

Application Type Renewal
Wastewater Type Sewage
Facility Type SRSTP

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

Application No. PA0248240
APS ID 830946
Authorization ID 1254660

Applicant, Facility and Project Information

Applicant Name	<u>Zemir Alic</u>	Facility Name	<u>Alic Residence</u>
Applicant Address	<u>191 Shatto Drive</u> <u>Carlisle, PA 17013-2120</u>	Facility Address	<u>191 Shatto Drive</u> <u>Carlisle, PA 17013-2120</u>
Applicant Contact	<u>Zemir Alic</u>	Facility Contact	<u>Zemir Alic</u>
Applicant Phone	<u>(717) 241-5610</u>	Facility Phone	<u>(717) 241-5610</u>
Client ID	<u>309076</u>	Site ID	<u>665343</u>
SIC Code	<u>6514</u>	Municipality	<u>North Middleton Township</u>
SIC Description	<u>Fin, Ins & Real Est - Dwelling Operators, Except Apartments</u>	County	<u>Cumberland</u>
Date Application Received	<u>December 4, 2018</u>	WQM Required	<u>No</u>
Date Application Accepted	<u>December 12, 2018</u>	WQM App. No.	<u>N/A</u>
Project Description	<u>NPDES permit renewal.</u>		

Summary of Review

Zemir Alic has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of its NPDES permit. It is for discharge of treated sanitary wastewater from a single residence sewage treatment plant (SRSTP) located in North Middleton Township, Cumberland County. The permit was last issued on April 18, 2014 and became effective on May 1, 2014. The permit expired on April 30, 2019.

Changes from the previous permit: Unit of Fecal Coliform changed from CFU/100 ml to No./100 ml. The parameter BOD₅ replaced the parameter CBOD₅.

Based on the review outline in this fact sheet, it is recommended that the permit be drafted and published in the Pennsylvania Bulletin for public comments for 30 days.

Approve	Deny	Signatures	Date
X		Hilary H. Le / Environmental Engineering Specialist	June 21, 2019
		Daniel W. Martin, P.E. / Environmental Engineer Manager	
		Maria D. Bebenek, P.E. / Clean Water Program Manager	

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	0.0005
Latitude	40° 13' 29.46"	Longitude	-77° 12' 54.91"
Quad Name	Carlisle	Quad Code	
Wastewater Description: Sewage Effluent			
Receiving Waters	Conodoguinet Creek (WWF, MF)	Stream Code	10194
NHD Com ID	56406381	RMI	38.89 miles
Drainage Area	370 mi. ²	Yield (cfs/mi. ²)	0.125 cfs/mi. ²
Q ₇₋₁₀ Flow (cfs)	46.1 cfs	Q ₇₋₁₀ Basis	USGS StreamStats
Elevation (ft)		Slope (ft/ft)	
Watershed No.	07B	Chapter 93 Class.	Warm Water Fishes, Migratory Fishes
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment	N/A		
Source(s) of Impairment	N/A		
TMDL Status	N/A	Name	N/A
Nearest Downstream Public Water Supply Intake	Carlisle Water Treatment Plant, Carlisle Borough		
PWS Waters	Conodoguinet Creek	Flow at Intake (cfs)	
PWS RMI	35.95 miles	Distance from Outfall (mi)	Approximate 2.9 miles

Changes Since Last Permit Issuance: None

Drainage Area:

The discharge is to the headwater of Conodoguinet Creek at RMI 38.89 miles. A drainage area at the point of discharge is estimated to be 370 mi.² according to USGS StreamStats available at <https://streamstats.usgs.gov/ss/>.

Streamflow:

USGS StreamStats produced a Q7-10 flow of 46.1 cfs at the point of discharge.

Conodoguinet Creek:

Under 25 Pa Code § 93.9o, Conodoguinet Creek is designated as warm water and migratory fishes. No special protection water(s) is impacted by this discharge. No Class A Wild Trout fishery is impacted by this discharge. DEP's latest integrated report prepared in 2016 showed Conodoguinet Swale is not impaired and the discharge is located in a stream segment listed as attaining uses.

Public Water Supply Intake:

The fact sheet prepared for the renewal permit indicated that the nearest downstream public water supply intake is Carlisle Water Treatment Plant, Carlisle Borough located on Conodoguinet Creek, approximately 2.9 miles from the discharge. Considering dilution, the discharge is not expected to impact the water supply.

