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11 December 2020

Mr. Andrew Grenzer
Chief, Solid Waste Operations
Land & Materials Administration
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, MD 21230-1719

Subject: Gude Landfill Remediation Design – Response to MDE 90% Submission Comments

Dear Mr. Grenzer:

Please find below the formal responses to the Maryland Department of the Environment (the Department) comments provided by email dated 26 August 2020.

1. *The report lacks an executive summary to include a general overview of the site, purpose of the project and nature of proposed work.*

   Response: An executive summary has been added.

2. *Attachment A, Topographic Survey, the numbering of the contours are not legible and difficult read. In addition, there are some shapes shown on the Topographic Map that are not included or defined in the legend. The legend must clearly depict and define all ancillary structures on the site.*

   Response: The Topographic Survey in Attachment A was incorporated into EA's design. The design drawings include contour labels and a detailed legend. The Topographic Survey in Attachment A is included to illustrate that a survey was performed and is not intended to show the site in detail.

3. *Attachment D does not include Forest Delineation Report.*

   Response: The Natural Resources Inventory/Forest Stand Delineation Report has been added.

4. *Attachment M, the Post Closure Care Plan, included in the report must be the 100% submission for the site.*

   Response: The milestone designation was removed from the Post Closure Care Plan for the 100% submission as it is intended to be the final plan.

5. *The Post Closure Care Plan lacks to discuss how the site will be secured at all times to prevent unauthorized access. Site security must be fully addressed and included as part of the Post Closure Security Care for the site.*

   Response: Detail on site security was added to the Post Closure Care Plan.

   The Landfill will be utilized for passive recreational uses following closure. The County is planning on providing site access to the public from dawn to dusk. The County will take additional security measures to control the site if vandalism or unintended damage occurs to the site.

   The existing configuration of chain-link fencing and gates will be maintained after site closure. All vehicles must enter the site through Incinerator Lane or the entrance from East Gude Drive. Both access roads have chain link gates that are locked and only opened for access by County and County contractor vehicles for maintenance.

   A video surveillance system will be added to the site and monitored by the County. The surveillance system will be a standalone cloud-based system that utilizes cellular connection.

   Additional measures to secure the site features include:

   - Monitoring well caps will be locked
   - The landfill gas blower/flare station is surrounded by chain-link fencing with locked gates
   - The landfill gas piping will be buried within the capping soils

6. *The Post Closure Care Plan does not include the frequency for Reporting and Record Keeping for the site. You must include this information to satisfy COMAR 26.04.07.22 (D).*

   Response: Frequency for reporting and record keeping in accordance with COMAR 26.04.07.22 (D) was added to the Post Closure Care Plan. Results of inspections will be submitted to MDE within 60 days of the inspection.

7. *Sheets 30 of 144 through 36 of 144, Subgrade Grading Plans did not depict grading of the 4% minimum cover slope required to facilitate drainage of percolate and the direction of drainage movement with an arrow. To understand the drainage pattern, you must depict with an arrow the drainage direction and the 4% minimum cover slope on the subgrade grading plans.*

   Response: The Landfill grading will improve drainage by increasing the slopes from the existing condition to the final condition. This concept was originally presented to MDE at a meeting on November 9, 2018. At the time it was stated that alternative drainage

configurations would be considered if the design demonstrates positive drainage off of the landfill cap. A slope analysis is shown in the Basis of Design Report Section 4.2 demonstrating that the area of the landfill flatter than 4 percent has been reduced by 56 percent. Slope arrows have been added to Figures 1 and 2 in the Basis of Design Report where the grades are shown.

Swales and storm drains have been designed to convey flow from the Landfill to minimize any ponding of water on the geosynthetics. Drainage calculations are included in the Stormwater Management Report (Attachment K to the Basis of Design Report).

Potential settlement of the waste material due to waste relocation and cap construction is expected to result in a maximum slope reduction of 0.3 percent in the most extreme case. This potential reduction will not adversely affect surface water drainage from the cap.

8. *Sheets 46 of 144 through 52 of 144, Final Grading Plans did not depict grading of the 4% minimum cover slope required to facilitate surface drainage. You must show on the final grading plans the required minimum cover slope of 4% with an arrow showing the direction of surface drainage.*

   Response: Refer to response to comment #7.

9. *Sheets 46 of 144 through 52 of 144, Final Grading Plans shows the Limit of Toupee Cap (TYP). However, the detail for the Toupee Cap is not included as part of the closure cap details included in Sheet 96 of 144.*

   Response: The label was revised to “Limit of Closure Cap” to be consistent with the details. The closure cap details are shown on drawing C-508.

10. *Sheet 96 of 144, Closure Cap Details, shows the detail for Geosynthetic Closure Cap Section-Base Bid and Geosynthetic Closure Cap Section-Alternate, the top of subgrade is shown to be on top of the geosynthetics and directly below the 18" vegetative support soil. This depiction is misleading and not correct. The geosynthetics are supposed to be placed above the prepared subgrade and the 18" vegetative support soil placed directly over the geocomposite drainage layer. These details on the Sheet must be corrected to show the proper sequence of the closure cap section.*

    Response: The label for the top of subgrade was moved to immediately below the geosynthetics.

11. *Sheets 104 of 144 through 106 of 144, and Sheets 111 of 144 through 125 of 144, Erosion and Sediment Control Plan must be signed, stamped and approved by Montgomery County Soil Conservation District.*

Response: Agreed. The Erosion and Sediment Control Plan is in the review process with Montgomery County Department of Permitting Services. A Sediment Control Permit will be obtained prior to construction.

12. *Please revise the variance request to include information supporting the use of 1 foot of final cover material.*

Response: After further discussion with the Department on 29 October 2020, a variance request is not required for this project. Information supporting the use of one foot of final cover material as subgrade has been added to the Basis of Design Report, Section 4.5.1.1, as described below.

One foot of subgrade will be provided over all areas of regraded waste before the cap geosynthetics are placed. The subgrade will be compacted to serve as a stable base for the cap section. The construction documents include quality control provisions to eliminate waste protrusions into the subgrade soil. Specification Section 02 61 13.13, Waste Excavation and Material Handling includes requirements for compaction of the waste and requirements for any protruding waste to be removed before beginning subgrade construction. Specification Section 31 05 15, Earthwork includes requirements for closure cap subgrade preparation, including compaction and elimination of any protrusions.

Please contact me at 410-329-5135 with any questions about these responses to comments.

Sincerely,
EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC., PBC

Mark J. Gutberlet, P.E., BCEE
Project Manager

cc: Andrew Kays – Northeast Maryland Waste Disposal Authority
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