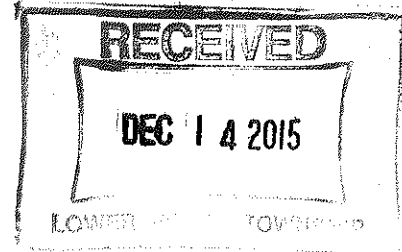


Hanover

Engineering Associates Inc

December 14, 2015



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

RE: IESI Bethlehem Landfill
Southeastern Realignment
Capacity Expansion
Special Exception Application Rec'd 9-16-2015
Revised November 24, 2015
Review Comments of the Technical Consultant
Committee
Hanover Project LS15-32

Dear Mr. Cahalan:

The Lower Saucon Township Technical Consultant Committee (TCC) has conducted their review of the above-referenced application. The Committee personnel involved in the review included the following:

- Mr. Jim Birdsall, PE
- Ms. Laoussa McNemar, PE
- Mr. Rich Sichler, PG
- Mr. Christopher Taylor, PG, HMI
- Mr. Jacob Schray, HMI

The comments generated by the Technical Consultant Committee (TCC) are presented in this letter for your consideration. These comments are based upon the committee's general and technical knowledge of Landfill Operations and, in particular the existing and planned operations of the IESI Bethlehem Landfill and the IESI plan and document submission for the above referenced application. Further, these comments are provided to a reasonable degree of engineering certainty.

This review is separate from reviews and comments this committee has regarding the IESI capability with PADEP regulations that may be covered by other review letters. Also, this review did not include a review of the IESI plan's capability with the Township Subdivision and Land

Council Development Ordinance or the Township Zoning Ordinance. We understand that these reviews are being done by other consultants.

Asst. Mgr.

Zoning

Finance

Police

P. Works

P/C

P & R

EAC

Engineer

Solicitor

Planner

Landfill

EMC

Other

The review of IESI Southeastern Realignment documents is ongoing with regard to their various submissions to the PADEP and this review letter is limited to the review of the Special Exception Application. It does not cover all potential concerns with the proposed realignment and capacity expansion, since the review by TCC of the proposed expansion design will continue through the Phase 1 Environmental Assessment, the PADEP public hearing process and through the PADEP technical Phase 2 review period. Some of the review comments that the TCC has

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provided on the IESI Phase I Environmental Assessment have been incorporated into this letter for issues that may partially fall under the jurisdiction of the Special Exception review by the Zoning Hearing Board. Those comments are printed in italics and the application references use the PADEP application section numbers. These comments have been modified in some cases because the more recent submissions by IESI to the Township have addressed comments that were previously identified. In other words the italicized sentences are not "verbatim quotes" in all cases.

I. INTRODUCTION

IESI PA Bethlehem Landfill Corporation (IESI) has submitted an application to the Pennsylvania Department of Environmental Protection (PADEP) for a proposed permit modification to the IESI Bethlehem Landfill disposal area and capacity in what they are terming the "Southeastern Realignment." This application constitutes a major permit modification. Although the applicant's title is termed the "Southeastern Realignment," the actual plans show that the central and eastern sections of the Landfill will be utilized for capacity increases. Also areas of excavation and landfill activities are proposed in the east, central and western sections of the Landfill.

II. CONTENTS OF APPLICATION SUBMISSION

Lower Saucon Township provided Hanover Engineering with the following documents for the review of the Special Exception Application:

Received September 16, 2015

1. Notebook- labeled Special Exception Application Dated September, 2015 Containing 16 Attachment Tabs.
2. Plan Set- labeled LAND DEVELOPMENT & SITE PLAN consisting of 17 sheets dated last revised 8-17-2015. This is Attachment 1 in the Notebook. The cover sheet of this set is entitled July 2015 with a revision of August 2015. Plan sheets 1 and 1A referenced throughout the Special Exception Application Attachments as "Existing Site Conditions" do not exist in this Plan Set. The existing conditions are shown on sheet 3 of 17.
3. Plan Set- labeled POST CONSTRUCTION STORMWATER MANAGEMENT PLAN consisting of 6 sheets dated 8-17-2015. This is Attachment 10.
4. Plan Set- labeled E&S CONTROL PLANS consisting of 16 sheets dated December 2014. This is Attachment 14.

