

Hanover

Engineering Associates Inc

September 27, 2012

SEP 28 2012

LOWER SAUCON TOWNSHIP

Mr. Jack Cahalan, Manager
Lower Saucon Township
3700 Old Philadelphia Pike
Bethlehem, PA 18015

RE: Joint Municipal Landfill Committee
Minutes of September 20, 2012 Meeting
Hanover Project LS90-07

Dear Mr. Cahalan:

The Joint Municipal Committee between IESI Bethlehem Landfill and Lower Saucon Township met at the Landfill Office at 1:00PM on September 20, 2012. The meeting notes provided at that time were incomplete, since the Bethlehem Renewable Energy and Flare Operations Start-up/Shutdown Report was not yet completed. This information was provided by Mr. Schleyer to Mr. Taylor in completed meeting notes transmitted via e-mail on September 25, 2012.

Attending the meeting were:

Ms. Donna Louder
Mr. Allen Schleyer
Mr. Christopher Taylor, PG, HMI

AGENDA ITEMS

I. Status of Waste Activities

Monthly Tonnages:

	<u>June</u>	<u>July</u>	<u>August</u>
Municipal Solid Waste (total)	23,197.10	24,133.30	28,065.80
Construction and Demo (total)	7,404.10	6,355.30	7,632.30
Residual Waste (total)	2,117.40	3,638.20	4,336.80
Asbestos	[70.00]	[52.50]	[48.10]
Out of state-total (percentage)	[15,839.90](48%)	[20,047.80](59%)	[24,843.30](62%)
TOTAL	32,718.60	34,126.80	40,034.90
Recycled Tonnage (percent from Lower Saucon Twp.)	0.00 (74%)	0.00 (79%)	0.00 (79%)

- NOTES:
1. The tonnage for 'Asbestos' is included in the tonnage for 'Residual Waste (total)' and is therefore shown in brackets.
 2. The 'Out of state - total' tonnage figure has now been consolidated to include total tonnage from all waste categories, and is shown in brackets because it is included in the tonnage for the other categories.

ROUTING

- orig
- Council
 - Manager
 - Asst. Mgr.
 - Zoning
 - Finance
 - Police
 - P. Works
 - P/C
 - P & R
 - EAC
 - Engineer
 - Solicitor
 - Planner
 - Landfill
 - EMC
 - Other Website

<u>Form U Submittals</u>	<u>Waste</u>	<u>Approval Date</u>
Fibermark	Non-petroleum contaminated soil	08/27/12
Kings Park	PCB/debris	09/05/12
BASF	PCB/debris	09/05/12
IMTT – Bayonne	ACM	09/05/12

Mr. Taylor asked about the nature of the contaminated soil from Fibermark was. Mr. Schleyer responded that that Fibermark is a paper processing plant and that the soil was contaminated with Latex, which is used to make “glossy” paper. Mr. Taylor asked how Form U waste that arrives at the landfill is matched to the approval that was received for that waste stream. Mr. Schleyer provided a detailed explanation of the tracking and documentation process.

II. Annual Groundwater Trend Analysis

- The 3rd Quarter 2012 Quarterly Groundwater Report sampling has been taking place during the current week of September 17, 2012 as scheduled.

Mr. Schleyer commented that Mr. Bham from the PADEP is wrapping up the quarterly groundwater sampling today, September 20.

III. Correspondence and Reports

- Form U Submittals to PADEP and Lower Saucon Township
- Abatement System Report
- 2Q12 PADEP Groundwater Report
- Monitor Well Construction Form 37 & 18.

