

October 29, 2024

Brian L. Rath, P.E.
Environmental Engineer Senior
IDNR – Land Quality Bureau
6200 Park Avenue, Suite 200
Des Moines, Iowa 50321



**RE: SEMI-ANNUAL INSPECTION – FALL 2024
FLOYD-MITCHELL-CHICKASAW COUNTIES SANITARY LANDFILL
IDNR PERMIT #66-SDP-01-73P
ORIGINAL LANDFILL AREA - CLOSED
HORIZONTAL EXPANSION AREA - ACTIVE**

Dear Mr. Rath:

In accordance with Special Provision XI.5 of the SDP Permit, a semi-annual inspection of the Floyd-Mitchell-Chickasaw Counties SLF was personally conducted the morning of October 23, 2024. Christian Fox, Director, accompanied me on the inspection. Conditions at the time of the inspection were clear with moderate winds and temperatures in the 40's.

Status of the Permit

The SDP Permit was renewed on December 10, 2021. The facility has received the following revisions to the Permit to date:

- Revised Permit, Amendment No. 1, May 25, 2023, removed the words “soil conditioner” from the permit to conform with the Iowa Administrative Code.
- Revised Permit, Amendment No. 2, July 6, 2023, approved the request to discontinue ambient air monitoring at the “A” points.

Annual Water Quality Report

The 2023 Annual Water Quality Report (AWQR) for the active and closed areas was submitted to IDNR on January 30, 2024 (Doc #109006). An IDNR comment letter on the 2023 AWQR was received on June 21, 2024. No response was required.

The 2024 Spring Water Quality Notification letter was submitted to IDNR on May 23, 2024 (Doc #110146).

Financial Assurance

The 2024 Financial Assurance documentation was submitted on April 12, 2024 (Doc #109806) and approved on April 17, 2024.

Permit General Provisions

1. Quarterly tonnage reports are submitted as required.
2. Asbestos wastes, petroleum contaminated soils and grit and bar screenings are accepted in accordance with the landfill's SWAC. Note that Special Provision X.14 of the SDP Permit authorizes the direct disposal of petroleum contaminated soil at the landfill working face.
3. Special Waste Authorizations are obtained as necessary.

Special Provisions (Phase 1,2 & 3 – Active Landfilling Area)

1. The landfill is accepting waste for disposal in accordance with the Floyd-Mitchell-Chickasaw County Comprehensive Plan. The latest update of the Comprehensive Plan was approved by IDNR on October 8, 2020.
2. The landfill is being operated in general accordance with the information in the 2021 Municipal Solid Waste Permit Renewal dated May 10, 2021 (Doc #100449). Phases 1, 2, and 3 are the active disposal areas.
3. Leachate is stored in a Subtitle D composite lined lagoon. Leachate is recirculated within Phases 1, 2, and 3 in accordance with the SDP Permit or is hauled to a POTW for treatment and disposal in accordance with an applicable leachate treatment agreement. The landfill currently has leachate treatment agreements with Osage and Mason City. Mr. Fox reported that the majority of leachate is hauled to Mason City as the leachate treatment agreement with Mason City allows for a higher daily disposal volume. The leachate storage lagoon has a storage capacity of approximately one million gallons and at the time of the inspection had approximately 8' of storage available to the top of the lagoon.

The Pit Boss leachate evaporator has been removed from the leachate lagoon for the winter. Mr. Fox reported that the evaporator was operated this year and staff is still pleased with the operations. Two of the three diffusers were operating in the leachate lagoon during the inspection, one of the diffuser has been removed for cleaning.

Leachate piezometers in Phases 1, 2, and 3 are measured monthly when leachate is not being recirculated. When leachate recirculation is ongoing levels are measured daily in accordance with the Leachate Recirculation Operation Plan (Doc #85606). A Leachate Control System Performance Evaluation Report will be included in the AWQR.

4. The sampling points for Phases 1, 2, and 3 include:
 - Background: MW-4, MW-5, MW-9, and MW-14
 - Downgradient: MW-11, MW-12, MW-15, and MW-16

All monitoring wells viewed during the inspection were locked.

