

DATE: October 9, 2024

TO: Emily Brickman, P.G., *Senior Project Manager – Geologist, EnSafe*

FROM: Ian Klein, *Staff Engineer, Harbor*

RE: Bi-weekly Site Inspection
NABORS Landfill
Mountain Home, AR
Harbor Project No: ENSF-23299

Harbor visited the NABORS landfill in Mountain Home, Arkansas on October 1, 2024, to conduct the bi-weekly site inspection to assess the general condition of the landfill and the leachate collection system (LCS). The LCS was last fully repaired by Advanced Fluid Technologies (AFT) in October and November of 2022; however, within a few weeks of these repairs, the LCS began malfunctioning. By March 2023, most of the LCS points were malfunctioning. A quote was then requested and received from AFT to again repair the system. No authorization for the subsequent repairs was provided prior to the expiration of Harbor's contract with DEQ in June 2023.

Upon commencement of the subcontract with EnSafe, Inc. (EnSafe) in April 2024, Harbor retained Comfort Systems USA (CSUSA) to begin repairs of the LCS. CSUSA conducted partial repairs of the system; however, they were unable or unwilling to conduct all of the repairs necessary and have since been terminated as the repair contractor. Harbor contacted Landmarc Environmental (Landmarc), a company specializing in LCS installation and service, to assess the leachate collection system.

The LCS remains largely unchanged from previous inspections. Findings and observations from the current landfill inspection are summarized below:

- Vertical leachate collection sump (VLCS)-1 was functioning, and the sump was at 2/3 capacity.
 - VLCS-2 was functioning, and the sump was at approximately 1/3 capacity.
 - Minimal stormwater was observed in the leachate tank battery secondary containment. As such, no stormwater was released.
 - The panel displays were off at LCS-1 through LCS-4, and LCS-8 through LCS-9. The VFDs did not activate when the sump was placed in "hand" or "auto" mode.
 - LCS-5 is not functioning correctly. The station displayed a "station ok" message but the VFD did not activate when placed in hand or auto.
 - LCS-6 displayed a pump fault. The red and green strobes were active.
 - LCS-7 displayed a pump fault; and the red strobe was active.
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- A turbine vent near LCS-6 has also detached (see photograph 1). A turbine vent near LCS-8 has detached as well (see photograph 2).
- Another damaged turbine vent was observed on the north side of Area 1-2 near coordinates 36.461550, -92.451120 (see photographs 3-4).
- The closure turf has some significant rills present between LCS-1 and LCS-2 on the north side of Area 1-2. These rills have sediment deposited in them which is allowing vegetation to grow. An erosional washout is present along the road between LCS-4 and LCS-5.

Attachment A is a map showing the LCS points. Photographs are included in Attachment B. Copies of the field notes and the LCS status form are included in Attachment C.

The leachate collection system has been functioning at a minimal level, resulting in some leachate generation, mainly by placing some of the LCS points in "hand" mode. Harbor contract water hauler 417 Services LLC (417 Services) began hauling leachate on July 2, 2024. As of September 29, 2024, 417 Services hauled 86 loads of leachate totaling 327,700 gallons to the City of Springfield, Missouri wastewater treatment plant under wastewater contribution permit #593.

Attachments:

Attachment A – Site Map

Attachment B – Site Photographs

Attachment C – Field Notes and Leachate Collection System Status Form

Attachment A

Site Map



Attachment B

Site Photographs



Photograph 1: View of detached turbine vent near LCS-6.



Photograph 2: View of detached turbine vent near LCS-8.



Photograph 3: View of damaged turbine vent on north side of Area 1-2.



Photograph 4: View of damaged turbine vent on north side of Area 1-2.

Attachment C

Field Notes and Leachate Collection System Status Inspection Form

Tuesday October 1st 2024
Nabors Landfill
Sunny, Clear, 80°F

11:35	Ian Arrives On-Site
11:40	VCLS-2 1/3 Full
11:40	VCLS-1 2/3 Full, Odor
11:45	Leachate Tank Battery Level ↳ 22.4 in
	Little to No Rainwater in Containment ↳ No pH measurement Taken
11:50	LCS-1 No Display
11:55	LCS-2 No Display
11:55	LCS-3 No Display
12:00	LCS-4 No Display
12:00	LCS-5 All good
12:05	LCS-9 No Display
12:10	LCS-8 No Display
12:10	LCS-7 Pump Fault Alarm
12:10	LCS-6 Pump Fault Alarm
12:15	Ian off-Site

Ian Klein



Leachate Collection System Status

Date: 10/1/24 Arrival Time: 11:35 Location: NABORS Landfill Leachate Tank Battery Level (inches): 22.4in
 Weather Conditions: Sunny, Clear, 80°F

Panel Number	Display Functioning (Yes/No)	Leachate Level (inches)	Green Flashing? (Yes/No)	Amber Flashing? (Yes/No)	Red Flashing? (Yes/No)	Working in Hand? (Yes/No)	Working in Auto? (Yes/No)	VFD Status	Hours	Alarm	Comments
VLCS-1	N/A	N/A	N/A	N/A	N	—	—	N/A	N/A	N/A	Sump status: <u>2/3 Full</u>
VLCS-2	N/A	N/A	N/A	N/A	N	—	—	N/A	N/A	N/A	Sump status: <u>1/3 Full</u>
LCS-1	N	—	N	N	N	—	—	—	—	—	Display Non-Functional
LCS-2	N	—	N	N	N	—	—	—	—	—	Display N.F., Odor
LCS-3	N	—	N	N	N	—	—	—	—	—	Display N.F.
LCS-4	N	—	N	N	N	—	—	—	—	—	Display N.F.
LCS-5	Y	9.7in	N	N	N	N	N	—	0	N	
LCS-6	Y	9.4in	X	N	Y	N	—	—	26	PF	Pump Fault Alarm
LCS-7	Y	0in	N	N	Y	N	—	—	29hr	PF	Pump Fault Alarm
LCS-8	N	—	N	N	N	—	—	—	—	—	Display N.F.
LCS-9	N	—	N	N	N	—	—	—	—	—	Display N.F.
General Comments:											

End of Report
