the existing gas collection system;
2. Site map showing all of the permitted landfill cells;
3. Copy of any Title V permit applications submitted since issuance of last permit renewal;
4. Total amount of waste in place (tons) in each cell and the total waste in place (tons) an date it began accepting waste;
5. Year by year waste acceptance rates;
6. The current design capacity (Mg) and the date(s) the design capacity was modified, if applicable;
7. Copy of the NMOC emission rate report which includes the NMOC emission (Mg/yr) rate and supporting calculations, include copies of any Tier II site specific testing;
8. Provide a record of the Facility's actual annual air emissions, from January 1, 2019 through December 31, 2023, for all regulated air pollutants (NOx, SOx, CO, VOCs, HAPs, and PM);
9. Provide a listing of all flare, generators, emergency generators and all other combustion sources. For each combustion unit onsite provide:
    a. The make and model;
    b. The date of installation;
    c. Size or rating (MMBtu/hr, HP, kW, etc.);
    d. Fuel combusted monthly since 2018 to present (gallons, MMcf, etc.);
    e. Provide any temperature or flow monitoring records for the existing flares since 2018.
10. Copies of any performance tests conducted on any source to determine emission rates, concentrations or compliance since 2000;
11. Records of monthly wellhead pressure, temperature, Nitrogen or Oxygen monitoring since 2019 to the present;
12. Any notifications of compliance status, or periodic reports submitted to EPA or WVDEP pursuant to 40 CFR Part 60 Subpart IIII, 40 CFR Part 60 Subpart JJJJ, 40 CFR Part 62, or 40 CFR Part 63 Subpart ZZZZ, since 2019;
13. Any initial notifications submitted to EPA or WVDEP pursuant to Part 63 Subpart ZZZZ, or;

14. Copies of all Title V Annual/Semiannual compliance certifications from 2019 to present;
15. Maintenance records and hour meter logs for all engines subject to or 40 CFR Part 63 Subpart ZZZZ;
16. Any annual Greenhouse Gas (GHG) reporting submitted to the EPA or WVDEP since 2019;
17. Visible emission monitoring records from 2019 to present.

V. Closing Conference

Following the Facility walkthrough, EPA and WVDEP inspectors, Mr. Copen and Mr. Hoffman held 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 12:35 PM.

- There were no areas of concern noted during the inspection.

VI. List of Attachments

Attachment 1: Records Request

Attachment 2: Photo Log

EPA Clean Air Act Inspection

Records Request

1. Facility plot plan which depicts the entire landfill surface and the existing gas collection system;
2. Site map showing all of the permitted landfill cells;
3. Copy of any Title V permit applications submitted since issuance of last permit renewal;
4. Total amount of waste in place (tons) in each cell and the total waste in place (tons) an date it began accepting waste;
5. Year by year waste acceptance rates;
6. The current design capacity (Mg) and the date(s) the design capacity was modified, if applicable;
7. Copy of the NMOC emission rate report which includes the NMOC emission (Mg/yr) rate and supporting calculations, include copies of any Tier II site specific testing;
8. Provide a record of the facility's actual annual air emissions, from January 1, 2019 through December 31, 2023, for all regulated air pollutants (NOx, SOx, CO, VOCs, HAPs, and PM);
9. Provide a listing of all flare, generators, emergency generators and all other combustion sources. For each combustion unit onsite provide:
    a. The make and model;
    b. The date of installation;
    c. Size or rating (MMBtu/hr, HP, kW, etc.);
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16. Any annual Greenhouse Gas (GHG) reporting submitted to the EPA or WVDEP since 2019:

17. Visible emission monitoring records from 2019 to present;

Attachment 2:
PHOTO LOG

Facility: Sycamore Landfill

Location: 4301 Sycamore Ridge Rd, Hurricane, WV 25526

Inspection Date: April 2, 2024

EPA Inspector(s): Alex Everhart and Parmatma Adhikari

Photographer: Parmatma Adhikari

Photo Number: 001
Photo Description: Flare skid

Photo Number: 002
Photo Description: Flare Skid Chart Recorder

Photo Number: 003
Photo Description: Flare Skid Flow Meter

Photo Number: 004
Photo Description: Flare Nameplate

Photo Number: 005
Photo Description: Overview of Landfill looking from the flare skid

Photo Number: 006
Photo Description: Landfill Caped Area and gas well on NW side of landfill

Photo Number: 007
Photo Description: Emergency Generator

Photo Number: 008
Photo Description: Emergency Generator Data Plate

Photo Number: 009
Photo Description: Emergency Generator Data Plate

Photo Number: 010
Photo Description: Leachate pumpstation

Photo Number: 011
Photo Description: Looking North towards landfill with leachate tank in front.

Photo Number: 012
Photo Description: Leachate Tank Top View

Photo Number: 013
Photo Description: Active Working Face

Photo Number: 014
Photo Description: Diesel Tank

Photo Number: 015
Photo Description: Gasoline Tank

Photo Number: 016
Photo Description: LFG Extraction Well