Region 2 Enforcement & Compliance Assurance Division
Air Compliance Branch

CAA Inspection Report

Inspection Date:	5/16/2022
Facility Name:	Monmouth County Reclamation Center
Facility Address:	6000 Asbury Avenue, Tinton Falls, NJ 07753
ICIS-Air ID #:	NJ0000003402520597
Facility Contact:	Carmeron Suarez, Gas Operation Supervisor, csuarez2@wm.com, 201-523-0006
EPA Lead Inspector:	Victor Tu, Environmental Engineer, ECAD/ACB, 212-637-3476
EPA Asst. Inspector:	Phillip Ritz, Environmental Scientist, ECAD/ACB, 212-637-4064
State Inspector(s):	State inspector name, title, phone number.
Other Inspector(s):	Omer, Sohail, Environmental Engineer, LSASD, Monitoring Assessment Branch
Other Inspector(s):	Harish Patel, Team leader, ECAD/ACB, 212-637-4046

Background

The Monmouth County Reclamation Center (MCRC), a 273-acre landfill, started operating in 1976. The total design capacity is 19,154,755 Mg, according to the TV permit.

Pertinent Regulatory Requirements

MCRC is subject 40 CFR 60 Subpart WWW –MSW Landfill Regulations, 40 CFR 63 Subpart AAAA –Landfill MACT and has a Title V Operating permit issued by NJDEP.

Summary of Observations

List of Attendees

Matthew Rutkowski –Monmouth County Environmental Engineer
William Johnson –Monmouth County Clean Community Coordinator
Dave Magnenat –Monmouth County Manager of Sanitation
Cameron Suarez –Waste Management Gas Operations Supervisor
Ian Moore –Waste Management Monitoring Area Gas Operations Manager
Matthew Croft –Waste Management Gas Tech 2
Victor Tu –EPA Environmental Engineer
Phil Ritz –EPA Environmental Engineer
Harish Patel –EPA Environmental Engineer

Omer Sohail –EPA Environmental Engineer

Inspection/Project Description

EPA Inspectors contacted MCRC on Thursday, May 12, 2022, and spoke with Matt Bukowski. During the call, EPA notified MCRC that EPA planned to conduct an onsite inspection and requested that MCRC contact their surface monitoring contractor so they can be present during the inspection.

On May 16, 2022, EPA Inspectors Victor Tu, Phil Ritz, Harish Patel, and Omer Sohail ("inspectors") arrived at MCRC's parking lot in Tinton Falls, NJ at approximately 9:15 AM. Inspectors were met by Matthew Rutkowski and were escorted to a conference room in the operations building. At the conference room, the inspectors were joined by William Johnson, Matthew Rutkowski and Dave Magnenat (all from MCRC), and Cameron Suarez, Ian Moore and Matthew Croft (all from Waste Management)

Inspector Tu explained that the purpose of EPA's inspection was to conduct surface emissions monitoring of the landfill surface, and also to observe any MCRC staff or contractors who perform routine surface emissions monitoring and data management. Inspector Tu indicated that EPA will be using a Forward Looking Infrared (FLIR) Camera and Toxic Vapor Analyzer (TVA) during the inspection.

Mr. Rutkowski confirmed that the landfill operates Monday thru Friday from 7:00 AM to 3:30 PM, and on Saturdays from 7:00 AM to 2:00 PM. During the weekdays, garbage picked up around the County is trucked to the landfill by private haulers. The Saturday hours are mostly for County residents to drop off any waste. The landfill receives mainly municipal solid waste and less than 2% is Construction and Demolition (C&D) waste. Since EPA's last inspection in August 2017, MCRC has transferred over the daily operations and compliance monitoring activities of the Landfill to Waste Management (WM). WM took over in March 2021.

The Landfill is currently depositing waste in Phase 3 of the landfill which started receiving waste since the mid-90's and has about 6 years of capacity left. Phase 1, which began in the 70's and stop accepting waste in 1980, does not have a liner, and Phase 2, which began in the mid 80's and stop accepting waste in 1996, has a clay liner. Mr. Rutkowski explained that there is an expansion being planned (Phase 4) which will fill-in the valley between Phases 1 and 2.

