pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0081418**
Facility Type	**Industrial**	APS ID	**604201**
Major / Minor	**Minor**	Authorization ID	**1255144**

NPDES PERMIT FACT SHEET INDIVIDUAL INDUSTRIAL WASTE (IW) AND IW STORMWATER

Applicant and Facility Information

Applicant Name	**Rutters Dairy Inc.**	Facility Name	**Rutters Dairy**
Applicant Address	2100 N George Street	Facility Address	2100 N George Street
	York, PA 17404-1815		York, PA 17404-1815
Applicant Contact	Todd Rutter	Facility Contact	Todd Rutter
Applicant Phone	(717) 771-5958	Facility Phone	(717) 771-5958
Client ID	37020	Site ID	447504
SIC Code	2026	Municipality	Manchester Township
SIC Description	Manufacturing - Fluid Milk	County	York
Date Application Received	November 20, 2018	EPA Waived?	Yes
Date Application Accepted	April 8, 2019	If No, Reason	

Purpose of Application: This is an application for NPDES renewal.

Summary of Review

Approve	Deny	Signatures	Date
X		Nicholas Hong, P.E. / Environmental Engineer Nick Hong (via electronic signature)	September 8, 2020
		Daniel W. Martin, P.E. / Environmental Engineer Manager	
		Maria Bebenek, P.E. / Environmental Program Manager	

Summary of Review

The application submitted by the applicant requests a NPDES renewal permit for the Rutter's Dairy located at 2100 N. George St., York, PA 17404 in York County, municipality of Manchester. The existing permit became effective on June 1, 2014 and expired on May 31, 2019. The application for renewal was received by DEP Southcentral Regional Office (SCRO) on November 20, 2018. An amended application was received on March 28, 2019

The purpose of this Fact Sheet is to present the basis of information used for establishing the proposed NPDES permit effluent limitations. The Fact Sheet includes a description of the facility, a description of the facility's receiving waters, a description of the facility's receiving waters attainment/non-attainment assessment status, and a description of any changes to the proposed monitoring/sampling frequency. Section 6 provides the justification for the proposed NPDES effluent limits derived from technology based effluent limits (TBEL), water quality based effluent limits (WQBEL), total maximum daily loading (TMDL), antidegradation, anti-backsliding, and/or whole effluent toxicity (WET). A brief summary of the outlined descriptions has been included in the Summary of Review section.

The subject facility is a 0.2 MGD treatment facility. The applicant does not anticipate any proposed upgrades to the treatment facility in the next five years. The NPDES application has been processed as an Industrial Wastewater due to the type of wastewater and the design flow rate for the facility. The applicant disclosed the Act 14 requirement to York County Administrative Center and Manchester Township and the notice was received by the parties in October 29, 2018. Planning approval is not necessary as the facility is neither new or expanding.

Utilizing the DEP's web-based Emap-PA information system, the receiving waters has been determined to be Tributary 08055 to Codorus Creek. The sequence of receiving streams that Tributary 08055 to Codorus Creek discharges into are the Codorus Creek, and the Susquehanna River eventually drains into the Chesapeake Bay. The subject site is not subject to the Chesapeake Bay implementation requirements. The receiving water has protected water usage for warm water fishes (WWF) and migratory fishes (MF). No Class A Wild Trout fisheries are impacted by this discharge. The absence of high quality and/or exceptional value surface waters removes the need for an additional evaluation of anti-degradation requirements.

The Tributary 08055 to Codorus Creek is a Category 4c and 5 stream listed in the 2018 Integrated List of All Waters (formerly 303d Listed Streams). This stream is an impaired stream for aquatic uses from water/flow variability due to urban runoff/storm sewers. The receiving waters is also impaired for aquatic uses from siltation due to runoff/storm sewers. The receiving waters is not subject to a total maximum daily load (TMDL) plan to improve water quality in the subject facility's watershed.

The existing permit and proposed permit differ as follows:

- **Various differences in the limits for temperature for different months**

The proposed permit will expire five (5) years from the effective date.

Based on the review in this report, it is recommended that the permit be drafted. 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.

Any additional information or public review of documents associated with the discharge or facility may be available at PA DEP Southcentral Regional Office (SCRO), 909 Elmerton Avenue, Harrisburg, PA 17110. To make an appointment for file review, contact the SCRO File Review Coordinator at 717.705.4700.

1.0 Applicant

1.1 General Information

This fact sheet summarizes PA Department of Environmental Protection's review for the NPDES renewal for the following subject facility.

