

PUBLIC

ATTACHMENT 2

FORM B – PROFESSIONAL CERTIFICATION



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised
DEP USE ONLY
Date Received

**FORM B
PROFESSIONAL CERTIFICATION**

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form B, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Section 271.122, 287.122

SECTION A. SITE IDENTIFIER

Applicant/permittee: Delta Thermo Energy, A, LLC

Site Name: Delta Thermo Energy, A, LLC - Allentown Facility

Facility ID (as issued by DEP):

SECTION B. REGISTERED PROFESSIONAL ENGINEER

I, Robert Schlosser

(Engineer's Name - Print or Type)

being a Registered Professional Engineer in accordance with the Pennsylvania Professional Engineer's Registration Law, do hereby certify to the best of my knowledge, information, and belief that the information contained in the accompanying application, plans, specifications, and reports has been prepared in accordance with accepted practice of engineering, are true and correct, and are in accordance with the Rules and Regulations of the Department of Environmental Protection. I also certify that those individuals indicated in the following paragraphs prepared this application under my supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Signature  Date 12/10/12

License Number PE031199E Expiration Date 9/30/13

Address 1720 Walton Road
Blue Bell, PA 19422

Telephone No. (610) 828-3078



WEST
COUNTY

DEC 14 2012

FACILITY:
RUE CODE:

SECTION C. SOIL SCIENTIST PROVIDING SOILS INFORMATION

I, _____ do hereby certify
(Soil Scientists Name – Print or Type)

to the best of my knowledge, information, and belief that the soils information contained in this application has been prepared in accordance with accepted practices of soil science and in accordance with the Rules and Regulations of the Department of Environmental Protection. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Signature _____ Date _____

Address _____

Telephone No. () _____

SECTION D. REGISTERED PROFESSIONAL GEOLOGIST

I, _____ being a
(Hydrogeologist's Name – Print or Type)

Registered Professional Geologist in accordance with the Pennsylvania Professional Geologists Registration Law, do hereby certify to the best of my knowledge, information, and belief that the hydrogeology information contained in this application has been prepared in accordance with the accepted practices of hydrogeology and in accordance with the Rules and Regulations of the Department of Environmental Protection. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

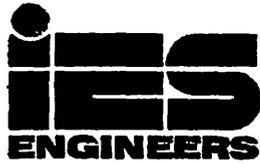
Signature _____ Date _____

License Number _____ Expiration Date _____

Address _____

Telephone No. () _____

Professional Seal



PUBLIC

ATTACHMENT 3

FORM E-GP – CONTRACTUAL CONSENT OF LANDOWNER



Date Prepared/Revised
DEP USE ONLY
Date Received

FORM E-GP
CONTRACTUAL CONSENT OF LANDOWNER
FOR A GENERAL PERMIT

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form E-GP, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: XX
SECTION A. SITE IDENTIFIER
Applicant/permittee City of Allentown
Site Name Delta Thermo Energy, Inc - Allentown Facility
Facility ID (as issued by DEP)

Instructions: This form should be completed by each landowner owning a parcel of land within the permit area. If an applicant is applying for a mobile processing permit or land application of waste, completion of Part A of this form is not required.

(I) (We), the undersigned, are the landowner(s) ("Landowner") of a fee title interest at _____
112 West Union Street _____ on approximately 3.1 acres of land located in,
(location of premises)

City of Allentown _____ Lehigh _____
(Name and Type of Municipality) (Name of County)

Pennsylvania, and shown by crosshatched lines on the map attached hereto ("Premises") which is signed in the original by the Landowner upon which Delta Thermo Energy, Inc
(Solid Waste Management Permit Applicant)
(hereinafter "Applicant") proposes to engage in waste processing and/or beneficial use activities.

Part A: This consent shall be deemed to be a recordable document. Prior to the initiation of solid waste management activities under the permit, this Consent shall be recorded by Delta Thermo Energy, Inc.
(Landowner or Applicant)

and entered into the deed book (d.b.v.) index at the office of the recorder of deeds in the county(ies) in which the Premises are located.

Part B: (I) (We), the undersigned DO HEREBY ACKNOWLEDGE THAT THE APPLICANT AND HIS/HER AGENTS AND REPRESENTATIVES HAVE THE RIGHT TO ENTER UPON AND USE THE LAND FOR THE PURPOSES OF CONDUCTING WASTE MANAGEMENT ACTIVITIES for which application for permit, including this Consent, is made to the Department of Environmental Protection ("Department") under the Act of July 7, 1980 (P.L. 280, No. 97), as amended, known as the Solid Waste management Act (35 P.S. §§6018.101 et seq.) and the regulations promulgated pursuant thereto ("Act"). The right the Landowner grants is not the subject of pending civil litigation. (I) (We), the undersigned,
(is or is not)

shall also allow the Applicant access to the Premises to carry out pollution prevention or pollution abatement activities as required by the Act or deemed necessary by the Department to carry out any purpose of the Act.

THE LANDOWNER does not agree TO ALLOW THE ABOVE-NAMED APPLICANT TO TRANSFER OR
(agrees or does not agree)

ASSIGN, BY WRITTEN AGREEMENT, THIS CONTRACTUAL CONSENT TO ANOTHER SOLID WASTE MANAGEMENT FACILITY APPLICANT.

Nothing in this Consent shall preclude or limit the Landowner's authority to terminate the right or privilege of the Applicant to conduct waste management activities on the aforesaid Premises. In the event of such termination, the Landowner shall allow the Applicant ample time to bring to closure all waste management activities.

Part C: (I) (We), the undersigned, do hereby irrevocably grant to the Commonwealth of Pennsylvania or any of its authorized agents, or employees, and to the Applicant the right to enter upon the Premises for the duration of solid waste

management activities and for up to ten (10) years after final closure, as such term is defined by the Act, of a processing facility or up to 10 year(s) after beneficial use activities have ceased for the purposes of inspection, monitoring, and maintenance and for conducting pollution abatement activities deemed necessary by the Department to carry out the purposes or requirements of the Act. (I) (We) do hereby grant in addition to the Commonwealth, for the aforesaid period of time, a right of entry across any lands adjoining or contiguous to the Premises owned by (us) (me) in order to have access to the Premises.

It is specifically agreed and understood that this Consent gives the Commonwealth the right to enter, inspect, monitor, and conduct maintenance or abatement on the Premises to the extent deemed necessary by the Department as a matter within the police power, but does not obligate the Commonwealth to do so, and does not constitute any ownership interest by the Commonwealth in the aforesaid Premises.

In witness whereof and intending to legally bind (myself) (ourselves), (my) (our) heirs, legal representatives, successors, (I) (we) have hereunto set (my) (our) hand(s) and seal this 25th day of October, 2012.

Ed Pawlowski

(Print Name of Landowner)

If the Landowner is an Individual:

WITNESS

[Handwritten Signature]

(Signature of Witness)

GARRET H. STRATMAN

(Printed or Typed Name of Witness)

(Signature of Witness)

(Printed or Typed Name of Witness)

[Handwritten Signature]

(Signature of Landowner)

Ed Pawlowski

(Printed or Typed Name of Landowner)

(Signature of Landowner)

(Printed or Typed Name of Landowner)

If the Landowner is a Corporation:

ATTEST:

By: _____
(Signature of Secretary or Treasurer)

(Printed or Typed Name)

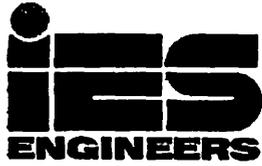
(Title)

(Signature of President or V.P.)

(Printed or Typed Name)

(Title)

Affix Corporate Seal:



PUBLIC

ATTACHMENT 4
FORM HW-C – COMPLIANCE HISTORY



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

**FORM HW-C
COMPLIANCE HISTORY**

Fully and accurately provide the following information, as specified. Attach additional sheets as necessary.

Type of Form HW-C Submittal (check all that apply):

Original Filing Amended Filing Date of Last Filing _____

Type of Permit or License Submittal:

New Application Renewal Annual Update Other _____
(specify)

A. General Applicant Information:

1. NAME OF PERMIT OR LICENSE APPLICANT/PERMITTEE/LICENSEE ("applicant")
(non-corporations attach documentation of legal name):

Delta Thermo Energy, A, LLC

ADDRESS: One Northbrook Drive

1210 Northbrook Corporate Center, Suite 100

Trevoese, PA 19053

TELEPHONE NUMBER: 609-423-6096

TAXPAYER ID#: 80-0494550

PERMIT, LICENSE OR APPLICATION ID#: _____

2. Identify the form of management under which the applicant conducts its business (check appropriate box) and describe the type(s) of business activities performed:

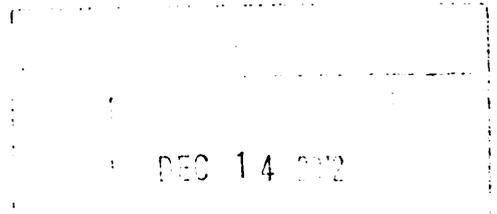
- | | |
|---|---|
| <input type="checkbox"/> Individual | <input type="checkbox"/> Fictitious Name |
| <input type="checkbox"/> Municipality | <input type="checkbox"/> Partnership |
| <input type="checkbox"/> Proprietorship | <input type="checkbox"/> Limited Partnership |
| <input type="checkbox"/> Public Corporation | <input type="checkbox"/> Government Agency |
| <input checked="" type="checkbox"/> Private Corporation | <input type="checkbox"/> Joint Venture |
| <input type="checkbox"/> Syndicate | <input type="checkbox"/> Association |
| <input type="checkbox"/> Municipal Authority | <input type="checkbox"/> Other Type of Business _____ |

(specify)

3. Type of permit, license or application (check all that apply):

- Hazardous Waste Permit
- Hazardous Waste Transporter License
- Municipal Waste Permit
- Infectious, Chemotherapeutic Waste Transporter License
- Residual Waste Permit
- Other _____

(specify)



FORM HW-C

B. General Information Regarding "Related Parties"

1. **Applicants which are a corporation or a division of a corporation**, provide the following information:
 - a. The principal shareholders or stockholders who own, hold, or control stock of five percent (5%) or more of a publicly held corporation or ten percent (10%) or more of a privately held corporation.
 - b. State the names, principal places of business and taxpayer ID numbers of all domestic and foreign parent corporations (including ultimate parent corporations), and all domestic and foreign subsidiary corporations of the applicant, as well as the subsidiary corporations of the ultimate parent corporation. Include unincorporated divisions and private corporations. A diagram of corporate structure may be provided to illustrate corporate relationships.
 - c. List all principals of the corporation that have also been principals of other corporations which have committed any violation of the Environmental Protection Acts. (See Instructions, Items 2 and 6.)

SEE ATTACHMENT 7

2. Provide the names and addresses of all principals, corporate officers, general and limited partners, directors, other persons performing a function similar to a director, and other persons or related parties of the applicant (see Instructions, Items 4 and 5). The relationship to the applicant must be clearly described.