Received November 24, 2015

1. Revised Preliminary/Final Land Development Plan and Site Plan (Revised October 2015).

2. Revised Land Development Plan Supporting Documentation Binder (Revised November, 2015).
3. Erosion and Sediment Control Plan Narrative (Form I of the DEP Major Permit Modification Application.
4. Additional Supporting Plans, Documents and Information Requested by the Township.
5. November 24, 2015 Letter from Martin and Martin, Incorporated (responding to the review letters of Boucher and James Associates and Hanover Engineering Associates).

A copy of applicable portions of these documents were distributed to the members of the Technical Consultant Committee, for them to provide review comments relative to their area of expertise.

III. TECHNICAL CONSULTANT COMMITTEE REVIEW COMMENTS

A. GENERAL COMMENTS

The TCC believes that it is important to make note of certain conditions that have changed since the last major permit modification application and Special Exception Approval and certain important aspects of this expansion, as follows:

1. Numerous citizen complaints of landfill odor have been received in the last two years.
2. The Bethlehem Renewable Energy Plant has been built. This facility uses landfill gas to generate electricity.
3. Leachate flows in one section of the leachate detection system is a concern, in terms of both quantity and quality.
4. The truck delivery of offsite soils was not proposed in traffic studies for the last Special Exception and major permit modification. The applicant is now committing to the use of offsite soils for the construction and capping of this expansion. This raises issues regarding the trucks that will be used to haul soils to the site, including: the number of trucks involved; the traffic routes they will be allowed to take; whether they will be required to go through the truck wash, etc.
5. The applicant is proposing to work on unlined sections of the original landfill. The applicant will be removing some of the existing Final Cover Soil and will be trenching through the existing Membrane Cap on a portion of the landfill that is closed. During this operation the limited exposure of old solid waste may result in the generation of leachate during precipitation. These areas were used as for solid waste disposal before liners and leachate collections system were required.
6. The applicant is proposing major area where they will be placing waste over existing waste.

7. The elevation of the proposed landfill cap is higher than currently approved and this higher elevation is proposed to extend over a large section of the property.

B. SPECIFIC REVIEW COMMENTS FOR THE SPECIAL EXCEPTION APPLICATION

The comments in this letter will follow the listing of Attachment Sections of the Application Notebook. These sections include the plan sets.

Listed by Attachment Number:

Attachment 1. Preliminary/Final Land Development Plan and Site Plan and Revised October 2015.

These plans are being reviewed by the Township Planner, Township Planner and Township Planning Commission. It is recommended that these reviews be included with the information provided to the Zoning Hearing Board for their consideration of this application.

The TCC has also reviewed these plans for issues related to specific TCC concerns:

Sheet 4 of 17 shows Existing Conditions but the southeastern area labelled as "Soil Stockpile Area" is not labeled accurately. This is the general area that was labelled "Potential Soil Stockpile Area" on previously approved plans, but we do not believe it was ever used.

Although Sheet 13 of 17 provides a "Landfill Time Line" it would be important for the applicant to provide information about the number of months scheduled between the end of the completion of filling of a cell and the installation of the final cap and resurface restoration. (See comments below regarding Closure).

The main perimeter access road is shown in many areas to be constructed over top of the waste pack containing the Final Cap and Gas Collection System. This poses concerns including: (1) the ability the access road to distribute the truck loads in a manner that will achieve an acceptable weigh distribution into the waste pack; (2) differential settlement of the waste below the road creating potential for access road failure and potential damage to the underlying cap system; (3) the sequencing of construction of the road as it relates to filling and Final Cap construction along these sections. The road profiles shown on Sheet 13 of 17 indicate a road construction depth of at least 12 inches into the final two feet of cap soil cover material. Applicant should demonstrate how the road material meets the criteria of the required Final Cover and criteria for access and haul roads which are required to bear fully loaded truck weight without damage to the cap.

