



**AUTHORIZATION TO CONSTRUCT
UNDER THE LAWS OF THE
STATE OF DELAWARE**

PART I

1. In compliance with the provisions of 7 Del. C., §6003,

**BioEnergy DevCo, LLC
50 State Circle
Annapolis, MD 21401**

is authorized to construct facilities consisting of the following:

A wastewater Membrane Bioreactor (MBR) pretreatment system associated with a proposed biogas resource recovery and compost facility designed to process poultry industry wastes into digestate, pipeline-grade renewable natural gas and compost at 28338 Enviro Way in Seaford, Delaware. The wastewater MBR pretreatment system will be permitted and constructed in phases. Phase 1 of the construction will include fine and micro screening, a 0.198 million gallon (MG) anoxic tank, a 0.412 MG aerobic reactor, a 0.198 MG ultrafiltration feeding tank, and ultrafiltration reverse osmosis, and nanofiltration treatment systems. The wastewater generated by the facility will be pre-treated on site and transported to the City of Seaford wastewater facility for treatment and disposal. This permit does not include the construction associated with a proposed future pump station and force main that will eliminate the need for transporting the wastewater by vehicle.

The subject construction shall be in accordance with plans and specifications as described below and limitations, requirements and other conditions set forth in Parts I, II and III hereof.

John J. Rebar, Jr.
Commercial and Government Services Section
Division of Water
State of Delaware Department of Natural Resources
and Environmental Control

Date Signed

2. The plans, specifications, municipality standards and other documents submitted with the permit application consist of the following, which are incorporated by reference and made part of this authorization:

Six (6) drawings** (C001-C006) prepared by Duffield Associates, titled "Bioenergy Development Group, LLC Final Site Plans", signed and stamped by Scott Hoffman, P.E. on 7-22-22 and eleven drawings** prepared by Barton and Loguidice, titled "Bioenergy Devco – Bioenergy Innovation Center Wastewater Treatment Improvements".

**Drawings include:

Sheet C001 – Index Sheet

Sheet C002 – Existing Conditions/Demolition Plan

Sheet C003 – Overall Site Plan

Sheets C004-C006 – Site Plan

Sheets C102 and C104 – BIC Detailed Site Plan View, dated November 2021, no revision date

Sheet D100 – Aerobic Tank Plan and Section Views, dated November 2021, no revision date

Sheet D101 – Anoxic Tank Plan and Section Views, dated November 2021, no revision date

Sheet D102 – UF Feeding Tank Plan and Section Views, dated November 2021, no revision date

Sheet P210 – Utility Location Plan 1 - AD Tank Connections, dated May 2021, latest revision June 22, 2022

Sheet P211 – Utility Location Plan 2 – Building Connection West Side, 1 of 2, dated May 2021, latest revision June 22, 2022

Sheet P212 – Utility Location Plan 3 – Building Connection West Side, 2 of 2, dated May 2021, latest revision June 22, 2022

Sheet P212 – Utility Location Plan 4 – Future Wastewater Treatment Plant, dated May 2021, latest revision June 22, 2022

Sheets P310-P311 – Utility Plan Details – 1 and 2, dated May 2021, latest revision June 22, 2022

3. The treated wastewater effluent will be discharged via transport vehicle to the Seaford Wastewater Treatment Facility, which discharges treated wastewater to the Nanticoke River, in accordance with NPDES Permit No. DE 0020265.

A. Effluent Limitations on Pollutants Attributable to Industrial Users

The use of the constructed facility is conditioned on meeting all applicable pretreatment standards under 40 CFR, Part 403, or toxic pollutant discharge limitations under Section 307(a) of the Clean Water Act of 1977, PL 95-217.

B. Flow and Usage Limitations

This permit authorizes a daily average discharge of N/A gallons*. The flow in the system shall be measured at least every N/A.

The estimated average daily discharge for the subject project is 60,000 GPD.

* This permit authorizes only the construction of the wastewater collection and conveyance facilities referenced herein.

C. Monitoring and Reporting (When Required)

1. Representative sampling of the volume and nature of the monitored discharge shall be conducted at the request of the Division of Water.

2. Reporting

Monitoring results shall be reported to the:
Delaware Department of Natural Resources and Environmental Control
Division of Water, Commercial and Government Services Section
89 Kings Highway
Dover, DE 19901
302-739-9946

3. Definitions

- a. "Daily average flow" means the total flow during a calendar month divided by the number of days in the month that the facility was operating.
- b. "Daily maximum flow" means the highest total flow during any calendar day.
- c. "Daily Peak Flow" means the flow which can be safely transported within the sewage system without causing an overflow or a backup into the building(s) or residence(s).
- d. "Bypass" means the intentional diversion of wastes from any portion of a treatment facility.
- e. "Measured flow" means any method of liquid volume measurement, the accuracy of which has been previously demonstrated in engineering practice, or for which a relationship to absolute volume has been obtained.
- f. "Estimate" means a value to be based on a technical evaluation of the sources contributing to the discharge including, but not limited to, pump capabilities, water meters and batch discharge volumes.

4. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The date, exact place and time of sampling or measurement;
- b. The person(s) who performed the sampling and/or measurement;
- c. The date(s) and time(s) analysis was performed;
- d. The individual(s) who performed each analysis;
- e. The analytical technique(s) or method(s) used;
- f. The results of each analysis; and
- g. Appropriate quality assurance information.

5. Records Retention

All records and information resulting from the monitoring activities required by this permit, including all records of analyses performed, all records of instrument calibration and maintenance and all charts from continuous monitoring instruments, shall be retained for three (3) years. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee, or as requested by the Department.