SEE ATTACHMENT 7

3. Provide the names and addresses, or IRS tax identification numbers¹ and affiliation of other persons or related parties having or exercising control over any aspect of the proposed facility or activity that is regulated by the Department, including but not limited to, associates, agents, contractors, subcontractors, and property owners.
4. Provide the names and addresses of all owners of record of surface and subsurface areas within and contiguous to the proposed permit area. (Not applicable to transporter license applicants.)
5. Provide the names and addresses of all holders of record to a leasehold interest of surface and subsurface areas within and contiguous to the proposed permit area.
6. If the applicant, or other related party to the applicant, has a beneficial interest in, or otherwise manages or controls any other person, municipality or other related party (as described in Sections A and B) engaged in the business of solid waste collection, transportation, storage, processing, treatment, or disposal, provide the following information:
 - a. The name, address and tax identification number or employer identification number of the corporation, other person, municipality, or other entity, in which the applicant or other related party has a beneficial interest, manages, or controls as described above.

Delta Thermo Energy, A, LLC
One Northbrook Drive
Suite 100
1210 Northbrook Corporate Center
Trevoze, PA 19053
EIN: 80-0494550

¹ Failure to provide all applicable numbers may delay processing of the application.

FORM HW-C

- b. The nature of the relationship or participation with the corporation, other person, municipality, or other related party.

Partnership between Delta Thermo Energy and the City of Allentown

C. Specific information Regarding the Applicant and Its Related Parties

1. List the name and location of all of the applicant's and related party's places of business and terminals where municipal, residual and/or hazardous waste activities are conducted. Such activities include, but are not limited to generation, processing, collection, transportation and storage, treatment or disposal of solid waste, except that locations that generate only municipal waste need not be listed.

**Delta Thermo Energy, A, LLC
One Northbrook Drive
1210 Northbrook Corporate Center
Suite 100
Trevoise, PA 19053
Site Location: 112 W. Union Street, Allentown, PA**

2. List all permits or licenses issued by the Department or any other state or federal agency under the Environmental Protection Acts to the applicant or any other persons or related parties identified in Sections A or B, that are currently in effect or have been in effect at any time in the ten years previous to the date on which this form is notarized. This list is to include the type of permit or license, permit or license number, location, address, issuance date and expiration date.

**RFD Application ID: 1737
RFD Facility ID: 1012**

3. List all permit or license denials issued by the Department or any other state or federal agency under the Environmental Protection Acts to the applicant or any other person or related party identified in Section A or B, within ten years previous to the date on which this form is notarized. Include the type of permit or license, permit or license number, location, denial date and reason for denial.

None

FORM HW-C

4. List all persons or related parties identified in Sections A or B which have filed for or been discharged from bankruptcy within 10 years previous to the date on which this form is notarized. Specify the circumstances of bankruptcy, including those for which the debtor sought to abandon property or to be discharged from any environmental liability subject to the Environmental Protection Acts. Include the name of the bankruptcy court, docket number, and description and location of any property involved.

None

D. Compliance Background:

(Note: Copies of specific documents must be made available to the Department upon its request)

Compliance History:

List all "Enforcement Actions" issued by the Department or any other state or federal or county agency to the applicant or those persons or related parties identified anywhere in response to Sections A, B, or C using the following format grouped by state and location in chronological order.

Date	Location	Permit/ License/ EPA ID #	Issuing Agency	Type of Action	Nature of Violation	Disposition	Dollar Amount of Penalty
------	----------	---------------------------------	-------------------	----------------------	------------------------	-------------	--------------------------------

Enforcement actions include but are not limited to:

All notices of violation (NOVs), issued by any regulatory agency to the applicant or those persons or related parties identified anywhere in Sections A, B, or C concerning the Environmental Protection Acts, or any other environmental statute, regulation or ordinance.

All administrative orders, civil penalties, permit or license suspensions/revocations, bond forfeiture actions, and civil penalty actions adjudicated by any judicial body against the applicant or those persons or related parties identified anywhere in Sections A, B, or C concerning the Environmental Protection Acts, or a regulation or order or a condition of a permit or license.

All consent orders, consent adjudications, consent decrees or monetary settlements (settlement agreements, letter agreements, settlement letters or consent assessments) between the applicant or those persons or related parties identified anywhere in Sections A, B or C and any state, federal or county agency regarding the Environmental Protection Acts, or any other environmental statute, regulations or ordinance.

All court proceedings in which those persons or related parties identified anywhere in Sections A, B, or C have been involved in relation to the Environmental Protection Acts.

All summary, misdemeanor, or felony convictions, or pleas of guilty or no contest that have been obtained against the applicant or those persons or related parties identified anywhere in Sections A, B, or C, pursuant to the Environmental Protection Acts, or for any acts involving the generation, storage, treatment, transportation, processing, or disposal of municipal, residual or hazardous waste.

For all persons and municipalities identified in Section A, B, or C, indicate all violations committed and any subsequent enforcement actions taken regarding the facility or activity not previously listed in this section, concerning the Environmental Protection Acts.

FORM HW-C

State the reasons for suspension, revocation, or denial of any permit/permit application or license/license application filed by the applicant or any related party concerning the Environmental Protection Acts. Provide the date, location, and nature of the violations, type of action, issuing agency, dollar amount of any monetary penalty associated with the action and permit, license, EPA ID# or other identifying number if applicable.

Delta Thermo Energy, A, LLC has not been subject to any enforcement actions.

FORM HW-C

I hereby certify that I have the authority to respond to the above questions on behalf of the applicant, and that the information provided herein is true and correct to the best of my knowledge, information, and belief.

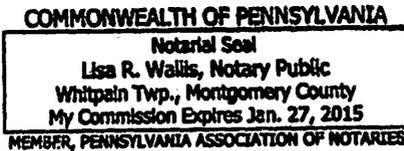
Retha Ward
(Signature)

Name: Robert Van Nardow
(Print or Type Name)

Title: CEO
(Print or Type Title)

Sworn to and subscribed before me this
10th day of December

2012
Lisa R. Wallis
Notary Public



(Signature)

Name: _____
(Print or Type Name)

Title: _____
(Print or Type Title)

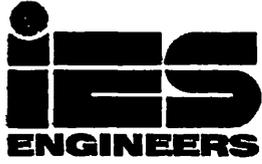
Sworn to and subscribed before me this
_____ day of _____

20____.

Notary Public

Attach copy
of Articles of Incorporation

(For Corporations, see the Instructions, Item 9, regarding signatures and submission of Articles of Incorporation.)



PUBLIC

ATTACHMENT 5

**FORM 20 – APPLICATION FOR MUNICIPAL OR RESIDUAL WASTE GENERAL
PERMIT**



DEP USE ONLY	
Client ID: _____	APS ID: _____
Auth ID: _____	Site ID: _____
General Permit ID: _____	

FORM 20

APPLICATION FOR A MUNICIPAL OR RESIDUAL WASTE GENERAL PERMIT

This Form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, attach separate sheet(s) to this Form.

SECTION A. GENERAL INFORMATION

Check One: New Permit (Residual Waste: \$2000. Municipal Waste: \$1000) Determination of Applicability (\$500) under general permit WMG _____

Renewal Permit (\$300) Registration (\$250) under general permit WMG _____

SECTION B. APPLICANT INFORMATION

Organization Name or Registered Fictitious Name Delta Thermo Energy, A, LLC	Contact Person: Last Name <u>Van Naarden</u> First Name <u>Robert</u> MI _____ Suffix _____ Title <u>CEO</u>
Employer ID (EIN) #: <u>80-0494550</u>	Mailing Address: Street: <u>One Northbrook Drive, 1210 Northbrook Corporate Center, Suite 100</u> P.O. Box (if applicable) _____ City <u>Trevoze</u> State <u>PA</u> Zip + 4 <u>19053</u>
Dun & Bradstreet ID #: _____	Telephone: <u>(609) 423-6096</u> Fax: <u>(609) 924-0582</u> Email: <u>rvannaarden@deltathermo.com</u>

SECTION C. SITE INFORMATION

Site Name: <u>Delta Thermo Energy, A, LLC - Allentown Facility</u>	Location: County <u>Lehigh</u> Municipality <u>Allentown</u> <input checked="" type="checkbox"/> City <input type="checkbox"/> Borough <input type="checkbox"/> Twp.
Site Address: Street <u>112 West Union Street</u> City <u>Allentown</u> P.O. Box (if applicable) _____ State <u>PA</u> Zip + 4 <u>18102</u>	Site Contact Person: Last Name <u>Van Naarden</u> First Name <u>Robert</u> MI _____ Suffix _____ Title <u>CEO</u> Telephone: <u>(609) 423-6096</u>
Site NAICS Codes (2 & 3 Digit Codes List All That Apply): <u>562213</u>	Email <u>rvannaarden@deltathermo.com</u> Fax <u>(609) 924-0582</u>
Site NAICS Codes (6-Digit Codes Optional): _____	Applicant to Site Relationship: <u>LESOP</u>
Size of Site: <u>5 +/-</u> (Acres)	Property Size: <u>5 +/-</u> (Acres)
Site Latitude: Degrees <u>40</u> Minutes <u>36</u> Seconds <u>17</u>	Site Longitude: Degrees <u>75</u> Minutes <u>27</u> Seconds <u>26</u>
Property owner in which the site is located: <u>City of Allentown</u>	
Detailed Directions to Site: <u>From Rt 22, take exit for Mac Arthur Road South (Rt 145). Rt 145 will turn into 7th street. Travel approximately 2 miles and make a left on West Union Street. Travel approximately 0.8 miles, site will be on your right.</u>	

SECTION D. CONSULTANT INFORMATION

COUNTY _____
DEC 14 2012
FACILITY: _____ FILE CODE: _____ DATE: _____

Company Name: <u>IES Engineers</u>	Consultant: Last Name <u>Tucci</u>
Mailing Address: Street: <u>1720 Walton Road</u>	First Name <u>Michael</u>
P.O. Box (if applicable) _____	MI _____ Suffix _____ Title <u>PM</u>
City: <u>Blue Bell</u>	Telephone: <u>(610) 828-3078</u>
State <u>PA</u> Zip + 4 <u>19422</u>	Fax <u>(610) 828-7842</u>
	Email <u>mtucci@iesengineers.com</u>

SECTION E. PROJECT INFORMATION

Project description. If additional space is necessary, attach separate sheet(s) to this Form. Please see General Permit Narrative

