

WATER QUALITY MANAGEMENT PERMIT

A. PERMITTEE (Name and Address): Christian Betz 5506 Silo Hill Road Doylestown, PA 18902-9139		CLIENT ID#: 385327	B. PROJECT/FACILITY (Name): 5506 Silo Hill Rd SFTF
C. LOCATION (Municipality, County): Plumstead Township, Bucks County		SITE ID#: 868400	
D. This permit approves the construction of sewage facilities consisting of: Advanced treatment of the sewage will be through a FujiClean Model CEN5 Aerobic Treatment Plant. The influent goes to a sedimentation chamber, then anaerobic chamber, then aerobic contact filtration chamber before disinfection. The CEN unit is NSF 245 certified for reduction in Total Nitrogen. The components require annual inspection and maintenance. Disinfection will be through an Orenco Ultraviolet unit. The bulb must be manually wiped clean of debris monthly and replaced annually.			
Pump Stations: _____ Design Capacity: _____ GPM	Manure Storage: Volume: _____ MG Freeboard: _____ inches	Small Flow Sewage Treatment Facility (SFTF): Annual Average Flow: 0.0004 MGD Design Hydraulic Capacity: _____ MGD Design Organic Capacity: _____ lbs/day	
E. APPROVAL GRANTED BY THIS PERMIT IS SUBJECT TO THE FOLLOWING: 1. New Permits: All construction, operations and procedures shall be in accordance with the Water Quality Management Permit application dated 9/6/24 , its supporting documentation and addendums dated 9/6/24 , which are hereby made a part of this permit. 2. Permit Conditions for SFTFs are attached and made part of this permit. 3. Special Conditions are attached and made part of this permit.			
F. THE AUTHORITY GRANTED BY THIS PERMIT IS SUBJECT TO THE FOLLOWING FURTHER QUALIFICATIONS: 1. If there is a conflict between the application or its supporting documents and amendments and the attached conditions, the attached conditions shall apply. 2. Failure to comply with the rules and regulations of DEP or with the terms or conditions of this permit shall void the authority given to the permittee by the issuance of this permit. 3. This permit is issued pursuant to the Clean Streams Law Act of June 22, 1937, P.L. 1987, as amended 35 P.S. §691.1 et seq. Issuance of this permit shall not relieve the permittee of any responsibility under any other law.			
PERMIT ISSUED: <u>September 6, 2024</u>		BY: _____ Thomas L. Magge TITLE: Clean Water Program Manager Southeast Regional Office	



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

PERMIT CONDITIONS FOR SFTFs

General

1. The Department of Environmental Protection (DEP) considers the licensed Professional Engineer whose seal is affixed to the design documents to be fully responsible for the adequacy of all aspects of the facility design.
2. The outfall sewer or drain shall be extended to the low water mark of the receiving body of water. Where necessary to ensure proper mixing and waste assimilation, an outfall sewer or drain may be extended with appurtenances below the low water mark and into the bed of a navigable stream provided that the permittee has secured an easement, right-of-way, license or lease from DEP in accordance with Section 15 of the Dam Safety and Encroachments Act, the Act of November 26, 1978, P.L. 1375, as amended.
3. The approval is specifically made contingent on the permittee acquiring all necessary property rights, by easement or otherwise, providing for the satisfactory construction, operation, maintenance and replacement of all sewers or sewerage structures in, along, or across private property with full rights of ingress, egress and regress.
4. If, at any time, the SFTF covered by this permit creates a public nuisance, including but not limited to, causing malodors or causing environmental harm to waters of the Commonwealth, DEP may require the permittee to adopt appropriate remedial measures to abate the nuisance or harm.
5. If, after the issuance of this permit, DEP approves a municipal sewage facilities official plan or an amendment to an official plan under Act 537 (Pennsylvania Sewage Facilities Act, the Act of January 24, 1966, P.L. 1535 as amended) in which sewage from the herein approved facilities will be treated and disposed of at other planned facilities, the permittee shall, upon notification from the municipality or DEP, provide for the conveyance of its sewage to the planned facilities, abandon use and decommission the herein approved facilities including the proper disposal of solids, and notify DEP accordingly. The permittee shall adhere to schedules in the approved official plan, amendments to the plan, or other agreements between the permittee and municipality. This permit shall then, upon notice from DEP, terminate and become null and void and shall be relinquished to DEP.
6. The approval of the plans, and the authority granted in this permit, if not specifically extended, shall cease and be null and void 5 years from the issuance date of this permit unless construction or modification of the facilities covered by this permit has begun on or before the fifth anniversary of the permit date.
7. This permit does not relieve the permittee of any obligations to comply with all federal, interstate, state or local laws, ordinances and regulations applicable to the sewerage facilities.
8. This permit does not give any real or personal property rights or grant any exclusive privileges, nor shall it be construed to grant or confer any right, easement or interest in, on, to, or over any lands which belong to the Commonwealth.
9. The authority granted by this permit is subject to all effluent requirements, monitoring requirements, and other conditions as set forth in the NPDES Permit and all subsequent amendments and renewals. No discharge is authorized from these facilities unless approved by an NPDES Permit.