Facility Name:	Rutter's Dairy, Inc.
NPDES Permit #	PA0081418
Physical Address:	2100 N. George St York, PA 17404
Mailing Address:	2100 N. George St York, PA 17404
Contact:	Todd Rutter President toddr@rutters.com
Consultant:	Kristian Witt (kwitt@complianceplace.com) VP- Environmental Services Compliance Management International

1.2 Permit History

Description of Facility

The facility is a dairy and consumer beverage bottling facility. The discharge is comprised of non-contact cooling water.

Permit submittal included the following information.

- NPDES Application
- Flow Diagrams
- Pollutant Group sampling data

2.0 Treatment Facility Summary

2.1.1 Site location

The physical address for the facility is 2100 N. George St., York, PA 17404. A topographical and an aerial photograph of the facility are depicted as Figure 1 and Figure 2.

Figure 1: Topographical map of the subject facility

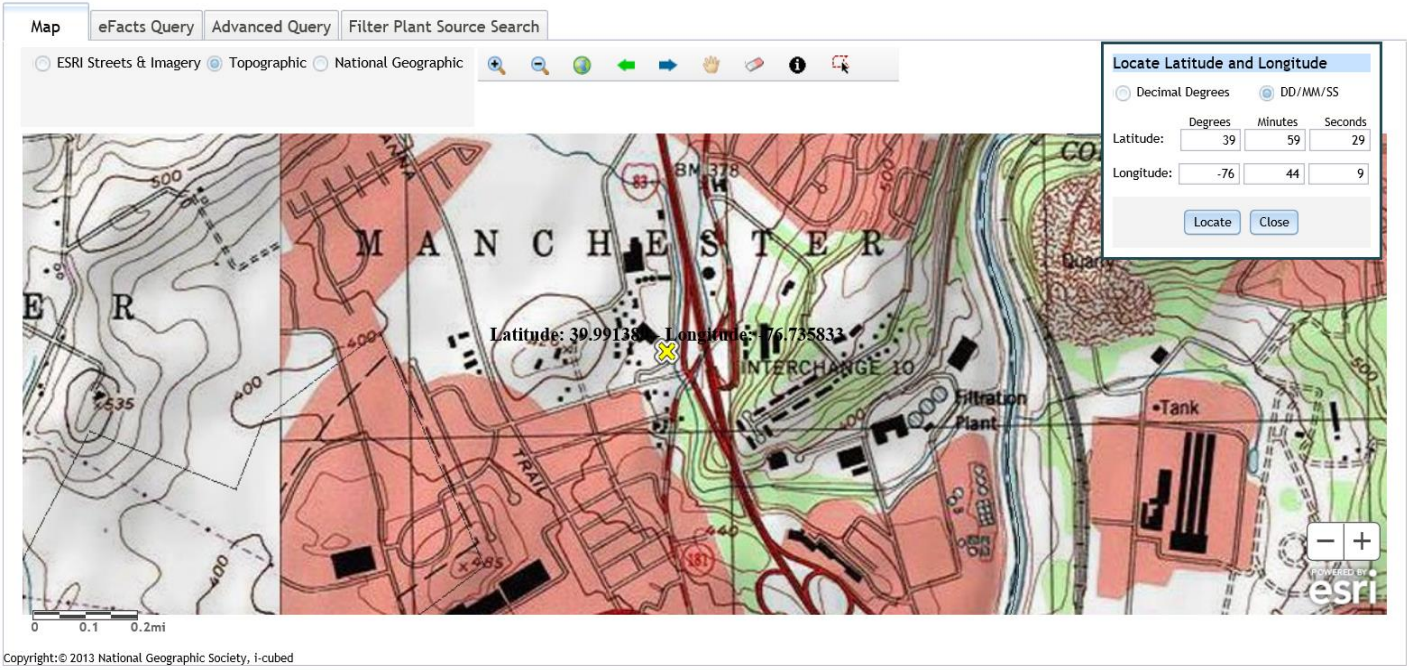
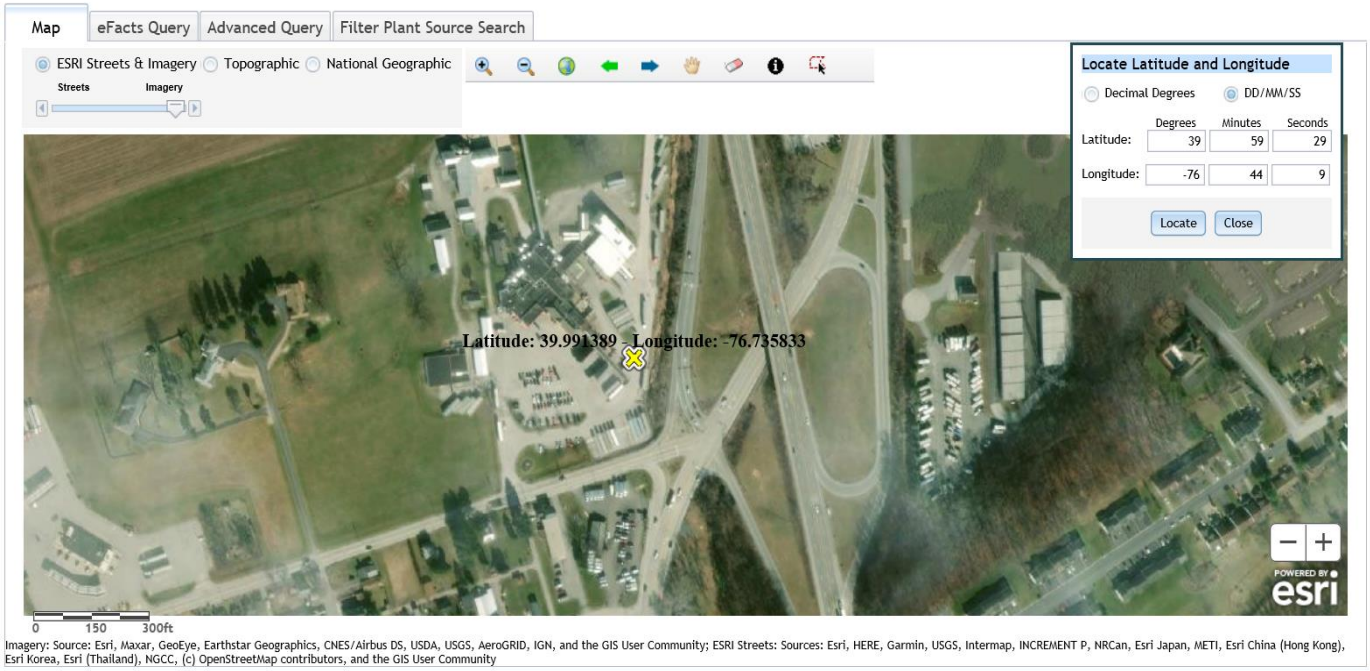


