DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

N603254537

FACILITY: MCGILL ROAD LANDFILL		**SRN / ID:** N6032
LOCATION: 3895 MCGILL RD, JACKSON		**DISTRICT:** Jackson
CITY: JACKSON		**COUNTY:** JACKSON
CONTACT: Steve Walters , District Engineer		**ACTIVITY DATE:** 08/12/2020
STAFF: Stephanie Weems	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MINOR
SUBJECT: Scheduled, announced inspection.		
RESOLVED COMPLAINTS:		

Inspection of McGill Road Landfill SRN N6032

Facility Contacts

Ron Feldcamp – Facility manager 517-789-9871

Steve Walters – Facility engineer 586-634-8085

Purpose

On August 12, 2020, I conducted an announced, scheduled inspection of McGill Road Landfill located at 3895 McGill Road in Jackson. This inspection was announced due to the ongoing COVID-19 pandemic and the need for exercising increased safety measures. The purpose of the inspection was to determine the facility's compliance status with applicable federal and state air pollution regulations, particularly Michigan Act 451, Part 55, Air Pollution Control Act and administrative rules. This facility was last inspected on November 5, 2009 and found to be in compliance.

During this inspection I was accompanied by Mike Kovalchick, AQD Senior Environmental Engineer, who was testing EGLE's new SEM5000 device. Additionally, Scott Miller (AQD Jackson District Supervisor), Ivan Bell (AQD Asbestos Inspector), and Arthur Ostaszewski (Environmental Quality Specialist with Materials Management Division) were also in attendance to learn about the SEM5000 monitoring.

Facility Location

The facility is located in Jackson County. It is immediately surrounded by agricultural and residential sources. See attached aerial photo.

Arrival & Facility Contacts

I arrived in the area of the landfill at approximately8 AM. No visible emissions or orders were observed during my drive around the perimeter road of the landfill.

We met with Ron Feldcamp and Steve Walter.

A pre-inspection conversation was held with Ron and Steve. We discussed what processes and information needed to be observed, and Mike explained the SEM monitoring process. Ron and Steve extended their full cooperation during the inspection and fully addressed our questions.

Facility Background

McGill is currently a smaller, active municipal solid waste (MSW) landfill owned by Waste Management, Inc. This facility is currently below the 40 CFR Part 63 New Source Performance Standards (NSPS) for Municipal Solid Waste Landfills Subpart WWW and Subpart XXX applicability thresholds of 250 million megagrams design capacity and 50 micrograms per cubic meter Non-Methane Organic Compound (NMOC) annual emissions. Furthermore, this landfill is currently operated under a Rule 201 Permit to Install (PTI) exemption for the active gas collection system and open flare control system, pursuant to Rule 285(2)(aa).

Currently, McGill is primarily regulated by EGLE's Materials Management Division (MMD). McGill's last permit application to MMD was for a revision to their design capacity. This was issued on 11/07/05 for a Phase V expansion, increasing it to 2.194 million megagrams (NSPS threshold is 2.5 million megagrams). Therefore, this is an MSW landfill that has the potential to become subject to the NSPS. If this were to happen, the landfill would then become subject to the ROP program, requiring them to obtain a Title V permit.

Regulatory Applicability

This landfill currently has no active permits on file with AQD.

Additionally, this landfill is currently operated under a Rule 285(2)(aa) PTI exemption.

Pre-Inspection Meeting

The pre-inspection conversation was held with Ron and Steve to gain some background information and to discuss how the inspection would proceed.

The facility currently has 4 full-time employees and 1 temporary employee. They work from 7:30AM-3:30PM.

Ron explained that Phase I is a closed Construction & Demolition (C&D) waste landfill. Phase II, III, IV are closed MSW / Ash / C&D. Phase V is the still active MSW portion. It is essentially one cell being filled in sections with diversion berms. Ron said they receive about 1000 tons of waste per week. He said this is roughly 40 to 50 trucks a day. Even though not yet required to, McGill decided to put in the active gas collection system now rather than incur the cost of putting it in after all the waste is in place. So, WM Inc. was proactive as far as design goes, and placed a lateral gas collection pipe in the center section across and on the floor/bottom of the cell. This way it should be more stable, less affected by uneven waste settlement overtime, and last longer without experiencing plugging and watering in issues.

McGill has 19 operating Gas Wells (GW) currently. They are the standard monitoring GW with control valve, flow meter, sample ports (pressure, vacuum and gas composition required by NSPS WWW). Steve and Ron said that a technician has been reading the GWs monthly, although they are not currently required to do so. Wells are connected to the standing single open flare, 25 feet in height (so relatively small).

