



REGION 1

BOSTON, MA 02109

VIA ELECTRONIC MAIL

Date: See Signature Stamp Below

Diane E. McCausland
Engineering Management, Inc.
dem@e-emi.com

RE: Site O&M
EPA Response Letter – Post Construction Operation, Maintenance and Monitoring Report (July 2024 – December 2024)
Sutton Brook Disposal Area Superfund Site, Tewksbury, Massachusetts

Dear Ms. McCausland:

This letter acknowledges receipt of the Sutton Brook Disposal Area Superfund Site (Site) Performing Settling Defendants' (PSDs') January 31, 2025 Groundwater and Environmental Services, Inc. (GES) report, entitled *Post Construction Operation, Maintenance and Monitoring Report (July 2024 – December 2024), Sutton Brook Disposal Area Superfund Site Tewksbury, Massachusetts* (OMM Report). The OMM Report was provided by Engineering Management, Inc. (EMI), on behalf of the PSDs, for the U.S. Environmental Protection Agency's (EPA's) approval, after reasonable opportunity for review and comment by the Massachusetts Department of Environmental Protection (MassDEP), pursuant to the *Consent Decree* for the Site, Civil Action No. 1:09-cv-12169, effective December 22, 2009 (CD).

Agency Comments and Requirement for Response

This letter transmits EPA's and MassDEP's comments on the OMM Report, as described in Attachment 1. Certain of the comments will require discussions with field sampling staff and the laboratory to address field sampling protocols and data analysis/quality issues. Due to the significant increase in the percent methane observed in the enhanced gas wells, EPA recommends that enhanced gas wells EGV-1 through EGV-9 be monitored quarterly moving forward. Additionally, blockages of the passive gas vent pipes could reduce their effectiveness. Plans should be made to evaluate the conditions of the 50 passive gas vents for damage and/or blockages.

Submittal to EPA of a revised report, response-to-comments letter, redline/strikeout version of the revised report, and implementation schedule for follow-up items is requested within 45 days of receipt of this notice, or by Monday, April 28, 2025. The response-to-comments letter should include

references to any sections of the OMM Report that have been updated in response to the Agencies' comments, and the outcome of discussions with field staff and the laboratory.

Thank you in advance for your cooperation in this matter. Should you have any questions regarding the comments, statements, or technical direction outlined within this letter, please contact the undersigned at 617-918-1292 or morash.melanie@epa.gov.

Sincerely,

**MELANIE
MORASH**

Digitally signed by
MELANIE MORASH
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Melanie Morash
Remedial Project Manager
Massachusetts Superfund Section
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Attachment 1

EPA's and MassDEP's Comments on EMI's/GES' OMM Report (July 2024 – December 2024)

GENERAL COMMENT

1. The arsenic concentrations in MW-1S appear to be consistently increasing. No specific action item is suggested at this time, such as the addition of another monitoring point/well downgradient of this location to keep track of the advancing plume above the arsenic Maximum Contaminant Level (MCL) of 10 micrograms per Liter (ug/L). However, if arsenic levels are being seen consistently above 10 ug/L, additional monitoring will be appropriate.

SPECIFIC COMMENTS

1. **Section 2.2 (Groundwater Quality Monitoring).** The third paragraph states, *“Flow rates ranged from approximately 80 milliliters per minute (mL/min) to 160 mL/min in order to keep the drawdown at each monitoring well less than 0.3 feet, in accordance with USEPA guidance. Groundwater drawdown at MW-10 exceeded 0.3 feet and did not stabilize during purging (the pump was operated at 120 mL/min, the lowest flow possible)”*.

To help limit drawdown during low-flow sampling, consider using a pump that can attain an 80 mL/min flow rate at MW-10 instead of using a pump that is unable to operate at flow rates less than 120 mL/min.

2. **Section 5.2 (Landfill Inspection Summary).** The last paragraph states, *“On November 14, 2024, GES backfilled the animal burrow documented during the October 14, 2024 inspection, and an additional four animal burrows located on the Northern Lobe”*. Revise the OMM Report to indicate if all five of the identified animal burrows were backfilled, as the Landfill Cap Inspection Report included in Appendix E notes that four burrows were filled in.