Construction

10. The SFTF shall be constructed under the supervision of a Pennsylvania licensed Professional Engineer in accordance with the approved reports, plans and specifications. Any deviations from approved plans or specifications so revised should, therefore, be submitted well in advance of any construction work, which will be affected by such changes to the permit to allow sufficient time for review and approval. Structural revisions or other minor changes not affecting capacities, flows or operations will be permitted during construction without approval. Upon request, "as-built drawings" clearly showing such alterations shall be filed with DEP at the completion of the work.
11. When construction of the approved SFTF is completed and before it is placed in operation, the permittee shall notify DEP in writing so that a DEP representative may inspect the facilities. A Pennsylvania licensed Professional Engineer shall certify that construction of the permitted facilities was completed in accordance with the WQM application and design plans submitted to DEP, using the Post Construction Certification form (3800-PM-WSFR0179a). It is the permittee's responsibility to ensure that a Professional Engineer is on-site to provide the necessary oversight and/or inspections to certify the SFTF. The certification must be submitted to DEP within 30 days following completion of the SFTF, along with as-built drawings, photographs (if available), and a description of any DEP approved deviations from the NOI and design plans. The SFTF may not be placed into operation until DEP receives the completed Professional Engineer's certification.

12. The local Waterways Conservation Officer of the Pennsylvania Fish and Boat Commission (PFBC) shall be notified when the construction of any stream crossing and/or outfall is started and completed. A written permit must be secured from the PFBC if the use of explosives in any waterways is required and the permittee shall notify the local Waterways Conservation Officer when explosives are to be used.

Operation and Maintenance

13. The permittee shall maintain SFTF operation and maintenance (O&M) manuals at the facility and ensure proper O&M of the permitted facility. The permittee shall file the O&M manuals with DEP upon request.
14. Stormwater from roofs, foundation drains, basement drains or other sources shall not be admitted directly to the SFTF.
15. The SFTF shall be properly maintained so that the facility will perform as designed.
16. There shall be no physical connection between a public water supply system and a sewer or appurtenance to it which would permit the passage of any sewage or polluted water into the potable water supply. No water pipe shall pass through or come in contact with any part of the SFTF.
17. Collected screenings, slurries, sludge and other solids shall be handled and disposed of in compliance with Title 25 Pa. Code, Chapters 271, 273, 275, 283 and 285 (related to permits and requirements for land filling, land application, incineration and storage of sewage sludge), Federal Regulations (40 CFR Part 257) and the Federal Clean Water Act and its amendments.

SPECIAL CONDITIONS:

A. Small Flow Sewage Treatment Facilities

1. Installation

Installation of small flow sewage facilities should be performed by a competent, experienced individual to ensure that the treatment units/structures are constructed in accordance with the guidelines in the Small Flow Sewage Treatment Manual and any manufacturer's recommendations.

