

3005/22

Duffield Associates, LLC
1060 South Governors Ave., Suite 101
Dover, DE 19904
Phone: 302.674.9280
Fax: 302.674.1099
duffnet.com

January 25, 2022

Via Electronic Mail

Bryan A. Ashby
Department of Natural Resources
and Environmental Control
Division of Water, SWDS
89 Kings Highway
Dover, DE 19901



RE: Project No. 12393.BE
Bioenergy Innovation Center
Anaerobic Digestion Facility and Biogas Improvements

Dear Mr. Ashby,

On behalf of Bioenergy DevCo, we are submitting an *Application for the Construction of Wastewater Collection and Conveyance Systems* for the referenced project.

This package includes the following items:

1. Completed *Application for the Construction of Wastewater Collection and Conveyance Systems*
2. Copy of Bioenergy Innovation Center Seaford, Delaware Engineering Report. This engineering report includes a narrative which describes operation of the Anaerobic Digestion Facility. The entire report is being provided to multiple reviewers within DNREC as part of the Resource Recovery Permitting process.
3. One copy of construction plans signed and sealed by a Delaware Registered Professional Engineer in digital format. We are also hand delivering one hard copy of the construction plans to your office.
4. The \$825.00 permit review fee will be forwarded to your office directly from Bioenergy DevCo.

We trust this information is sufficient for your review of the project application. If you need further information, please contact me at 302-674-9280 or by email at nbrasure@duffnet.com.

Very truly yours,

DUFFIELD ASSOCIATES, LLC

A handwritten signature in blue ink that reads "Norma L. Brasure".

Norma L. Brasure, E.I.



State of Delaware
Department of Natural Resources
& Environmental Control
Division of Water

Surface Water Discharges Section
Construction Permits Branch

89 Kings Highway
Dover, Delaware 19901

Phone: (302) 739-9946
Fax: (302) 739-8369



**INSTRUCTIONS FOR COMPLETING THE PERMIT APPLICATION FOR
THE CONSTRUCTION OF WASTEWATER COLLECTION AND CONVEYANCE SYSTEMS**

The following items must accompany the application. **Please note that incomplete application packages will be returned in their entirety and not reviewed until such time as all required information is received.**

- 1. A narrative summary of the intended purpose and design of the proposed facilities.
- 2. One (1) set of final construction plans and specifications, if applicable, signed and sealed by a Delaware-registered Professional Engineer, or a Delaware-registered Professional Land Surveyor for gravity systems only. One (1) electronic copy of final Plans.
- 3. One (1) electronic copy of final Plans.
- 4. The final plans must be drawn to scale showing slopes, inverts, pipe types and sizes, existing and proposed ground surfaces, tops of manholes, water lines, stormwater and stream crossings, encasements shown in plan and profile, and other information if pertinent or requested.
- N/A 5. For pump/lift stations and force mains, include all calculations and pump/performance curves.
- 6. A check made payable to the State of Delaware for eight hundred twenty-five dollars (\$825.00), the non-refundable permit review fee. This fee covers the initial review and one follow-up review of any corrections or changes made to address the Division's comments. An additional eight hundred twenty-five dollars (\$825.00) non-refundable review fee must be submitted for resubmission of the plans if changes are made to the project which trigger a complete review of the permit application.

Please submit the completed application package, as outlined above, to DE DNREC, Division of Water, SWDS, 89 Kings Highway, Dover, DE 19901. Please note, a new application, including the review fee, must be submitted if the Division's comments are not addressed or if requested supplemental information is not provided within one (1) year of the comment or request date.

The following items must be submitted prior to permit issuance:

- N/A 6. Verification from the appropriate county or municipal planning authority that the project has the proper zoning approval.
- N/A 7. A letter from the owner/operator of the wastewater facilities to which the proposed collection and conveyance facilities connect. The letter must include confirmation that the owner/operator has approved the project, that the owner/operator will take responsibility for treating and disposing of the wastewater to be conveyed and that the downstream facilities have the capacity to manage the additional flows without causing or contributing to violations of Delaware's Environmental Protection Act (7 Del. C., Chapter 60) and the regulations promulgated thereafter. This includes, but is not limited to, unauthorized discharges such as overflows at manholes and violations of the treatment system's operating permit (for example, the National Pollutant Discharge Elimination System (NPDES) permit).

Visit us on the web at: <http://www.dnrec.delaware.gov/wr/Services/Pages/SurfaceWaterDischarges.aspx>

