



Hanover Engineering

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July 22, 2016

JUL 25 2016

Ms. Leslie Huhn, Township Manager
Lower Saucon Township
3700 Old Philadelphia Pike
Bethlehem, PA 18015

RE: Inspection Conducted on July 21, 2016
IESI Bethlehem Landfill
Hanover Project LS90-7

Dear Ms. Huhn:

The purpose of this letter is to report the results of the above-referenced "pre-meeting" inspection, which was conducted by me along with Mr. Donald Hallock, District General Manager, Mr. Mike Shelden, Operations Manager, and Ms. Donna Louder, Citizen Representative. The following items were noted during the inspection:

1. The Bethlehem Renewable Energy (BRE) plant was running. Mr. Hallock stated that the plant was having "compressor issues", and was running at approximately fifty percent (50%) capacity, which is causing their draw of gas to fluctuate. Mr. Hallock stated that personnel from the landfill and from BRE will start to have bi-weekly "gas meetings" to strive toward the shared goal of achieving zero odors.
2. The landfill flare was running at a flow rate of 2,850 Standard Cubic Feet per Minute (SCFM) and a temperature of 1,662 degrees Fahrenheit. Mr. Hallock stated that this indicates that BRE is drawing around 1,300 SCFM. The instrument readout indicated that this flow rate was about seventy-two percent (72%) of the flare capacity. The paper chart record went back to July 18 and showed major fluctuations in gas flow and temperature corresponding with the fluctuations of the BRE plant as reported by Mr. Hallock. The largest blower was observed to be in operation.
3. Mr. Hallock stated that the landfill will be putting a plan together an upgrade to the gas collection system. He expects the work to go to bid in August, with construction starting in the fall. The work will likely involve installation of new wells, concentrated in the western and northwestern areas, but also a check of older wells.
The truck wash was not in use due to dry conditions.
No mud, odor, or blowing litter were observed along Applebutter Road up to Ringhoffer Road or the entrance driveway. No mud or litter were observed at the office parking lot, but a slight landfill gas odor was observed at the parking lot. Mr. Hallock attributed this to the BRE plant. The internal access road was clear of sediment. Mr. Hallock stated that the landfill has contracted with a company to clean Applebutter Road and some internal roads every other Friday, starting July 22, 2016, using a vacuum sweeper truck.
Both the northern and southern mister lines were observed to be running during the inspection.

ROUTING

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- Planner
- Landfill
- EMC
- Other

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7. Wind during the inspection was from the west/northwest at an estimated zero to five miles per hour (0 – 5 mph).
8. Garbage was being disposed of in Cell 4E Stage 3. All remaining disposal in this cell is now above the “fluff layer” (i.e. - within eight feet (8”) of the liner) and therefore no longer requires special protection. Three (3) trucks were observed dumping, with zero (0) waiting. Windscreens were in place at the working face. The box wire “catch” fence is still in place. No odors were observed in the vicinity of the working face.
9. Cover soil is still being imported. No Alternative Daily Cover material is being used.
10. The face of the MSE wall remains clean.
11. The west high wall was observed. No slope failures or major movement of soil or rock since the last inspection was evident.
12. The landfill is spraying water on the roads for dust suppression. Some roads were observed to be wet. Dirt haul roads will be sprayed where they are not too steep.
13. Mr. Hallock stated that the switchover of the landfill’s air quality consultant, from Blue Flame to SCS (the previous consultant) will be effective on August 1.
14. It was observed the two (2) sections of the temporary cap on the southern face were again being inflated by landfill gas accumulating underneath. Mr. Hallock attributed this to the temporary outages of the landfill flare due to the fluctuations at BRE. Mr. Sheldon stated that they just got the flare back up and running, and will increase the vacuum to draw this gas out.
15. A crew was observed onsite beginning the construction of the remainder of the MSE wall. Soil material for the wall construction was observed stockpiled on site. The course of the wall was staked, and it was observed that it will parallel the northern perimeter, then curve southward to parallel the western perimeter. Mr. Hallock stated that the wall does not conflict with the Lower Saucon Authority (LSA) water tower, and that the tower will not be moved due to the wall construction.
16. Construction on new Cell 4E-4F has begun at the western end of the landfill. Mr. Hallock estimates that both the new MSE wall and new cell will be completed in September.
17. Mr. Sheldon stated that he has a bulldozer working the slopes to address any issues with the soil surface cracking in the extremely hot and dry weather. In years past, this has thought to have been a contributing factor to odors.
18. The cleanout of accumulated soil in Basin 4 is continuing as conditions allow.
19. Mr. Hallock stated that the landfill is starting a new community hotline for citizens to call after hours if they are experiencing a problem such as odors. Mr. Sheldon will be the first respondent to calls, with Mr. Hallock and Mr. Rogers as the backups.
20. In response to a question from Ms. Louder, Mr. Hallock stated that the landfill plans to address the properties that it owns along Applebutter Road that have become “eyesores.” This will involve mostly demolishing and removing structures on those properties. However, one (1) property contains an historic barn, and this will not be removed. He stated that he will contact the Township regarding the permits that will be necessary to complete this work.
21. Prior to the inspection, I conducted a driving patrol along the intersection of Applebutter Road and Ringhoffer Road, starting at 10:15 AM. The sounds of trucks and equipment operating at the landfill were observed at that time. No sounds from the flare, and no landfill-related odors, were observed. Following the inspection, I conducted a driving patrol along Skyline Drive starting at 12:00 Noon. No landfill-related odors were observed. No trucks or equipment were operating on the nearest part of the landfill at that time, so no sounds were observed. I conducted a driving patrol through Steel City starting at 12:10 PM.

Ms. Leslie Huhn
Township Manager

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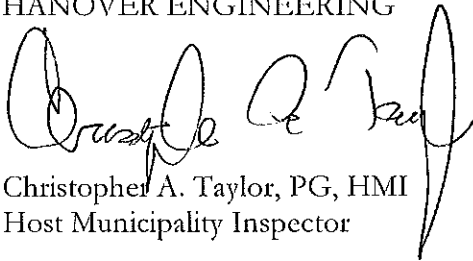
July 22, 2016

No landfill-related odors were observed. The sounds of machines running (engine sounds and travel alarms) were observed.

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

A handwritten signature in black ink, appearing to read "Christopher A. Taylor". The signature is written in a cursive style with large, sweeping letters.

Christopher A. Taylor, PG, HMI
Host Municipality Inspector

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