Mr Suarez informed the EPA inspectors that Surface Emissions Monitoring (SEM) at the landfill is contracted out to LFG Control Services, Inc, from Yardley, PA since 2019. They conduct quarterly SEM, and follow-up monitoring for any leaks observed/repairs made. Mr. Suarez explained that the contractor that does SEM was not available on Monday, 5/16, and therefore EPA could not oversee any monitoring equipment calibration observations. EPA inspectors requested that Mr. Suarez to make arrangements with their LFG monitoring contractor to be available the next day. Mr. Suarez stated that he will try to arrange for the LFG monitoring contractor to be available on Tuesday, 5/17.

Mr. Rutkowski also informed the EPA inspectors that gas-to-energy facility (Montauk/GSF Energy) had been shut down in 2019, and the Landfill currently operates two enclosed flares to control the landfill gas collected. Flare D is the primary enclosed flare with a rated capacity of 3,700 SCFM, and Flare C, also an enclosed flare with rated capacity of 3,700 SCFM, is the backup which is only permitted to operate 100 hours/year. Flare C was recently upgraded with a new inlet knockout pot. Flare D currently combusts about 3,200 SCFM of landfill gas. The Landfill is preparing an RFP for a new Renewable Natural Gas (RNG) facility to be built at the Landfill. The RNG facility will treat the raw landfill gas and send the clean landfill gas to a natural gas pipeline.

Mr. Suarez explained that WM took over the operations of the landfill on March 26, 2021. Since then, WM has made numerous upgrades on the Landfill that has reduced the number of odor complaints from the surrounding communities. Over 90 new vertical wellheads have been added to Phases 2 and 3 of the Landfill to improve the gas collection and leachate pump-out from the Landfill. The 24" gas header around the edge of the landfill was replaced and redesigned with nine-condensate knock out sumps, and five-above ground frack tanks (21,000 gallons each) to collect the condensate. The leachate collected from the Landfill is pumped to a 500,000-gallon tank. Currently, MCRC does not treat any leachate or condensate on-site and ships off 20-30 truckloads daily to the Rahway Wastewater treatment facility. MCRC is in the process of upgrading the leachate treatment process facility because it was not able to comply with the water discharge permit limits. In 2020 the facility began the installation of additional process tanks (bio-towers) and treatment equipment for continuous processing and discharge of treated leachate. The upgrades are expected to be completed later this summer.

According to Mr. Suarez, the LFG wells on the landfill are tuned monthly to maximize the methane concentration. The methane concentration is usually around 40-50%. The average waste deposition per year is approximately 300,000 to 400,000 tons.

At about 11:00 AM, the EPA inspectors and the WM representatives went out to the Phase 3 landfill to conduct SEM close to the "active area" (south side). SEM was conducted at select wellheads, pump stations and the "open surfaces" where visible gas could be seen bubbling in water puddles. The inspectors noted that MCRC uses wood chips and fresh dirt as daily cover on the landfill. After lunch, the EPA inspectors continued SEM around the wellheads/surface protrusions on the Phase 1 landfill and several leachate cleanouts located at the foot of the Phase 2 landfill. Inspectors then walked over to the location where the previous gas-to-energy plant was located and noted that it was completed removed. The back-up flare (Flare C) is now located here. Inspectors left the facility around 4:00 PM.

On May 17, 2022, the EPA inspectors arrived at MCRC at around 8:45 AM. Inspectors were again informed that the LDAR contractor representative will not be available today. Inspectors began SEM of the wellheads in the Phase 2 landfill. In 2021, WM had installed 6 new wells on the top of the Phase 2 landfill to improve gas collection. Inspectors then proceeded to inspect the new leachate treatment process, which was not in operation yet. The operator explained that the upgrades were necessary to meet the tighter denitrification standards and the BOD, and COD limits, and allow for a continuous operation as opposed to the batch-type operation that was in place previously.

