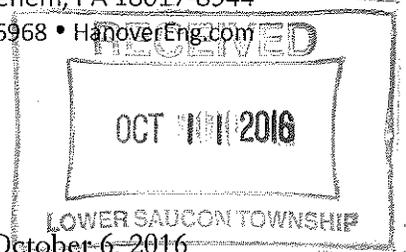


Hanover Engineering

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October 6, 2016



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

RE: Inspection Conducted on October 6, 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 "Mid-meeting" inspection, which was conducted by me along with Mr. Nick Rogers, Compliance Manager; Ms. Priscilla deLeon, Council Liaison; Ms. Leslie Huhn, Township Manager; Mr. Roger Rasich, Public Works Director; and Ms. Donna Louder, Citizen Representative. The following items were noted during the inspection:

1. The Bethlehem Renewable Energy (BRE) plant was running. Mr. Rogers stated that the plant was running at full capacity. He stated that the plant restarted at full capacity on September 30, 2016.
2. The landfill flare was running at a flow rate of 900 Standard Cubic Feet per Minute (SCFM) and a temperature of 1,770 degrees Fahrenheit. The bar graph on the instrument readout indicated that the flow rate was approximately thirty-three percent (33%) of the Variable Frequency Drive (VFD) capacity. Mr. Rogers had previously explained that the bar graph measures a percentage of flow rate relative to the capacity of the VFD, which controls the speed of the compressor motor, not the capacity of the flare. The paper chart record reflected decreases in gas flow to the flare on September 28 and 30, and October 2 and 4. Mr. Rogers noted that the flare did not shut down during these episodes, but continued to run and provide a "pull" on the gas collection system. The largest blower was in operation. Mr. Rogers stated that he was directing SCS, the landfill's air quality consultant, to investigate and determine the lowest gas flow rate that the flare could still run on. He stated that BRE could take more gas, but that this would not leave enough to sustain the landfill flare as currently set up. His goal is to maximize the flow of gas to BRE to attain maximum beneficial usage, while still maintaining reliable flare operation. Mr. Rogers stated that consultants are still evaluating the implementation of a new control system for the gas collection operation. The truck wash was not in use due to dry conditions. The water truck was spraying the roads for dust suppression. No mud or blowing litter were observed along Applebutter Road up to Ringhoffer Road, the entrance driveway, or at the office parking lot. A light gas odor was observed along

- S
- ROUTING
- Council
 - Manager
 - Asst. Mgr.
 - Zoning
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 - Police
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 - Solicitor
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 - Landfill
 - EMC *Envisioning and Engineering sustainable, cost-effective, and environmentally responsible projects since 1971*
 - Other - *web*

- Applebutter Road west of the landfill, and at the landfill office parking lot. A light gas odor was also observed along the access road at the bottom of the southern face.
8. The northern mister line was observed to be running during the inspection. The southern mister line was also observed running.
 9. Wind during the inspection was initially from the east, later shifting to the south at an estimated five to ten miles per hour (5 – 10 mph).
 10. Garbage was being disposed of in Cell 4E Stage 3. One (1) truck was observed dumping, with zero (0) waiting. Trucks are still approaching and departing the working face from the top of the landfill. Windscreens were in place at the working face. The box wire “catch” fence is still in place.
 11. Cover soil is still being imported. No Alternative Daily Cover material is being used. Cover soil is being stockpiled in a new location, at the top of the slope on the eastern end of the landfill.
 12. The west high wall was observed. No slope failures or major movement of soil or rock since the last inspection was evident.
 13. The temporary cap on the southern face was observed. It appeared that the second section of cap from the bottom had recently been inflated, and may still have been slightly inflated. There was no soil washed down onto this section, unlike the other sections. Inflation of the cap acts to push the soil off. Mr. Rogers stated that he was not aware of recent problems with inflation of the cap.
 14. The construction of the remainder of the MSE has been completed since the last inspection.
 15. Construction of new Cell 4E Stage 4 has advanced since the last inspection and was continuing. The western slope of the cell has been formed, and the synthetic liner was being placed.
 16. A tour through Steel City and the Narrows was included in the inspection. No odors or landfill-related sounds were observed. The area of the Narrows subject to washouts was observed. The roadside swale has been improved with riprap from the point where stormwater runs down the hill from the south to the culvert. The culvert under Riverside Drive has been cleaned out. The sump and the inlets of the pipes running under the railroad tracks had been cleaned out. However, Mr. Rasich noted that the sides of the sumps weren't stabilized very well and would be prone to washing in.
 17. The new eastern stockpile was observed during the main inspection and again afterward. Mike Shelden, Operations Manager, provided a tour of the stockpile area. He stated that stability concerns regarding the stockpile were being addressed by constructing benches in the sides of the pile to prevent sliding. Sedimentation concerns will be addressed by installing filter fence and/or silt soxx in key areas along the downslope edge of the pile. Erosion concerns will be addressed by mulching the sides of the pile. The entire area of the pile is tributary to Sedimentation Basin 2, so that any sediment that gets past the control measures will be captured by that basin.
 18. I conducted a driving patrol along the intersection of Applebutter Road and Ringhoffer Road before the inspection, starting at 10:15 AM. No sounds from the flare were observed, and no landfill-related odors were observed. Sounds of truck traffic on the landfill were observed. I conducted a driving patrol along Skyline Drive after the inspection, starting at 1:30 PM. A slight, persistent gas odor was observed at the east end of Skyline Drive. The sound of travel alarms from equipment working at the landfill was observed. The driving patrol through Steel City was conducted as part of the inspection, as noted above.

Ms. Leslie Huhn
Township Manager

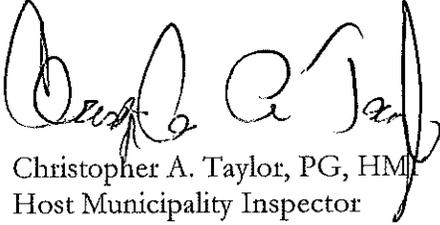
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October 6, 2016

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". The signature is written in a cursive style with large, sweeping letters.

Christopher A. Taylor, PG, HMI
Host Municipality Inspector

cat:llb

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