IV. Landfill Operations

- Department of Environmental Protection Inspections
 - August 9, 2012 – S. French, J. Spaide: cell construction inspection
 - August 16, 2012 – A. Schweitzer, B. Easley: air quality inspection
 - August 21, 2012 – B. Easley, D. Fleckenstein, T. Redding: air quality inspection
 - August 23, 2012 – B. Easley, D. Fleckenstein, T. Redding: air quality inspection
 - August 30, 2012 – D. Fisher, W. Govern: site inspection
 - August 31, 2012 – B. Bham: site meeting
 - September 13, 2012 – S. French, J. Spaide: Engineers meeting
 - September 18, 2012 – B. Bham – groundwater monitoring

Mr. Taylor asked for an explanation of what the air quality inspections entailed. Mr. Schleyer described the three (3) inspections reported above in detail, stating that they included both surface monitoring and a thorough records review. Mr. Taylor asked for an explanation of how the gas well data is captured. Mr. Schleyer stated that IESI’s consultant, SCS, collects the data in the field by visiting each wellhead and hooking up an instrument to the wellhead to download the data. He stated that they also physically inspect each wellhead at that time, and that this monitoring takes place on a monthly basis.

Mr. Schleyer further stated that surface emissions monitoring takes place quarterly. He stated that the technicians follow a mapped route around the landfill and use an instrument to “sniff” for gas every one hundred feet (100’) along the route. They record a gas level reading at each location, and each location gets a “tag number”. Ms. Louder asked if the technicians go outside the landfill, to Steel City for example. Mr. Schleyer responded no, they stay on the landfill property. He stated that any readings of five hundred parts per million (500 ppm) or greater require remediation. The area with such a reading is then rechecked at ten (10) days and thirty (30) days to confirm proper remediation.

- Host Municipal Inspection

- July 11, 2012 – Chris Taylor
- July 19, 2012 – Chris Taylor
- August 3, 2012 – Chris Taylor
- August 7, 2012 – Chris Taylor
- August 23, 2012 – Chris Taylor
- September 11, 2012 – Chris Taylor
- September 18, 2012 – Chris Taylor

- Bethlehem Renewable Energy (BRE) and Flare Operations

The following is an update to the Gas Turbine Generator/Flare activity. We had the following LFG shutdowns at Bethlehem Landfill. Auto-valves closed as designed for each shutdown of the flare. No odors were noted or odor complaints received by Bethlehem Landfill during the outage events. BRE is currently in a startup phase and is the primary gas collection control system, with the flare as back-up.

Aug 12, 2012	Turbine startup	08:42	
	Turbine shutdown	09:37	Manual shutdown
	Turbine startup	11:56	Flare running
Aug 13, 2012	Turbine shutdown	15:17	Generator test
Aug 14, 2012	Turbine startup	08:35	Flare running
	Flare shutdown	14:52	High temperature
	Turbine shutdown	15:24	Testing
	Turbine startup	19:01	Duration 3 hr 37 min
	Turbine shutdown	20:41	Generator test
Aug 15, 2012	Flare startup	05:34	Duration 12 hr 30 min
	Turbine startup	09:04	Duration 8 hr 53 min then flare running
	Turbine shutdown	12:07	Gas compressor shutdown
	Flare shutdown	12:08	High temperature
	Flare startup	12:25	Duration 17 min
	Turbine startup	14:04	Duration 17 min then flare running
Aug 16, 2012	Turbine shutdown	16:27	Maintenance
Aug 17, 2012	Turbine startup	07:59	Flare running
	Turbine shutdown	10:16	Protective shutdown
	Turbine startup	11:52	Flare running
	Flare shutdown	12:43	High temperature
	Turbine shutdown	16:06	Protective shutdown
	Flare startup	16:23	Duration 17 min then turbine running