I asked Ron about the flare and how often maintenance is conducted on it. He explained that the flare has a 650 scfm max flow rate, but right now they are running at approximately 380 scfm. He said that preventative maintenance is conducted on the unit once a month to make sure that everything is running correctly.

The flare has a pilot flame with propane and is located on the cell phase on the north end and up on the first vertical/horizonal plateau. Yokagawa is the manufacturer. According to previous inspection reports, it has an automatic shut off valve if there is no flame. It will attempt to self-start 5 times and then calls for help. Computer disks record the data; however, because they are not yet subject to the standard, they are not required to do this.

Lastly, we inquired about the type of waste the facility accepts. Ron and Steve said that about 2/3 of the waste they accept is MSW. They said that C&D waste only makes up about 1% of the waste accepted. Ron explained that sometimes this varies, especially with the recent blight projects occurring in Jackson. They confirmed that they do not accept friable asbestos.

Ron and Steve state that McGill Landfill is expected to close in 2023 or 2024.

Onsite Inspection and SEM survey

We began the walk through of the landfill by climbing to the top of the Phase I hill. This section has been closed for quite a while, and currently uses a passive vent system. No methane hits were found during Mike's traverse of the area.

We then crossed over to the next section of closed landfill. We traversed this area, and no methane hits were detected. This is the portion of the landfill where the flare is located. I was able to observe the flare operating. No visible emissions were observed. I was also able to see the operating panel. (See attached photos). The flare appeared to be operating according to manufacturer's specifications.

From this hill the leachate tank could also be observed. During the introductory discussion, Steve and Ron explained that this landfill has never had an issue with liquid, and therefore, they don't have liquid pumps in their gas wells. The leachate tank area seemed well-maintained.

We then walked over to the active cell. We traversed this cell thoroughly. (See attached map outlining path taken) In this area we were able to find 49 hits where methane levels were above 500ppm. Mike has documented these findings in a separate report, but the SEM results section below outlines the findings.

Post-Inspection Meeting

After the walk through of the landfill was done, a brief post-inspection conversation was held with Ron. I informed him that I did not have any immediate concerns at that time. I thanked him for his cooperation and assistance and departed the facility at approximately 1:00PM.

SEM Survey Results (as stated in Mike Kovalchick's 8/12 report)

During the inspection, AQD performed an abbreviated SEM survey and found 49 areas with methane concentrations greater than 500 ppm. Detailed spreadsheets/reports of the data collected have already been provided electronically to the facility contacts via email.

The following table shows the results of the SEM survey conducted during the visit:

ID*	Location*

			Methane (ppm)
	Lat (N)	Long (W)	
AQD 1	42.28945083	-84.36478783	4482
AQD 2	42.28952533	-84.36478367	672
AQD 3	42.2899235	-84.36392717	823
AQD 4	42.289961	-84.363857	1575
AQD 5	42.28974367	-84.36413183	934
AQD 6	42.28967917	-84.3642245	7214
AQD 7	42.28940933	-84.364582	738
AQD 8	42.2895425	-84.36307183	2253
AQD 9	42.28949033	-84.36305383	5097
AQD 10	42.289441	-84.363039	11,268
AQD 11	42.289057	-84.36294783	1490
AQD 12	42.28877567	-84.362958	1104
AQD 13	42.2887345	-84.3630525	518
AQD 14	42.288641	-84.36307317	1153
AQD 15	42.28855183	-84.36295467	1033
AQD 16	42.28853067	-84.3629	1632
AQD 17	42.28841217	-84.36306467	2839
AQD 18	42.28831517	-84.36314083	2806
AQD 19	42.28791217	-84.36397683	614
AQD 20	42.28789967	-84.364143	965
AQD 21	42.28777683	-84.36454933	3193
AQD 22	42.287868	-84.36468483	615
AQD 23	42.28789433	-84.36476767	652
AQD 24	42.28796283	-84.364915	538
AQD 25	42.28805667	-84.36483033	3178
AQD 26	42.2886775	-84.36444917	3140
AQD 27	42.2887745	-84.3643095	646
AQD 28	42.2888405	-84.36426767	1039
AQD 29	42.28892317	-84.363937	1245
AQD 30	42.28902917	-84.3639645	786
AQD 31	42.28910367	-84.36448167	639
AQD 32	42.2889065	-84.364993	3271
AQD 33	42.28883317	-84.36503833	2600

AQD 34	42.28883067	-84.365131	2417
AQD 35	42.28875083	-84.3651295	731
AQD 36	42.28869817	-84.36511433	1105
AQD 37	42.28864467	-84.3651105	1284
AQD 38	42.28857383	-84.365111	4374
AQD 39	42.28852583	-84.36510867	1379
AQD 40	42.28844883	-84.36508583	881
AQD 41	42.28837583	-84.36509717	2731
AQD 42	42.28829783	-84.36509283	1394
AQD 43	42.28823283	-84.365092	1693
AQD 44	42.28817967	-84.36508767	1080
AQD 45	42.28812067	-84.365095	1131
AQD 46	42.28805383	-84.36508667	2175
AQD 47	42.2880505	-84.3651665	3448
AQD 48	42.28798033	-84.365125	2308
AQD 49	42.28782317	-84.36516817	804

Monitoring was conducted between 9:00 AM and 1:00 PM on August 12, 2020.