Attachment 3. Narrative (November 2015 Section 2)

This narrative describes some of the relief the applicant is requesting from zoning ordinance provisions, but this may not be a complete list of the relief items that

may be needed. A full review of the Zoning Ordinance and Subdivision and Land Development Ordinance provisions is being conducted by the Township Planner and Engineer and it is recommended that the Zoning Hearing Board be provided with their comments.

Additional the Township and IESI have entered into many agreements over the years. Provisions of these agreements should be reviewed for any impacts they may have on the current application. Specifically, IESI should describe how their proposal will comply with the restrictions in Section 3 of the Township-IESI agreement dated August 31, 2014.

Attachment 6. Environmental Protection Analysis

The Site Capacity Calculations are to be reviewed by the Township Planning Consultant.

Many other issues related to the protection of the environment are described in the IESI application to the PADEP for this proposed Major Permit Modification. Some of the comments from the Technical Consultant Committee on these other issues are included in this letter under the heading entitled: "C. - Other General Comments and Questions Regarding the Submitted Application"

Attachment 7. Traffic Impact Analysis (November 2015 Section 3)

The applicant reports that there will be an increase in the number of trucks as compared to prior approved conditions. This report was prepared by Pennoni Associates, dated August 18, 2015, and describes that during about 6 days per month an additional 50 trucks per day would be added to the normal truck traffic of approximately 172 trucks entering and leaving the site, (Approximately 30 %). It is reported that all trucks will access and leave the site by way of Applebutter Road west of the site.

The accident history, road and shoulder condition and safety signage along Applebutter Road from the site to Shimersville Road should be reviewed to determine the roads ability to carry this increased traffic. This is a PennDOT road and a large portion of the road is located in the City of Bethlehem.

Although a Solid Waste Disposal Traffic Control Plan is in place and implemented, it has been effective in making a reduction in overweight vehicles entering the site but has not eliminated them. IESI should consider additional controls to eliminate overweight vehicles.

Attachment 8. Neighborhood Protection Analysis

Subsection E of this attachment, entitled "Smoke, dust, etc." and Subsection J entitled "Other" refer to Neighborhood Protection issues that are also evaluated

during the application being submitted to the PADEP for this expansion. Some of the Air Quality and PADEP Form D comments that the TCC has prepared for the Township's review of the application submitted to the PADEP include the following:

Air Quality Impact (PADEP Application Attachment 13)

This section of the report indicates that IESI will be amending their EPA air emission, Title V, operation permit. This section also indicates that IESI has submitted a request for "Air Plan approval."

This section includes the opinion of the consultant for IESI that "no adverse air impacts to the surrounding community are anticipated."

The fugitive dust emission estimates from vehicles do not appear to include all the trucks required to deliver daily, intermediate and final cover soil, sub-base and protective cover materials based on the capacity and number of trucks listed versus quantities of materials needed as presented in the various narratives, plan sheets and closure plan documents. The emissions estimate also accounts for only one bulldozer daily and no other earth moving equipment during this 5.5 year extensive operating/new construction/closure operation. Earth moving equipment has the highest dust emission factor of any of the other activities. As noted elsewhere in these comments, significantly more truck traffic will contribute to fugitive dust emissions, noise, and traffic increases, which have not been identified as harms or proposed to be mitigated.

The operations plan should identify more frequent SEM readings than required by PADEP. Trigger readings and immediate odor elimination requirements should be developed, to mitigate existing harms and future harms. The readings should be documented and open for inspection by both the PADEP and the Host Municipal Inspector. Requiring the continual on-site monitoring of emissions will also quickly identify the source area, and ensure that the problem is immediately corrected, instead of relying on continuous odor complaints and once-per-quarter surface emission monitoring.

Prevention of additional sources of air contaminants and odors released by (1) excavation into that old fill for gas system installation; and (2) re-excavation of over 315,000 cubic yards of waste relocated from Cell 4E should be addressed.

Attachment 9. PADEP Major Permit Modification for the Southeast Realignment Form F (November 2015)

The Attachment describes the stormwater and soil erosion protections and facilities to be provided by IESI. A review of these documents is being provided by the Township Engineer, the LVPC and the PADEP, as part of the Land Development Plan reviews and the PADEP permitting process.