Figure 2: Aerial Photograph of the subject facility



2.1.2 Sources of Wastewater/Stormwater

Influent water source for the facility originates from a spring.

The facility has the following outfall information for stormwater.

- Outfall 002 is a stormwater outfall that is channelized to a spring stream. The parking lot comprises approximately 78,300 ft^2 contributing to the stormwater drainage. Stormwater from the southern parking lot is collected in a series of catch basins and discharged to the channelized spring stream. This discharge point is separate from the non-contact cooling water discharge (Outfall 001) and often submerged within the stream.

2.2 Description of Wastewater Treatment Process

The subject facility is a 0.2 MGD design flow facility. The subject facility does not have treatment units for wastewater. The facility discharges non-contact cooling water from two (2) air compressors and three (3) heat exchangers. The facility is being evaluated for pH and temperature of the discharge. The existing permits limits for the facility is summarized in Section 2.4.

2.3 Facility Outfall Information

The facility has the following outfall information for wastewater.

Outfall No. 001 **Design Flow (MGD)** .2
Latitude 39º 59' 29.00" **Longitude** -76º 44' 9.00"
Wastewater Description: Noncontact Cooling Water (NCCW)

2.4 Existing NPDES Permits Limits

The existing NPDES permit limits are summarized in the table.

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. A. **For Outfall** 001 , **Latitude** 39° 59' 29.00" , **Longitude** 76° 44' 9.00" , **River Mile Index** 0.95 , **Stream Code** 08055

Receiving Waters: Unnamed Tributary to Codorus Creek

Type of Effluent: Non-Contact Cooling Water

1. The permittee is authorized to discharge during the period from June 1, 2014 through May 31, 2015.
2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Daily Average	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
Temperature (°F)	XXX	XXX	XXX	Report	XXX	XXX	1/day	I-S

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

at Outfall 001

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. B. For Outfall 001 , **Latitude** 39° 59' 29.00" , **Longitude** 76° 44' 9.00" , **River Mile Index** 0.95 , **Stream Code** 08055

Receiving Waters: Unnamed Tributary to Codorus Creek

Type of Effluent: Non-Contact Cooling Water

1. The permittee is authorized to discharge during the period from June 1, 2015 through May 31, 2019.

2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Daily Average	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
Temperature (°F) Jan 1-31	XXX	XXX	XXX	49.3	XXX	XXX	1/day	I-S
Temperature (°F) Feb 1-29	XXX	XXX	XXX	50.2	XXX	XXX	1/day	I-S
Temperature (°F) Mar 1-31	XXX	XXX	XXX	70.4	XXX	XXX	1/day	I-S
Temperature (°F) Apr 1-15	XXX	XXX	XXX	79.1	XXX	XXX	1/day	I-S
Temperature (°F) Apr 16-30	XXX	XXX	XXX	85.1	XXX	XXX	1/day	I-S
Temperature (°F) May 1 - Oct 31	XXX	XXX	XXX	Report	XXX	XXX	1/day	I-S
Temperature (°F) Nov 1-15	XXX	XXX	XXX	67.3	XXX	XXX	1/day	I-S
Temperature (°F) Nov 16-30	XXX	XXX	XXX	57.4	XXX	XXX	1/day	I-S
Temperature (°F) Dec 1-31	XXX	XXX	XXX	49.0	XXX	XXX	1/day	I-S