General SEM Survey Comments:

This landfill is **not** subject Federal New Source Performance Standard (NSPS) for Municipal Solid Waste Landfills 40 CFR Part 60, Subpart WWW (or the newer Subpart XXX regulation) as the current size of the landfill is 2.194 million megagrams which is below the 2.5 million megagrams NSPS threshold. Therefore, compliance with the 500-ppm methane standard is not required. Cover integrity observed during the AQD SEM survey appeared to be excellent in the inactive western 2/3 of the landfill. This area had very little methane emissions coming from the surface and undetectable levels of methane coming from passive vents that were present. The active eastern portion of the landfill had little vegetation with small cracks in the soil and numerous small erosion features and a few surface geomembrane liners that were installed to limit the amount of leachate being generated. All landfill gas collected is directed to a single gas flare. SEM hits detected were mostly found in active areas that currently lack a gas collection and control system (GCCS) and near the edge of a couple geo-membrane liners. Surface penetrations such as wellheads that were surveyed were found to be in good shape. One significant widespread area of elevated methane concentrations was found on the western slopes of the active cell area. This area lacks gas collection.

At this time, no action is required by the facility to address the surface methane emissions. It is noted that if proposed changes to Michigan's Part 115 Waste Management rules are enacted, it would require that surface methane emissions more than 500 ppm be addressed.

Compliance Summary

Based upon the visual observations McGill Landfill appears to be in compliance at the time of this inspection.

Image 1(1) : Aerial photo

Image 2(2) : SEM survey path and hits detected.

Image 3(3) : Flare

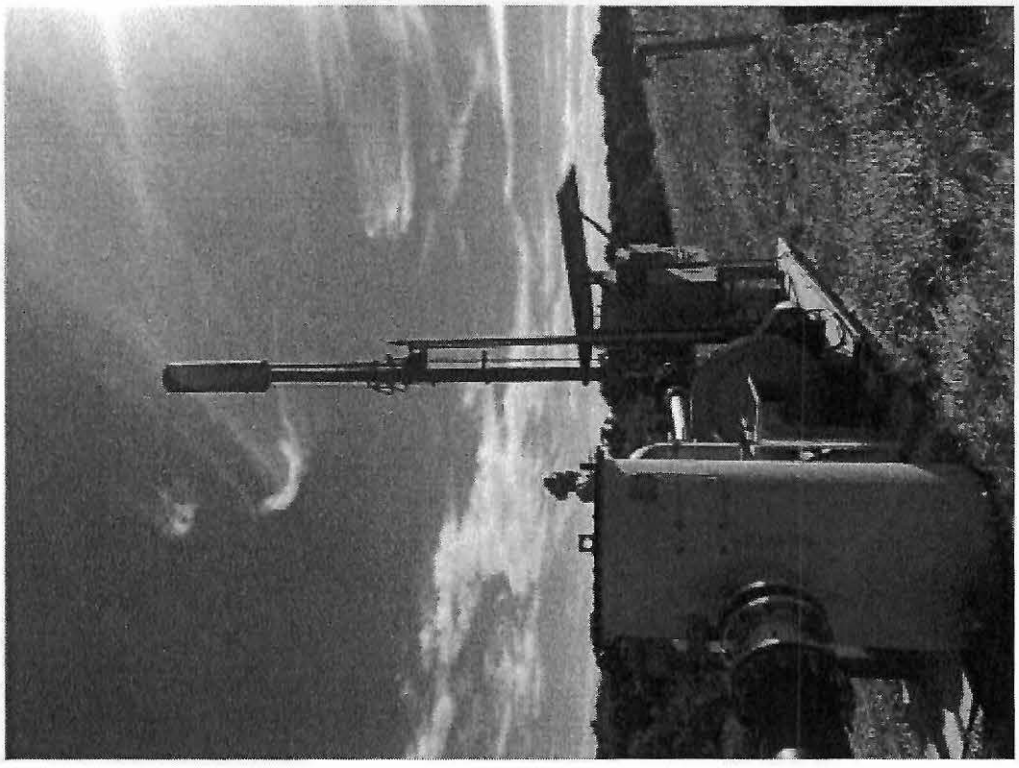

Image 4(4) : Flare

NAME [signature] DATE 8-19-2020 SUPERVISOR [signature]