The TCC intends, however, to provide applicable review comments on these plans after the PADEP notifies the Township that the IESI Application is proceeding to the "Technical Review Phase". The PADEP is not yet reviewing these plans as the contents of the plans may change based upon the recent PADEP Environmental Assessment review. Any action on the Special Exception Application should be conditioned on the future review and adequacy of the controls proposed as reviewed and approved by the PADEP.

Attachment 12: Preparedness, Prevention and Contingency Plan (November, 2015 Section 6)

The PPC Plan included is for current activities, not proposed activities, and is outdated for current activities. The listed District Manager and Primary Emergency Coordinator responsible for plan implementation is no longer employed (Sam Donato). There are also references to "Landfill Manager" responsibilities, with no name identified.

The Special Exception Application should include a PPC Plan developed for the current and proposed operations. This would involve updating the PPC Plan Attachment #4 to include all listed controls related to cap removal activities, and include the new evacuation routes for the new proposed interior road locations.

The Procedures in Attachment #4 of the PPC Plan describe the controls IESI proposes to use during waste relocation, including controls for litter, dust, odor, noise, leachate and storm water impacts. Additional controls to prevent rainfall from infiltrating onto unlined refuse areas during the trenching operations should be included.

There are important environmental and neighborhood protection measures in Attachment #4 of the PPC Plan that are not identified in the Form D PADEP major permit modification application as referenced in the Special Exception Application, (Attachment 8), Neighborhood Protection Analysis, narrative and Item J. The Neighborhood Protection Analysis should include an additional Item K on page 4, referencing the environmental and neighborhood protection procedures of an expanded Attachment #4 in PPC Plan. The updated procedures should also be incorporated into the PADEP permit application, as the effectiveness of environmental and neighborhood protection measures are dependent on these procedures being followed.

Also the following comments are noted:

Page 2 states that there is "an adequate quantity of onsite cover material". This is not accurate.

Page 7 and 10 the new management team should be listed.

Page 23 IESI should also list St. Lukes Hospital at Rt 33 and Freemansburg Ave. if they accept emergency patients.

Page 25 IESI should provide more information on how storm water runoff damage onto to Riverside Drive and Applebutter Road can be minimized and if mud or rocks are carried onto these roads, what emergency responses will be provided.

Page 27 any new revision should be listed.

Attachment 2-Evacuation Routes will need to be revised as work proceeds.

Page WRP-1 and page WRP-5 of this section describes what IESI intends to do if they find that Waste Relocation releases an odor. It would be helpful to know what experience other landfill operators have had with odor generation during Waste Relocation work.

Attachment 13. PA Solid Waste Permit No. 100020

A height restriction is imposed by Section 20 of the PADEP Permit for Phase IV dated April 17, 2003 stating "IESI PA Bethlehem Landfill shall limit the height of Phase IV so that it is not visible by persons walking along any section of the Delaware and Lehigh Canal Towpath. This limitation shall only apply to Phase IV and if Phase IV becomes visible, the height of the Phase IV closure shall be limited to that elevation observed."

Attachment 14. Erosion and Sedimentation Control Plans

These plans are to be reviewed by the PADEP.

Attachment 15. Landfill Closure Plan (November 2015 various documents)

The Life Expectancy and Sequence of Operations table in the Section 2 "Project Narrative" and the capping sequence shown on the plan sheet 15 of 17 do not include a timeline of capping for each step. The number of acres capped over existing capped areas, as well as those acres of cap removed should be identified on a timeline, so that each season the number of acres capped increases as filling progresses.

Reference is also made to The Land Development and Grading Plans (sheets 8, 9, 10 and 13). There is no identification as to when the various cells will be capped, or when each Step of capping will be completed. The only significant increase in capped area over existing conditions appears to occur at the end of Step 6 of 7 capping steps. Existing capped areas are shown as 92.3 acres with an additional capped area after step 6 of 118.8 acres. The capped areas are interpreted to be final capped, not temporary caps. The Applicant should confirm that all capped areas shown are final caps. The Applicant should provide a defined cap completion schedule for each Step 1 through 7, and add the final capping schedule to the Cell Development Schedule on Sheet 13 of 17. Waiting until the final year or two to complete capping Steps 1 through 7 would allow a continued risk of a release of landfill gas thru the Intermediate Cover. It is recommended that capping be installed on a semi-annual or annual schedule on whichever cell or step is completed in that year on the schedule. According to the sequence shown this would result in capping an additional 6 to 17 acres per year over the five year life of the facility.