Aug 21, 2012	Turbine startup	10:55	Duration 17 min then flare running	
	Flare shutdown	16:44	High temperature	
	Flare startup	17:17	Turbine running	
	Turbine shutdown	19:47	Protective shutdown	
	Turbine startup	20:00	Flare running	
	Flare shutdown	20:06	High temperature	
	Turbine shutdown	20:25	Protective shutdown	
	Turbine startup	20:39	Duration 14 min	
	Turbine shutdown	21:06	Protective shutdown	
	Flare startup	21:19	Duration 27 min turbine running	
	Aug 22, 2012	Turbine startup	12:59	Duration 13 min flare running
		Turbine shutdown	17:37	Maintenance
		Turbine startup	18:00	Flare running
	Aug 23, 2012	Flare shutdown	09:14	Low temperature
Turbine shutdown		10:45	Low temperature	
Flare startup		12:39	Duration 1 hr 54 min	
Aug 25, 2012	Turbine startup	11:21	Duration 1 hr 54 min flare running	
	Flare shutdown	12:05	Low temperature	
	Flare startup	16:02	Turbine was running	
Aug 26, 2012	Flare shutdown	03:38	Low temperature	
	Flare startup	07:05	Turbine running	
	Turbine shutdown	08:02	Protective shutdown	
	Flare shutdown	08:02	High temperature	
	Turbine startup	09:59	Duration 1 hr 57 min	
	Turbine shutdown	14:17	Protective shutdown	
	Turbine startup	16:31	Duration 2 hr 14 min	
	Turbine shutdown	19:06	Protective shutdown	
Aug 27, 2012	Flare startup	19:32	Duration 4 hr 37 min turbine running	
	Turbine startup	13:00	Duration 26 min then flare running	

All shutdown information is provided to the PADEP.

As stated in the opening paragraph, the startup/shutdown data listed above was not available at the time of the committee meeting. Mr. Schleyer stated that he needs more time to list the startup/shutdown report. Mr. Taylor asked if he could provide it by next week. Mr. Schleyer responded yes. Ms. Louder asked if the BRE plant was up and running. Mr. Schleyer responded that they were until Tuesday. Mr. Taylor asked if the uneven startup was playing havoc with gas management. Mr. Schleyer responded that they were handling it.

- Well Sampling
 - The 3rd Quarter 2012 Quarterly Groundwater Monitoring sampling has been taking place during the current week of September 17, 2012, as scheduled.
- North Slope
 - The North Slope sedimentation traps are functional.
 - The North Slope perimeter road is accessible.

The condition and accessibility of the road were inspected by driving the road during the mid-meeting inspection conducted on September 11, 2012. At this time, it was observed that the alignment and grade of the entrance to the road had been changed at the direction of Mr. Schleyer. The slope of the road entrance has been decreased, and gravel had been placed on the road surface from the road beginning to the bottom of the initial slope. The side slopes had been hydroseeded.

- Abatement System Operations
 - The abatement system continues to operate and discharge to the Bethlehem Waste Water Treatment Plant.
- Gas Collection
 - The Bethlehem Renewable Energy plant is currently in a start-up phase and is now the primary gas collection and control system, with the landfill flare as the back-up.

During the inspection following the meeting, Mr. Taylor confirmed that the landfill flare was operating and viewed the control panel that displayed the gas feed rate (2038 scfm) and burning temperature (1663 °F).

- Leachate Collection
 - Flow rates continue to be monitored and reported.

Following is a summary of the work history and developments:

- IESI submitted the report from Mieser and Earl, Inc. on December 23, 2008, to DEP and Lower Saucon Township evaluating the various tests that were performed to locate the source of the elevated detection zone flows as outlined in their May 7, 2008 Work Plan. Lower Saucon Township has forwarded their comments on the December 23, 2008 report to DEP.
- IESI has completed welding of approximately 1,200 L.F. of the secondary line to the primary liner along the northern end of Cell 3-D while the anchor trench was open and prior to completing the weld, a 2½-inch rain event occurred. A spike in the leachate collection/detection flow may be observed.
- IESI will retest the gabion stormwater channel over Cell 3-C and discharging into sedimentation Pond 4 for possible infiltration into the detection zone by flooding the channel on September 24, 2009.
- The capping of the remaining five (5) acres of Phase III has been completed.
- IESI provided an updated report on their LMC investigation to DEP and Lower Saucon Township November 2009. The reports in part indicated that:
 1. LMC 7 does not appear to be affected by rainfall since the northern Cell 3 anchor trench cap/liner welding occurred.
 2. LMC 8 still spiking from rainfall events.
- The next investigation will be to the integrity of the liner under gabion channel in Cell 3-C which will occur in the 1st Quarter 2010. IESI is looking for a seven to ten (7-10) day window with no rain for a meaningful evaluation. IESI received authorization for the Gabion Channel Work Plan from DEP on December 22, 2009.
- The investigation of the integrity of the liner under the gabion downchannel located in Cell 3C began April 10, 2010. The southern-most end of the gabion channel was excavated down to the anchor trench as well as to the east and west of the channel along the anchor trench. Toe drains above the primary liner were replaced and the

primary and secondary liners were welded together in the excavated areas. The gabion channel and piping leading to Basin 4 were reconstricted. IESI will continue to monitor the LMC flows and prepare a report on the latest work performed.