The Department must be notified prior to construction and at the completion of construction so inspection can be scheduled. All subsurface facilities such as sand filters must be inspected prior to backfilling.

Extreme care shall be exercised in the operation of machinery and vehicles during or after installation to prevent damage to the system.

2. Operation and Maintenance

Any person receiving permits to construct and operate a small flow treatment facility to treat and discharge sewage is responsible for the operation and maintenance of the facilities, and for any health nuisances or pollution problems which may result.

Access to all tanks or compartments of each tank shall be provided by a removable cover to provide for easy operation and maintenance.

Several key factors with respect to operation and maintenance follow:

- a. It is crucial that adequate disinfection of the sewage be continuously provided on a year round basis to minimize public health risk. Therefore, regular and routine attention must be given to ensure that disinfection equipment is operational (e.g., adding chlorine tablets to erosion feed system, filling chlorine solution crock, etc.). A small chlorine residual (approximately 0.5 mg/l must be maintained in the treated discharge. NOTE: Erosion chlorinators are prone to 'bridging' of the tablets which results in no chlorine contact. Regular maintenance is necessary to identify and correct this problem.
- b. The depth of sludge and scum in the septic tank should be measured at least once a year. When the top of the sludge layer in the tank or any compartment of the tank is found to be less than 12 inches below the bottom of the outlet baffle, or if the bottom of the scum layer is within three inches of the outlet baffle, the tank must be pumped. Annual pumping may be substituted for measurement. Such cleaning is recommended to minimize plugging of the sand filter with solids and avoid deterioration of the treated effluent. Failure to pump treatment and dosing tanks often results in costly repairs or

replacement. NOTE: Following septic tank cleaning, all interior surfaces of the tank should be inspected for leaks and cracks using a strong light. Pumped-out septic tanks contain toxic gases; therefore, only a properly equipped, trained, and experienced person should attempt to enter and repair a septic tank if this should become necessary. THE HOMEOWNER SHOULD NOT ENTER A SEPTIC TANK.

- c. The use of biological or chemical additives in the septic tank is not recommended or necessary.
- d. Dosing tanks should be opened at least once a year and settled solids removed as necessary.
- e. Aerobic treatment plants shall be maintained in accordance with manufacturer's instructions, or pumped at least once a year to remove excess solids in order to minimize plugging of the sand filter and avoid deterioration of the discharge.
- f. An operation and maintenance manual for the owner's use is to be provided by the designer.
- g. For mechanical equipment (i.e., aerobic treatment units, spray nozzles, etc.), a service contract with the equipment representative must be executed so periodic inspection and "as needed" services are provided.
- h. To minimize water usage, water conservation fixtures should be used (e.g., 1.6-gallon flush toilets, shower and faucet restrictors, and front loading washers).



**WATER QUALITY MANAGEMENT
POST CONSTRUCTION CERTIFICATION**

PERMITTEE IDENTIFIER	
Permittee	Christian Betz
Municipality	Plumstead Township
County	Bucks
WQM Permit No.	<u>0924402</u>
Facility Type	Sewage
All of the above information should be taken directly from the Water Quality Management Permit.	
CERTIFICATION	
This certification must be completed and returned to the permits section of the DEP's regional office issuing the WQM permit within 30 days of completion of the project and received by DEP prior to operation, and if requested, as-built drawings, photographs (if available) and a discussion of any DEP-approved deviations from the design plans during construction. I, being a Registered Professional Engineer in Pennsylvania, do hereby certify to the best of my knowledge and belief, based upon personal observation and interviews, that the above facility approved under the Water Quality Management Permit has been constructed in accordance with the plans, specifications and modifications approved by DEP. Construction Completion Date (MM/DD/YYYY): _____	
	Professional Engineer
	Name _____ (Please Print or Type)
	Signature
	Date
	License Expiration Date
	Firm or Agency
	Telephone
	Permittee or Authorized Representative
	Name _____ (Please Print or Type)
	Signature
Title	
Telephone	