Impacts on the neighborhood could be reduced by filling and closing cells on a continuous basis and filling and closing cells from west to east or from east to west—so that larger areas could be finished and closed permanently.

The Section 7- Reclamation Plan appears to be the Phase IV Closure Plan Attachment 28-1 from a previous PADEP permit Application. It does not reflect closure of the proposed Southeastern Realignment Expansion. The Closure Plan should be updated to include all activities and areas of the new proposed expansion.

C. OTHER GENERAL COMMENTS REGARDING THE SUBMITTED APPLICATION

During the review of the Form D and this first Environmental Assessment Process (EAP), as submitted to the PADEP by IESI on January 19, 2015, the following comments were developed. These comments do not constitute a full review of any of the technical aspects of this submission but are provided in a way of preliminary comments. These comments have been incorporated into this letter because a portion of the concerns raised in these comments may fall under the jurisdiction of the Special Exception review of the Zoning Hearing Board. As mentioned earlier, these are not verbatim copies of earlier comments. They have been modified to take into account the information that IESI has provided in this Special Exception application since some of that new information has addressed earlier comments the TCC provided for the PADEP Phase 1 application.

1. GIF (General Information Form):

- a. *Samuel Donato - under client and site information. Mr. Donato is no longer employed by IESI to the Township's knowledge. The application and any future application supplements should be certified by the appropriate official, and new certification forms provided if Mr. Donato is no longer the IESI authorized contact, spokesperson or responsible official for this application, future application supplements, or for the proposed construction and performance of the design as submitted.*

Item 1. Existing known environmental harms associated with landfill gas emissions have not been fully mitigated. Offsite odors continue to be a reported problem and concern. Documentation exists as to the numerous odor complaints received by IESI, the Township and PA DEP. The citing of excess methane emission readings by both IESI and PA DEP, and tracked by the Township since 2010 identify methane readings above regulatory limits in every Surface Emission Monitoring (SEM) event. PA DEP attributes these exceedances to lack of adequate cover (either in spot locations or area-wide) during current operations, and IESI then addresses the problem as required by the PA DEP. Lack of adequate cover in many areas of the site was also documented by PA DEP in a site inspection August 27, 2014. Although the documentation confirms known harms of odor and air emissions attributed to inadequate cover practices, IESI has not been issued any substantive penalty, and the issue is temporarily mitigated. The monitoring of emissions on only a quarterly basis by IESI and about twice per year by PA DEP, does not determine if exceedances across the site are continuing between those

testing periods. The odor and gas exceedance problems are considered known harms with a long duration of recorded occurrence, a high frequency documented by numerous parties and a high intensity as also reported and documented. Recently IESI has started to more aggressively control the escape of landfill gases and odor. They have received PADEP approval for the installation of an impervious temporary cap to supplement the intermediate soil cover.

Another known potential environmental harm that has not been addressed prior to submission of this application, nor mitigated or proposed to be mitigated, is the presence of leachate in the detection zone of one or more Leachate Management Chambers originating from the Phase III lined area. This condition has been a documented concern of the Township since the Township first brought this to light in the year 2000. This potential harm could be associated with some type of breach in the primary liner system. Leachate flow from this one section of the landfill into one of the Leachate Management Chambers has increased in frequency (the flow is continuous), has been occurring since 2000, and has been exceeding the flow rate of 100 gallons per acre per day established by PADEP for triggering additional actions. PADEP is aware of this condition but has not yet required additional remedial action. The application calls for more waste placed in this currently closed and capped area of the landfill. The potential harm of additional leachate generated by these new Phase III activities and may result in even more leachate not being captured by the primary collection system has not been addressed.