5. Leachate recirculation is by either surface application (primary method of recirculation) or by a 4" pipe buried in the solid waste in Phase 1. All recirculation is performed in general accordance with the SDP Permit. Some leachate had been recirculated at the working face using the tank prior to the inspection. The annual pressure testing of the leachate recirculation force main for 2024 required by this Special Provision was completed on August 14, 2024.
6. Quarterly gas monitoring is conducted by either landfill staff or HLW personnel. Gas monitoring results will be included in the AWQR.
7. Yard waste is not typically received at the site.
8. Topcoat or Concover are approved in the SDP Permit for use as alternative daily cover (ADC).
9. Tires are accepted, stored, and recycled in general accordance with the permit. The tires are stored in a building – the tire storage area was reviewed and was neat and orderly.
10. White goods are accepted, stored, and recycled in general accordance with the permit. The white goods are stored in a building. When numbers warrant the white goods are picked up by a recycler to be demanufactured. The white goods storage area was reviewed – the storage area was neat and orderly with all appliances being stored upright.

The small quantities of scrap metal collected are temporarily stored outside and recycled through a local scrap dealer.

11. Lead acid batteries are accepted, stored, and recycled in general accordance with the permit. Batteries are stored in the HHM building.
12. Pallets received on site are currently landfilled.
13. Farm pesticide containers are accepted, stored, and recycled in general accordance with the permit. There were a small number of containers in the storage area - Mr. Fox reported that accumulated containers were recently removed by the recycler.
14. Petroleum contaminated soil is accepted and directly buried in accordance with the permit.
15. An updated ERRAP was included in Appendix 2 of Section E of the 2021 Municipal Solid Waste Permit Renewal.
16. The landfill will be closed in general accordance with the Closure and Post Closure Plan (CPCP) included in Section I of the 2021 Municipal Solid Waste Permit Renewal.

Special Provisions (Closed Landfill – Original Landfilling Area)

1. The thirty-year post closure period began on December 29, 2008.
2. The Original Landfilling Area will be maintained in general accordance with the Closure and Post Closure Plan (CPCP) included in Section I of the 2021 Municipal Solid Waste Permit Renewal.
3. There will be no waste disposal, recycling, composting or other related landfill activities on the closed site.
4. The sampling points for the Original Landfilling Area include:
 - Background: MW-4, MW-5, MW-9, and MW-14
 - Downgradient: MW-2, MW-3, MW-6, and MW-7

All monitoring wells viewed during the inspection were locked.

5. Formal inspections of the Original Landfilling Area are completed semi-annually, with a report submitted to IDNR that includes a summary of site conditions and recommendations for corrective actions. Landfill staff also review conditions in the Original Landfilling Area as needed.
6. The diversion and drainage systems are being maintained and are in good shape.
7. The vegetation on the cap is generally in good condition and was mowed in 2024. Mr. Fox reported that areas of the cap were seeded earlier this year. Included in the seeded areas were the stressed areas noted during the Spring, 2024 inspection: mid slope on the northwest corner and in the middle of the cap near the 4x4 GPS post. Seeded areas did see an improvement of vegetation in 2024. No trees were noted on the cap during the inspection.
8. The erosion rills noted during the Spring, 2024 inspection below the lowest terrace on the south side of the site midway between MW-5 and MW-6 have been repaired and vegetation is established in the repair areas.

Some settlement was noted on the western portion of the top of cap. No vegetation changes or ponding were noted in this area, it appears that the settlement has not impacted surface water drainage to date.

The final cover over the majority of the Original Landfilling Area is in excellent condition.

9. Quarterly gas monitoring is conducted by either landfill staff or HLW personnel. Gas monitoring includes the four passive gas vents in the Original Landfilling Area. Gas monitoring results will be included in the AWQR.

10. Based on a risk assessment, the Original Landfilling Area does not require a leachate control plan.
11. The permit holder is conditionally exempt from providing a leachate collection system for the Original Landfilling Area. However, a retrofit leachate collection system was installed in 2004 to control an intermittent leachate seep located at the east end of the landfill.
12. An updated ERRAP was included in Appendix 2 of Section E of the 2021 Municipal Solid Waste Permit Renewal.

