

Hanover Engineering

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December 8, 2020

Ms. Leslie Huhn, Township Manager
Lower Saucon Township
3700 Old Philadelphia Pike
Bethlehem, PA 18015-5426

RE: Bethlehem Landfill Company
Technical Consultant Committee Meeting
Notes for the November 17, 2020 Meeting
Hanover Project LS04-78

Dear Ms. Huhn:

We would like to provide you with our notes from the November 17, 2020 Technical Consultant Committee meeting. The meeting took place via a Zoom and began at 1:00 p.m. Attending the meeting were:

- Ms. Priscilla deLeon
- Mr. Haz Hijazi
- Mr. Scott Brown, HMI
- Ms. Diane Palik

MEETING NOTES

A. Committee

1. Review of notes of Third Quarter 2020 meeting of August 18, 2020 – No Comments were presented.
2. Review Document Submission Log to confirm all standard reports received.

The following is the status of standard reporting received from BL:

- a. Leachate Demand and Groundwater Demand/Abatement Well Reports (monthly): have been received for July, August and September.
- b. Radiation Alarm Monitoring Report (monthly): latest report log is current up to September 29, 2020.
- c. Groundwater Demand Report (quarterly): now received in the Quarterly Facility Report that was received October 27, 2020.

- d. Gas Royalty Report (quarterly): Reports and checks for the Second and Third Quarters of 2020 should have been received by Lower Saucon Township the week of November 17, 2020.
- e. Host Municipality Fee Report (quarterly): have received the 2Q20 Report. Received October 27, 2020.
- f. Groundwater Monitoring Data Quarterly Report (using annual sampling parameters): The 3Q20 Report received October 27, 2020.
- g. Quarterly Facility Report to Township (white cover): the 2Q20 Report was received October 27, 2020.
- h. Quarterly Facility Report to DEP (yellow cover): received the 3Q20 Report received October 27, 2020.
- i. Collection/Capture Efficiency Report (quarterly): the 3Q20 Report received October 12, 2020.
- j. Surface Emission Monitoring Reports (quarterly): last received the 3Q20 Report October 13, 2020.
- k. Title V Compliance Certification and Operational Report (semi-annual): received report 7/29/2020 for first half 2020.
- l. 2019 Annual Review of Groundwater Monitoring System Including Trend Analysis: due June 30, 2020. Received July 1, 2020.
- m. 2019 Annual Operations Report: received June 12, 2020.
- n. Annual AIMS Report: The 2020 Report is was received March 11, 2020.
- o. Annual Recycling Report: the 2019 Report was received January 27, 2020.
- p. Quarterly Residual Waste Report: received the 3Q20 Report October 1, 2020.

B. Scott J. Brown, PG, HMI – HOST MUNICIPALITY INSPECTOR

1. General Overview of Landfill Activities During the Third Quarter of 2020 or Other Appropriate Timeframe
 - a. Waste Acceptance and Management
 - Waste disposal took place in Cell SE-1B during the Third Quarter, see photo 1.

- Waste acceptance tonnage for the Third Quarter reported in IESI meeting notes (July - September 2020) was 101,693.62 tons, versus 105,529.91 tons for the Second Quarter. Bethlehem Landfill has been intentionally reducing their waste acceptance to conserve air space until the new cell is constructed and certified.
- Use of approved Alternative Daily Cover tarp has been utilized when six-inch (6") soil cover has not been able to be placed at the end of the working day.
- The Form U review process is still being followed. Last Form U was received October 25, 2020 prior to Laressa McNemar's retirement.
- Supplemental Waste Tracking forms submitted by BL indicated that no loads of waste were rejected during the Third Quarter.
- Recycling (newspaper, commingle, and scrap metal) continues to be received and processed at the landfill. A total of thirty-two (32) Township residents brought recycling to the landfill in the Third Quarter.
- Residual Waste Reports being provided to the Township show that in the Third Quarter a total residual waste tonnage of 6,052.45 vs 6,298.83 tons 2Q20.
- The Host Municipality Benefit Fee Report and fee check for the Third Quarter have been received by the Township.
- The Pennsylvania Department of Environmental Protection (PA DEP) Waste Management Program conducted zero (0) inspections during the Third Quarter. A DEP inspection was performed on October 6, 2020.
- Sewage sludge is between 2% to 4% of the total waste stream.