- b. Page 7 of 7 – Final certification should be signed by an authorized representative of the applicant. Mr. Donato is no longer employed by IESI Bethlehem Landfill.*
- 2. Form A (Application for Municipal Waste Permit) – We recommend that the public notice be issued to every adjacent property owner. The Affidavit should be signed by a current authorized representative.*
- 3. Form B (Professional Certification) – The soil scientist certification has not been completed.*
- 4. Form C-1 (Compliance History Certification) – The Compliance History Form HW-C of June 10, 2014 (referred to and not included) may name Mr. Samuel Donato within its contents. If that is the case, the HW-C should be updated to identify his replacement.*
- 5. Form F (Soil Information) – This section states that soil information is not applicable. If soils are to be imported, it is recommended that detailed soils information be provided.*
- 6. It is recommended that the Lower Saucon Municipal Authority provide review comments on proposed changes to the western edge of the landfill near the tower and waterline.*
- 7. Emergency Response – It is recommended that IESI verify that the City of Bethlehem Fire Department will remain available to fight fires at the landfill. It is recommended that IESI allow access and cooperation with local Emergency and Fire response groups if they request opportunities for training.*
- 8. Industrial Waste Permitting – It is recommended that IESI verify that they will be able to continue utilizing the City of Bethlehem Waste Water Treatment Plant, and as a backup, the Allentown Waste Water Treatment Plant for Leachate Treatment.*

9. *Air Quality Reviews* – It is recommended that all Air Quality Permitting (for modifications and extensions of existing permits) be coordinated with the application process for this expansion.
12. *Mechanically Stabilized Earth (MSE)* – It is recommended that IESI retain a Consulting Engineer to inspect the construction of the wall and provide a certification, upon its completion, that it has been constructed in accordance with certified design plans.
13. *Site Capacity:*

It is stated in the application that there is no change to the existing Phase IV Operations Plan. However, changes in operations will include several items which are different than Phase IV. A detailed operations, construction and staging plan to identify the following items and sequence of activities was not provided, including:

- *Stockpiling of soils and construction materials* – Soil stockpiling for daily and intermediate cover is indicated on the Erosion and Sedimentation Control Plans in the southeast corner where the new MSE wall is proposed. There are extremely limited remaining areas within the permit boundary that are unfilled. Sufficient non-capped or non-active areas of the site for stockpile of construction materials, including additional sub-base soils, protective layer stone, piping and liner materials area staging should be clearly demonstrated, especially with an aggressive construction, fill, cap and close plan of approximately 6 years total.
- *The Phase IV permit does not allow any stockpiling of soils/materials on capped areas due to the potential for cap damage, as demonstrated during that previous permit expansion review. The existing capped areas with the existing gas collection systems that are to remain functional and intact until modified or replaced should be delineated on the site plans and protected from all potentially damaging haul road traffic and staging activities.*
- *The process of Final Cover soil removal of existing areas (proposed "piggyback" areas) should identify where and how the removed soil materials will be stored, staged, disposed or reused, without affecting existing capped areas.*

The plans and narratives do not clearly demonstrate the ability for the existing permitted area to support all existing and new activities associated with the expansion without harm to existing on-site systems, nor do they demonstrate how the new harms will be mitigated.

OTHER COMMENTS ON ENVIRONMENTAL PROTECTION

4. *Parks (Attachment 4)*

This section describes that the project is located within one (1) mile of the Delaware and Lehigh National Heritage Corridor, a unit of the National Parks System. The report offers the opinion that the Corridor is "not impacted" by the proposed expansion and, further, that the mountain ridge obstructs the view of the Landfill and the proposed expansion from the parks and trails along the

Lehigh River Corridor. It is recommended that this statement be verified by way of onsite observations using either a crane and flag or balloon raised to the elevation of the proposed cap at several locations along the cap and that observations be made from various locations along the Delaware and Lehigh National Heritage Corridor. During the review of the 2003 Permit Application, right angle cross-sections were provided to confirm "non-observation" but these cross-sections did not take into account views of the Landfill from angles either east or west of the location of the cross-section.

In summary the TCC provides the following comments:

The Community Impact Study prepared by the applicant and included in the November 2015, Land Development Plan Supporting Documentation notebook as Section 15 has a conclusion, on page 4 that the various studies and analyses provided by the applicant demonstrate that the proposed landfill expansion will "...result in no negative impacts to the community". The TCC provides the responsive comment that the proposed landfill expansion will result in some negative impacts to the community as outlined in this letter and summarized below.

