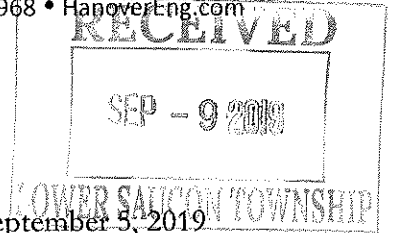


Hanover Engineering

252 Brodhead Road • Suite 100 • Bethlehem, PA 18017-8944
Phone: 610.691.5644 • Fax: 610.691.6968 • HanoverEng.com

September 5, 2019



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

RE: Inspection Conducted on September 5, 2019
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 Astor Lawson, District Manager and Cody White, Landfill Gas Technician. The following items were noted during the inspection:

1. The BRE plant continues to be off line, with no activity observed.
2. The landfill flare was running at a flow rate of 2,960 standard cubic feet per minute (scfm) and a temperature of 1,658 degrees Fahrenheit. The flow rate was reading as eighty-eight percent (88%) of the variable frequency drive. The largest blower was in operation. Mr. White stated that no visible emissions were observed from the stack since the last inspection, and that no shutdowns have occurred since the last inspection. The paper chart was new and provided no history.
3. The truck wash was open and working.
4. No blowing litter, mud, or odors were observed along Applebutter Road up to Ringhoffer Road, the entrance driveway, or the office parking lot.
5. Weather conditions were partly cloudy, temperature in the 70s, and wind from the north/northeast at ten to twenty (10 - 20) miles per hour.
6. Mr. Lawson stated that a garbage truck entered the landfill, scaled in, and was found to be overweight. The driver did not produce their driver's license as requested. The driver then existed the landfill without dumping. This was observed to be in progress when I entered the landfill. I observed the receptionist conducting a telephone call with the company's dispatcher to advise them of what had happened.

The customer convenience area is in use for small vehicles.

Mr. Lawson stated that waste acceptance rates have been running about 1,780 tons per day. Garbage was being disposed of at one (1) working face at the western end of Cell SE-1B. The approach to and departure from the working face were stable. One (1) truck was unloading on the tipper, with none waiting for the tipper. Two (2) trucks were unloading conventionally (dump body or walking floor), with one (1) truck waiting. One (1) dozer was spreading and placing garbage. One (1) compactor was in use. A truck was observed hauling soil to the working face for daily cover. Another truck was observed hauling soil to the area west of the working face, where the tipper had been, to cover flagging garbage here. Mr.

ROUTING

- Council 7.
- Manager 8.
- Asst. Mgr. 9.
- Zoning
- Finance
- Police
- P. Works
- P/C
- P & R
- EAC
- Engineer
- Solicitor
- Planner
- Landfill
- EMC

Envisioning and Engineering sustainable, cost-effective, and environmentally responsible projects since 1971

Other web
hea.09-05-19

- Lawson stated that the soil was both being trucked in from off site and hauled from existing on-site stockpiles. Mr. Lawson stated that daily cover would be achieved using a combination of tarps and soil. Wind screens were being used near the working face. The leading eastern edge of garbage placement is within the initial "fluff lift," which must be eight feet (8') thick and receive only municipal solid waste. A spotter was present here, checking for and removing any large objects that could damage the liner. The western end of the cell has the fluff lift already in place and can receive Construction and Demolition waste. Mr. Lawson stated that the plan is to continue to install the fluff list eastward to the eastern edge of the cell, then install the next lift moving back westward.
10. Dressing and hydroseeding have been completed on the top, western end of the south face. It was observed today that a bulldozer was spreading cover soil at the eastern end of the south face to dress the surface and cover flagging garbage.
 11. A moderately strong and persistent gas odor was observed at the top of the landfill. I requested that Mr. White investigate. Following the inspection, Mr. White emailed me to say that he found one (1) well (EW 3-28) with a reading of 1,100 parts per million (ppm) of methane using his Gas Ranger meter. He stated that he "covered the area with bentonite and took a second reading. The second reading was below 500 ppm."
 12. No windblown litter was observed in the trees or on the ground to the southeast of Cell SE-1B.
 13. The north slope road was driven. The road bed, rip-rap swale, and rock check dams were in good shape with no erosion observed.
 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. It was observed that a street sweeper was cleaning the internal roads and entrance drive.
 17. A water truck was observed. Mr. Lawson stated that it would be spraying the roads for dust suppression.
 18. Work to improve stormwater management along the south face haul road is still unfinished.
 19. Mr. Lawson stated that has obtained bids from contractors to clean the accumulated sediment out of the sedimentation basins. He stated that he is now exploring renting a long-reach excavating machine and having landfill personnel perform the work.
 20. We entered the scale house to inspect trucking slips from Waste Connections' transfer stations. Zero (0) out of seventeen (17) trucks were overweight.
 21. I conducted a driving patrol along the intersection of Applebutter Road and Ringhoffer Road before the inspection, starting at 9:50 a.m. No landfill-related odors were observed. The sight of the landfill was intermittently visible through the trees. The sound of tracked equipment working on the landfill was observed. The culvert under Applebutter Road was observed to be carrying the streamflow with no backups. I conducted a driving patrol along Skyline Drive after the inspection, starting at 11:20 a.m. No landfill-related odors were observed. The sight and sound of trucks on the landfill (south face haul road) were observed from the end of Skyline Drive. I conducted a driving patrol through Steel City after the inspection, starting at 11:31 a.m. No landfill-related sounds or odors were observed. On the driving patrol through the Narrows it was observed that the road immediately downslope of the runoff point from the landfill was clean.

Ms. Leslie Huhn
Township Manager

3

September 5, 2019

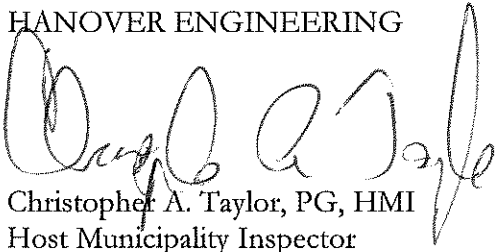
Activity Related to the Southeast Realignment Expansion

22. Cell SE-1B is currently receiving garbage. No expansion construction work is taking place at this time.

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

cat: llb

S:\Projects\Municipal\1.SauconTwp\1s90-07-BethLandfill\Docs\IESI landfill report of Sept 5, 2019 insp.doc