



STATE OF DELAWARE
**DEPARTMENT OF NATURAL RESOURCES AND
ENVIRONMENTAL CONTROL**

DIVISION OF AIR QUALITY
STATE STREET COMMONS
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DOVER, DELAWARE 19904

ENGINEERING &
COMPLIANCE

PHONE
(302) 739-9402

EMAILED

7/14/2022

July 14, 2022

BioEnergy Devco
28338 Enviro Way
Seaford, Delaware, 19973

Attention: Peter Ettinger
Chief Strategy Officer

**Subject: BioEnergy Devco
Response to Comments Provided for Pre-Notification Draft Permits: APC-2022/0048-CONSTRUCTION & APC-2022/0049-CONSTRUCTION**

Dear Mr. Ettinger:

The Department has received and reviewed the comments you provided regarding Pre-Notification Draft **Permits: APC-2022/0048-CONSTRUCTION & APC-2022/0049-CONSTRUCTION** in your July 8, 2022 letter to the Department. With respect to the first two (2) comments offered, regarding the emission limits on NO_x and CO from the proposed flare associated with the anaerobic digestion biogas system, the Department acknowledges that the values included in the pre-notification draft permit were incorrect and only accounted for a portion of the estimated emissions. The draft permit has been amended to reflect the values specified in your July 8, 2022 letter and the permit application.

With respect to the third and final comment, regarding the specific identification of the manufacturers of proposed equipment within the permit, the Department is unable to amend the permit accordingly. As the permit application form suggests, the manufacturer and model of the proposed equipment is a critical part of the permitting process. Furthermore, Condition 1.3 of draft **Permit: APC-2022/0049-CONSTRUCTION** requires that "[t]he project shall be constructed in accordance with the application described above" and adds that "[i]f any changes are necessary, revised plans must be submitted and supplemental approval issued prior to actual construction."

As was demonstrated through the process of reviewing the permit application and drafting the corresponding permit, information from the specific manufacturer of the proposed equipment is important for determining how the equipment operates, the variables that indicate proper operation, and, for equipment which emits to the atmosphere, the parameters that will impact the dispersion of air pollutants. In the scenario where the manufacturer or number of equipment changes, each of these variables could change, and would require further review from the Department prior to approval.

The Department is unable to modify the permit in accordance with this request. It is standard practice for the equipment manufacturer and model to be specified in the permit because that is the equipment for which the application was submitted.

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At this point, the Department considers the drafts of the aforementioned air permits to be ready for the public advertisement process. Please contact me at (302) 323-4542 if you have any additional questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read 'Amy SM', with a stylized flourish at the end.

Amy S. Mann, P.E.
Administrator
Engineering & Compliance Section

ASM:KMN:JGM
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pc: Dover File
 Kevin Njoroge
 Jordan Matthews

MEMORANDUM

TO: Amy S. Mann, P.E. *ASM*

THROUGH: Kevin Njoroge *KN*

FROM: Jordan G. Matthews, P.E. *JGM*

**SUBJECT: BioEnergy Devco
Review of Response to Draft Permits: APC-2022/0048-CONSTRUCTION & APC-2022/0049-CONSTRUCTION**

DATE: July 13, 2022

BACKGROUND

On June 24, 2022, I sent draft copies of **Permits: APC-2022/0048-CONSTRUCTION & APC-2022/0049-CONSTRUCTION** to Peter Ettinger, Chief Strategy Officer for BioEnergy Devco, as well as other representatives of BioEnergy Devco and Verdantas, LLC (the consulting firm providing environmental support for BioEnergy Devco) via email. The intention of sending draft copies of the permits to these individuals was to provide them with the opportunity to provide feedback and to identify any errors, omissions, unclear or confusing provisions or conditions, or any other conditions which could be considered infeasible prior to the commencement of the public advertisement period for these permits.

This practice of providing and allowing comment on "pre-notification" draft permits to the applicant is standard practice for facilities within the Title V permitting universe, but was deemed appropriate due to the high profile nature of the process for which the permit applications and corresponding draft permits had been prepared. The email to which these draft documents had been attached included instruction to review the documents and provide any comments in writing no later than close of business on July 8, 2022.