Compliance History	
Summary of DMRs:	See Tables below.
Summary of Inspections:	<p>Last DEP inspection was on 6/29/2017. There were violations as follows:</p> <ul style="list-style-type: none"> - Exceedance of CBOD₅ and Fecal Coliform limits established in Part A of NPDES permit; - Failure to collect (2) annual effluent samples as required by Part A of NPDES permit: one each in February and July. <p>The lab report for the sample collected on 5/17/2017 indicated that CBOD₅ was 32.4 mg/l, and Fecal Coliform was 2400 CFU/ 100 ml. However, the permit limits are 25 mg/l for CBOD₅ and 200 CFU/100 ml for Fecal Coliform. These results indicated non-compliance. The lab report for the sample collected on 2/14/2018 indicated that BOD₅ was 2.0 mg/l, TSS was 5 mg/l, and Fecal Coliform was 1 CFU/100 ml. These results indicated compliance with permit limits.</p>
Other Comments:	There are no open violations associated to facility or permittee.

Compliance History

Annual AMRs reports were submitted to DEP as summarized in Tables below.

2014

Parameter	Jan 14	Feb 14	Mar 14	Apr 14	May 14	Jun 14	Jul 14	Aug 14	Sep 14	Oct 14	Nov 14	Dec 14
TRC (mg/l)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3

2015

Parameter	Jan 15	Feb 15	Mar 15	Apr 15	May 15	Jun 15	Jul 15	Aug 15	Sep 15	Oct 15	Nov 15	Dec 15
TRC (mg/l)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3

2016

Parameter	Jan 16	Feb 16	Mar 16	Apr 16	May 16
TRC (mg/l)	0.3	0.3	0.3	0.3	0.3

Aug 2017 - Feb 2018

Parameter	Aug 17	Sep 17	Oct 17	Nov 17	Dec 17	Jan 18	Feb 18
TRC (mg/l)	0.3	0.3	0.3	0.3	0.3	0.3	0.3
BOD ₅ (mg/l)	2.0	2.0	2.0	2.0	20	2.0	2.0
TSS (mg/l)	5	5	5	5	5	5	5
Fecal Coliform (No./ 100 ml)	1	1	1	1	1	1	1

Treatment Facility Summary

The treatment system consists of a two-compartment septic tank of 1500 gallons with septic tank solids retainer, an Ecoflo peat filter, a disinfection chlorination tank, and outfall. WQM Nos. 2106405 & 2106405 T-1 were issued on 8/18/2006 and 6/26/2007, respectively.

Development of Effluent Limitations and Monitoring Requirements

The reviewer notes that the existing CBOD₅, and TSS monitoring frequencies and limits are consistent with the monitoring frequencies and limits recommended in DEP SOP No. BPNPSM-PMT-003 for SFTFs revised on May 17, 2019. However, the operation sample results showed that the facility cannot meet the more stringent limits in the SOP. Therefore, the monitoring frequencies and limits from the previous permit will remain the same. Also, because the SOP, PAG-04, and pre-printed AMR form all specify BOD₅ instead of the parameter CBOD₅, then the BOD₅ has replaced the parameter CBOD₅.

Although, Small Flow Facilities do not need a TRC limit, since the facility has been reporting it, then the facility can continue to report.

For Flow, it is not necessary to perform daily maximum monitoring since the treated effluent is less than 2,000 GPD. The permit included a non-seasonal fecal coliform limit of 200 / 100 mL which is more stringent than the seasonal fecal limits (200 / 100 mL for summer; and 10,000 / 100 mL for winter). The reviewer notes that the frequency of sampling for Flow, and Fecal Coliform are recommended to remain the same as the existing permit.

Chesapeake Bay Requirements

No nutrient monitoring requirement is recommended for this facility. Facilities that are designed based on a flow of less than or equal to 2,000 GPD or considered as SRSTPs are exempt from the Bay requirements.

Total Maximum Daily Load (TMDL)

The discharge is located in a stream segment listed as attaining uses; therefore, no TMDL has been taken into consideration during this review.

Antidegradation Requirements

All effluent limitations and monitoring requirements have been developed to ensure that existing instream water uses and the level of water quality necessary to protect the existing uses are maintained and protected.

Other Considerations

No Class A Wild Trout Fishery is impacted by this discharge. Considering dilution and distance from the intake, the discharge is not expected to affect the water supply.

Existing Effluent Limitations and Monitoring Requirements

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	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	2/year	Estimate
TRC	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab
CBOD ₅	XXX	XXX	XXX	25.00	XXX	50.00	2/year	Grab
TSS	XXX	XXX	XXX	30.0	XXX	60.0	2/year	Grab
Fecal Coliform (CFU/100 ml)	XXX	XXX	XXX	200.0 Geo Mean	XXX	XXX	2/year	Grab

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	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	2/year	Estimate
TRC	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab
BOD ₅	XXX	XXX	XXX	25.00	XXX	50.00	2/year	Grab
TSS	XXX	XXX	XXX	30.0	XXX	60.0	2/year	Grab
Fecal Coliform (No./100 ml) Jan 1 - 31, Jul 1 - 31	XXX	XXX	XXX	200.0 Geo Mean	XXX	XXX	2/year	Grab

Compliance Sampling Location: The 2/year sampling shall consist of one sample taken in February and one sample taken in July.

Alic Residence

This is a topographic of facility.

