

Hanover

Engineering Associates Inc

October 12, 2015

Mr. Jack Cahalan, Manager
Lower Saucon Township
3700 Old Philadelphia Pike
Bethlehem, PA 18015

RE: Inspection Conducted on October 9, 2015
IESI Bethlehem Landfill
Hanover Project LS90-7

10/15/2015

Dear Mr. Cahalan:

The purpose of this letter is to report the results of the above-referenced "mid-meeting" inspection, which was conducted by me along with Allen Schleyer, District Manager for IESI. The following items were noted during the inspection:

1. The Bethlehem Renewable Energy (BRE) plant was not running. Mr. Schleyer stated BRE personnel had informed him that they have "engine work to do" and that parts have been ordered.
2. The landfill flare was running at a flow rate of 3,300 Standard Cubic Feet per Minute (SCFM) and a temperature of 1,657 degrees Fahrenheit. The largest blower was observed to be in operation today. Mr. Schleyer stated that the flare has been able to keep up with the increased gas flow since the BRE plant has been down.
3. The truck wash was not in use, due to dry conditions.
4. No mud, odor, or blowing litter was observed along Applebutter Road, the entrance driveway, or at the landfill office. A slight, intermittent gas odor was observed along the northern perimeter road of the landfill. No odors were observed anywhere else on site during the inspection.
5. Neither mister line was observed to be running during the inspection. Mr. Schleyer stated that both are still functional, and had just been serviced yesterday. He stated that IESI is still looking into an alternate method of odor suppression that is not water-based and could therefore be operated during below-freezing weather.
6. Wind direction during the inspection was predominantly from the south (blowing from), with an estimated speed of ten to fifteen miles per hour (10-15 mph).
7. Garbage was being disposed of in Cell 4B, at the top west end of the south face. Wind screens were in place at the working face.
8. Cover soil is still being imported. No Alternative Daily Cover material is being used.
9. Work to construct new Cell 4E Stage 3 is currently proceeding thanks to more favorable weather and site conditions. The slope on the northern end of the cell has been constructed. Stormwater piping has been extended from the dead-end at the western end of the MSE wall along the top of this slope. The liner in the adjacent cell has been exposed to allow for tying in the new liner for Cell 4E-3. Vacuum lines have been installed to capture any gas that may escape at the liner interface. Mr. Schleyer said the cell area is ready for the clay subbase, which will be followed by liner installation.
10. Topsoil is being installed at the top of the western face to complete intermediate cover here. A line of super silt fence (silt fence fabric reinforced by chain link fencing) has been installed just below the top of the western face. Mr. Schleyer stated

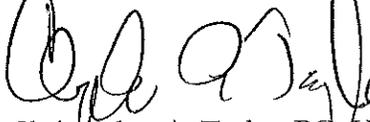
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- ROUTING
- Council
 - Manager *org*
 - Asst. Mgr.
 - Zoning
 - Finance
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 - Engineer
 - Solicitor
 - Planner
 - Landfill
 - EMC
 - Other *Web*

- that this is an attempt to direct stormwater runoff away from new Cell 4E Stage 3, which is directly below. This water will be directed to the benches on the south face, and thence to Basin 4.
11. Mr. Schleyer stated that the Lower Saucon Police Department weight enforcement effort has been ongoing, and that he is still receiving reports of the results.
 12. The west high wall was observed. No major changes since the last inspection were evident. No slope failures and no major movement of soil or rock along the wall were observed. Sediment in the stormwater channel at the base of the wall (washed in from upstream) has not yet been cleaned out.
 13. Mr. Schleyer stated that final elevation in the area of Cell 4F has been reached and that this area is now receiving final capping (approximately 2.8 acres), which has been underway for several weeks. This ongoing work was observed during this inspection.
 14. Mr. Schleyer stated that there will be a kickoff meeting on Monday for the temporary capping project that has received approval under a Minor Permit Modification from the Pennsylvania Department of Environmental Protection. He stated that the necessary materials have been purchased and will be delivered. The work plan will involve grading the intermediate cover and installing a synthetic cover over it. He stated that seven acres (7 ac) will be covered with a material that is forty millimeters (40 mil) in thickness, which is the same weight as permanent cap material. He stated that an additional two acres (2 ac) will receive a lighter-weight material. All capped areas will have shallow collectors under the cap to capture any landfill gas that reaches that point. Soil will be placed over the synthetic material only on the benches in order to keep the grades correct.
 15. The channel at the bottom of the southern face was previously cleaned out and reformed. Rock check dams were added to the channel in several places. The junction box at the downpipe is cleaned out.
 16. The condition of the north slope road was not inspected. Mr. Schleyer stated that the third quarter sampling event was completed and that the samples are at the lab.
 17. Mr. Schleyer stated that the search for a new Compliance Manager (the position that he was promoted from) is still ongoing.
 18. Following the inspection, I conducted a driving patrol along Skyline Drive, beginning at 11:27 AM. No landfill-related odors were observed during this inspection.
 19. I conducted a driving patrol through Steel City starting at 11:40 AM. No landfill-related odors or sounds were observed. This patrol did not extend through the Narrows, which are still closed for road repairs.

If you have any comments or questions regarding any of the above, or find that you need additional information, please do not hesitate to call me immediately.

Respectfully,

HANOVER ENGINEERING ASSOCIATES, INC.



Christopher A. Taylor, PG, HMI
Host Municipality Inspector