RESPONSE

In response to the draft permit documents, comments were provided verbally on two (2) instances prior to receiving them in writing on July 8, 2022. The first of those verbal communications occurred on June 28, 2022 when Brian Lyncha, a Project Manager representing Verdantas, LLC, gave me a call to discuss a few items he had personally identified as potential issues. The second instance in which comments and questions on the pre-notification draft permits were fielded and answered occurred on July 5, 2022. This meeting occurred over Microsoft Teams and again included only myself and Brian Lyncha. While Brian and I were the only participants in the meeting, he was there relaying comments provided by representatives of BioEnergy Devco.

Formal, written comments on the draft permit documents were later received via email on July 8, 2022. Of the three (3) comments provided, the first two (2) were discussed during the June 28th phone conversation and the third was discussed during the July 5th meeting. Each of the three (3) comments provided were in relation to the permit associated with the proposed anaerobic digesters with the associated flare, RTO, and other air pollution control & biogas upgrade equipment. No comments related to the permit associated with the proposed emergency generator were received.

The first two (2) comments included in the July 8, 2022, letter to the Department were provided as follows:

1. *Condition 2.1.2.2:*
The permit indicates Nitrogen Oxide (NOx) Emission limits of 0.005 lbs/hr and 0.022 tons per rolling twelve (12) month period from the flare. The calculated emissions for this source as stated in the submitted permit application are 3.7 lbs/hr and 16 tons/year, respectively.

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2. *Condition 2.1.5.2:*

The permit indicates Carbon Monoxide (CO) Emission limits of 0.004 lbs/hr and 0.018 tons per rolling twelve (12) month period from the flare. The calculated emissions for this source as stated in the submitted permit application are 16.8 lbs/hr and 74 tons/year, respectively.

As Brian pointed out during our June 28th phone conversation, these limits had correctly included emissions from the combustion of natural gas (the flare's pilot burner fuel), but had incorrectly omitted emissions resulting from the combustion of process gas. I reviewed the permit application and my internal memorandum on the permits and verified that Brian was correct. These emission rates had been accounted for during the process of completing the regulatory review and dispersion modeling exercises, but the wrong values had mistakenly been copied and pasted into the permit.

The permit was amended to reflect the emission rates that had been requested in the permit application. While not included in the July 8, 2022, letter, Brian also verbally identified instances where the source of emission factors had been referenced incorrectly. These issues were also corrected.

The third comment provided in the July 8, 2022, letter was submitted as follows:

3. *Section 3 Operational Limitations and Appendix A:*

The permit includes conditions on operations that are specific to control and process equipment produced by certain manufacturers. It's Bioenergy's intention to construct, if permitted, the proposed facility with the equipment for which specifications were provided to DNREC in the permit application. But we are concerned about the limitations imposed in the draft permit should identified equipment is not available due to unforeseen circumstances such as supply chain issues or that technology improvements can be made to further reduce emissions beyond what's stated in the current application without alteration of construction standards.

Bioenergy Devco understands, supports and is committed to the purpose of the permit to identify and quantify potential emissions to the atmosphere from the facility. And to assure that said emissions do not exceed standards designed to be protective of human health and the environment. The permit is a mechanism to assure that the facility is operated in accordance with this purpose.

With respect to Section 3 and Appendix A, Bioenergy Devco is seeking flexibility through less specific operational and manufacturer detail in the permit such that should operational or manufacturer changes become necessary, due to supply chain issues or improvements in emissions reductions in given technologies during or after construction, and said changes provide functional equivalency and do not increase permitted emissions, that said changes could be made without having to significantly modify the permit.

While BioEnergy's concern that "unforeseen circumstances such as supply chain issues" could prevent equipment from being readily available is a valid concern, it does not change the Department's requirement that the equipment applied for be the equipment that is ultimately installed. The operating specifications of equipment varies to some degree from manufacturer to manufacturer. In the case of equipment which has the potential to emit directly to the atmosphere, a change in specifications from one manufacturer to another may have an impact on the dispersion of pollutants in the atmosphere. The Department specifies the manufacturer and model of all relevant equipment in construction and operating permits issued, and there is no reason for there to be an exception in this case.

This same rationale applies to the concern that the specification of equipment in the permit could prevent improvements in emissions reductions. Should the applicant desire to install equipment that is more efficient at removing pollutants from the waste stream, it still needs to be requested and approved by the Department.

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These types of changes would likely trigger the need for a fifteen (15) day public advertisement period.

RECOMMENDATIONS

I recommend issuance of the attached letter which provides the Department's stance on the comments provided in response to the pre-notification draft **Permits: APC-2022/0048-CONSTRUCTION & APC-2022/0049-CONSTRUCTION**.

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