TABLES

3. **Table 2 – Groundwater Monitoring Results (October – November 2024).** It appears that the laboratory is reporting detected estimated (J-flagged) values below the quantitation limit (QL) but above the method detection limit (MDL) where the QL is above the applicable groundwater performance standard. Revise the table to include the MDL to demonstrate whether or not the MDL achieves the groundwater performance standard. The J-flag can be indicative of either a detection between the QL and the MDL, or indication of action taken by the data validator due to QC non-conformances.
4. Since it appears the laboratory is reporting detected estimated values above the performance standard for one or more analytes for each well sampled, confirm that the laboratory was consulted prior to the first quarter 2025 monitoring event in accordance with EPA's January 3, 2025 e-mail recommendation and EMI's January 16, 2025 e-mail response. If not, moving

forward, EPA recommends consulting with the laboratory prior to future sampling events to see what can be done to minimize analytical anomalies (e.g., dilution due to high concentrations, matrix issues, etc.).

EPA's January 3, 2025 e-mail recommendation:

EPA has a recommendation in follow-up to the responses you provided with the O&M materials submitted on Nov. 11, 2024 –

- Original EPA comment from the Five-Year Review – Although 1,4-dichlorobenzene has not been detected above the cleanup level selected in the Site's 2007 Record of Decision (ROD) – the federal Maximum Contaminant Levels (MCLs; 75 micrograms per Liter or "µg/L") – laboratory reporting limits should not exceed the state MCL for 1,4-dichlorobenzene (5 µg/L) to ensure on-going protectiveness below this standard.
- EMI's Nov. 11, 2024 Response – Table 3.6 of the Post Closure QAPP (Revision 1), which was signed by USEPA in May 2023, indicates 1.0 µg/kg reporting limit for groundwater. Therefore, no revision is required per this comment.
- EPA's recommendation – Though the reporting limit is noted as 1 µg/L in the Post Closure QAPP (Revision 1), the recent April 2024 data in the July 2024 Post Construction Operation, Maintenance and Monitoring Report (October 2023 - June 2024) shows that locations MW-11, GP-5R, GP-7, MW-8M, MW-9, GP-16, MW-110R, and MW- 4S had reporting limits of 1,4-dichlorobenzene concentrations greater than the state MCL of 5 µg/L (e.g., reporting limits between <8 µg/L and <40 µg/L).

Additionally, location MW-4B was reported below the reporting limit of <80 µg/L, which is greater than the federal MCL of 75 µg/L.

While the laboratory provided reasoning for the elevated reporting limits where present within each laboratory reports, EPA recommends consulting with the laboratory prior to future sampling events to see what can be done to minimize analytical anomalies (e.g., dilution due to high concentrations, matrix issues, etc.).

EMI's January 16, 2025 e-mail response:

GES will contact the lab as suggested below, prior to the First Quarter 2025 monitoring event.

APPENDIX A – FIELD DOCUMENTATION FORMS

5. Wells MW-16D/B, MW-28R, WED-07, PMW-6 are noted in the Water Level Data field sheets to not have a standpipe lid, and Wells PMW-3, PMW-1, GP-4, GP-6, GP-2, GP-3 are noted to not have a protective standpipe. Arrangements should be made to provide missing lids and protective covers for these wells, in accordance with Sections 5.2 and 5.3 of the Operations and Maintenance Plan Revision 1 (November 2024), and the maintenance schedule provided to EPA once determined.

APPENDIX B – LABORATORY ANALYTICAL REPORTS

EPA notes the items below once, however, some of the items or similar items appeared multiple times in the analytical reports.