1. Type and amount or volume of waste estimated in the proposed beneficial use activities (use a separate sheet, if necessary)
See Project Background and Process Description
2. Attach a copy of Form HW-C (Compliance History). – **SEE ATTACHMENT 4**
3. a. If processing prior to beneficial use is proposed:
 - i. Attach a copy of Form B (Professional Certification).- **SEE ATTACHMENT 2**
 - ii. Attach a copy of the General Information Form (GIF). – **SEE ATTACHMENT 1**
- b. If beneficial use only is proposed, submit a copy of Form B (Professional Certification) if required.
4. Attach a copy of Form E-GP (Contractual Consent of Landowner for A General Permit). – **SEE ATTACHMENT 3**
The Form E-GP (Contractual Consent of Landowner for A General Permit) is not required to be recorded in the Recorder of Deeds Office if agricultural utilization by land application of residual waste is involved.
5. Waste Processing Descriptions – Note: Omit this section if the application is for beneficial use only. – **SEE PROJECT BACKGROUND, AND PROCESS DESCRIPTION**
 - a. Provide, on 8-1/2" x 11" paper, flow schematics of waste processing starting with the municipal or residual waste and ending with the proposed waste material to be covered by the general permit for beneficial use. Include a description of the equipment involved, the waste material added and the nuisance control plan. **SEE PROJECT BACKGROUND AND PROCESS DESCRIPTION**
 - b. Plan for alternative management of waste during periods when the facility is not in operation, including procedures to be followed in case of equipment breakdown. **SEE PROJECT BACKGROUND AND PROCESS DESCRIPTION**

Note: All information contained in this section will be made available to the public unless clearly labeled as confidential. If the entire process concept is considered proprietary or otherwise confidential, an application for an individual processing permit should be submitted instead of this application for a general permit. Claim of confidentiality shall address the following:

 - A. The portions of the information claimed to be confidential.
 - B. The length of time the information is to remain confidential.
 - C. The measures taken to guard undesired disclosures of the information to others.
 - D. The extent the information has been disclosed to others and the precautions taken in connection with that disclosure.
 - E. A copy of pertinent confidentiality determinations by EPA or any other federal agency.
 - F. The nature of the substantial harm to the competitive position by disclosure if the information is considered non-confidential, the reason it should be viewed as substantial, and the relationship between the disclosure and the harm."
6. Contingency Plan – A contingency plan, relating to emergency procedures, must be developed and implemented for the proposed waste management facility. The plan must include a Preparedness, Prevention and Contingency (PPC) Plan that is consistent with the Department's most recent guidelines.
"<http://164.156.71.80/VWRO.asp?docid=2087d8407c0e0000000008900000089&context=2&backlink=WXOD.aspx%3f%3d2087d8407c0e00000800000820000082%26f%3d1>" - **SEE ATTACHMENT 12**
(Note: Depending on the complexity of the proposed processing operations, the Department may require completion of Form L – Contingency Plan for Emergency Procedures).
7. Provide proof that a Pennsylvania Natural Diversity Inventory (PNDI) Project Planning Environmental Review was conducted. The review can only be conducted via the internet at the www.naturalheritage.state.pa.us/ website. First time users will have to register at the website before conducting the review. A receipt is automatically available for printing upon completion of the PNDI review. This receipt must be submitted as part of this application. – **SEE ATTACHMENT 8**
8. Facility Map – Provide a drawing of the proposed permit and adjacent areas in a scale of 1 inch equals no more than 50 feet with 2-foot maximum contour intervals showing the following: - **SEE ATTACHMENT 9**
 - i. Boundaries
 - ii. Access roads (include slopes, grades, dimensions), easements, right-of-way, and other property interests for proposed permit area.
 - iii. Barriers, fences, and similar structures required for access control.
 - iv. Storm water control features, erosion and sedimentation controls, treatment, storage, and discharge facilities.
 - v. Surface water bodies: springs, streams, lakes, ponds, wetlands, constructed or natural drains, and irrigation ditches.
 - vi. Water diversion, collection, conveyance, erosion and sedimentation control, treatment, storage, and discharge facilities.
 - vii. Residual or municipal waste storage and loading/unloading areas.
 - viii. All buildings and related facilities used in the operation of the facility. This must include horizontal and vertical dimensions.
 - ix. Processing pads, tipping areas, storage areas, and windrows (including leachate or wastewater collection systems).
 - x. Areas for which a bond will be posted, if required by the Department.
9. Location Map – Provide a copy of USGS 7-1/2 minute quadrangles, topographic map or equivalent map, identifying location of the proposed facility. – **SEE ATTACHMENT 10**
10. Supply proof of contact with host municipality and county regarding submittal of this application. – **SEE ATTACHMENT 11**
11. Describe the impact the operations may have on local traffic and any measures that will be implemented to minimize the impact. – **SEE ATTACHMENT 14**
12. For processing facilities, does the applicant have a Highway Occupancy Permit for this facility issued by PennDOT or by the local municipality? If yes, please attach the permit and any conditions. If no, please explain. **SEE ATTACHMENT 14**

SECTION F. CHEMICAL ANALYSIS

As specified in §271.611 and §287.132, a chemical analysis of the waste material that is proposed to be processed and/or for beneficial use shall be performed by a laboratory accredited or registered for accreditation under the Pennsylvania Environmental Laboratory Accreditation Act, Act of 2002, No. 25, and as indicated below:

No single analytical method is applicable for all waste streams and some modifications may be necessary for unusual waste types. Any modifications, however, must be approved by the Department. Sample(s) shall be collected, preserved and holding times adhered to in accordance with EPA or ASTM requirements. Samples for organic volatile parameters shall be collected in a manner to minimize loss of the parameters. Procedures used for sample collection and preservation must be stated along with dates of collection, laboratory receipt and analysis. The person collecting the sample should be identified.

Note: The Department may require analysis for other constituents not listed below if the additional data may aid in determining whether the proposed use is beneficial, whether there will be harm or threat of harm to humans or the environment, or whether they could otherwise limit the proposed activity.

1. Chemical Analysis of Municipal or Residual Waste for a registration or a DOA application – The analysis of the unprocessed and/or processed waste must include the following:
 - i. Analytical requirements identified in the general permit for unprocessed and/or processed waste.
 - ii. Hazardous waste determination – As required under 40 CFR 262.11, as incorporated by reference at 25 Pa. Code 262a.1.
 - iii. Any other parameters identified by the generator, processor, or person who will beneficially use the waste as those which are important to or potentially limiting to the proposed processing or beneficial use of the waste.
2. Chemical Analysis of Municipal or Residual Waste for a new general permit – The analysis of the proposed waste must include the following:
 - i. Analytical requirements as required by the Department.
 - ii. Any other parameters identified by the processor, or person who will beneficially use the waste as those which are potentially limiting to the proposed processing or beneficial use of the waste.

Note: This section does not apply to transfer facilities that only store municipal or residual waste.

SECTION G. CERTIFICATION

I Robert Van Naarden (please print) do hereby acknowledge that I am an official of the Company making a new application/renewal application/registration/determination of applicability and that I have read, understand, and/or accept the terms and Conditions of the General Permit identified in Section A, and I have informed the appropriate Company personnel of the requirements of the identified general permit.

I, Robert Van Naarden do hereby certify pursuant to the penalties of 18 Pa. C.S.A. §4904 to the best of my knowledge, information, and belief, that the information contained in this document is true and correct.

Robert Van Naarden Signature CEO Title 12/10/12 Date

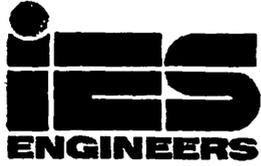
Notary's Seal:

Taken, sworn, and subscribed before me, this 10th day of December, A.D. 2012

NOTARY SEAL

Lisa R. Wallis
Notary's Signature

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Lisa R. Wallis, Notary Public
Whitpain Twp., Montgomery County
My Commission Expires Jan. 27, 2015
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES



PUBLIC

ATTACHMENT 6
CULTURAL RESOURCE NOTIFICATION



Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Commonwealth Keystone Building, 2nd Floor
400 North Street
Harrisburg, PA 17120-0093
www.phmc.state.pa.us

10 January 2011

JAN 1 2011

TO EXPEDITE REVIEW USE
BHP REFERENCE NUMBER

Robert W. Schlosser
IES Engineers
1720 Walton Road
Blue Bell, PA 19422

RE: ER# 11-0319-077-B
DOE: Delta Thermo Energy Construction of Research and Development Energy
Production Facility, 112 Union St., Allentown, Lehigh Co.

Dear Mr. Schlosser:

The Bureau for Historic Preservation (the State Historic Preservation Office) has reviewed the above named project in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended in 1980 and 1992, and the regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation as revised in 1999 and 2004. These regulations require consideration of the project's potential effect upon both historic and archaeological resources.

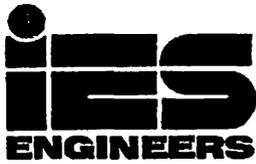
Thank you for providing the additional information concerning the above referenced project. Based on our survey files, which include both archaeological sites and standing structures, and the information you provided, there are no National Register eligible or listed historic or archaeological properties in the area of this proposed project. Should you become aware, from any source, that historic or archaeological properties are located at or near the project site, please notify the Bureau for Historic Preservation at (717) 783-8946.

If you need further assistance in this matter, contact Ann Safley at (717) 787-9121.

Sincerely

Douglas C. McLearn, Chief
Division of Archaeology & Protection

DMcL/ras



CONFIDENTIAL

ATTACHMENT 7

**DELTA THERMO, A, LLC LIMITED LIABILITY COMPANY
CERTIFICATE OF FORMATION**

5. Check and complete one of the following:

The address of the office required to be maintained by it in the jurisdiction of its organization by the laws of that jurisdiction is:

203 Northwash Front Street, Suite 101, Milford, DE 19963

Number and street	City	State	Zip
-------------------	------	-------	-----

It is not required by the laws of its jurisdiction of organization to maintain an office therein and the address of its principal office is:

Number and street	City	State	Zip
-------------------	------	-------	-----

6. For Restricted-Professional Limited Liability Company Only. Strike out if inapplicable: The company is a restricted professional company organized to render the following professional service(s):

Limited Liability Partnership and Limited Partnerships: Complete paragraphs 7 and 8

7. The name and business address of each general partner.

Name	Business Address

8. The address of the office at which is kept a list of the names and addresses of the limited partners and their capital contribution is:

Number and street	City	State	Zip	County
-------------------	------	-------	-----	--------

The registered partnership hereby undertakes to keep those records until its registration to do business in the Commonwealth is canceled or withdrawn.

IN TESTIMONY WHEREOF, the undersigned has caused this Application for Registration to be signed by a duly authorized officer/member or manager thereof this

14th day of May, 2012

Deita Therio Energy A, LLC

Name of Partnership/Company

Deita Therio

Signature

CEO

Title

PENNSYLVANIA DEPARTMENT OF STATE
CORPORATION BUREAU

Application for Registration - Foreign

(15 Pa.C.S.)

- Registered Limited Liability General Partnership (§ 8211)
 Registered Limited Liability Limited Partnership (§ 8211)
 Limited Partnership (§ 8582)
 Limited Liability Company (§ 8981)

Name

ESQUIRE ASSIST - COUNTER PICK-UP

Address

City

State

Zip Code

Document will be returned to the
name and address you enter to
the left.

