

Hanover Engineering

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May 17, 2018



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

RE: Inspection Conducted on May 17, 2018
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. The inspection was conducted by me along with Don Hallock, District General Manager, and Dave Pannucci, Region Engineer. The following items were noted during the inspection:

1. The BRE plant was not running. Mr. Hallock stated that they had been down since May 15 and were expected to be running tomorrow.
2. The landfill flare was running at a flow rate of 2,860 scfm and a temperature of 1,665 degrees Fahrenheit, and appeared to be operating normally. There were no visible emissions from the flare. The bar graph on the instrument panel indicated that the flare was running at seventy-seven percent (77%) of the Variable Frequency Drive (VFD) capacity. The largest blower was in operation. The record of gas flow to the flare recorded on the paper chart went back to May 8. The chart showed a step up in gas flow to the flare on May 15, corresponding with the BRE shutdown. Mr. Hallock stated that the major collector pipe that runs under the south face haul road has been replaced.
3. Mr. Hallock stated that there have been no issues with visible emissions from the flare since the incident on April 1, 2018 documented the Pennsylvania Department of Environmental Protection. Mr. Hallock had previously stated that he is having their consultant (EarthRes Group) perform trouble-shooting on the flare operation, concentrating on the functioning of the louvers. He believes the louvers are not operating perfectly in sync, and that this is causing the visible emissions incidents. This work is now in progress. He also previously stated that they are going to send staff to a training session to get them certified as trained observers so that staff members can assess visible emissions. He stated during this inspection that the next training session would be held in September.
Mr. Hallock stated that the contractor for the installation of gas wells, AEG Environmental, has completed all eight (8) of the re-drilled wells and all four (4) of the new vertical wells. The re-drilled wells are constructed next to, or in the area of, older wells that are no longer productive and are meant to replace those older wells. They originally planned to re-drill ten (10) wells, but scaled this number back to eight (8).
5. The truck wash was in use due to wet conditions.

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6. No mud, blowing litter or odors were observed along Applebutter Road up to Ringhoffer Road, the entrance driveway, or the office parking lot. Mr. Hallock stated that the street sweeper had cleaned Applebutter Road this morning, and was scheduled to return late afternoon. A water truck was observed spraying the internal roads to clean them. However, the runoff from this was overflowing the inlet at the entrance drive and allowing muddy water to run out to the gutter of Applebutter Road. I pointed this out to Mr. Hallock, who stopped machine operator and directed him to clean out the inlet.
7. No wind-blown litter was observed on the site.
8. Wind during the inspection was calm. The weather was cloudy, damp and cool.
9. Garbage was being disposed of toward the eastern end of the top of the landfill in Cell 3B at Elevation 686 in an area previously approved as part of the expansion. One (1) compactor and one (1) bulldozer were running at the working face to spread and compact garbage. The truck tipper was being used to unload one (1) truck during the inspection, with no trucks waiting to use the tipper. No trucks were unloading conventionally and none were waiting to unload conventionally at the time. The portable mister was in operation at the working face. Portable wind screens were not in use at the working face due to calm conditions. Mr. Hallock previously stated that he had ordered new portable wind screens to increase the number he has to use. These have not yet arrived. The approach road to the working face is very stable. Crushed rock was previously added to stabilize it.
10. Neither the north or south fixed mister lines were in use. Mr. Hallock stated that he is planning to move both of them to place them closer to the working face. He stated that they are being cleaned and tested in the meanwhile.
11. It was observed during the February 1, 2018 inspection that the daily soil cover in some areas of recent disposal at the top of the landfill was inadequate, and that pieces of garbage were showing through the cover. At the time I advised Mr. Rogers that this was unacceptable and needed to be corrected. On April 18, 2018, the PA DEP conducted an inspection and noted this condition as a violation. In response, Mr. Hallock reported at the Township Council meeting on May 2 that they were aggressively addressing the situation. During this inspection, I again conducted a walking tour of the areas called out by PA DEP to observe the continuing progress of this work. I observed that more areas of flagging garbage on the north slope had been covered, and that additional cover soil was being staged here for placement over areas that were not yet covered (on top immediately to the north of the access road to the working face). I observed areas on the north slope and south slope that had been identified by PA DEP as having multiple seeps. These areas have since been repaired, and no seeps were observed. The depth of new intermediate cover on a portion of the north slope was checked with a soil probe and found to be greater than twelve inches (12") in all locations checked. In conjunction with this site walk, I observed a landfill gas odor in the immediate vicinity of new gas well EW4-40R. This well is not yet hooked into the gas collection system. Mr. Hallock stated that the soil stockpile on the eastern end of facility was being used for cover soil.
12. From the Surface Emission Monitoring (SEM) that was conducted during the April 18 PA DEP inspection, nineteen (19) exceedance locations were documented. IESI reported today that fifteen (15) of those passed their ten (10) day rechecks, with the thirty (30) day rechecks due tomorrow. Four (4) failed the first ten (10) day recheck, but passed the second. One (1) failed both the first and second ten (10) day rechecks, and is slated for corrective action. This will be accomplished as part of the gas system expansion currently underway in conjunction with the new gas wells.

13. A technician from SCS was observed on site tuning the gas wells.
14. The temporary cap on the south face was observed. No ballooning of the cap was occurring.
15. The west high wall was observed. No slope failures or major movement of soil or rock since the last inspection was evident.
16. 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.
17. I conducted a driving patrol along the intersection of Applebutter Road and Ringhoffer Road before the inspection, starting at 9:58 p.m. No landfill-related odors were observed. The sight and sound of trucks driving on the landfill roads was observed. The sight and sound of equipment working on the landfill (track hoe loading fill, a compactor driving at the working face) were observed. I conducted a driving patrol along Skyline Drive after the inspection, starting at 11:28 a.m. No landfill-related odors were observed. The sight and sound of garbage trucks on the landfill (south face haul road) were observed. I conducted a driving patrol through Steel City after the inspection, starting at 11:43 a.m. No landfill-related odors or sounds were observed. No landfill-related issues were observed on the driving patrol through the Narrows.

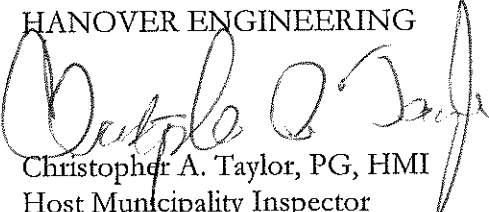
Activity Related to the Southeast Realignment Expansion

18. Mr. Hallock stated that construction activity related to the expansion has halted due to wet weather and site conditions. The new MSE wall has been completed. The intercell berm between new Cells SE-1 and SE-2 has been completed, as has subgrade below new Cell SE-1A. Next, the survey consultant will be brought in to check the elevations throughout the cell. Once this is complete, the construction of the cell subbase will then begin.

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



Christopher A. Taylor, PG, HMI
Host Municipality Inspector

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