- To date the flows into LMC-8 appear to have been substantially reduced since the repair in the first week of April 2010.
- As of this date the data appears to indicate that the repairs to the southern end of the gabion downchannel leading to Sedimentation Pond 4 and the toe drains running east/west at the southern most end of the gabion channel have caused a substantial reduction in the detection zone of LMC-8.
- The LMC-8 Detection Zone flow rate continues to be monitored. Existing data continues to show a substantial reduction in the flow rate.
- September/October 2010 – the recent rain events have shown influence on LMC-8. The committee is recommending that IESI investigate and consider extending the toe-drain, which was replaced in April along the toe of the southern slope and above Sedimentation Pond 4, to the east and west. Mr. Schleyer provided a summary of the remedial work completed to date to alleviate the high leachate flows being recorded in LMC-8. He reviewed the recent flow data, and stated his opinion that the remedial work has helped to reduce the overall flows. He stated his opinion that the flow data for 2010 indicates that the “response time” between a storm event and high flows observed in LMC-8 is less, and that the flows are of a shorter duration, since the work has been completed. He stated that he is monitoring the flow data and planning out the next step in the process, but is currently concentrating his efforts on the methane gas problem experienced at the residence at 2293 Applebutter Road. Ms. deLeon stated that Lower Saucon Township is very concerned about the high leachate flows, since these could indicate a tear in the landfill liner or other serious problem.
- February 2011: Discussion regarding monitoring results, as provided in the Third Quarter 2010 Quarterly Facility Report, revealed that samples taken from the leachate detection zone provided very similar chemical analyses to samples taken from the leachate collection zone. Mr. Schleyer indicated that IESI had recognized this correlation, and noted it in their cover letter for the report. Mr. Schleyer provided further explanation with regard to how the report is prepared, and noted that the drainage area for LMC-8 is Phase 3, Cell C, which was completed prior to IESI’s ownership of the facility.
- March 2011: Mr. Schleyer stated that rainy weather is necessitating working on erosion control, but that the toe-drain work is still at the forefront of his work plan. Ms. deLeon asked “What’s going on there” in reference to the high leachate flows documented in the leachate demand report. Mr. Schleyer stated that “stormwater is still getting in” and that they have an “open cell; rainwater is going directly in there”. Ms. deLeon stated that leachate flows jumped up starting February 11, 2011. Mr. Schleyer attributed this to a neighboring cell “filling up and overtopping” the short barrier between cells. He stated that LMC-8 serves Phase 3 Cell C, and that when this cell “fills up” with leachate, it causes the high flows documented in LMC-8, but also causes leachate to overspill to the adjacent Phase IV, causing high flows there also.
- April 2011: Mr. Schleyer noted that flows recorded in LMC 6 increased starting March 18, 2011, but that he is not sure exactly why other than to say it is stormwater-related. Mr. Schleyer stated that it is “the same scenario” as last month, with heavy rains every week that has his crews busy repairing leachate seeps and erosion rills.
- May 2011: Additional toe-drain drainage piping was constructed during the beginning of May. A final report will be completed and submitted to the PADEP and Township.

