

December 5, 2025
File No. 27224317.00

Mr. Mike Smith, P.E.
Iowa Department of Natural Resources
Land Quality Bureau
6200 Park Avenue
Des Moines, Iowa 50321

Subject: Permit Revision Request – Landfill Gas Monitoring Network
Great River Regional Waste Authority Sanitary Landfill
Phase 2 MSWLF Unit
Permit No. 56-SDP-07-80P

Dear Mike:

SCS Engineers, on behalf of the Great River Regional Waste Authority (GRRWA), is requesting a revision to the permit regarding landfill gas (LFG) monitoring for the Phase 2 municipal solid waste landfill unit (Phase 2 MSWLF unit) at the GRRWA Sanitary Landfill (Landfill) and the Landfill property as a whole.

Background

Both existing and proposed monitoring points for the Landfill LFG monitoring network were identified in the *Revised Landfill Gas Monitoring Plan* contained in Appendix 9B of the *Request for Permit Amendment and Approval to Construct the 2019 North Lateral Expansion, and Application for Permit Renewal* (Docs #96921 - #96925), dated January 31, 2020. The *Revised Landfill Gas Monitoring Plan* begins on page 93 of Doc #96294.

Since the submittal of the *Revised Landfill Gas Monitoring Plan* (Plan) in January 2020, the groundwater underdrains for Cells R3-2 through R3-6 in Region 3 of the Phase 2 MSWLF unit were redesigned (Doc #109782), as approved in Revised Permit #7, dated April 10, 2024 (Doc #109789). This redesign changed the future groundwater underdrain numbers and locations from what was presented in the Plan. However, as described herein, GRRWA intends to proactively install the remaining proposed subsurface gas monitoring probe network and remove the groundwater underdrain monitoring points from the Plan. New monitoring probes beyond those presented in the Plan are proposed as described below.

It should also be noted that Special Provision XI.11 of the above-referenced permit required separate landfill gas monitoring and reporting for the Phase 1 MSWLF unit. Special Provision XI was reduced to a reference to the executed environmental covenant for the Phase 1 MSWLF unit in Revised Permit #11, dated October 27, 2025 (Doc #114571). Gas monitoring points associated with the Phase 1 MSWLF unit annual reports were included in the Plan, and, therefore, no Phase 1 MSWLF landfill gas monitoring points need to be added to the Plan.

Changes to the LFG monitoring network are specified below.



Proposed Modification of the LFG Monitoring Network

1. Remove future groundwater underdrain monitoring points from the monitoring network.
2. Retain existing groundwater underdrain monitoring points until the proposed subsurface perimeter monitoring probe network has been installed.
3. Remove monitoring well MW-22 from the LFG monitoring program, as MW-22 is a Phase 1 MSWLF unit groundwater monitoring well that will be abandoned.
4. Add three additional subsurface monitoring probes to the previously approved subsurface monitoring probe network. The monitoring probes are located at a nominal approximate 1,000-foot spacing, with some variation based on off-site receptors. The names and proposed locations of some previously approved monitoring probes have changed, as listed below.
 - LFGW-2 is unchanged.
 - LFGW-3 moved to the northwest of Cell R3-6.
 - LFGW-4 is a newly proposed monitoring point located north of Cell R3-6.
 - The previous LFGW-4 was renamed to LFGW-5.
 - LFGW-6 is a newly proposed monitoring point located east of Cell R2-4.
 - LFGW-7 is a newly proposed monitoring point located southeast of Cell R2-5.

Monitoring probes LFGW-6 and LFGW-7 are near the Iowa State Penitentiary, located to the east of the GRRWA property.

The proposed revised landfill gas monitoring point network is shown in the attached Table A-1 and Figure 1.

If you have any questions or comments regarding this request, please contact Nathan Ohrt at (319) 331-9613. Thank you.

Sincerely,



Nathan Ohrt
Senior Project Professional
SCS Engineers

NPO/TCB

Copies: Mr. Austin Banks, GRRWA



Timothy C. Buelow, P.E.
VP – Senior Project Advisor
SCS Engineers

Table A
Landfill Gas Monitoring Plan Monitoring Points
GRRWA Sanitary Landfill
Permit No. 56-SDP-07-80P

| Monitoring Point | Type | Status | Description |
|----------------------|------------|----------|--|
| Maintenance Building | Indoor | Existing | Inside the maintenance building between Phase 1 and Phase 2. |
| Scalehouse | Indoor | Existing | Inside scalehouse. |
| LFG-GWTO1 | Subsurface | Existing | Wet well, groundwater interceptor trench west and north of Phase 1. |
| LFG-R2-1SHED | Indoor | Existing | Pumphouse shed for groundwater underdrain beneath west side of Phase 2, Region 2. |
| LFG-GUCO4-R1* | Subsurface | Existing | Relocation of LFG-GUCO4, east of Cell R3-1. |
| LFG-R2-2SHED | Indoor | Existing | Pumphouse shed for groundwater underdrain beneath south-central area of Phase 2, Region 2. |
| LFG-GUCO6-R1* | Subsurface | Existing | Relocation of LFG-GUCO6, east of Cell R3-1. |
| LFGW-1A | Subsurface | Existing | Vadose zone, gas monitoring point west of Phase 1. |
| LFGW-1C | Subsurface | Existing | Vadose zone, gas monitoring point northwest of Phase 1. |
| LFGW-1B | Subsurface | Existing | Vadose zone, gas monitoring probe southwest of recycling center. |
| Recycling Center | Indoor | Existing | Inside the recycling center. |
| HHM Facility | Indoor | Existing | Inside the HHM facility. |
| LFGW-2 | Subsurface | Future | Vadose zone, gas monitoring point west of Cell R3-7. |
| LFGW-3 | Subsurface | Future | Vadose zone, gas monitoring point northwest of Cell R3-4. |
| LFGW-4 | Subsurface | Future | Vadose zone, gas monitoring point north of Cell R3-6. |
| LFGW-5 | Subsurface | Future | Vadose zone, gas monitoring point northeast of Cell R3-6. |
| LFGW-6 | Subsurface | Future | Vadose zone, gas monitoring point east of Cell R2-4. |
| LFGW-7 | Subsurface | Future | Vadose zone, gas monitoring point southeast of Cell R2-5. |

* - Will be removed from the monitoring point network when LFGW-2 through LFGW-7 are installed.