6. The Job Narrative for laboratory report 480-225006-1 indicates sample GP-16-GW- 10292024 (480-225006-3) foamed during purging. This should be discussed with the laboratory and the volatile organic compound (VOC) samples for this location may need to be collected unpreserved to prevent foaming and loss of VOCs in the future. Unpreserved VOC samples have a shorter hold time than preserved VOC samples.
7. The Job Narrative for laboratory report 480-255006-1 indicates, “*Method 8260C SIM: The following sample was diluted due to the abundance of non-target analytes: MW-4S-GW-10292024 (480-225006-1). Elevated reporting limits (RLs) are provided.*” If this occurs for multiple samples, performing 1,4-dioxane analysis by another method (e.g., 8270- SIM or 522) may provide lower reporting limits. This should be discussed with the laboratory.
8. The Job Narrative for laboratory report 480-225042-1 indicates, “*Method 8260C: The following sample(s) was collected in a properly preserved vial; however, the pH was outside the required criteria when verified by the laboratory. The samples were analyzed within the 7-day holding time specified for unpreserved samples: GP-5R-GW-10302024 (480-225042-5) and MW-11D-GW-10302024 (480-225042-6).*” If this is a recurring problem for these and/or other wells, different preservation techniques should be discussed with the laboratory.
9. The Job Narrative for laboratory report 480-225042-1 indicates, “*Method 8270D: The associated samples prepared in preparation batch 480-730846 and analytical batches 480-731032 and 480-731076 were prepared with batch QC missing the client-required List 2 spike for o-Toluidine, N-Nitrosodi-n-butylamine and N-Nitrosopyrrolidine. The samples were re-extracted and re-prepared in preparation batch 480-731559 and analytical batch 480-731643 outside holding time. Both sets of data have been reported.*” Proactive measures should be developed with the laboratory (e.g., note on the chain-of-custody, notes in the laboratory project file, etc.) to ensure the correct project-specific spiking mixture is used consistently.
10. The Job Narrative for laboratory report 480-225079-1 indicates, “*Method 8260C: The method*

requirement for no headspace was not met. The following volatile samples were analyzed with headspace in the sample container(s): SW-33-SW-10312024 (480-225079- 18) and SW-33-10312024-DUP (480-225079-19)." Sample containers should be properly filled in the field prior to being submitted to the laboratory.

11. The Job Narrative for laboratory report 480-225042-1 indicates, *"The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. 2 extra sample points not listed on COC. Date and time of collection info from sample labels used for login."* In the field, COCs and samples should be cross checked against the sample's containers submitted to the laboratory.

APPENDIX E – SEMI-ANNUAL INSPECTION FINDINGS

12. Soil gas probe SG8 is missing a cap and protective casing. Make arrangements to install a PVC cap, protective casing, and standpipe with a locking cap for this probe, in accordance with the work plan for the replacement of soil gas probes SG6 and SG7.
13. According to Table 1 – Landfill Gas Monitoring Results, methane readings collected from enhanced gas wells range from 13.1% to 57.4%. Per the last paragraph of Section 4.2 of the December 2016 Operations and Maintenance Plan, *"post construction LFG Inspections shall also include monitoring of gas concentrations at the three existing gas probes on the north perimeter of the northern lobe (i.e., SG-6, SG-7, and SG-8) and the enhanced gas vents along the northern slope of the northern lobe. The locations will be monitored for % concentration of methane, carbon dioxide, and oxygen. The concentration of methane shall be compared to the lower explosive limit for methane. Results may be compared to the results for these locations in the pre-design report (Geosyntec 2012)".*

Methane readings in the enhanced gas wells EGV-1 through EGV-9 significantly increased since the October 2023 monitoring round and have exceeded the lower explosive limit for methane by >100(%). Revise the OMM Report to discuss causes of the significant increase in percent methane from previous monitoring rounds. Additionally, revise the report to provide a comparison of the sampling results to the pre-design report (Geosyntec 2012).

Due to the significant increase in the percent methane observed in the enhanced gas wells, EPA recommends that enhanced gas wells EGV-1 through EGV-9 be monitored quarterly moving forward.

14. Per the second paragraph of Section 4.1 of the December 2016 Operations and Maintenance Plan, *"The passive LFG system includes a 12-inch thick gas vent layer beneath the geosynthetic clay layer (GCL), which is below the cap geomembrane. Gas vents penetrate the geomembrane and vent the gas vent layer as shown in the drawings (Appendix A). Passive vents were installed on the Southern Lobe (15 vents) and Northern Lobe (35 vents) at spacing of slightly more dense than one vent per acre".*

There is no indication that the 50 passive gas vents have been observed for damage or received any maintenance or repairs. Blockages of the passive gas vent pipes could reduce their effectiveness. Plans should be made to evaluate the conditions of the 50 passive gas vents for damage and/or blockages.