The Committee has a concern that the Form Us, when submitted, will not be reviewed by the Township.

b. Landfill Gas Management

- DEP responded to odor complaints on August 14, 2020 and visited nineteen (19) locations around the land fill including Steel City. One (1) of the nineteen (19) sites DEP was able to detect a "light, intermittent objectionable landfill relate odor" and no odor was detected at the eighteen (18) other locations.
- The BRE plant has remained off-line.
- The landfill flare was online and burning landfill gas solely during the Third Quarter.
- BL had one hundred four (104) vertical gas wells and thirty-four (34) horizontal wells (collectors) in operation as of the end of the Third Quarter. Recently eleven (11) wells were re-drilled to provide improved gas withdraw.

- BL provided a copy of the odor complaint log from PA DEP which indicated that fifteen (15) odor complaints were reported to PA DEP during the Third Quarter, 1/3 of the complaints occurred on August 14, 2020. (See first bullet item)
- The gas royalty payment for the Second and Third Quarters 2020 has been received by the Township.
- The temporary cap on the south face continued to be observed during the Third Quarter to check for landfill gas accumulating under this cap, which had caused it to “balloon up” previously. Ballooning of the temporary cap was observed during the Third Quarter, due to a flare outage that occurred August 4, 2020 during Hurricane Isaias. No other ballooning was observed during the Third Quarter.
- Aria Energy East, LLC has been issued a General Permit to construct a Renewable Natural Gas (RNG) Facility on the landfill property and BL was issued a Minor Permit Modification.
- The PA DEP Air Quality Program conducted zero (0) inspections during the Third Quarter.
- LFG-3A elevated gas levels have been addressed. BL has completed the connection of a one-inch (1”) diameter gas vacuum line to LFG-3A and the latest gas readings taken indicated a 0% gas presence.

The Committee has no concerns to recommend to Council.

c. Leachate Management

- Secondary leachate flows in LMC-6 varied between 1 and 4 g/a/d during the Third Quarter.
- Secondary leachate flows in LMC-7 were recorded as 0 g/a/d for all weeks during the Third Quarter.
- Secondary leachate flows in LMC-8 varied between 0 and 803 g/a/d (April 20, 2020) and exceeded 100 g/a/d for 6 of 12 weeks during the Third Quarter.
- Secondary flows in PS-1, PS-2, PS-3, and PS-4 were between 0 and 12 g/a/d.

The Committee’s concern to report to Council is that there is continuous flow of Leachate and/or stormwater within the Leachate Detection Zone of the landfill identified at several monitoring points. In the last year or more, flow in the Detection Zones at times is nearly equal to, or greater than, the flow measured in the overlying Collection Zone. Facility Personnel and Consultants have stated that construction of the Southeast Realignment should eliminate the flow entering the Detection Zones by sealing off the anchor trench that they believe is the source of infiltration. If there is a reduction of Leachate flow it will be reflected in the Monthly/Quarterly Reports.

d. Groundwater Management

- The 2Q20 groundwater sampling event was completed August 24, 2020 to August 26, 2020.
- The 2019 Annual Review of Groundwater Monitoring System Including Trend Analysis was submitted July 1, 2020.
- The Groundwater Abatement System continued to function, with pumpage amounts reported monthly.
- Abatement well maintenance issues are now included in the monthly reports, as requested.

The Committee has no concerns to recommend reporting to Council.

e. Traffic Management

<u>April</u>	<u>May</u>	<u>June</u>		
Total Trucks	3,021	2,880	2,581	
Overweight	81	77	69	
Warnings	41	65	60	
Suspensions	39	12	9	

BL issued a Daily Operational Record of Overweight Vehicles, detailing vehicle and hauling company information, for the months of July, August, September. The records indicate that for the Third Quarter, fifteen (15) trucks were more than 2,000 pounds over the 80,000-pound weight limit and fourteen (14) trucks were more than 2,000 pounds over the 73,280-pound weight limit.

The Committee has no concerns to recommend reporting to Council.

f. Stormwater Management

RECENT DEVELOPMENT:

Since the August 4, 2020 hurricane the stormwater channels flowing to sedimentation pond #4 have been repaired and the sediment in the pond is being removed. To date, approximately $\frac{2}{3}$ to $\frac{3}{4}$ of the sedimentation pond has been cleaned out.

The Committee has no concerns to recommend reporting to Council.

g. Status of Permit Applications to DEP

- DEP approved a general permit to Aria Energy East, LLC and a minor permit modification to BL both issued May 19, 2020 for the construction of a Renewable National Gas (RNG) Plant. No construction activity has started.