**APPLICATION FOR THE CONSTRUCTION OF
WASTEWATER COLLECTION AND CONVEYANCE SYSTEMS**

Application must be complete, typewritten or clearly printed

Date Application Submitted _____

PROJECT INFORMATION			
Project Name and Location/ Address Bioenergy Innovation Center Anaerobic Digestion Facility and Biogas Improvements 28338 Enviro Way Seaford, DE 19973			
Tax Parcel Number(s) 132-6.00-88.01, 132-6.00-95.00, 132-11.00-41.00, 132-11.00-41.02			
County <input type="checkbox"/> Kent <input type="checkbox"/> New Castle <input checked="" type="checkbox"/> Sussex		Watershed (www.dnrec.delaware.gov/swc/wa/Pages/WatershedAssessment.aspx) <input checked="" type="checkbox"/> Chesapeake Bay <input type="checkbox"/> DE Bay/Estuary <input type="checkbox"/> Inland Bays/Atl Ocean <input type="checkbox"/> Piedmont	
Sewer District or Interceptor See description		Wastewater Treatment/Disposal Facility Name Bioenergy DevCo	
Anticipated Construction Start Date TBD		Treatment/Disposal Facility Owner and Operating Permit Number See description	
Please note, construction permits expire three (3) years from the date of permit issuance.			
Are you requesting plan review and comment on WPCC Construction Permit issuance? (circle one)			
Design Flow (gallons/day) Average 60,000		Peak 60,000	Peak Factor 1.0
			Basis of Design See Engineering Report
Description This application is for construction of the Anaerobic Digestion (AD) facility which will be operated under a Resource Recovery Facility permit drafted by the DNREC solid waste group. Wastewater from the AD facility will be treated on site with a pretreatment plant owned and operated by Bioenergy DevCo. Treated wastewater will be sent to Seaford for disposal; initially wastewater will be hauled. Bioenergy DevCo plans to work with Sussex County on creation of a new sewer district including a pumping station and force main so that hauling can be eliminated in the future			
OWNER/DEVELOPER			
Company Name BioEnergy DevCo, LLC			
Mailing Address 50 State Circle			
City Annapolis		State MD	Zip 21401
Contact Name Christine McKiernan			
E-Mail Address cmckiernan@bioenergydevco.com			
Telephone 443-782-3427	Cell		Fax

ENGINEER					
Company Name					
Barton & Loguidice, DPC					
Mailing Address					
116 Defense Highway, Ste. 309					
City		State		Zip	
Annapolis		MD		21401	
Contact Name					
John F. Brusa, JR., P.E.					
E-Mail Address					
jbrusa@BartonandLoguidice.com					
Telephone		Cell		Fax	
443-949-0106					
N/A GRAVITY SEWER INFORMATION					
Ownership	Type of Sewer System			If Other, list below	
<input type="checkbox"/> Public <input type="checkbox"/> Private	<input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Other?				
Type of Pipe	Length (ft)	Diameter (in)	Joint Specification	Min. Slope (ft/ft)	Min. Velocity (ft/sec)
Minimum Pipe Cover (ft)	Number of Manholes	Drop manholes provided?		Maximum Distance Between Manholes (ft)	
		<input type="checkbox"/> Yes <input type="checkbox"/> No			
Minimum ten foot (10') horizontal & eighteen inch (18") vertical separation from water lines maintained?			If not, explain provisions to prevent cross-contamination:		
<input type="checkbox"/> Yes <input type="checkbox"/> No					
Explain any special challenges (for example, stream, highway and/or railroad crossings, directional drilling, elevated sewers, etc.)					
Comments					

N/A PUMP/LIFT STATION INFORMATION				
Ownership <input type="checkbox"/> Public <input type="checkbox"/> Private	Type of Wastewater <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Other?		If Other, list below	
Pump Station Flows (gallons/day) Design	Average	Peak	Peak Factor	
Basis of Design		Pump Type		
Will peak flows be accommodated if largest unit fails? <input type="checkbox"/> Yes <input type="checkbox"/> No	Pump calc's and pump curves attached? <input type="checkbox"/> Yes <input type="checkbox"/> No	Cycle Time (minutes)	Wet Well Detention Time (minutes)	
Check valves provided on discharge line? <input type="checkbox"/> Yes <input type="checkbox"/> No		Gate valves provided on discharge line? <input type="checkbox"/> Yes <input type="checkbox"/> No		
If not, explain alternate procedure:				
Ventilation provided in wet well? <input type="checkbox"/> Yes <input type="checkbox"/> No	Dry Well? <input type="checkbox"/> Yes <input type="checkbox"/> No	Is an alarm system included? <input type="checkbox"/> Yes <input type="checkbox"/> No	Alternate source of power? <input type="checkbox"/> Yes <input type="checkbox"/> No	
What other provisions for emergency operations?				
Height of Influent Above Pump (suction head) (ft)		Height of Effluent Above Pump (discharge head) (ft)		Friction Loss (ft)
Pump Design Point	Pump Operating Point	Static Head (ft)	Total Head (ft)	Required Motor Horsepower (hp)
N/A FORCE MAIN INFORMATION				
Type of Pipe		Length (ft)	Diameter (in)	
Hazen-Williams "C" Design Factor	Type of Joints	Velocity Under Design Conditions (ft/sec)	Minimum Pipe Cover (ft)	
Air relief valves specified? <input type="checkbox"/> Yes <input type="checkbox"/> No	Clean-outs provided? <input type="checkbox"/> Yes <input type="checkbox"/> No	Maximum distance between clean-outs (ft)		
Minimum ten foot (10') horizontal & eighteen inch (18") vertical separation from water lines maintained? <input type="checkbox"/> Yes <input type="checkbox"/> No		If not, explain provisions to prevent cross-contamination:		
Comments				

RECEIPT

February 1, 2022

20151520

RCVD FROM

Bioenergy Devco LLC

\$

1,650.00

FOR

One Thousand Six hundred fifty dollars and 00/100 DOLLARS

Plan Review fee WPCC 3005/22 &3007/22

ACCT	\$	1,650.00
PAYMENT	\$	1,650.00
	\$	-

<input checked="" type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

CHECK # 404

CASH

OTHER BY

Melissa Kiser

DNREC, Surface Water Discharges Section, 89 Kings Hwy, Dover, DE 19901