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ghd.com

Our reference: 056934-LTR-18

April 29, 2024

Mr. Brian Rath
Iowa Department of Natural Resources
Wallace State Office Building
502 E. 9th Street
Des Moines, Iowa 50319

Spring 2024 Semi-Annual Engineering Inspection
Viking Pump Foundry Sand Landfill
Permit No. 7-SDP-12-89P-FSL

Dear Mr. Rath:

This letter serves as a semiannual report of the engineering inspection which follows the scope and format of previous reports. The Spring 2024 semiannual engineering inspection of the Viking Pump (Viking) Foundry Sand Landfill (landfill) located in Cedar Falls, Iowa was conducted by GHD on April 1, 2024.

The following sections summarize the observations made during the inspection and recommendations made to Viking. Attachment 1 provides select photographs from the inspection.

1. Weather conditions

The weather was cool and slightly windy, with intermittent rain throughout the inspection. The air temperature was approximately 43 to 46 degrees Fahrenheit during the inspection. With rain occurring the previous night and the day of the inspection, the sometimes-dry drainage channels were observed to contain flowing water during the inspection.

2. Permits and plans

A Construction Completion Report for the landfill was submitted to the Iowa Department of Natural Resources (IDNR) in November 2014. A revised permit was issued by the IDNR on December 8, 2021 and expires December 8, 2024.

The current Viking contact for the permit is:

Mr. Evan Arachikavitz, earachikavitz@idexcorp.com, 319-222-2428

3. Access roads

The landfill access road was reconstructed since the previous inspection. The reconstructed road included an underlying geogrid and gravel. The new roadway extends in two directions into the landfill providing improved access across the site and facilitating distribution of blocks for crushing. The access road may be extended or modified in the future as filling proceeds.

4. Equipment and manpower

Viking contracts with Wapsie Pines Lawn Care & Landscaping. to use a dozer and sheepsfoot roller for breaking down foundry sand blocks, spreading, and leveling at the foundry sands. The following individuals at Viking are certified landfill operators and supervise operation of the landfill:

– Chris Newby
– Randy Hansen

Randy Hansen is the responsible official.

5. Landfill operations

As specified in the approved Operations Plan, soil cover is not placed on the landfill. No problems with dust generation, runoff, or erosion outside the fill area were noted at the time of the inspection.

Foundry sand blocks are placed along the gravel access roads. The large blocks of foundry sand are occasionally crushed as required for continued landfill operation. During the inspection, all foundry sand was observed within the landfill berm. No operations were observed during the inspection.

The trees planted around the landfill were inspected. It appears one more tree apparently died or succumb to stresses since the October 2023 inspection. Drought conditions coupled with rhizosphaera needle cast fungus was likely responsible for elevated tree mortality observed in 2023. The recent drought conditions and tree survivorship in previous, wetter periods indicates that the tree death is not from a landfill impact.

6. Drainage structures

The landfill areas with final cover on the north and west sides of the landfill flow to the unnamed ditch west of the landfill. Surface water from the east flows to the south and leaves the site at Viking Road. No erosion in drainage pathways was observed. Vegetation has been established and is in good condition. The east drainage channel contained water flowing toward the stormwater retention basin. The retention basin appeared to be functioning as designed and was discharging during the inspection. Grass on the closed areas was still dormant from the winter season but appeared to have acceptable coverage and consistent with previous inspections.

7. Signage

A new entrance sign was placed in 2021 and remains in good condition.

8. Leachate control

The landfill has one collection sump. Leachate is pumped to the Viking sanitary sewer and discharged to the City of Cedar Falls under a discharge permit with the City of Cedar Falls. Viking provides quarterly discharge reports to the City of Cedar Falls that address flows and parameter concentrations in accordance with its discharge permit. The leachate lab data and copies of the discharge concentrations and flows are also reported to the IDNR in the annual groundwater monitoring reports.

A leachate pump was replaced in September 2023 and appears to be operating correctly. Also in 2023, the telemetry and pump controls were upgraded.

9. Groundwater and surface water monitoring system

The Spring 2024 semiannual groundwater and surface water sampling event was completed by GHD personnel on April 1-4, 2024. All wells in the groundwater monitoring network were functioning properly during the sampling event. There was surface water present in the unnamed ditch west of the landfill, so a surface water sample was collected during this sampling event.

The retaining wall around the area of MW-8 and MW-13 was previously upgraded. The fill behind the wall was overgrown at the last inspection, and additional maintenance was requested. Since then, the overgrowth has been cleared and the wells are easily accessible.

10. Summary of landfill inspection form

A copy of the Summary of Landfill Inspection form is provided in Attachment 2.

11. Closing

Should you have any questions or comments, please call me at (515) 414-3934.

Regards,

Michael Alowitz
Senior Engineer

+1 515 414-3934
michael.alowitz@ghd.com

MA/mg/LTR-18

Encl.

Copy to: Evan Arachikavitz, Viking (via email)
Tom McCarthy, IDNR Field Office 1 – Manchester (via email)
Margaret Zuckweiler, GHD (via email)
Elizabeth Mitchell, GHD (via email)

Attachment 1

Photo Log

Site Photographs (April 1, 2024)

Photo 1. View of new access road from the west edge of the road, looking toward the entrance (southeast). Staged blocks placed on either side of the access road.

Photo 2. Area of new retaining wall around MW-8 and MW-13 on north side of landfill. Overgrown brush observed in October 2023 is now cleared.

Site Photographs (April 1, 2024)

Photo 3. Example of tree mortality on west side of landfill.

Photo 4. Water in the east drainage channel. Note healthy trees in foreground.

Site Photographs (April 1, 2024)

Photo 5. Example of crushed and spread foundry sand with uncrushed blocks on left, on the east side of the landfill.

Photo 6. View from northeast corner of the landfill. Looking southwest. Upper portion of new access road visible to the left.

Attachment 2

Summary of Landfill Inspection

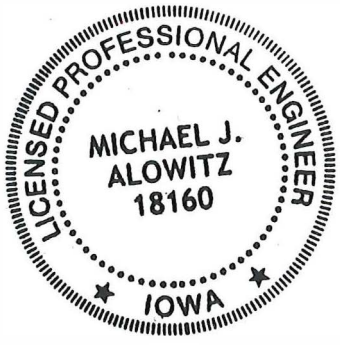
Summary of Landfill Inspection

Site:	Viking Pump Foundry Sand Landfill
Address:	711 Viking Road, Cedar Falls, Iowa 50613
Operator:	Chris Newby
Phone No.:	319-273-8173
Responsible Official:	Randy Hansen
Company:	Viking Pump, Inc.
Address:	406 State Street, P.O. Box 8, Cedar Falls, Iowa 50613 (mailing address)
Phone No.:	319-273-8402
IDNR Permit No.:	7-SDP-12-89P-FSL
IDNR Region:	1
Permit Expiration Date:	12/8/2024
Inspection Date:	4/1/2024
Date of Last Inspection:	10/2/2023
Daily Waste Tonnage:	20 average

	Problems Noted? Yes	Problems Noted? No	Description
Weather Conditions		X	Rain on inspection day
Permit and Plans		X	
Roads		X	
Equipment/Manpower		X	
Landfill Operations		X	
Drainage Structures		X	
Leachate Control		X	
GW and SW Monitoring System		X	

Michael Alowitz — Inspector

4/1/2024 — Date



I hereby certify that this engineering document was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Michael Alowitz, P.E. — 4/29/24 — Date

License Number: 18160

My license renewal date is: December 31, 2024

Pages or sheets covered by this seal:
Entire document