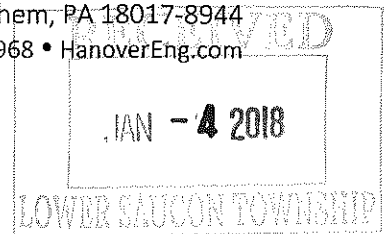




# Hanover Engineering

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January 2, 2018

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

RE: Inspection Conducted on December 28, 2017  
IESI Bethlehem Landfill  
Hanover Project LS90-7

Dear Ms. Huhn:

The purpose of this letter is to report the results of the above-referenced "Mid-meeting" inspection. The inspection was conducted by me along with Don Hallock, District General Manager. The following items were noted during the inspection:

1. The BRE plant was running. Mr. Hallock stated that they were running at about three-quarter capacity, ramping up to full capacity.
2. The landfill flare was running at a flow rate of 1,630 scfm and a temperature of 1,642 degrees Fahrenheit. The bar graph on the instrument readout indicated that the flow rate was approximately fifty-two percent (52%) of the Variable Frequency Drive (VFD) capacity. The largest blower was in operation. The paper chart record went back to December 18, 2017 and indicated fairly steady gas flow to the flare since that date.
3. The truck wash was not in use due to dry and extremely cold conditions. Mr. Hallock stated that a company had been hired to conduct maintenance work on the truck wash. During the inspection, a crew was observed removing the pump that circulates the water for the wash.
4. No mud, blowing litter, or odors were observed along Applebutter Road up to Ringhoffer Road, the entrance driveway, or the office parking lot.
5. Wind during the inspection was ten to twenty (10 - 20) mph from the west/northwest. The weather was clear and cold.
6. Garbage was being disposed of at the top of the landfill. One (1) compactor and one (1) dozer were running at the working face. The truck tipper is still staged at the working face and was in use: one (1) truck was on the tipper and one (1) truck was waiting to use it. One (1) truck was dumping conventionally and zero (0) were waiting to dump conventionally. Trucks are still approaching and departing the working face utilizing the newly constructed south face haul road. Portable wind screens were in place.
7. No odors were detected anywhere on site.
8. Cover soil is still being imported. No Alternative Daily Cover material is being used.
9. The west high wall was observed. No slope failures or major movement of soil or rock since the last inspection was evident.
10. Mr. Hallock stated that the landfill had just purchased two (2) bulldozers to be used at the working face and on general earth-moving and grading work.

S  
ROUTING

- Council
- Manager *only*
- Asst. Mgr.
- Zoning
- Finance
- Police
- P. Works
- P/C
- P & R
- EAC
- Engineer
- Solicitor
- Planner
- Landfill
- EMC
- Other *Web*

11. Mr. Hallock stated that the installation of the new horizontal gas collectors at the top of the landfill has been completed.
12. It was observed that internal haul roads and access roads were dusty. Mr. Hallock stated that it is too cold to spray water for dust suppression, as it would freeze and cause unsafe driving conditions. He is actively seeking a solution to this problem.
13. The recycling and customer drop-off area (for small, non-commercial vehicles with garbage) is still relocated to the southern access road. The new area for these services is now being constructed as part of the Southeast Realignment.
14. I conducted a driving patrol along the intersection of Applebutter Road and Ringhoffer Road before the inspection, starting at 10:24 a.m. No landfill-related odors were observed. The sound and sound of truck traffic on the landfill (dump trucks) was observed. I conducted a driving patrol along Skyline Drive after the inspection, starting at 11:24 a.m. No landfill-related odors were observed. Truck traffic (dump trucks and garbage trucks) on the southern haul road were observed to be audible and visible from the end of Skyline Drive. The sound of equipment travel alarms was also audible from here. I conducted a driving patrol through Steel City after the inspection, starting at 11:42 a.m. No landfill-related odors were observed. Faint "banging" sounds from the direction of the working face were observed at the entrance to the Hill Climb. The driving patrol along Riverside Drive did not reveal any landfill-related issues.

Activity Related to the Southeast Realignment Expansion

15. Mr. Rob Tyler of Martin and Martin was asked by Mr. Hallock to meet with us and provide a summary of activities related to the expansion. Mr. Tyler stated that construction of the west end of the MSE wall has been halted for the holidays, and due to extreme cold. He stated that the wall has been completed up to Course 21. He stated that it will extend up to Course 27 along its full length, and up to Course 31 at its highest point.
16. Mr. Tyler stated that the new vault has been installed in the expansion area that will take flows from abatement wells and the leachate collection system.
17. Mr. Tyler stated that stripping of earth capping cover soil in the area of new Cell SE-1A is ongoing and is about half to two-thirds complete. He stated that the entire area to be stripped is about five (5) acres in total. Mr. Tyler reiterated what Mr. Rogers had stated during the last inspection: that the thickness of the earth capping has been found to be excessive, up to five feet (5') or more in places. He said that, following removal of all material down to subgrade, he would have topography measured and give that data to his engineers, who will complete any design changes needed due to account for the greater than expected thickness of soil in this area. Following establishment of subgrade, horizontal collectors will be installed, then a geotextile reinforcing grid, then the new liner system above this.
18. Mr. Hallock stated that all materials needed to construct the new cell have been trucked in and staged on site. Rolls of liner material were observed staged along the access road in the northeast quadrant of the facility.

Ms. Leslie Huhn  
Township Manager

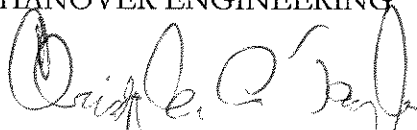
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January 2, 2018

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 "Chris A. Taylor", written over the printed name below.

Christopher A. Taylor, PG, HMI  
Host Municipality Inspector

cat: llb

S:\Projects\Municipal\LSauconTwp\LS90-07-BethLandfill\Docs\HESI landfill report of Dec 28, 2017 insp.doc