- June 2011: Mr. Taylor asked if the toe drains have been carrying water to daylight (i.e. – has water been flowing out of the new outlets installed in May). Mr. Schleyer responded that there have been a few flowing out.
- July 2011: Ms. deLeon asked what the PADEP says about the LMC 8 work that was completed. Mr. Schleyer stated that they're okay with it, and that it's "everything we said we'd do". Mr. Taylor commented that we'll probably need up to one (1) year of data to evaluate the effectiveness of the work.
- August 2011: Mr. Schleyer confirmed that that he is still collecting leachate flow data. He stated that he is taking LMC 8 detection zone readings every other day to see if the recent heavy rain causes a "bump" in the data. He indicated that the flow data during rain events should be a good tell-tale sign of whether the toe drains are working. He stated that he wants to collect more data, through the wet season.
- September 2011: Mr. Schleyer acknowledged higher detection zone flows during the monitoring period reported herein. He stated that the toe drains are functioning, because he has seen water flowing from them, and noted the extreme rainfall conditions that occurred during this monitoring period.
- October 2011: Mr. Schleyer stated that the flows in LMC 8 still bounce up when it rains. Ms. deLeon asked if anyone has any other ideas (to remediate this problem). Mr. Schleyer responded no. During the inspection following the meeting, I observed water flowing from each of the toe drain outlets. It had just rained in the last twenty-four (24) hours preceding the inspection.
- November 2011: Mr. Taylor asked what specific steps IESI is taking to identify the source of the inflow creating high flows in LMC 8. Mr. Schleyer responded that they are monitoring flow rates versus rainfall.
- December 2011: Mr. Schleyer stated that, as part of the construction of new cell 4F, the anchor trench along the north side of adjacent Cell 4B was exposed in order to "attach" the old cell to the new cell. He stated that this exposure allowed water from rain events at that time to run right into the collection and detection zones, which caused a spike in the flow numbers for those zones in both LMC 7 and LMC 8. He stated that he expects the numbers to come down. Mr. Taylor asked if everything was buttoned up now (i.e. – no continuing exposure to stormwater). Mr. Schleyer responded that, yes, it was.
- January 2012: Mr. Taylor noted that secondary leachate flows continue to exceed 100 gallons per acre per day (G/A/D) through LMC-8, and are also elevated above normal levels for LMC-6 and LMC-7. Mr. Taylor asked Mr. Schleyer if he is still attributing these higher leachate flows to Cell F being open. Mr. Schleyer stated that, yes, he was.
- February 2012: Mr. Schleyer stated that the high leachate flow numbers are, in his opinion, still due to Cell F being open.
- March 2012: Mr. Schleyer stated that there was a misunderstanding between himself and Mr. Taylor, and that what he meant to say was that there was only one (1) week where the connection between Cell 4F and the adjacent cells were open, in order to fuse the liners together, and that there was a large rain event that week. He stated that in no way did he mean this condition was the continuous cause of high flows in LMC-8 (over many weeks).
- April 2012: Mr. Taylor noted that leachate flows are down overall, including secondary flows in LMC-8. Ms. deLeon asked if, regarding the leachate totals, did it help that it didn't rain much lately. Mr. Schleyer responded yes, and noted that LMC-8 is now down to 15 gallons per acre per day (secondary flows).

- May 2012: Mr. Taylor addressed the issue of secondary leachate flows in LMC-8 as one of the issues that is being tracked by him at the monthly landfill committee meetings, and reminded Mr. Schleyer that this is still an issue of concern with the Township. Mr. Taylor noted that flows were up in the last two (2) weeks due to increased rainfall, but still just under one-hundred gallons per acre per day in the last week of reporting.
- July 2012: Mr. Schleyer provided a description, using landfill plans, of which areas LMC 6, 7, and 8 drain. Mr. Schleyer stated that, in regard to LMC 8, that they've significantly reduced the infiltration into it, but it's not one-hundred percent. He stated that they've determined that stormwater is getting into the system, but that it still all gets collected and sent to the Wastewater Treatment Plant. Mr. Schleyer provided an explanation of work completed to date, including the toe drain work, re-sealing the liner and cap system, and installing clay as a sealer. He stated that a quick rain will give a little bump in the flow numbers, and that a soaking rain will cause a broad increase. Mr. Taylor stated that elevated secondary leachate flows in LMC-8 is an issue that is being tracked by him, and is still an issue of concern with the Township.
- August 2012: In accordance with direction received at the technical committee meeting on August 21, 2012, Mr. Taylor advised Mr. Schleyer that the Township Council had authorized the issuance of a letter to the PADEP documenting the Township's concerns with elevated flows in the leachate detection zone.

