

June 24, 2015

VIA EMAIL

Ms. Lisa Vest (Lisa.Vest@state.de.us)
DNREC - Hearing Officer
Office of the Secretary
89 Kings Highway
Dover, DE 19901

Re: Green Recovery Technologies - Post Public Hearing Supplemental Information

Dear Ms. Vest:

Green Recovery Technologies, LLC (“GRT”) understands that the public comment period on its Coastal Zone Act (“CZA”) permit application will remain open until the close of business on July 2, 2015. With that in mind, GRT would like to offer some additional information for the record. First, please find attached a letter from State Senator Nicole Poore voicing support for the issuance of the CZA permit (**Exhibit 1**). Second, please find attached the hearing exhibit displayed at the public hearing on June 17th, 2015, showing the process flow at the GRT facility (**Exhibit 2**). This is substantively the same diagram that was attached to GRT’s air permit application, AQM-2, which is also attached (**Exhibit 3**). Certain elements of the diagram were changed purely to make the diagram more visually appealing and more easily understandable.

In addition, we would like to address some of the issues raised at the hearing by Alice Jarvis and Martin Willis in their testimony. Their testimony and GRT’s responses are listed below.

1. Alice Jarvis: *I request that GRT pay an outside consultant to evaluate risks with the Dow/Mond Indices and that control methods for more hazardous processes be required because of the sensitive nature of the Coastal Zone. Now, the Dow/Mond Indices is one of many ways of evaluating complete chemical process and for evaluating what all those hazards are and what the remediation should be for each of those.*

GRT’s Response: As mentioned in GRT’s CZA permit application within Part 3 (Project Summary), GRT’s process has “undergone extensive hazardous operations audits and

environmental, safety and health audits throughout the design and equipment-build process and will ultimately yield an inherently safe system.” More specifically, Process Engineering Associates, LLC, conducted two audits of the entire facility using the hazard and operability (HAZOP) technique and GRT has been steadily incorporating their recommendations into not only the plant design, but the plant build and the standard operating procedures by which the plant will operate.

2. Alice Jarvis: *I think that, because of the large amount of water and the instructions of the MSDS, that this should not be allowed to be let into the environment, that there should be a provision for ditches, dykes, embankments, sloping terrain to contain and control releases and limit the safety environmental impacts of the amount of water used to fight a fire.*

GRT’s Response: There are two portions of the CZA permit application that address this concern: (1) “Should an event occur that released intermediate products (nitrogen or DME), this would occur either within the confines of the building, or in an outdoor, diked area. Any solid or liquid contaminant would be contained within the dike or the building and would pose no threat of pollution.” Sec. 6.38; and (2) “The concrete diking around the outside process module provides protection against water impact, regarding both process water inadvertently discharging from the dike as well as surface water flooding the equipment due to an outside storm surge.” Sec. 6.39.

3. Alice Jarvis: *Occupied buildings and plant buildings should be separate, and they should be separated such that a worst-case fire explosion in either could not spread from one to the other.*

GRT’s Response: Nothing in the building code requires these buildings to be physically separated. Nonetheless, GRT spent over \$400,000 providing for separate fire suppression systems between the office and production areas and these areas are separated by a 2-hour fire rated wall, all of which has been reviewed and approved by New Castle County Fire Marshal.

4. Alice Jarvis: *Also for aggregation/trapping of flammable vapors: To avoid the aggregation and trapping of flammable vapors that could lead to a hazardous event, flammable storage should be sited in a well-ventilated area, preferably a different building, and in a distance from the process area so that minor leaks or thermal outbreathing can be dissipated without danger of ignition.*

GRT's Response: DME is stored in a 1,250-gallon aboveground storage tank located outside and not within the process area. In addition, the tank has its own leg in the fire suppression system and it is insulated so the DME cannot be broken down by sunlight to form the peroxides that form the basis of Ms. Jarvis's concern.

5. Alice Jarvis: *And emergency shutdown: I couldn't tell from what you put together whether or not you have them. But fitting remote-actuated isolation valves at each point where solvent could be released would be required.*

GRT's Response: The CZA permit application addresses this issue in Section 6.2 and states: "GRT has invested significant capital to detect, isolate and shutdown the facility when a malfunction occurs. For example, dimethyl ether (DME) is not vented during normal operating hours. However, in the event of a mechanical malfunction or human error, the process detection and control systems take over and make the system safe via gas isolation and process pressure relief." In addition, there are combinations of remote-actuated and manual valves at the plant. GRT has developed detailed instructions for its operators to respond to a "detect, isolate and shutdown" sequence of events.

6. Martin Willis: *Green Recoveries Technology, if you wish to receive this permit, you should be able to identify the number, location, and name of all receiving waters of stormwater discharge.*

GRT's Response: GRT moved into an existing facility and, because GRT has not and will not perform any land-disturbing activity, there is no requirement for a DNREC Sediment or Stormwater Management Plan. The stormwater discharge is not anticipated to change from the existing conditions.

Thank you for allowing us this opportunity to supplement record. If you find during your review of the comments from the public hearing that you have questions, please feel free to contact me.

Sincerely,



Stephanie L. Hansen

SLH:slh

Attachments

cc: Mr. Kenneth Laubsch, Green Recovery Technologies