After lunch, the EPA inspectors returned to the "active face" of the Phase 3 Landfill (north side) to conduct more SEM at the wellheads. The EPA inspectors noted that there were several locations where landfill leachate appeared to be seeping out the side slopes of the landfill. TVA readings at several points indicated concentration values of greater than 500 ppm. Inspectors then inspected several of the condensate knockout sumps and the frack tanks. Condensate is pumped out daily from knockout sumps to the frack tanks. The team observed high readings while monitoring the door. It appears the leak is around the leachate collection lift pump station adjacent to the frack tank. Inspectors also inspected Flare D. WM installed a new PLC system on Flare D in 2021. During the inspection, the gas flow to the flare was about 3203 SCFM and the flare temperature was about 1644 °F.

The team then proceeded to the conference room for a close-out meeting. During our closing meeting Inspectors requested the following documents:

1. 2 years of Quarterly SEM reports
2. The last Flare D stack test report

3. 1 year of carbon canister logs
4. 1 year of Flare D data sheets
5. 1 year of Flare D startup/shutdown/malfunction (SSM) records

During the inspection, Inspectors received hard copy of the schematics for Phase 1, Phase 2, and Phase 3 of the landfill. Inspectors also received the NSPS Surface Emission Monitoring Report for the 1ST Quarter in 2022.

At the closing meeting, Mr. Suarez asked if the leaks identified by EPA would be required to be addressed as required by the regulations. Inspectors indicated that the leaks would need to be repaired and re-monitored as required by the regulations. The list of leaks identified will be provided to Monmouth via email as soon as possible by the LSASD inspector. It was agreed at the closing meeting that required timeframe of the response to repair the leaks identified by EPA will start upon the receipt of EPA's Exceedance Report.

The EPA inspectors left the facility around 3:15 PM.

Inspectors received the files requested from Mr. Suarez Cameron on 5/18/2022 via email.

Inspectors sent the Exceedance Report to Mr. Suarez Cameron on 5/26/2022 via email (See Table 1).

As of 7/6/2022, EPA has not received any documentation from MCRC or WM about the corrective actions and re-monitoring completed for the leaks identified by EPA during the inspection.

United States Environmental Protection Agency
2890 Woodbridge Avenue, Edison, NJ 08837
Monitoring and Assessment Branch
Surface Emissions Monitoring - Leak Detection and Repair

Monmouth County Landfill
6000 Asbury Ave, Tinton Falls, NJ 07753

Date of Inspection: May 16-17, 2022
Weather: May 16: Overcast; Light Rain 65 F
May 17: Mostly Sunny, Windy (15-30 mph) 73 F

Sample ID	Concentration (ppm)	Location of Sample	Approximate GPS Location	Repaired	Notes
Upwind	0.6	Ambient	40.2436, -74.1029		Outside Gate C
Downwind	0.8	Ambient	40.2332, -74.1103		Sand Stockpile
EW0139A	122	Valve	40.2386, -74.1117		
	22	Flange			
EW 138A	18.5	Valve	40.2393, -74.1116		
136	22		40.2391, -74.1121		
EW 135	3.4		40.2388, -74.1122		
EW 135A	7.4	Flange	40.2389, -74.1123		
	12	Valve			
EW 187	101	Valve	40.2390, -74.1130		
CW 127A	1400	Bottom of Casing	40.2387, -74.1134		
	200	Valve			
	301	Flange			
EW 127A and EW127 Gas Connector	3010	Base	40.2387, -74.1134		
CW 126A	300	Connection to Valve	40.2392, -74.1138		
CW 124A	23.7	Valve at Casing	40.2388, -74.1138		
	50.6	Valve at Gas Collection			
	23.4	Base			
	24.6	Flange			
EW 117	11.9	Valve	40.2386, -74.1148		
	207	PVC Connection			
	23.9	LFG Pipe			
	10.7	Base			
CW 114A	6000	Casing at Base	40.2386, -74.1155		
	9.8	Valve			
CW 114	1100	Base of LFG to Gas Collection	40.2386, -74.1155		
CW 107	24.1	Valve	40.2386, -74.1163		
	23.4	Base			
CW191	4.1	Valve	40.2386, -74.1163		
CW 108A	4.3	Valve	40.2389, -74.1161		
	8.3	Base			
CW 192	44	PVC Base above Casing	40.2378, -74.1159		
Ground Surface Leak 1	1800 - 4700	12 inches above Ground	40.2378, -74.1159		Large area besides CW192 with ground leaks noted. Area bubbling in water puddles.
A6	0	Valve	See Map		
A4	0.6	Base	See Map		
A4	0.5	Valve	See Map		
A3	0.4	Valve	See Map		
A8	2	Valve	See Map		
A9	0.6	Valve	See Map		
A10	0	Valve	See Map		
A11	0.8	Valve	See Map		
B9	3.1	Valve	See Map		
B8	24.5	Valve	See Map		
B7	16.9	Valve	See Map		
B6	0.3	Valve	See Map		
B5	16.9	Valve	See Map		