The recent flow readings were reviewed and found to be generally higher than the previous month.

- Radiation Monitoring

- August 7, 2012: I-131
- August 21, 2012: TI-201 – driver had a medical test
- August 22, 2012: TC-99M
- August 28, 2012: TC-99M
- September 5, 2012: TC-99M

Level 1 isotopes were disposed of on site.

Ra-226 Construction and Demolition material continues to remain in the isolation area until directed from PADEP for off-site transport.

Ms. Louder stated that the radioactive material is a big issue. A general discussion followed on the nature of the radioactive material, the type of radiation it emits, and the decay product produced. Mr. Taylor asked what is taking so long to get rid of the material. Mr. Schleyer responded that the property it came from is city-owned (City of Allentown), and that it will be expensive to get rid of. Ms. Louder asked about the disposal site in Tennessee. Mr. Schleyer responded that, since the source of the material is a city property, the City of Allentown must get bids for the disposal, and that it may be a money/budgeting issue. He stated that the material may be transferred in late September or early October. Mr. Schleyer stated that Jim Fronheiser (IESI's health physicist) will be on site at the time of removal of the material to guarantee that IESI gets a clean site upon removal.

- Phase IV Construction Activities

- Phase IV D-Stage 3, Cell 4-B, and Cell F are currently the active disposal areas. Cell E Stage 1 is currently under construction.

Mr. Taylor stated he thought Stage 1 was complete by now. Mr. Schleyer responded no, they are still working on the pump station. During the inspection following the meeting, it was observed that all garbage disposal was taking place on the southern face. This is in accordance with IESI's plans, as previously documented, to bring areas of the southern face up to final garbage elevation.

- Complaints

- 08/10/12: A neighbor on Skyline Drive complained of "natural gas odor". Sam Donato went to the house to investigate and could not detect any odor.
- 08/15/12: A neighbor complained that a truck making a right turn from Shimersville Road onto Applebutter Road almost hit the car in front of him. The truck driver was given a written warning.
- 08/24/12: Steel City resident called requesting assistance regarding health issues related to their well water. Everyone else on that street is connected to public water. Sam and Al went to meet with the resident to discuss their concerns and offer assistance.

Mr. Schleyer discussed in detail IESI's response to the August 24 complaint regarding the well. He stated that he expects the laboratory test results in several days, and that the owner will be provided with an evaluation of their results compared to drinking water standards.

- Miscellaneous

- Mr. Schleyer stated that a Pennsylvania state agency had visited the landfill to inspect and certify the truck scale.
- Ms. Louder asked if water runoff (to the north) has increased due to the construction of the (MSE) wall. Mr. Schleyer responded no, and provided an explanation of how the MSE wall and new stormwater swale have diverted stormwater southward that used to run northward.
- Mr. Taylor asked if Mr. Schleyer anticipated more blasting in Cell 4E. Mr. Schleyer responded yes. A general discussion on the blasting that took place in March and April of 2012 followed. Mr. Taylor stated that all parties involved need to be more proactive the next time blasting is planned, and that he and the Township want to have more notice than receiving an e-mail saying "there's going to be a blast today", as it was handled last time. Mr. Taylor stated that he wants to be in Steel City the next time there's blasting activity at the landfill, to see firsthand what the effects are.
- Mr. Schleyer stated that he replaced approximately four hundred feet (400') of silt fencing along the northern property line, in response to concerns raised by Ms. deLeon during the previous meeting. During the inspection following the meeting, the presence of the newly constructed silt fencing was confirmed.
- The discharge from the onsite stormwater basins, where they cross Applebutter Road, was observed. The discharge from Basins 1 and 2 (combined) and Basin 6 was clear. The discharge from Basin 4 was cloudy with sediment. Basin 3 had drained and had no discharge.