Commonwealth of Pennsylvania
APPLICATION FOR REGISTRATION 3 Page(s)



T1213841171

Fee: \$250

In compliance with the requirements of the applicable provisions (relating to registration), the undersigned, desiring to register to do business in this Commonwealth, hereby states that:

1. The name of the limited liability company/limited liability partnership/limited partnership in the jurisdiction in which it is formed:

DELTA THERMO ENERGY A, LLC

2. The name under which the limited liability company/limited liability partnership/limited partnership proposes to register and do business in this Commonwealth is:

DELTA THERMO ENERGY A, LLC

3. The name of the jurisdiction under the laws of which it was organized and the date of its formation:

Jurisdiction: DE Date of Formation: 9/14/2010

4. The (a) address of its initial registered office in this Commonwealth or (b) name of its commercial registered office provider and the county of venue is:

(a) Number and street City State Zip County
300 SENTRY PARKWAY EAST, PO BOX 3001, BLUE BELL, PA 19422 MONTGOMERY COUNTY

(b) Name of Commercial Registered Office Provider County

2012 MAY 15 PM 2: 39

PA. DEPT OF STATE

STATE of DELAWARE
LIMITED LIABILITY COMPANY
CERTIFICATE of FORMATION

First: The name of the limited liability company is _____
Delta Thermo Energy A. LLC

Second: The address of its registered office in the State of Delaware is Ste. 101
203 N.E. Front Street in the City of Milford
Zip code 19963. The name of its Registered agent at such address is
Registered Office Service Company

~~Third: (Use this paragraph only if the company is to have a specific effective date of
dissolution. "The latest date on which the limited liability company is to dissolve is
_____")~~

~~Fourth: (Insert any other matters the members determine to include herein.)~~

In Witness Whereof, the undersigned have executed this Certificate of Formation this
7th day of September, 2010.

By: Lauren Taylor
Authorized Person (s)

Name: Lauren Taylor

**STATE of DELAWARE
LIMITED LIABILITY COMPANY
CERTIFICATE of FORMATION**

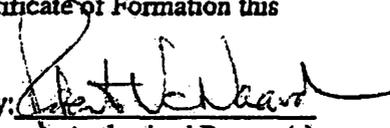
First: The name of the limited liability company is Delta Thermo Energy A, LLC

Second: The address of its registered office in the State of Delaware is Ste. 101
203 N.E. Front Street in the City of Milford.
Zip code 19963. The name of its Registered agent at such address is
Registered Office Service Company

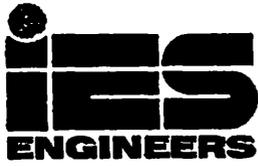
~~**Third:** (Use this paragraph only if the company is to have a specific effective date of dissolution: "The latest date on which the limited liability company is to dissolve is _____.")~~

~~**Fourth:** (Insert any other matters the members determine to include herein.)~~

In Witness Whereof, the undersigned have executed this Certificate of Formation this
4th day of May, 2010.

By: 
Authorized Person (s)

Name: ROBERT VAN NARSOGUN



PUBLIC

ATTACHMENT 8

PNDI ENVIRONMENTAL REVIEW RECEIPT

1. PROJECT INFORMATION

Project Name: Allentown Facility

Date of review: 10/12/2012 1:51:54 PM

Project Category: Energy Storage, Production, and Transfer, Energy Production (generation), Other

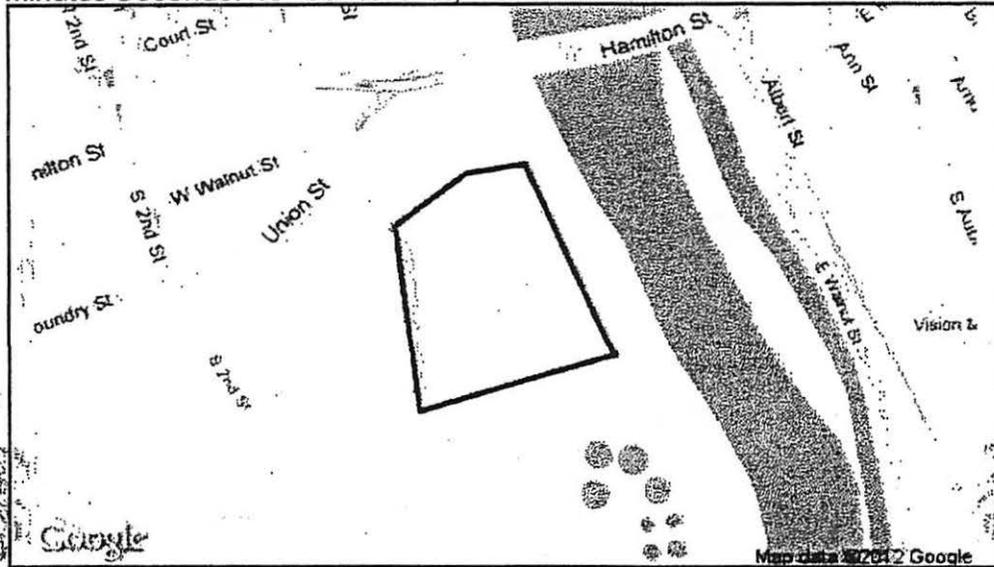
Project Area: 8.1 acres

County: Lehigh Township/Municipality: Allentown

Quadrangle Name: ALLENTOWN EAST - ZIP Code: 18102, 18103

Decimal Degrees: 40.603722 N, -75.457942 W

Degrees Minutes Seconds: 40° 36' 13.4" N, -75° 27' 28.6" W



2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

Note that regardless of PNDI search results, projects requiring a Chapter 105 DEP individual permit or GP 5, 6, 7, 8, 9 or 11 in certain counties (Adams, Berks, Bucks, Carbon, Chester, Cumberland, Delaware, Lancaster, Lebanon, Lehigh, Monroe, Montgomery, Northampton, Schuylkill and York) must comply with the bog turtle habitat screening requirements of the PASPGP.

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are valid for two years (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies strongly advise against conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE: No impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE: No impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE: No impact is anticipated to threatened and endangered species and/or special concern species and resources.

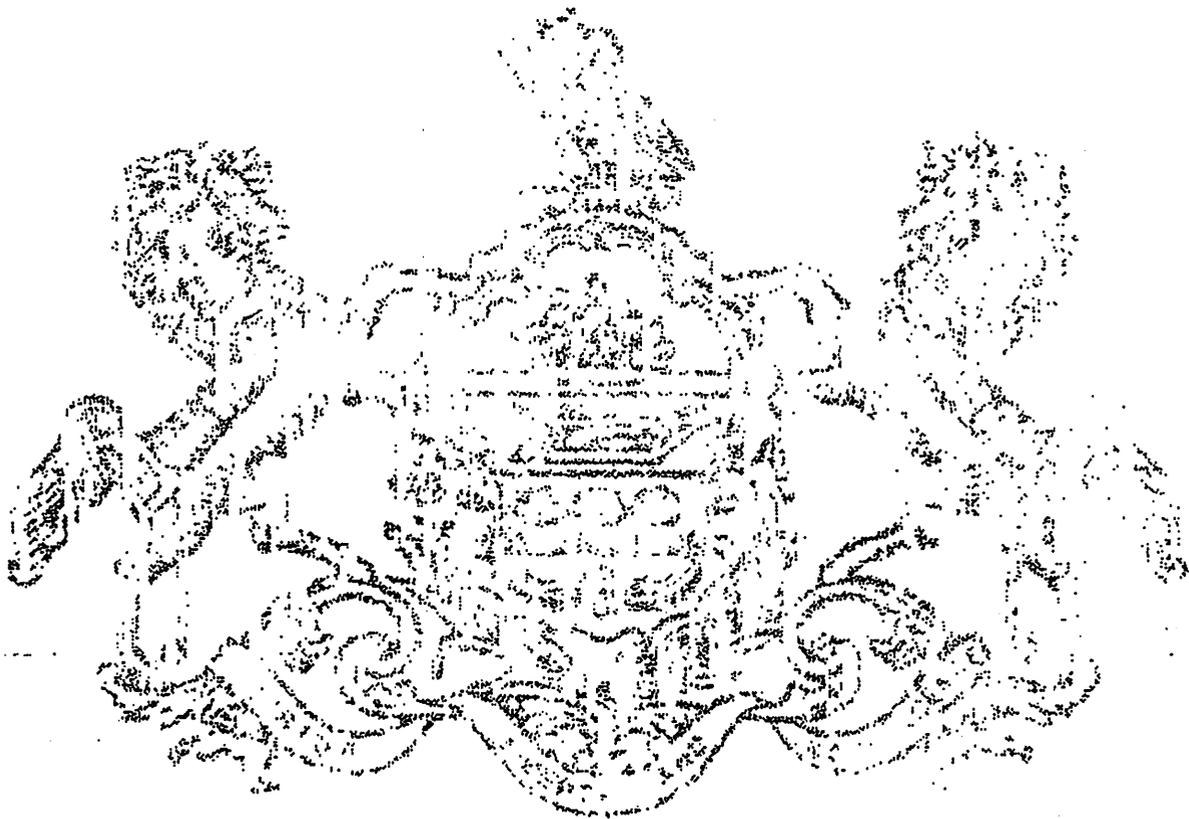
U.S. Fish and Wildlife Service

RESPONSE: No impacts to federally listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. For cases where a "Potential Impact" to threatened and endangered species has been identified before the application has been submitted to DEP, the application should not be submitted until the impact has been resolved. For cases where "Potential Impact" to special

concern species and resources has been identified before the application has been submitted, the application should be submitted to DEP along with the PNDI receipt. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. DEP and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <http://www.naturalheritage.state.pa.us>.



5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources
Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552, Harrisburg, PA
17105-8552
Fax: (717) 712-0271

U.S. Fish and Wildlife Service
Endangered Species Section
315 South Allen Street, Suite 322, State College, PA
16801-1851
NO Faxes Please.