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Sample ID	Concentration (ppm)	Location of Sample	Approximate GPS Location	Repaired	Notes
B17	0.1	Valve	See Map		
Pump Station 1	20,000 - 30,000	At Doors	40.2470, -74.1159		Flame out at 30,000 ppm, sample at door.
Leachate Cleanout 2-1F	50,000	Base	40.2466, -74.1161		Leak noted between black wrap and casing
Leachate Cleanout 2-1E	2,000	Wrap and Casing	40.2462, -74.1153		
Leachate Cleanout 2-1D	30,000	Wrap and Casing	40.2458, -74.1147		Flame out at 30,000 ppm
Leachate Cleanout 2-1C	3500	Wrap and Casing	See Map		
W16	0.4	Base	See Map		
	1.6	Valve			
WW10	0.6	Base	See Map		
	1.5	Flange			
	1.2	Valve			
W18	0.5	Base	See Map		
W20	1.6	Valve	See Map		
WW8	1.7	Valve	See Map		
WW7	1.6	Valve	See Map		
PHS-9	3.1	Connection to Gas Line	See Map		
WW6R	2.8	Base	See Map		
WW5R	1.9	Valve	See Map		
Gas Header Valve	1.9	Valve	See Map		
WW4	2	Valve	See Map		
WW9	14	Sample Port	See Map	Y	Replaced Sample Valve Cap
B53	1400	Sample Port	See Map	Y	Repaired Sample Port, Leak Corrected
WW2	2	Sample Port	See Map	Y	Repaired Sample Port
W79	2	Base	See Map		Previously repaired with spray foam
EW141	19.4	Base	See Map		
EW183	2000	Base	See Map		
	60,000	Base of Vac Line			
Ground Surface Leak 2	80,000	Near EW183	See Map		
EW130	125	Base	See Map		
	24	Valve	See Map		
CW197	74	Flange	See Map		
	40	Valve			
	20	Connection			
	9500	Base of Casing			
Ground Surface Leak 3	7500		40.2373, -74.1121		Leachate seeping on side slope
Ground Surface Leak 4	3000 - 9000	Ground	40.2373, -74.1117		Leachate seeping on side slope
213	3000	Base of Vacuum Line	See Map		
EW169	1700	Base of Air Regulator	See Map		
EW142	4380	Underneath Foam	See Map		Previously repaired, still leaking
EW143	90,000	Base of Wellhead Casing	See Map		
Belco Door near Frac Tank	6000	Top of Doors	See Map		
Gas Blower 1 (Flare)	1400	Leak at Gasket	See Map		

Leak Detected
Leak Detected and Repaired On Spot
Note 1: Leak Definition Is 500 ppm

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Table 1, EPA's Exceedance Report

Lead Inspector's Name: Victor Tu

7/6/2022

X Victor Tu

Lead Inspector
Signed by: VICTOR TU

Assisting Inspector's Name: Phillip Ritz

7/7/2022

X Phillip Ritz

Assisting Inspector
Signed by: PHILLIP RITZ

Supervisor's Name: Harish Patel

7/7/2022

X Harish Patel

Supervisor
Signed by: Environmental Protection Agency