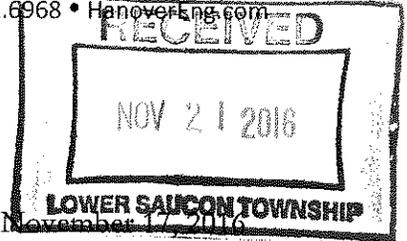


# Hanover Engineering

252 Brodhead Road • Suite 100 • Bethlehem, PA 18017-8944  
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November 18, 2016



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

RE: Inspection Conducted on November 17, 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. Nick Rogers, Compliance Manager, Mr. Kevin Bodner, engineer for Martin and Martin, and Ms. Priscilla deLeon, Township Council liaison. The following items were noted during the inspection:

1. Mr. Rogers stated that the BRE plant was currently running at full capacity, having just been ramped up from half capacity this morning.
2. The landfill flare was running at a flow rate of 1150 scfm and a temperature of 1,640 degrees Fahrenheit. The largest blower was in operation. The bar graph on the instrument readout indicated that the flow rate was approximately forty-two percent (42%) of the Variable Frequency Drive (VFD) capacity. The paper chart record indicated a flare shutdown on November 16. Mr. Rogers stated that this was a planned outage to replace the nitrogen bottles. He stated that nitrogen is used to operate the main valve that controls gas flow to the flare.
3. The truck wash was not in use due to dry conditions.
4. No mud, blowing litter, or odors were observed along Applebutter Road up to Ringhoffer Road, the entrance driveway, or at the office parking lot.
5. The northern mister line was not running during the inspection. Mr. Rogers stated that it had been taken offline for winterization.
6. The southern mister line was observed running. Mr. Rogers stated that it is scheduled to be taken offline for winterization next week.
7. Wind during the inspection was from the west to north at an estimated five to ten miles per hour (5 – 10 mph).
8. Garbage was being disposed of in Cell 4E Stage 3. Two (2) trucks were observed dumping, with one (1) waiting. Trucks are still approaching and departing the working face from the top of the landfill. Windscreens were in place at the working face. Daily cover soil was being staged at the working face. No odors were observed in the area of the LSA water tower.
9. Mr. Rogers stated that they are still awaiting certification of the construction of new Cell 4E Stage 4.

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

10. Cover soil is still being imported. No Alternative Daily Cover material is being used. Stockpiling at the top of the slope on the eastern end of the landfill has resumed. Mr. Rogers stated that this stockpile will be re-stabilized (mulched) as appropriate.
11. The north slope road was driven. Work to clear vegetation along the road to improve access has just begun. Mr. Rogers stated that a laborer was clearing by hand, and that he would have a contractor pick up on the work with machinery when the schedule allowed. But for now, the contractor was cutting the tall vegetation on the landfill surface in preparation for the next Surface Emission Monitoring (SEM) event next week.
12. Mr. Rogers stated that the landfill's air quality consultant, SCS, is scheduled to conduct SEM next week, with Department of Environmental Protection (DEP) personnel scheduled to observe.
13. A construction crew was observed repairing the stormwater inlets at the entrance driveway to the facility.
14. A water truck was observed preparing to spray the roads for dust suppression.
15. The west high wall was observed. No slope failures or major movement of soil or rock since the last inspection was evident. The new riprap stormwater swale at the top of the west wall (north end) has been completed. Mr. Bodner stated that this new swale ties into the existing swale that runs down from here to an inlet that feeds into Sedimentation Basin 6. This swale will take stormwater runoff originally captured by the inlets on top of the MSE wall, as well as a small amount of surface runoff. This stormwater collection and conveyance system will serve to capture more runoff that formerly ran to the north side of the facility, and redirect it to the south side.
16. The temporary cap on the southern face was observed. No inflation of the cap was evident.
17. Mr. Rogers stated that the drilling contractor completed the installation of four (4) new gas wells at the western end of the landfill as planned, plus the re-drilling of five (5) more.
18. It was observed that drilling work was being conducted by a small rig just west of the end of the new MSE wall. Mr. Bodner stated that this was for the installation of one (1) of the two (2) new gas probes proposed in this area. Mr. Bodner stated that each probe consists of a one-inch (1") diameter PVC casing with perforations at the bottom, a gravel pack around the perforated interval, and a bentonite seal at the top. A Gas Extraction Monitor (GEM) is used to sample the well by attaching it to the top of the well (after removing the well cap) and drawing a sample via a vacuum. The GEM provides a readout in the field. For sampling at the Leachate Management Chambers, a PVC tube extends down into the chamber and is open at the bottom, exposed to the atmosphere in the chamber. The sampling procedure is the same as for a well.
19. I conducted a driving patrol along Skyline Drive before the inspection, starting at 10:00 AM. No landfill-related odors were observed. The sound of travel alarms was observed. I conducted a driving patrol along the intersection of Applebutter Road and Ringhoffer Road before the inspection, starting at 10:19 AM. No landfill-related odors were observed. No sounds from the landfill flare were observed. Intermittent truck traffic noise from the landfill was observed. I conducted a driving patrol through Steel City and the Narrows after the inspection, starting at 11:40 AM. No landfill-related odors were observed. The sounds of running equipment and a tailgate slap from the landfill were observed.

Ms. Leslie Huhn  
Township Manager

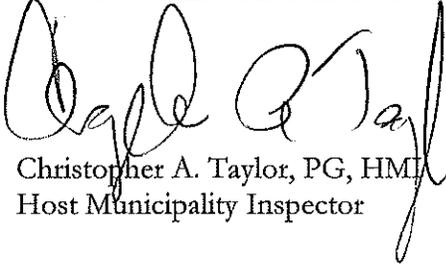
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November 18, 2016

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 loops.

Christopher A. Taylor, PG, HMI  
Host Municipality Inspector

cat: llb

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