PA Fish and Boat Commission
Division of Environmental Services
450 Robinson Lane, Bellefonte, PA 16823-7437
NO Faxes Please

PA Game Commission
Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Fax: (717) 787-6957

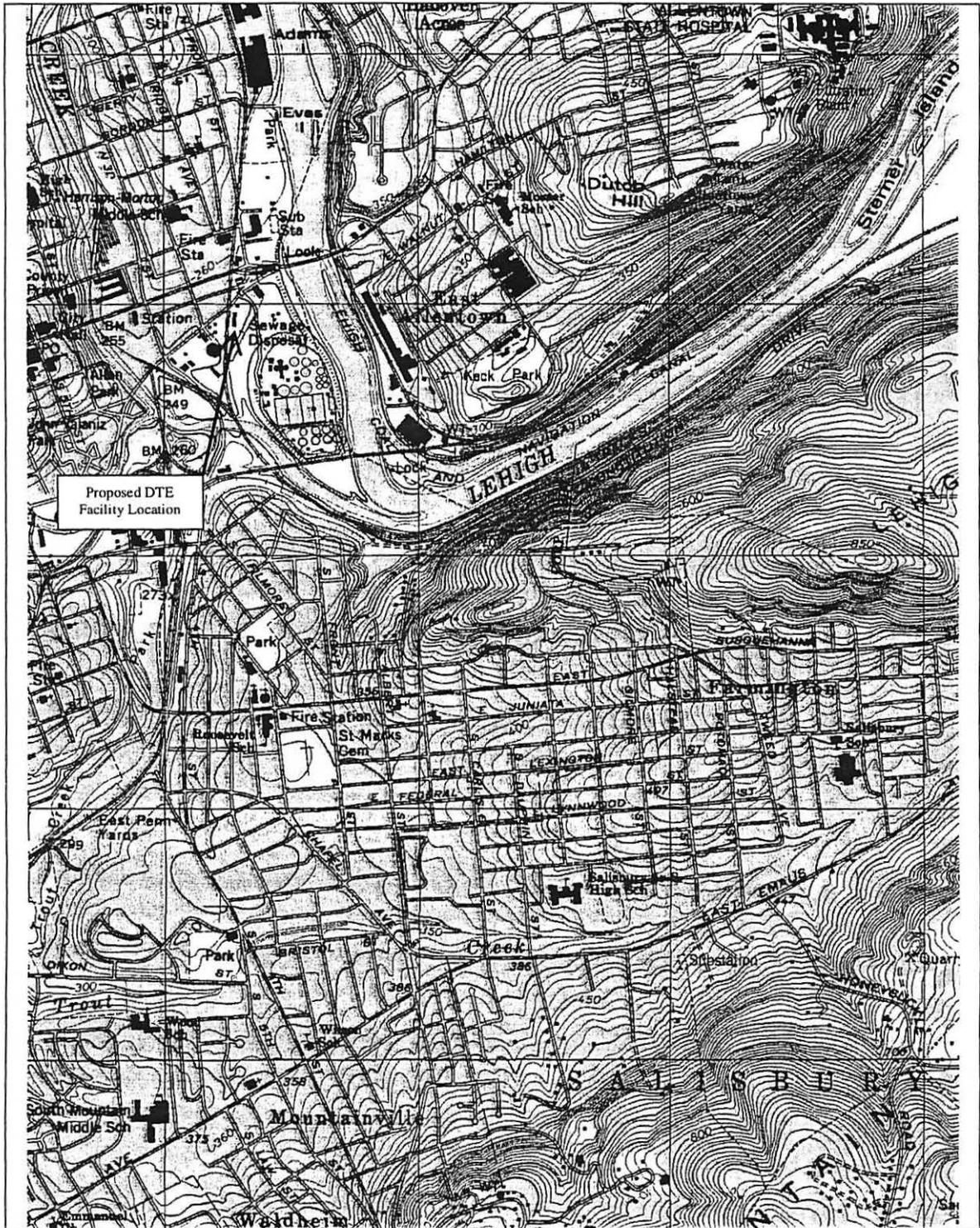
7. PROJECT CONTACT INFORMATION

Name: MICHAEL TULL
Company/Business Name: LES ENGINEERS
Address: 1720 WASHINGTON
City, State, Zip: BLUE BELT PA 17002
Phone: (610) 828-3078 Fax: (610) 828-7842
Email: mtull@lesengineers.com

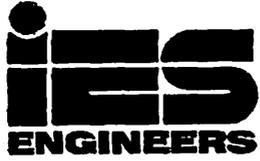
8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

 10/12/2012
applicant/project proponent signature date



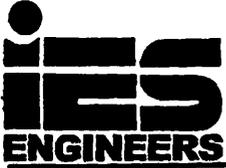
	Site Location Map	
	Source: U.S.G.S. 7.5-Minute Series Allentown East, PA Quadrangle (2001)	
Date: 10/21/10	Job No: EHS10894.02	GP 97 Waste Permit Application



PUBLIC

ATTACHMENT 11

PROOF OF CONTACT WITH HOST MUNICIPALITY AND COUNTY



1720 Walton Road Blue Bell, PA 19422 610-828-3078 Fax 610-828-7842

December 10, 2012

EXPRESS MAIL

FedEx No. 7942 5811 7057

Mr. Michael N. Kaiser, AICP
Executive Director
Lehigh Valley Planning Commission
961 Marcon Boulevard, Suite 310
Allentown, PA 18109

Subject: Solid Waste Permit Application
Allentown, Pennsylvania, Facility
Delta Thermo Energy, A, LLC
IES Project No. EV120894.03

Dear Mr. Kaiser:

On behalf of Delta Thermo Energy, A, LLC (DTE), IES Engineers (IES) is pleased to notify you that DTE will be submitting an application to the Pennsylvania Department of Environmental Protection (Department) on or about December 10, 2012 to obtain a General Solid Waste Permit for processing municipal waste and wastewater treatment plant sludge at its proposed facility in the City of Allentown, Lehigh County, Pennsylvania.

Project Name: Allentown Energy Production Facility

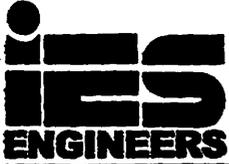
Applicant Contact:

Mr. Robert Van Naarden, CEO
Delta Thermo Energy, A, LLC
One Northbrook Drive
1210 Northbrook Corporate Center, Suite 100,
Trevose, PA 19053
Phone: (215) 205-0700

Project Location:

112 Union Street
Allentown, PA 18102

Project Description: The purpose the Energy Production Facility is to produce commercial quantities of renewable clean fuel, electricity, and recyclable materials. The facility will be designed to handle 120 tons/day of Municipal Solid Waste and 47 tons/day of the City of Allentown's Wastewater Treatment Plant sludge as feedstock to produce 3 to 4 gross Megawatts (MW) of electricity for internal use and sale. The facility will include a new building structure to house the energy production operations and equipment.



Mr. Michael N. Kaiser, AICP
December 10, 2012
Page 2

This facility will be in compliance with the applicable solid waste and other environmental regulations. A copy of the General Information Form is attached.

This application is being submitted to the Department to create a new General Solid Waste Permit for the proposed energy production facility, which will allow the production of renewable clean fuel and electricity as well as and recycling activities.

Pursuant to Section 1905-A of the Administrative Code as amended by Act 14, DTE is required to provide the county with formal notice of this application. The Department allows for a 60-day comment period from the date of receipt of this letter. The application may be reviewed at the Department's Northeast Regional Office located at 2 Public Square, Wilkes-Barre, PA 187112. Comments on this application may be submitted to Mr. Scott Walters at the Department's Central Office located at the Rachel Carson State Office Building, 400 Market Street, Harrisburg, PA 17101 and also to the applicant listed above. If the County has no comments, it may submit a written statement to the Department expressly waiving the 60-day comment period.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michael J. Tucci'.

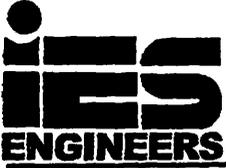
Michael J. Tucci, P.E.
Project Manager

Enclosure

cc: R. Van Naarden, DTE
M. Bonilla, DTE
A. Soni, IES

FedEx.

794258117057					
Ship (P/U) date : Mon 12/10/2012 6:51 pm Blue Bell, PA US		 Delivered Signed for by: K.SAUERZOPF		Actual delivery : Tues 12/11/2012 9:56 am ALLENTOWN, PA US	
Travel History					
Date/Time	Activity	Location			
- 12/11/2012 - Tuesday					
9:56 am	Delivered	ALLENTOWN, PA			
7:51 am	On FedEx vehicle for delivery	BETHLEHEM, PA			
6:17 am	At local FedEx facility	BETHLEHEM, PA			
- 12/10/2012 - Monday					
11:48 pm	Departed FedEx location	NEWARK, NJ			
11:30 pm	Arrived at FedEx location	NEWARK, NJ			
11:20 pm	Left FedEx origin facility	FORT WASHINGTON, PA			
5:51 pm	Picked up	FORT WASHINGTON, PA			
10:30 am	Shipment information sent to FedEx				
					Local Scan Time 
Shipment Facts					
Tracking number	794258117057	Service	FedEx Standard Overnight		
Weight	0.5 lbs	Delivered To	Receptionist/Front Desk		
Total pieces	1	Total shipment weight	0.5 lbs / 0.2 kgs		
Shipper reference	EV120894.03	Packaging	FedEx Envelope		
Special handling section	Deliver Weekday				



December 10, 2012

EXPRESS MAIL

FedEx No. 7942 5795 0419

Mr. Francis X. Dougherty
Managing Director
City of Allentown
435 Hamilton Street
Allentown, PA 18101

**Subject: Solid Waste Permit Application
Allentown, Pennsylvania, Facility
Delta Thermo Energy, A, LLC
IES Project No. EV120894.03**

Dear Mr. Dougherty:

On behalf of Delta Thermo Energy, A, LLC (DTE), IES Engineers (IES) is pleased to notify you that DTE will be submitting an application to the Pennsylvania Department of Environmental Protection (Department) on or about December 10, 2012 to obtain a General Solid Waste Permit for processing municipal waste and wastewater treatment plant sludge at its proposed facility in the City of Allentown, Lehigh County, Pennsylvania.

Project Name: Allentown Energy Production Facility

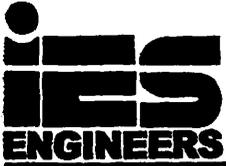
Applicant Contact:

Mr. Robert Van Naarden, CEO
Delta Thermo Energy, A, LLC
One Northbrook Drive
1210 Northbrook Corporate Center, Suite 100,
Trevose, PA 19053
Phone: (215) 205-0700

Project Location:

112 Union Street
Allentown, PA 18102

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Mr. Francis X. Dougherty
December 10, 2012
Page 2

energy production operations and equipment.