- The Committee questioned if the Township has received notice that DEP has accepted BL's Permit Modification Application and has started the Township's review timeclock.

The Committee has no major concerns to recommend reporting to Council. The Committee does request that the Township Manager inquire with DEP regarding the status of the permit Modification Application acceptance status.

h. Operational Changes

- No significant changes during the Third Quarter.
- BL has started to reduce the acceptance of waste to extend the life of the remaining air space at the northern end of cell 1B.
- Construction of the MSE highwall along the south side of cells 1A and 1B has been completed and presently the construction of 2A/B, Phase 1 has started, see photos 2 and 3.
- The temporary capping of the western side of Phase 3 has started, see Photos 4 and 5. This work will address the DEP Notice of Violation.

The Committee has **no** concerns to recommend reporting to Council.

i. Regulatory Oversight

The PA DEP Waste Management Program conducted zero (0) inspections on In the Third Quarter on October 6, 2020 by DEP. An inspection report has not been received to date.

The Committee does have a concern with the reduced frequency of the DEP inspections.

j. Miscellaneous

- None

2. Review of Inspection Reports

a. PA DEP Waste Management Program (WMP) Inspection Reports.

PA DEP conducted inspections as follows:

July – No inspection reported.

August – No inspection reported.

September – No inspection reported.

RECENT DEVELOPMENT:

b. PA DEP Air Quality Program Inspection Reports

PA DEP conducted inspections as follows:

July – No inspection reported.

August – No inspection reported.

September – No inspection reported.

c. PA DEP Engineer’s Monthly Status Reports

PA DEP conducted inspections as follows:

July – No inspection reported.

August – No inspection reported.

September – Monthly status Engineer’s meeting was held September 24, 2020.

d. HMI Inspections

HEA conducted inspections during the Third Quarter on the following dates:

07/02/2020

07/16/2020

08/06/2020

08/20/2020

09/03/2020

09/17/2020

Results are as previously reported.

3. Review of Citizen Complaint Log Maintained by PA DEP

JULY: Zero (0) odor complaint reported

AUGUST: Eleven (11) odor complaints reported

SEPTEMBER: Four (4) odor complaint reported.

C. Rich Sichler, PG Township Geologist has the following comments for Council:

Reviewed the Second and Third Quarter 2020 Groundwater Monitoring Reports. As of January 1, 2020, a new Groundwater Sampling Plan was approved by DEP for the landfill. The most notable changes were the stopping of chemical analysis of the leachate detection zone samples for all of the regular quarterly events. The detection zone will be sampled only during the annual sampling event that happens in the Third Quarter every year. Detection zone sample analysis conducted in the Third Quarter 2020 was in line with previous results.

The other big change is that for certain monitoring wells that historically are dry during periods of low groundwater levels they now have alternate abatement wells. For example, BL-8D was found dry during both the Second and Third Quarter events and in its place Abatement Well AB-6 was sampled for the full list of groundwater monitoring analytes.

The new Groundwater Sampling Plan was requested by the PA DEP and PA DEP noted that it is a requirement to update the plan every five (5) years. Review of the Abatement Well Reports was done for the reports received for September and October 2020. No reports were received for May,

July, or August 2020. No September and October Abatement Well Reports did not contain the same information that had been previously submitted. Missing was the monthly tabulation of the observed flows and pumping levels for each of the ten (10) abatement wells. The only abatement well flow information provided was the total observed flow for the combined pumping system. Also, no details were provided for specific maintenance performed. It was suggested that the landfill be questioned about this change at the next Landfill Committee meeting. It may be the information is provided in a different report.

Surface water and private well analytical results were all found to be within expected ranges.

D. To be determined, Special Landfill Consulting Engineer, no reports submitted.

Summary of Committee Concerns to report to Council are:

1. Review of the Form Us by the Township will not be performed by a Township appointed professional with the retirement of Laressa McNemar, PE.
2. With the retirement of Laressa McNemar and the impending review of the northern realignment permit modification, the Township and Landfill Committee does not have a professional to perform the application review. What is Council's direction to the Committee to complete the review and address ongoing issues that require a Landfill Professional?
3. The reduced frequency of DEP inspections.

The 2021 meeting dates for the Technical Consultant Committee have been scheduled as follows:

- February 16, 2021
- May 11, 2021
- August 17, 2021
- November 16, 2021

Photo 1



Photo 2



Photo 3



Photo 4



Photo 5