Odors –

Past experience has indicated that landfill operations, especially those involving the exposure and relocation of existing waste have a risk of odor impact on the community. While IESI has recently proposed additional odor minimization and mitigation measures for their current operations (i.e. impervious membrane intermediate cover), the measures utilized since approximately 2012 (thru November 2015) have not been adequate to address the odor complaints from residential neighborhoods. The recently proposed impervious intermediate cover should help reduce landfill gas escape. It is recognized that IESI is proposing some additional specific measures to reduce the risk of odor at the locations of "Waste Relocation" (reference Section 6, the PPC Plan, attachment #4). However, it is recommended that specific information with regard to: (a) odor control during the removal of the intermediate cover in the western section of the landfill and the trenching thru the final membrane cap and work needed to prepare the existing capped area for the "waste on waste" operations, (b) odor control during the waste relocation process, (c) phasing and size of phases and (d) daily intermediate and final cover and capping-- be provided. All such additional information should be provided to the satisfaction of PADEP.

It is also recommended that IESI provide information to confirm that their proposed expansion complies with applicable PADEP setback requirements from occupied dwellings and/or properties with occupied dwellings.

It is also recommended that IESI define limits on the number of months that they will be scheduling between the placement of the last level of intermediate cover and the placement of the final membrane cap for each cell or phase and that this schedule be acceptable to PADEP.

Noise – The noise associated with offsite truck traffic and onsite trucks and equipment will create a negative impact on the community. The potential for noise impacts on residents immediately to the southeast of the landfill has been identified in Neighborhood Protection Analysis (Attachment 8 and November 2015 Plan sheet 14 of 17). Although the analysis provided concludes that the noise impact will not exceed Township Regulations (Zoning Ord. 180-96), IESI should provide information to confirm that their proposed expansion complies with applicable PADEP setback requirements from occupied dwellings and/or properties with occupied dwellings. The applicant should identify whether the Permit and HMA limitations on “Hours of Operation” apply to all site activities, including construction and waste relocation operations. (The limit is 6AM to 6PM Monday thru Saturday)

Traffic – The increase in truck traffic and the increase in the number of years of truck traffic associated with this landfill will create a negative impact on the community. The hours of operation for construction material and cover soil trucks approaching and leaving the site, and the nuisance of this additional traffic should be identified and IESI should describe any measures they propose to mitigate the nuisance. The road capacity and safety conditions along Applebutter Road up to its intersection with Shimersville Road should be updated to address existing conditions and the proposed additional volume and additional years of heavy traffic. If road capacity and/or safety deficiencies are found IESI should describe any measures they would recommend to mitigate these deficiencies.

On behalf of the Township Technical Consultant Committee, we recommend that the Township forward these comments to the Zoning Hearing Board and to the applicant for their use and consideration.

All the comments, recommendations and opinions in this letter are provided to a reasonable degree of engineering certainty.

Disclosure of Affiliation: After PADEP showed interest in the protection of pedestrian views from the Delaware and Lehigh Canal Towpath in 2003, the undersigned, started to walk and bike ride along the towpath for personal recreation. As time went on he started to volunteer for the Delaware and Lehigh National Historical Corridor, Inc, a non-profit corporation established to help maintain the history and recreation function of the Canal and Trail Corridor from Bristol to Wilkes-Barre. In 2012 the undersigned was appointed the organization’s Board of Directors. The comments in this letter related to that recreation feature are limited to the limitations imposed by PADEP in 2003.

If you have any comments or questions on this review, please let me know.

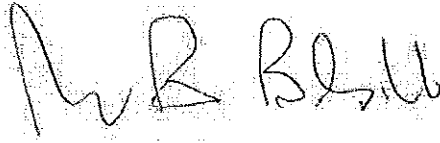
Mr. Jack Cahalan, Manager

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December 14, 2015

Respectfully,

HANOVER ENGINEERING ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read "J B Birdsall". The signature is written in a cursive, somewhat stylized font.

James B. Birdsall P.E.

Township Engineering Representative to the Township Technical Consultant Committee

jbb:cat/llb/dad

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