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Sincerely,

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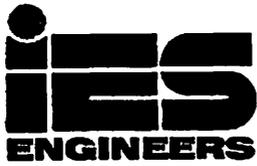
Michael J. Tucci, P.E.
Project Manager

Enclosure

cc: R. Van Naarden, DTE
M. Bonilla, DTE
A. Soni, IES



794257950419			
Ship (P/U) date : Mon 12/10/2012 5:51 pm Blue Bell, PA US		Actual delivery : Tues 12/11/2012 8:57 am ALLENTOWN, PA US	
Delivered Signed for by: K.ROXBERRY			
Travel History			
Date/Time	Activity		Location
- 12/11/2012 - Tuesday			
8:54 am	Delivered		ALLENTOWN, PA
7:58 am	On FedEx vehicle for delivery		BETHLEHEM, PA
6:16 am	At local FedEx facility		BETHLEHEM, PA
- 12/10/2012 - Monday			
11:48 pm	Departed FedEx location		NEWARK, NJ
11:30 pm	Arrived at FedEx location		NEWARK, NJ
11:20 pm	Left FedEx origin facility		FORT WASHINGTON, PA
5:51 pm	Picked up		FORT WASHINGTON, PA
10:19 am	Shipment information sent to FedEx		
		Local Scan Time ■	
Shipment Facts			
Tracking number	794257950419	Service	FedEx Standard Overnight
Weight	0.5 lbs	Delivered To	Mailroom
Total pieces	1	Total shipment weight	0.5 lbs / 0.2 kgs
Shipper reference	EV120894.03	Packaging	FedEx Envelope
Special handling section	Deliver Weekday		



CONFIDENTIAL

ATTACHMENT 12
CONTINGENCY PLAN

Contingency Plans/ Risk Management

Table of Contents

1. General Premise

- a. A hazard analysis is the first step in the planning process. It consists of identifying potential hazards, vulnerable points and risks associated with those hazards. Checklists and safety audits are the most important methods for hazard identification.
- b. The identification of resources (such as equipment, people and agencies) is the second step in the planning process. Functions and responsibilities of different persons or groups must be identified. Lists of resources and equipment, and telephone rosters comprise lists of possible resources and equipment for use in an emergency, together with their location and/or way the resources can be alerted (if people) or obtained (if material). In the most common case, using a telephone offers the quickest and easiest way of mobilizing some of the resources, but alternative methods, such as radio transmitters or alarm systems, can also be used. Usually a plan of this kind does not contain a hazard analysis section, even though the planner must have considered possible hazards at the time of preparation. Similarly, the plan does not describe subsequent actions to be taken. It should only be used by "action-response people", such as a fire department, who know what action to take. The resource and equipment lists maintained by the "action-response people" usually describe the resources available within their own organizations (e.g. fire departments or public works departments). Lists of technical experts from local companies and universities may be useful. A list may be prepared of volunteer organizations who could provide hard work, such as preparing and laying sand bags. These may be assembled by coordinating response personnel into city or other province lists. The industrial community can provide a wide range of equipment sometimes on a volunteer, sometimes on a direct-hire basis. Even when a community is covered by an active province or city contingency plan, it should know the extent of its local capabilities so that the information can be made available to the person who takes charge in cases of emergency.
- c. Action guides and checklists: This plan consists of a few pages or cards, preferably of a convenient size, carried by people who are most likely to encounter an emergency (such as a truck driver transporting hazardous

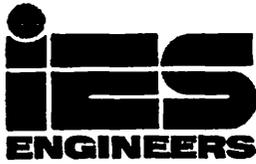
chemicals or an emergency squad in an industrial plant). The plan must also be posted at key points throughout the industrial plant. These are designed to ensure that a few basic things always get done, such as shutting down machines or industrial pieces of equipment, extinguishing small fires at the very onset, containing spills of hazardous materials before they spread, or preventing access to dangerous areas. They should never be relied on as the sole response to an emergency. They should serve only as reminders to persons who have had more comprehensive training, or as a method for activating a more comprehensive response. An action guide may be all that plant personnel need for handling a small emergency. However, an active response plan covering that plant will be necessary to provide the appropriate response in a large-scale emergency.

- d. The definition of the authorities in charge of an emergency, the chain of command, and the procedure defining the shift of authority to higher levels as the issue escalates are vital elements in any plan.
- e. Response plans: A response plan provides instructions on handling one or more emergency situations. Its emphasis derives from the persons who prepare and use it. A designated response agency, such as a fire department, the civil defense agency, or the control centre of a large industrial plant may include detailed specific field techniques in the plan. A city or province plan will define the responsibilities and capabilities of various community response agencies and show how to activate them. A response plan will contain information on how and whom to notify in the case of an accident, and it may indicate the initial actions to be taken. These will be described, in a more explicit and specific form, in the guides to be used by the "action-response people". A response plan will also describe the response organization and procedure. The most vital element in the plan is the chain of command during an emergency. The plan must clearly state at what stage on-scene authority shifts to another level and which official takes on the new responsibility.
- f. A hazard analysis section will be included in the plan: it will specify the vulnerable areas and include detailed maps of the plant. If the response plan is to be effective, it will contain provisions for updating and upgrading (e.g. by audit). The plan also should indicate the type and timing of exercises and training.

2. Plant Occurrences or Causes that would invoke the use of a Contingency Plan
 - a. What constitutes a cause for use of the Contingency Plan
 - b. System shut down for maintenance
 - c. System Malfunction
 - d. No delivery of feedstock
 - e. Too much feedstock is being stored
 - f. PJM escalates & gives notice to take electricity
 - g. Extreme weather conditions
 - h. Legal or other regulatory issues
3. Effected Entities/Companies/Governmental Agencies
 - a. City of Allentown
 - b. PPL
 - c. PJM
 - d. Waste Management
4. Escalation Procedures
 - a. Condition of calling plant manager
 - b. Condition for calling DTE COO
 - c. Condition for calling DTE CEO
 - d. Condition for calling City of Allentown's Director of Public Works
 - e. Condition for calling City of Allentown's City Manger
 - f. Condition for calling City of Allentown's Mayor
5. Effective Controls
6. Step by Step Procedures
 - a. Notification of emergency
 - b. Initiation of actions
 - c. Co-ordination of decision-making
 - d. Containment and countermeasures
 - e. Clean-up and disposal
 - f. Restoration
 - g. Recovery of damages
 - h. Follow-up
 - i. Special response operations
 - j. Agency-specific considerations
7. Financial Concerns and Remediation Process (if needed)
8. Finalization & sign off procedure after plant is back online
9. Procedures for changing or updating the plan: This section provides the mechanism for ensuring that plan contents are kept in a correct and up-to-date manner. Accurate plan information is necessary for swift and efficient response actions. Responsibility should be delegated to someone to make sure that the plan is updated frequently and that all plan holders are informed of the changes.

Someone will periodically (at least every six months) check to see if stockpiled resources are available as indicated in the plan. Notification of changes will be via some type of written memorandum or letter, and the changes should be recorded on the record of amendments section.

- a. Plan distribution
- b. Emergency handling techniques
- c. Resources available
- d. Laboratory and consultant resources
- e. Technical library
- f. Documentation of industrial accidents
- g. Hazardous material information
- h. Training exercises



PUBLIC

ATTACHMENT 13

AIR PERMIT EXEMPTION – RFD APPROVAL – PUBLIC

(Note: DTE obtained Request for Determination (RFD) from the Department to operate the proposed Allentown plant as a Research and Development (R&D) facility. However, since DTE is applying for a General Solid Waste Permit for commercial use, it will be submitting a Plan Approval application to the Department's Air Quality Bureau.)



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY



Request for Determination of Requirement
For Plan Approval/Operating Permit (RFD)

OFFICIAL USE ONLY

Facility Name: Delta Thermo Energy, Inc

RFD Facility ID: 1012

RFD Application ID: 1737

Date Received: 09/24/2010

Reviewed By: Shailesh R Patel

Approved Date: 10/14/2010

Approved By: Raymond Kempa

- A plan approval is not required for this source (See 25 Pa. Code Section 127.14(a)(1)-(9))
- An operating permit is not required for this source (See 25 Pa. Code Section 127.443(a))
- The source(s) do(es) not qualify for exemption. Applicant is required to submit a plan approval application.
- The source(s) do(es) not qualify for exemption. Applicant is required to submit an operating permit application.

Remarks

1. Within 120 days after achieving full capacity, but not more than 180 days following commencement of operation, the company shall conduct stack tests to determine and verify the actual emission rates for the criteria pollutants and metals. Such testing shall be conducted in accordance with the provisions of Chapter 139 of the Rules and Regulations Environmental Protection, where applicable, and in accordance with any restrictions or limitations established by the Department. The stack tests shall be performed while sources are operating at the maximum rated capacity as stated on the application. If testing is performed at a rate of less than full production, operation is restricted to the process input rate of testing at such level until a subsequent compliance test is performed at a maximum rated capacity. The company shall contact the Department prior to the stack test to obtain a list of metals to be tested and any additional compounds that the Department determines necessary to test. 2. At least two weeks prior to the test, the Regional Air Quality Program Manager shall be informed of the date and time of the test. 3. At least sixty (60) days prior to the test required by condition above, a pre-test protocol shall be submitted to the Department for review. 4. Within sixty (60) days of the completion of the test required by condition above, two copies of the complete test report, including all operating conditions shall be submitted to the Regional Air Quality Program Manager. 5. The stack test results must show that the actual emission rates are in compliance with the following emissions limitations for a Research and development activities. In the event the tested emissions rates are exceeded, the owner or operator shall repeat the stack test within 30 operating days after the date on which the initial stack test was completed. If the tested emissions in the retest exceed the following emissions rates, the owner or operator must cease operation until a plan approval is issued for the sources: i. Less than or equal to 10 tpy of CO; ii. Less than or equal to 0.06 tpy of lead; iii. Less than or equal to 1.5 tpy of PM10; iv. Less than or equal to 4 tpy of SO2 or VOC; v. Less than or equal to 5 tpy of NOx; vi. Less than 1000 lbs/yr of a single HAP or one tpy of a combination of HAPs that does not include Polychlorobiphenols (PCBs), Chromium, Mercury (Hg), Lead (Pb), Polycyclic Organic Matter (POM), Dioxins and Furans. 6. Pursuant to the requirement of 25 PA Code §123.31, the owner/operator may not permit the emission into the outdoor atmosphere of any malodorous air contaminants from any source in such a manner that the malodors are detectable outside the property of the person on whose land the source is being operated. 7. The company shall not permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emission is either of the following: (1) Equal to or greater than 20% for a period or periods aggregating more than three minutes in any 1 hour; (2) Equal to or greater than 60% at any time. 8. The company shall not permit fugitive particulate matter to be emitted into the outdoor atmosphere from a source at the facility in such a manner that emissions are visible at the point the emissions pass outside the plant property line. 9. Under Research and development



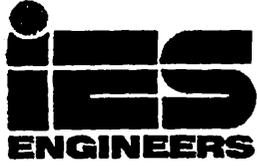
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY



**Request for Determination of Requirement
For Plan Approval/Operating Permit (RFD)**

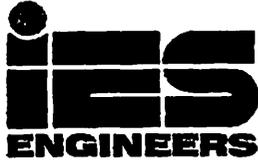
provision of 25 PA Code, the company shall not engage in the commercial sale of electricity produce at the facility except in de minimis amounts on an infrequent basis.

Conditions



CONFIDENTIAL

ATTACHMENT 14
TRAFFIC IMPACT ANALYSIS



CONFIDENTIAL

A Transportation Impact Study (TIS), dated October 4, 2012, was prepared by Pennoni Associates of Bethlehem, Pennsylvania. The Executive Summary of the TIS is provided below. A copy of the complete TIS will be provided to the Department upon request.

Executive Summary

Delta Thermo Energy, Inc. (DTE) proposes to construct a 47,000-square-foot (SF) waste-to-energy plant on a 3.07-acre parcel leased from the City of Allentown and located off Union Street along the driveway to the City's Wastewater Treatment Plant (Figure 1). The site plan, located in Appendix A, illustrates the layout of the portion of the parcel to be developed. For the purposes of this study, the opening year is assumed as 2013 and the design year is assumed as 2018.

