

Application Type New
Wastewater Type Sewage
Facility Type SFTF

**NPDES PERMIT FACT SHEET
INDIVIDUAL SFTF/SRSTP**

Application No. PA0245194
APS ID 1012501
Authorization ID 1307400

Applicant, Facility and Project Information

Applicant Name	<u>Leon A. Grochowski Jr.</u>	Facility Name	<u>2408 Hill Rd SFTF</u>
Applicant Address	<u>2224 Meadowbrook Drive</u> <u>Schnecksville, PA 18078</u>	Facility Address	<u>2408 Hill Road</u> <u>Sellersville, PA 18960</u>
Applicant Contact	<u>Leon Grochowski</u>	Facility Contact	<u>Leon Grochowski</u>
Applicant Phone	<u>(610) 442-3137</u>	Facility Phone	<u>Not Applicable</u>
Client ID	<u>355514</u>	Site ID	<u>835217</u>
SIC Code	<u>4952</u>	Municipality	<u>East Rockhill Township</u>
SIC Description	<u>Trans. & Utilities - Sewerage Systems</u>	County	<u>Bucks</u>
Date Application Received	<u>February 10, 2020</u>	WQM Required	<u>Yes</u>
Date Application Accepted	<u>Not Applicable</u>	WQM App. No.	<u>0920401</u>
Project Description	<u>New application for discharge to intermittent un-named channel</u>		

Summary of Review

The applicant requests a new, individual NPDES discharge permit for a SFTF. The facility is permitted for 800 gallons per day of residential sewage per PA DEP Plan 537 Code No. 1-09922-228-3s issued January 24, 2020. The Plan 537 letter noted that a nitrogen-reducing treatment component is needed. A WQM permit was submitted at the same time as the NPDES permit applicant and is permit number 0920401. The treatment plant consists of two (2) 2,000-gallon septic tanks (piped to run in series) with a Polylok™ Zabel Effluent filter at the end of the second tank. The flow is then sent to an Ecoflo® Coconut Concrete tank with a pressure divider to send 2/3rds of the effluent back to the first septic tank (i.e. the nitrogen reduction option) and 1/3rd of the effluent will be sent through an Orenco® UV filter system for disinfection. Then to final disposal via a rip-rap lined outfall to a stream. The outfall is to an un-named channel, then to an un-named tributary to Threemile Run, to Three Mile Run, which flows to the East Branch Perkiomen Creek. A further description of the plant is on the next page.

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Approve	Deny	Signatures	Date
X		Harmonie Hawley, PhD, PE / Environmental Engineering Specialist /s/	3/11/2020
X		Pravin C. Patel, P.E. / Environmental Engineer Manager /s/	3/11/2020

Summary of Review

The Ecoflo® Coco Filter Reference Guide for Wastewater Treatment Professionals lists the following removal rates for the Coco Filter with the nitrogen reduction option (i.e. a pressure flow divider which recycles a portion of the treated effluent back to the head of the plant).

Parameter	Influent Average	ECD Effluent
TSS	190 ± 83 mg/l	2 ± 2 mg/l
CBOD ₅	200 ± 88 mg/l	4 ± 3 mg/l
Total Nitrogen	40.3 mg/l	18.6 mg/l
pH	7.4	7.1

The recommended TSS and BOD₅ are less than 10 mg/l, thus this unit is expected to meet the limit (assuming CBOD₅ is 80% of BOD₅, the BOD₅ effluent becomes 5 ± 3.75 mg/l, which is under 10 mg/l). The effluent pH is between 6 and 9 per recommendations in the SFTF manual. The manual notes a 50% reduction in TN as indicated in the above table.

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>001</u>	Design Flow (MGD)	<u>0.0008</u>
Latitude	<u>40° 22' 56.22"</u>	Longitude	<u>-75° 19' 29.58"</u>
Wastewater Description:	<u>Sewage Effluent</u>		
Receiving Waters	<u>UNT to Threemile Run</u>	Stream Code	<u>None</u>

Changes Since Last Permit Issuance: None, new permit application.

Other Comments:

The channel that runs to the UNT to Threemile Run and the UNT to Three Mile Run were evaluated in the field in summarized in an Aquatic Biology Investigation: Point of First Use study dated May 3, 2019. The UNT to Three Mile Run was also field evaluated and summarized in an Aquatic Biology Investigation: Point of First Use study dated December 6, 2017. The channel is located behind the existing property and was characterized as intermittent. The UNT to Threemile Run was characterized as perennial and having aquatic life.

The UNT flows to the Threemile Run (TSF, MF), which is listed as impaired. The cause of impairment is Flow Regime Modification, Nutrients. The source of impairment is Highway/Road/Bridge Runoff (non-construction related), Removal of Riparian vegetation.

Compliance History	
Summary of DMRs:	Not Applicable
Summary of Inspections:	Not Applicable

Other Comments: This is a new permit applicant so there is no compliance history or previous discharge reports.

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Annual Average	Maximum	Instant. Maximum		
Flow (MGD)	Report Annl Avg	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9	1/year	Grab
BOD5	XXX	XXX	XXX	10.0	XXX	20	1/year	Grab
TSS	XXX	XXX	XXX	10.0	XXX	20	1/year	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200	XXX	XXX	1/year	Grab
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab

Compliance Sampling Location: 001

Other Comments: These permit limits are consistent with Standard Operating Practices and similar facilities in the immediate area of this facility.