V. Commercial Waste Vehicles

	<u>June 2012</u>	<u>July 2012</u>	<u>August 2012</u>
Total Trucks	2,942	3,015	3,310
Overweight	30	39	54
Warnings	20	24	32
Suspensions	10 (6>3%) 6-TT	15 (6>3%) 4-TT	22 (9@3-20%) 3-DT, 6-TT

FL = front loader, RO = roll off, TT = tractor trailer, RL = rear loader,
DT = triaxle dump truck

A general discussion on the number and nature of overweight trucks followed. The identification of the overweight range was provided for August in response to a previous request from Ms. deLeon. Mr. Taylor asked if the truck that was close to being twenty percent (20%) overweight was from out of state. Mr. Schleyer responded yes. Mr. Taylor stated that there needs to be a weigh station on the interstate, as this would act as a deterrent to drivers hauling loads that are clearly overweight. He continued that identifying a truck as overweight once it reaches the landfill is too late, since the "damage is already done" – that truck has already been on the highway and roadways, endangering the traveling public. A general discussion followed on truck weight enforcement efforts by various law enforcement agencies and the use of mobile truck scales.

VI. Correspondence

- Correspondence from Department of Environmental Protection
 - No discussion.
- Correspondence to Department of Environmental Protection
 - No discussion.
- Other Correspondences
 - No discussion.

VII. Township Activities/Township Staff Meeting Update

- Township correspondence to the Department of Environmental Protection
 - No discussion.
- Council Meeting IESI Issues
 - No discussion.
- Miscellaneous
 - No discussion.

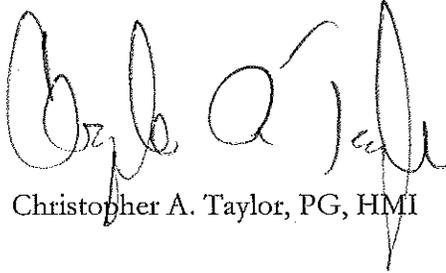
VIII. Establish Time for Next Meeting

1:00 P.M. October 18, 2012 at the Landfill Facility Office.

END OF MINUTES

Respectfully,

HANOVER ENGINEERING ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read "Chris Taylor". The signature is fluid and cursive, with a large initial "C" and "T".

Christopher A. Taylor, PG, HMI

cat:rfr/bls

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Enclosure(s)

cc: Ms. Priscilla deLeon (via e-mail)
Mr. Hazem Hijazi, PE (via e-mail)
Ms. Donna Louder (via e-mail)
Mr. Thomas Dittmar (via e-mail)
Mr. Allen Schleyer (via e-mail)
Ms. Laouressa J. McNemar, PE (via e-mail)
Mr. James B. Birdsall, PE (via e-mail)
Mr. Scott J. Brown, HMI (via e-mail)
Mr. Jacob A. Schray, HMI (via e-mail)
Mr. Rich Sichler (via e-mail)
Ms. Leslie Huhn (via e-mail)
Ms. Diane Palik (via e-mail)
Ms. Susan French (via e-mail)
Mr. Dean J. Fisher (via e-mail)
Mr. Walter Govern (via e-mail)