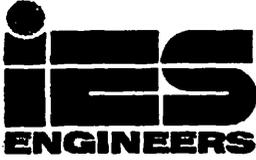
The scope of this study is based on a September 12, 2012, meeting with City of Allentown officials, at which Pennoni was directed to study only the AM peak hour at the intersection of Union Street and the City's Wastewater Treatment Plant driveway from which access to DTE Allentown will be obtained.

Manual traffic turning movement counts were conducted to determine the weekday AM peak period. An AM manual turning movement count was conducted on September 27, 2012, between 6:30 and 8:30 AM.

Trip generation for the proposed facility was estimated using a daily waste delivery schedule provided by the City of Allentown to DTE and is included in Appendix B. The facility is being designed to accommodate the waste delivery schedule proposed by the City and will not accept deliveries from any other source unless the City cannot deliver the required feedstock. From the schedule, the weekday AM delivery peak will be 11 rear-load trash trucks on Wednesdays between 6:30 and 9 AM. To be conservative, Pennoni has assumed that all 11 trash trucks will arrive during the peak hour. However, due to limits on how many trucks can be processed in an hour, only 6 trucks (one every ten minutes) are projected to depart the facility during the AM peak hour. Pennoni also conservatively assumes that an employee shift change will occur during the AM peak hour, adding six entering passenger car trips and six exiting.

Two study years were evaluated: 2013, the year of opening, and 2018, the five-year build-out. The City's American Parkway Bridge project is expected to be completed sometime in 2014. That project is expected to alleviate congestion on US 22 as well as many City streets, including Union Street, because it will provide an alternate traffic route across the Lehigh River. Since Pennoni could not obtain a copy of the American Parkway traffic study in time to incorporate it into this study, we assumed a 25% reduction in through traffic volumes on Union Street upon opening of the American Parkway.

Table 1 summarizes the levels of service for the study intersection for both study years. Table 2 summarizes the existing auxiliary lane storage lengths and the 95th percentile queue lengths for the auxiliary lanes at the study intersection.



CONFIDENTIAL

As can be seen in Table 1 and Table 2, there is a short-term level of service deficiency on the northbound left turn movement until the completion of the American Parkway Bridge project. However, the deficiency is not deemed detrimental to the intersection and only impacts traffic on the Wastewater Treatment Plant driveway. Moreover, there are no physical improvements that will mitigate this temporary impact. As such, DTE only proposes to introduce signing and line striping on the Wastewater Treatment Plant driveway to formalize the desired traffic patterns on the driveway.

A highway occupancy permit is not required for this project because Union Street is not a State highway.

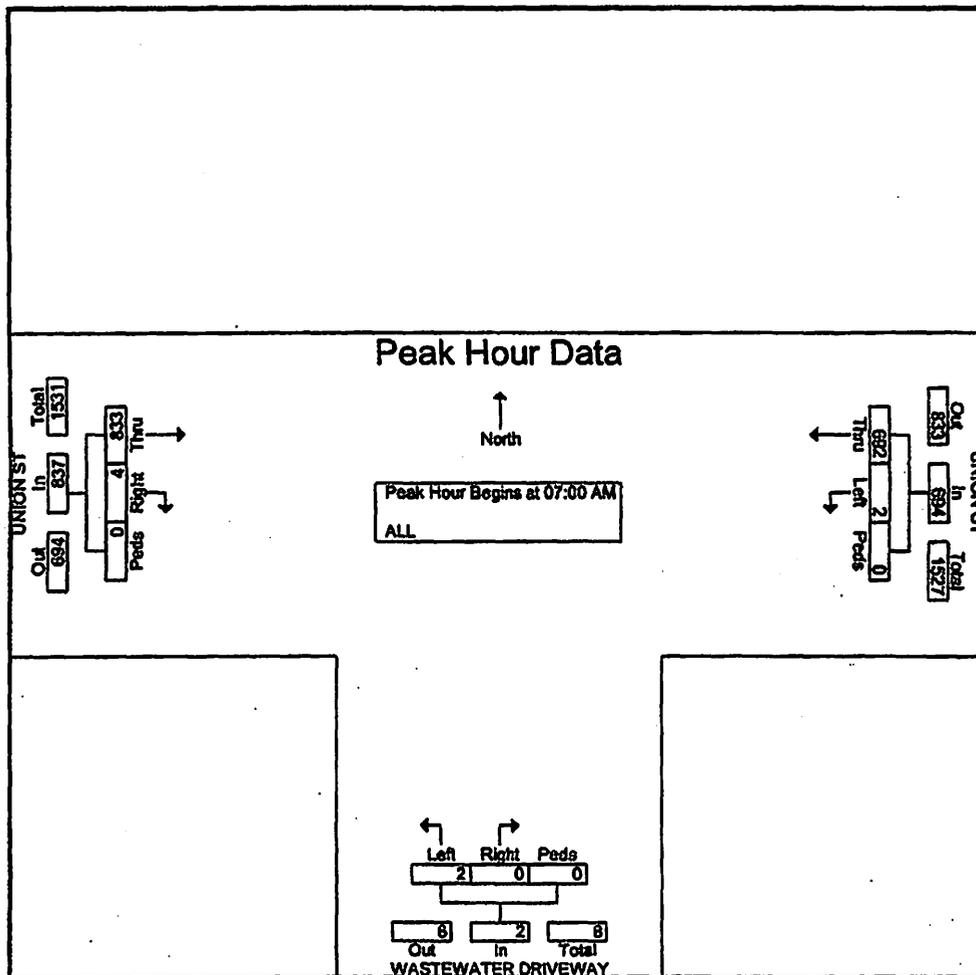
Pennoni Associates Inc.

2041 Avenue C, Suite 100
Bethlehem, PA 18017

PROJECT: PNTX1204
LOCATION: Allentown, PA
INTERSECTION: Union St./WW Treatment Dr
COUNTER: TS

File Name : AM Peak
Site Code : 1
Start Date : 9/27/2012
Page No : 2

Start Time	UNION ST WESTBOUND				UNION ST EASTBOUND				WASTEWATER DRIVEWAY NORTHBOUND				Int. Total
	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	0	152	0	152	222	0	0	222	0	0	0	0	374
07:15 AM	0	188	0	188	206	2	0	208	0	0	0	0	396
07:30 AM	1	192	0	193	181	1	0	182	1	0	0	1	376
07:45 AM	1	160	0	161	224	1	0	225	1	0	0	1	367
Total Volume	2	692	0	694	833	4	0	837	2	0	0	2	1533
% App. Total	0.3	99.7	0		99.5	0.5	0		100	0	0		
PHF	.500	.901	.000	.899	.930	.500	.000	.930	.500	.000	.000	.500	.968



Pennonni Associates Inc.

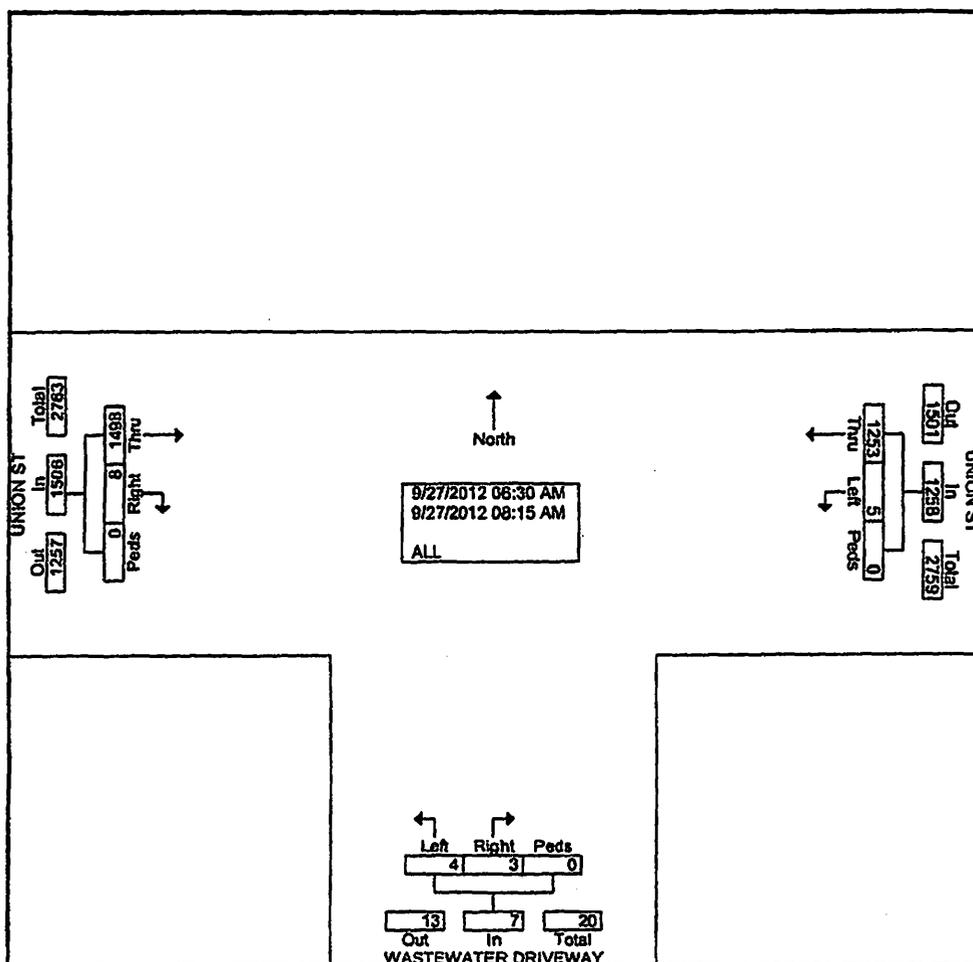
2041 Avenue C, Suite 100
Bethlehem, PA 18017

