



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northeast Regional Office

July 19, 2013

Mr. Robert van Naarden
Delta Thermo Energy A, LLC
One Northbrook Drive
1210 Northbrook Corp. Center
Suite 100
Trevose, PA 19053

Re: Technical Deficiency Letter
Delta Thermo Energy, A, LLC
Allentown Energy Production Facility
Plan Approval Application No. 39-00099A
APS ID# 808240, AUTH ID# 970243
Allentown City, Lehigh County

Dear Mr. Van Naarden:

The PA Department of Environmental Protection (Pa DEP) has reviewed the above referenced plan approval application and has identified the following significant technical deficiencies. In accordance with PA Code, Title 25, Chapter 127.12(a)(2), the content of plan approval applications **must contain** information that allows the Department to perform a thorough evaluation of the air contamination aspects of the facility. Based upon our initial review of the application, a significant amount of additional detailed information explaining the overall process and specific components as listed below is required before the Department can render a decision.

Technical Deficiencies

The Resource Recovery System (RSS) process is not explained in sufficient detail as a source of emissions. Since this is the principal component of the pulverized fuel production, further detail is necessary in explaining each unit and its design parameters by supplying the following:

- a. Begin by revising the process flow diagram to include the tipping floor, shredder, feedstock pit, and recycled materials handling process.
- b. Provide specific source details by completing the source information data form found in Section B on page 2 of the Processes Plan Approval Application. Complete a separate page for each component (shredder, feedstock pit, RRS unit, cyclone, dryer, boiler, turbine).
- c. Discuss the potential fugitive emissions from the shredding operation, feed stock pit, and the recycled materials handling process.
- d. Provide the assurance that the steam exhausted from the dryer does not contain any odorous contaminants.

In addition to the RSS, additional information on the remaining process is required as listed below:

1. The project description states the produced fuel will generate 3 to 4 MW of electricity. Please provide a specific design capacity based upon the maximum design pulverized fuel firing rate.
2. Please explain in detail how the fuel will be burned in the Complete Combustion Chamber (CCC). Section B – Part 1 of the application is missing this information.
3. Maximum heat input as stated in the application is 76.28 MM Btu/hr. Based on the maximum firing rate of 4.954 ton/hr. of pulverized fuel and its heat value of 9,038 btu/lb., the maximum heat input calculates to 89.476 MMBtu/hr. Please explain this difference.
4. Within Section B under the Maximum Operating schedule, the listed fuel usage of 38.047 ton/yr. is incorrect. Provide the correct annual fuel usage here.
5. Please explain how the bottom ash from the CCC will be handled. Are any fugitive emissions control techniques or measures to be provided?
6. Please update Figure 2-1, the emissions control flow diagram, to include the gas conditioning equipment explained in Section C, item 2.
7. Please provide the exhaust flue gas calculation from the CCC unit that will feed the boiler.
8. Within Section C, page 9 of your application, the scrubber inlet volume and outlet volume are listed with the same temperature. Please justify these entries.
9. According to our technical support section in Harrisburg, the facility is subject to NSPS subpart AAAA – Standards of Performance for Small Municipal Waste Combustion Units. Please update page 14 of the application identifying this subpart and provide a narrative discussing the applicability of NSPS subpart AAAA to this project.

You must submit a response fully addressing each of the significant technical deficiencies set forth above within 30 business days or DEP may deny the application.

If you believe that any of the stated deficiencies is not significant, instead of submitting a response to that deficiency, you have the option of asking DEP to make a decision based on the information with regard to the subject matter of that deficiency that you have already made available. If you choose this option with regard to any deficiency, you should explain and justify how your current submission satisfies that deficiency. Please keep in mind that if you fail to respond, your application may be denied.

Should you have any questions regarding the identified deficiencies, please contact Shailesh Patel at the above telephone number, and refer to Application No. 39-00099A, Authorization no. 970243 to discuss your concerns or to schedule a meeting. The meeting must be scheduled within the 30 day period allotted for your reply, unless otherwise extended by DEP. You may also follow your application through the review process via eFACTS on the Web at: <http://www.ahs2.dep.state.pa.us/eFactsWeb/default.aspx>.

Sincerely,



Shailesh Patel, P.E.
Air Quality Engineer

Cc:File