Based on observations during the inspection, along with discussions with Landfill personnel, it appears that the facility is operating in general conformance with the permit.

Stormwater Pollution Prevention Plan

Annual sampling of stormwater is required in accordance with the NPDES General Permit No. 1 for the FMC SLF (expires 3/10/28). The annual stormwater sample for 2024 required by the General Permit was collected on July 15, 2024. Due to the completion of Phase 3, staff updated the Stormwater Pollution Prevention Plan (SWPPP) in 2019. The figures for the SWPPP were updated in 2019 as well.

Vegetation on the intermediate cover in Phases 1, 2, and 3 appeared to be in good condition much improved over the conditions noted during past inspections. Only a few bare areas were noted on the intermediate cover. Mr. Fox reported that the vegetation on the intermediate cover was broomed to distribute seeds this Spring and this practice will continued.

Staff removed accumulated sediment from the ditch that drains southern areas of Phases 1, 2, and 3 to eliminate stagnant water in this ditch. Mr. Fox reported that additional vegetation would be removed from the ditch when the ditch froze.

IDNR Field Office #2 conducted an NPDES General Permit #1 Storm Water inspection on October 18, 2023. The reported noted that the landfill was “in substantial compliance with National Pollution Discharge Elimination System General Permit #1 at the time of the inspection.”

A separate “Stormwater Industrial Routine Facility Inspection Report” was completed during this inspection to satisfy the annual requirement in the SWPPP. A copy of the report is attached to this report and should be filed in the SWPPP.

Spill Prevention, Control, and Countermeasures Plan

Due to the amount of petroleum products stored on site, the FMC SLF operates under a Spill Prevention, Control, and Countermeasures Plan (SPCC). It appears that all petroleum products are being stored as designated in the SPCC. Oil dry is available on site. A secondary containment structure has been placed under the fill pipe from two of the maintenance fluids storage tanks in the maintenance building south of the scale house. Mr. Fox and I discussed whether the floor

drains in this building outlet outside of the building. If it is determined that the floor drains outlet outside of the building, secondary containment should be placed under the petroleum products with a capacity of 55 gallons or larger stored in this building.

The exterior of the tanks and secondary containment systems were visually observed during the inspection and no significant problems/concerns were noted. Forms documenting the visual inspections were completed and will be provided to landfill staff.

Additional Comments

At the time of the inspection the waste disposal area was located in the southern portion of Phase 3. The landfill compactor was in use during the inspection. Daily and intermediate cover appeared adequate. No surface water ponding was noted in the active area during the inspection.

Litter fences are present on the north, south, and west perimeter of Phase 3. Portable litter fences are also utilized where appropriate. Eleven portable litter fences were in place in the active area during the inspection. There was some litter noted away from the working face - the majority of the litter was either tracked into the cover or being contained by the litter fences or on-site vegetation. No litter was noted off site during the inspection. The Office Manager maintains the litter log.

Staff has segregated timbers received from a bridge demolition in the active area. There are used as a base for haul roads in the active area and appear to have worked well to date.

Documentation of load inspections is maintained by the Office Manager on the scale house computer.

Construction of the new customer drop off area was completed in 2023, the approach to the area was paved this year. This area is improving conditions at the site by reducing traffic and congestion at the working face. Mr. Fox reported that both customers and landfill staff are pleased with the addition of the drop off area.

IDNR FO #2 inspected the landfill on August 20, 2024 with Madelynn Austin from FO #2 and yourself present. The report transmittal letter noted that "No violations or deficiencies were documented at the time of the inspection."

Leachate lines were cleaned November 6, 2023. As per the 3 year cleaning frequency required by IDNR the lines should be cleaned again in 2026.

Staff reviews the Emergency Response and Remedial Action Plan, the Storm Water Pollution Prevention Plan, and the Development and Operations Plan on an annual basis. Records of the staff reviews are maintained on site.