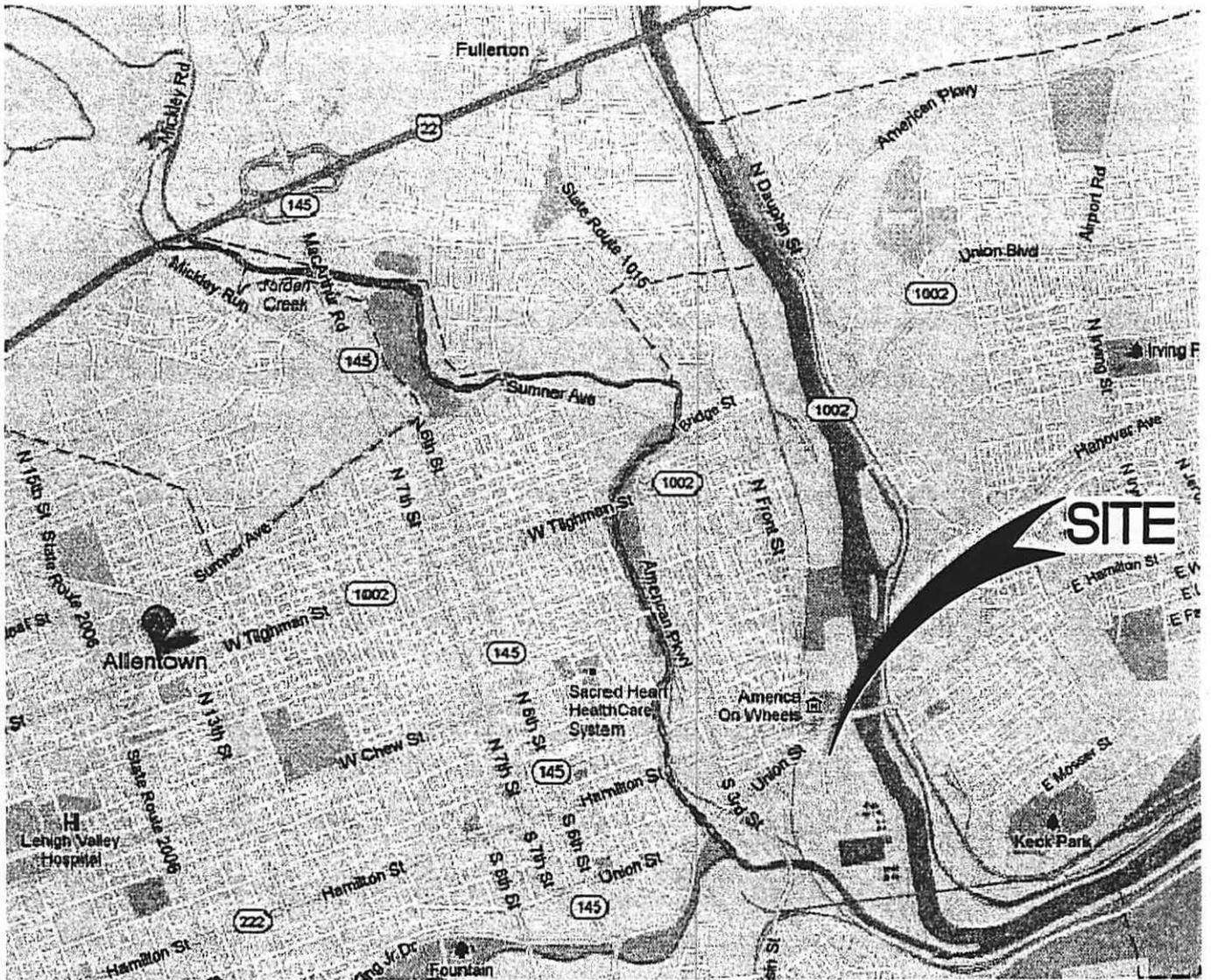
PROJECT: PNTX1204
LOCATION: Allentown, PA
INTERSECTION: Union St./WW Treatment Dr
COUNTER: TS

File Name : AM Peak
Site Code : 1
Start Date : 9/27/2012
Page No : 1

Groups Printed- ALL

Start Time	UNION ST WESTBOUND				UNION ST EASTBOUND				WASTEWATER DRIVEWAY NORTHBOUND				Int. Total
	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	
06:30 AM	1	157	0	158	139	1	0	140	0	0	0	0	298
06:45 AM	1	135	0	136	152	2	0	154	1	0	0	1	291
Total	2	292	0	294	291	3	0	294	1	0	0	1	589
07:00 AM	0	152	0	152	222	0	0	222	0	0	0	0	374
07:15 AM	0	188	0	188	206	2	0	208	0	0	0	0	396
07:30 AM	1	192	0	193	181	1	0	182	1	0	0	1	376
07:45 AM	1	160	0	161	224	1	0	225	1	0	0	1	387
Total	2	692	0	694	833	4	0	837	2	0	0	2	1533
08:00 AM	1	122	0	123	206	1	0	206	0	1	0	1	330
08:15 AM	0	147	0	147	169	0	0	169	1	2	0	3	319
Grand Total	5	1253	0	1258	1498	8	0	1506	4	3	0	7	2771
Apprch %	0.4	99.6	0		99.5	0.5	0		57.1	42.9	0		
Total %	0.2	45.2	0	45.4	54.1	0.3	0	54.3	0.1	0.1	0	0.3	





SITE LOCATION MAP
DTE ALLENTOWN

FIGURE 1



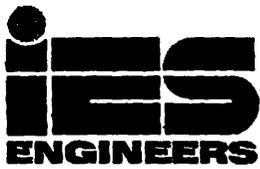
PENNONI ASSOCIATES INC.
CONSULTING ENGINEERS
2041 AVENUE C, SUITE 100
BETHLEHEM, PA 18017

TABLE 1
LEVEL OF SERVICE COMPARISON
 October 2012

Intersection	Movement	2012 AM Existing	2013 AM No-Build	2013 AM Build	2018 AM No-Build	2018 AM Build
Union Street & Wastewater Treatment Driveway	EB T	A(0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
	EB R	A (0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
	WB L	A(0.1)	A (0.0)	A (0.2)	A (0.1)	A (0.2)
	WB T	A(0.0)	A (0.0)	A (0.0)	A (0.0)	A (0.0)
	NB L	E (39.9)	E (42.1)	F (90.1)	D (27.2)	E (45.7)
	NB R	A (0.0)	A (0.0)	C (16.0)	A (0.0)	B (13.6)

TABLE 2
QUEUE COMPARISON
 October 2012

Intersection	Movement	Available Storage (ft)	2012 AM Existing (ft)	2013 AM No-Build (ft)	2013 AM Build (ft)	2018 AM No-Build (ft)	2018 AM Build (ft)
Union Street & Wastewater Treatment Driveway	NB L	125	3	3	32	2	18
	NB R	125			1		1



PUBLIC

ATTACHMENT 15
RADIATION ACTION PLAN



Date Prepared/Revised
DEP USE ONLY
Date Received

FORM X RADIATION PROTECTION PLAN

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form X, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: 273.140a, 277.140, 279.110, 281.119, 283.113, 288.139, 289.138, 293.111, 295.120, 297.113 and Department's "Guidance Document on Radioactive Monitoring at Solid Waste Processing and Disposal Facilities" - Document Number 250-3100-001.

SECTION A. SITE IDENTIFIER

Applicant/permittee: Delta Thermo Energy, A, LLC

Site Name: Delta Thermo Energy, A, LLC - Allentown Facility

Facility ID (as issued by DEP):

SECTION B. FACILITY INFORMATION

- | | | | |
|---|-------------------------------------|---|--------------------------|
| Municipal Waste landfill..... | <input type="checkbox"/> | Noncaptive residual waste landfill..... | <input type="checkbox"/> |
| Construction/demolition landfill | <input type="checkbox"/> | Noncaptive residual waste disposal | |
| Municipal waste transfer facility | <input type="checkbox"/> | impoundment | <input type="checkbox"/> |
| Municipal waste composting facility | <input type="checkbox"/> | Noncaptive residual waste transfer facility..... | <input type="checkbox"/> |
| Municipal waste demonstration facility..... | <input type="checkbox"/> | Noncaptive residual waste composting facility | <input type="checkbox"/> |
| Municipal waste incinerator/resource | | Noncaptive residual waste processing facility | <input type="checkbox"/> |
| recovery facility | <input type="checkbox"/> | | |
| Other municipal waste processing facility | <input checked="" type="checkbox"/> | | |

SECTION C. RADIATION PROTECTION ACTION PLAN

The radiation protection action and monitoring plan (Action Plan) must describe in detail the procedures that will be used by the operator of the facility for detecting, characterizing and further managing radioactive material in waste entering the permitted facility. The Action Plan shall address the requirements set forth in the general references cited above. The Action Plan shall be prepared in accordance with the Department's "Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities" Document Number 250-3100-001, or in a manner at least as protective of the environment, facility staff and public health and safety. The Action Plan shall meet all of the statutory and regulatory requirements of this Commonwealth. The Action Plan should be prepared by a certified health physicist (CHP).

Provide information on qualification of persons preparing the Action Plan and the person(s) responsible for implementation of the Action Plan.

A facility site map shall be attached to the Action Plan that identifies the location of the Designated Area (DA) for vehicles found to contain radioactive material (RAM). Requirements for the map can be found in §§273.133, 277.133, 279.103, 283.103, 288.133, 289.133, 293.103, 295.112, or 297.103.

Once approved by the Department, the procedures in the Action Plan shall be implemented and used by the facility operating staff and the facility users for managing RAM in the waste streams entering the facility.

SECTION C. RADIATION PROTECTION ACTION PLAN (Continued)

The Action Plan shall include the following:

1. Radiation Monitoring and Detection (Use Appendix C & D of the Guidance Document No. 250-3100-001):

- a. Identify the stationery RAM monitoring equipment that will be used for monitoring and detecting gamma radiation in waste entering the facility, the location of the monitoring equipment (entry portal, scales, etc.) and reasons for selecting the location. Provide information on why a particular type of radiation detector element or probe was selected for the facility, how the selected equipment will be installed and calibrated, and how the proper background for the location will be determined and used during equipment calibration.
- b. The types of hand-held radiological monitoring equipment that will be used at the facility and reasons for their selection including reasons for selecting a particular type of radiation detector element or probe in the hand-held detectors. The guidance document recommends hand-held (portable) detectors with multiple probes for contamination and a range of gamma dose rate measurements.
- c. Describe the calibration procedures that will be used for the fixed and the portable detectors used at the facility?
- d. Describe the evaluation equipment the facility will use to determine the validity of a radiation alarm incident at the facility, and subsequent radioactive materials characterization.
- e. What is the background radiation level at the facility and how was it determined?
- f. Given the facility background radiation level, describe the level at which the detectors at the facility will be set.
- g. Describe step-by-step procedures that will be used in the event the radiation monitoring alarm at the facility indicates the potential presence of *Action Level One*.
- h. Describe step-by-step procedures that will be used in the event the radiation monitoring alarm at the facility indicates the potential presence of *Action Level Two*.
- i. Describe the procedures for attempting to determine the origin of the waste, and describe the disposition or storage of the waste.

2. Operational Staff Training:

Procedures describing how the facility operational staff will be trained in proper use of all fixed and portable radiation monitoring equipment and also when to use which instrument. Describe what training will be given to the operational staff in visually monitoring waste, during transfer or unloading, for the potential presence of RAM including identifying the caution "radiation symbol" on containers.

3. Records and Reports:

Describe the procedures that will be used to record each RAM detection incident at the facility including description of the RAM involved, if known, a brief narrative of the occurrence, where the RAM originated, the final disposition of the material and how all the information will be made part of the facility's daily operational records.

4. Person Preparing the Plan

Describe qualifications of person(s) preparing the action plan.

5. Plan Revision:

Identify the situations and scenarios in which the Action Plan will be updated and submitted to the Department for approval.