IESI BETHLEHEM LANDFILL

	A	B	C	D	E	F	H	I	J	K	M	N	O
473		TIME	Phase IV PS-1 (Secondary Flows)				Phase IV PS-1 (Primary Flow)						Sump
474		(days)	TOTALIZER	GALLONS	FLOW (gpd)	g/ac/day	TIME	TOTALIZER	Gallons	FLOW (gpd)	g/ac/day	Level	
475	12/30/2011	40907	225335	469	67	3		20146806	171752	24536	1031	12.5"	
476	1/6/2012	7	225609	274	39	2		20241943	95137	13591	571	22.1	
477	1/13/2012	7	225889	280	40	2		20365489	123546	17649	742	22.1	
478	1/20/2012	7	226169	280	40	2		20478132	112643	16092	676	21.2"	
479	1/27/2012	7	226503	334	48	2		20618373	140241	20034	842	18.9"	
480	2/3/2012	7	226872	369	53	2		20787532	169159	24166	1015	19.1"	
481	2/10/2012	7	227083	211	30	1		20877618	90086	12869	541	22.7"	
482	2/16/2012	6	227261	178	30	1		20952699	75081	12514	526	14.2"	
483	2/24/2012	8	227503	242	30	1		21044854	92155	11519	484	20.8"	
484	3/2/2012	7	227746	243	35	1		21126496	81642	11663	449	23.8"	
485	3/9/2012	7	227981	235	34	1		21213120	86624	12375	476	23.4"	
486	3/16/2012	7	228269	288	41	2		21318994	105874	15125	582	23.6"	
487	3/23/2012	7	228535	266	38	1		21411515	92521	13217	508	21.2"	
488	3/30/2012	7	228823	288	41	2		21509600	98085	14012	539	23.8"	
489	4/6/2012	7	229131	308	44	2		21611815	102215	14602	562	14.4"	
490	4/13/2012	7	229420	289	41	2		21710217	98402	14057	541	19.5"	
491	4/20/2012	7	229684	264	38	1		21800600	90383	12912	497	18.5"	
492	4/26/2012	6	229999	315	53	2		21913246	112646	18774	722	21.7"	
493	4/30/2012	4	230213	214	54	2		21965567	52321	13080	503	22.5"	
494	5/4/2012	4	230391	178	45	2		22010373	44806	11202	431	23.2"	
495	5/11/2012	7	230748	357	51	2		22097316	86943	12420	478	20.6"	
496	5/18/2012	7	231087	339	48	2		22179489	82173	11739	452	23.6"	
497	5/25/2012	7	231419	332	47	2		22258261	78772	11253	433	20.8"	
498	6/1/2012	7	231789	370	53	2		22338573	80312	11473	441	21.0"	
499	6/8/2012	7	232034	245	35	1		22422882	84309	12044	463	23.8"	
500	6/15/2012	7	232277	243	35	1		22508696	85814	12259	472	21.7"	
501	6/21/2012	6	232506	229	38	1		22581521	72825	12138	467	24.8"	
502	6/29/2012	8	232776	270	34	1		22678218	96697	12087	465	21.2"	
503	7/7/2012	8	233050	274	34	1		22772001	93783	11723	451	17.4"	
504	7/13/2012	6	233240	190	32	1		22841946	69945	11658	448	16.8"	
505	7/20/2012	7	233471	231	33	1		22918263	76317	10902	419	21.9"	
506	7/27/2012	7	233709	238	34	1		22999189	80926	11561	445	22.3"	
507	8/3/2012	7	233950	241	34	1		23081261	82072	11725	451	20.2"	
508	8/10/2012	7	234166	216	31	1		23161772	80511	11502	442	23.4"	
509	8/17/2012	7	234370	204	29	1		23247091	85319	12188	469	23.4"	
510	8/24/2012	7	234568	198	28	1		23331543	84452	12065	464	22.3"	
511	8/31/2012	7	234795	227	32	1		23417358	85815	12259	472	22.3"	
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*3/2/12 Added Cell F acreage to G/A/D

BETHLEHEM LANDFILL
LEACHATE DEMAND REPORT

August 2012

<u>Location</u>	<u>Total gallons</u>
LMC-6	10,488
LMC-7	5,492
LMC-8	91,660
LMC-10	1,224,000
PS-1	370,662
PS-2	220,693
Phase-IV	591,355

Total LMC-10 Flow = LMC-6, 7, 8, Abatement Well System, Phase I and II, and LFG condensate. Phase-IV total from PS-1 and PS-2.

Total Discharge

LMC-10	1,224,000
Phase IV	<u>591,355</u>
TOTAL	1,815,355 gallons

Total Leachate

Leachate	155728
Phase IV	<u>591,355</u>
TOTAL	747,083 gallons

LMC-10 Flow - Abatement System Flow = Leachate System Flow (gallons).
Abatement System Flow = 1,068,272 gallons (Neptune Flow meters)