6. Test Procedures

Test procedures for the analysis of pollutants shall conform to the applicable test procedures identified in 40 CFR, Part 136, unless otherwise specified in this permit.

END OF PART I

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PART II**A. Management Requirements****1. Duty to Comply**

The permittee must comply with the terms and conditions of this permit. Failure to do so constitutes a violation of this permit, which is grounds for enforcement and the imposition of penalties as provided in 7 Del.C., Chapter 60, grounds for permit termination or loss of authorization to discharge or operate pursuant to this permit, grounds for permit revocation and reissuance or permit modification, or denial of a permit renewal application.

2. Notification**a. Changes in Authorized Activities**

The permittee shall notify the Department of any proposed change in the activity authorized herein, of any proposed substantive change in the operation of the facility or facilities authorized herein, or of any anticipated facility expansions, production increases, or process modifications. Notification is required only when such alteration, addition or change may justify the inclusion of conditions that are absent or different from those specified in this permit. This includes, for example, the construction of additional wastewater collection, transmission or treatment facilities and changes which will result in new, different, or increased discharges of pollutants. Following such notice, the Department may require the submission of a new permit application and this permit may be reopened and modified to address the proposed changes.

b. Noncompliance

If, for any reason, the permittee does not comply with or will be unable to comply with any limitation specified in this permit, the permittee shall provide the Department with the following information, in writing, within five (5) days of becoming aware of such condition:

A description of the discharge and cause of noncompliance; and

The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

3. Facilities Operation

The permittee shall, at all times, maintain in good working order and operate as efficiently as possible all collection and treatment facilities and systems (and related appurtenances) installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes, but is not limited to, effective management, adequate operator staffing and training and adequate laboratory process controls, including appropriate quality assurance procedures.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to waters of the State resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and extent of the noncomplying discharge.

5. Bypassing

Any bypass or intentional diversion of waste streams from the facilities authorized by this permit, or any portion thereof, is prohibited, except (i) where unavoidable to prevent loss of human life, personal injury or severe property damage, or (ii) where excessive storm drainage or run-off would damage any facilities necessary for compliance with the effluent limitations and prohibitions of this permit. The permittee shall promptly notify the Department, in writing, of each such diversion or bypass.

6. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewater shall be disposed of in a manner such as to prevent any pollutant from such materials from entering the surface water or groundwater.

B. Responsibilities

1. Within 90 days following the completion of construction, the permittee shall submit to the Department an "as-built" set of plans of the facility or facilities constructed, bearing the seal and signature of a licensed Professional Engineer registered in the State of Delaware.

2. Right of Entry

The permittee shall allow the Secretary of the Department of Natural Resources and Environmental Control, or his authorized representative(s), upon the presentation of credentials:

- a. To enter upon the permittee's premises for inspection of any records, flow measurements, construction or other activity authorized by this permit, or any condition required under the terms of this permit; and
- b. At reasonable times, to have access to and to copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and
- c. To sample any discharge.

3. Transferability

This permit is transferable with the Department's consent, provided that an intention to transfer accompanied by a copy of the permit is provided to the Department, signed by both the transferor and the transferee at least ten (10) days prior to the actual transfer

4. Availability of Reports

All reports submitted with the application and those reports required under the terms of this permit shall be available for public inspection at the offices of the Department of Natural Resources and Environmental Control. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in 7 Del. C., §6013. Any person who causes or contributes to the discharge of a pollutant into State waters either in excess of any conditions specified in this permit or in absence of a specific permit condition shall report such an incident to the Department required under 7 Del. C. §6028.

5. Permit Modification

This permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:

- a. Violation of any term or condition of this permit;
- b. Obtaining this permit by misrepresentation or failure to fully disclose all relevant facts;
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized activity; or
- d. Information that the permitted activity poses a threat to human health or welfare, or to the environment.

6. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under 7 Del. C., Chapter 60.

7. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation.

8. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

9. Severability

The provisions of this permit are severable. If any provision of this permit is held invalid, or if the application of any provision of this permit to any circumstances is held invalid, the

application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

END OF PART II

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PART III**A. Special Conditions**

1. This permit authorizes only the construction of the wastewater facilities and related work referenced herein.
2. If well pointing is required during construction, the wells must be installed by a licensed well driller, and a permit to construct such wells must first be obtained from the Well Permits Branch of the Water Supply Section.
3. All construction shall be in agreement with plans and specifications submitted under this project and approved by the Department of Natural Resources and Environmental Control.
4. All construction shall be in accordance with Ten States Standards and other applicable local utility construction specifications and standards.
5. Connections or additions to the proposed system, other than those proposed on the plans, will not be allowed without prior approval from the Department.
6. This permit only authorizes construction activities for Phase 1 of the upgrade to the resource recovery facility. Phase 2 upgrades will include an additional 0.198 MG anoxic tank, an additional 0.412 MG aerobic reactor, and additional ultrafiltration, reverse osmosis, and nanofiltration treatment systems.
7. A Construction Permit application along with detailed Electrical Plans, and technical specifications for Phase 2 ultra-filtration, reverse osmosis and nanofiltration and the associated fees must be submitted to the Department for review and approval for the Phase 2 proposed upgrades to the resource recovery facility.
8. Construction of the wastewater Membrane Bioreactor (MBR) pretreatment system shall not begin until the permittee has submitted a letter from the wastewater treatment facility that will be receiving the treated effluent confirming the following: (1) that the receiving facility will accept responsibility for treating and disposing of the wastewater, and (2) that the receiving facility has capacity to accept the treated effluent and without causing violations of the receiving facility's disposal permit or 7 Del.C., Chapter 60 and the regulations promulgated thereafter.

END OF PART III