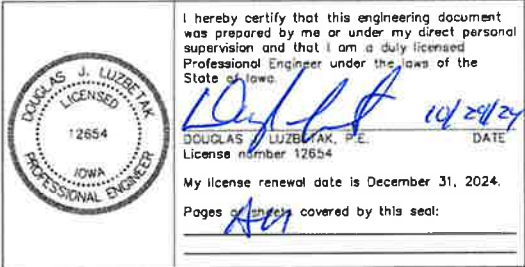
All access roads on site were in good condition, well graded and free of depressions and ruts.

Staff planted additional trees on the north perimeter of the site in 2024 to act as a visual buffer.

The HHM RCC license expires on November 1, 2028. The interior of the HHM RCC building was reviewed – the building was very neat with materials being stored in an orderly manner. Mr. Fox reported that accumulated materials were picked up the week before the inspection.

Recommendations

- 1. Continue to remove/mow tree saplings from landfill cap.
- 2. Continue to retrieve windblown litter as needed.
- 3. Continue to monitor vegetation and bare areas on the landfill cap in the Original Landfilling Area and on the intermediate cover in the Active Area and repair any deficiencies as necessary.



cc: Christian Fox, Director FMC Landfill (electronic copy)

Stormwater Industrial Routine Facility Inspection Report

General Information			
Facility Name	Floyd-Mitchell-Chickasaw Sanitary Landfill		
NPDES Tracking No.	Authorization # 5872-5686		
Date of Inspection	October 23, 2024	Start/End Time	9:30 AM/11:00 AM
Inspector's Name(s)	Douglas J. Luzbetak, P.E.		
Inspector's Title(s)	Project Manager		
Inspector's Contact Information	HLW Group, PO Box 314, Story City, IA 50248, (515)733-4144		
Inspector's Qualifications	Professional Engineer, project manager at the site since 2013		
Weather Information			
Weather at time of this inspection?			
<input checked="" type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Rain <input type="checkbox"/> Sleet <input type="checkbox"/> Fog <input type="checkbox"/> Snow <input type="checkbox"/> High Winds <input type="checkbox"/> Other: Temperature: 40's			
Have any previously unidentified discharges of pollutants occurred since the last inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe:			
Are there any discharges occurring at the time of inspection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe: Discharge of clear water from sediment basin.			

Control Measures

	Structural Control Measure	Control Measure is Operating Effectively?	If No, In Need of Maintenance, Repair, or Replacement?	Corrective Action Needed and Notes (identify needed maintenance and repairs, or any failed control measures that need replacement)
1	Sediment Basins	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
2	Terrace system on closed landfill area	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	
3	48" Corrugated Plastic Culvert under Access Road	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Maintenance <input type="checkbox"/> Repair <input type="checkbox"/> Replacement	

Areas of Industrial Materials or Activities exposed to stormwater

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
1	Material loading/unloading and storage areas	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
2	Equipment operations and maintenance areas	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

	Area/Activity	Inspected?	Controls Adequate (appropriate, effective, and operating)?	Corrective Action Needed and Notes
3	Fueling areas	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
4	Appliance storage area	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Appliances stored upright on a concrete base within a building.
5	Waste handling and disposal areas	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Retrieve windblown litter as applicable
6	Erodible areas/construction	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
7	Non-stormwater/ illicit connections	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	Dust generation and vehicle tracking	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Dust was not noted during the inspection. No tracked litter or mud was noted at landfill entrance/exit.
9	Leachate Lagoon	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Non-Compliance

Describe any incidents of non-compliance observed and not described above:

NA

Additional Control Measures

Describe any additional control measures needed to comply with the permit requirements:

Monitor site erosion and repair as necessary.

Monitor site vegetation and repair as necessary.

Notes

Use this space for any additional notes or observations from the inspection:

Annual stormwater sample for 2024 was taken July 15, 2024.

Areas of stressed vegetation noted on the landfill cap during the Spring, 2024 Semi-Annual inspection were seeded with vegetation becoming established in these areas. These areas should be monitored during future inspections.

CERTIFICATION STATEMENT

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

Print name and title: Douglas J. Luzbetak, PE

Signature:  Date: 10/29/24