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

at Outfall 001

3.0 Facility NPDES Compliance History

3.1 Summary of Inspections

A summary of the most recent inspections during the existing permit review cycle is as follows.

The DEP inspector noted the following during the inspection.

03/16/2015:

- There was nothing significant to report.

03/07/2019:

- The facility has a monitoring probe located on the south side of the building that continuously monitors pH and temperature. An average of the pH and daily temperature is calculated for both influent and effluent locations. The daily average is what is recorded on the DMR.
- The facility has a waste treatment facility. All floor drains inside the facility drain to the waste treatment plant. The wastewater treatment plant is a pre-treatment facility before discharging effluent to the City of York Wastewater Treatment Plant.

3.2 Summary of DMR Data

A review of approximately 1-year of DMR data shows that the monthly average flow data for the facility above the design capacity of the treatment system in June 2020. For that month, the maximum average flow data for the DMR reviewed was 0.212 MGD. Other monthly average flow rates were generally below the design capacity of the treatment system. The design capacity of the treatment system is 0.2 MGD.

DMR Data for Outfall 001 (from July 1, 2019 to June 30, 2020)

Parameter	JUN-20	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19
Flow (MGD) Average Monthly	0.212	0.193	0.176	0.175	0.171	0.164	0.179	0.193	0.201	0.201	0.174	0.188
Flow (MGD) Daily Maximum	0.271	0.253	0.231	0.218	0.213	0.203	0.245	0.233	0.260	0.251	0.230	0.261
pH (S.U.) Minimum	6.84	6.85	6.61	6.60	6.50	6.41	6.49	6.48	6.34	6.34	6.44	6.55
pH (S.U.) Maximum	7.19	7.10	6.94	6.88	6.81	6.93	6.91	7.12	6.97	6.90	6.64	7.16
Temperature (Day 1 thru 15) (ºF) Daily Average			58.8					62.4				
Temperature (Day 16 thru End of Month) (ºF) Daily Average			58.6					60.3				
Temperature (ºF) Daily Average	59.6	58.3		59.3	58.6	58.9	59.8		65.5	68.6	64.1	60.9

3.3 Non-Compliance

3.3.1 Non-Compliance- NPDES Effluent

A summary of the more recent non-compliance to the permit limits for the existing permit cycle is as follows.

Temperature data shows non-compliance with temperature NPDES limits in January, February, November, and December.

Non-Compliance with NPDES Permit Effluent Limits

Month Start	Month End	Parameter	DMR	Permit Limit
11/1/2018	11/30/2018	Temperature (deg F)	57.4	57.8
12/1/2018	12/31/2018	Temperature (deg F)	49.0	57.7
1/1/2019	1/31/2019	Temperature (deg F)	49.3	57.4
2/1/2019	2/28/2019	Temperature (deg F)	50.2	57.4
11/1/2019	11/30/2019	Temperature (deg F)	57.4	62.4
12/1/2019	12/31/2019	Temperature (deg F)	49.0	59.8
1/1/2020	1/31/2020	Temperature (deg F)	49.3	58.9
2/1/2020	2/29/2020	Temperature (deg F)	50.2	58.6

3.3.2 Non-Compliance- Enforcement Actions

A summary of the non-compliance enforcement actions for the current permit cycle is as follows:

Beginning in June 1, 2014 and ending August 29, 2020, there were no observed enforcement actions.

3.4 Summary of Biosolids Disposal

A summary of the biosolids disposed of from the facility is as follows.

- Since the facility discharges no-contact cooling water, no biosolids generation is suspected.

3.5 Open Violations

As of August 2020, the facility had an open violation in the Underground Storage Tank Program. While the draft Fact Sheet may be presented to the facility for review and comment, the final NPDES may be withheld until the open violation has been cleared.

4.0 Receiving Waters and Water Supply Information Detail Summary

4.1 Receiving Waters

The receiving waters has been determined to be Tributary 08055 to Codorus Creek. The sequence of receiving streams that Tributary 08055 to Codorus Creek discharges into are the Codorus Creek, and the Susquehanna River eventually drains into the Chesapeake Bay.

4.2 Public Water Supply (PWS) Intake

The closest PWS to the subject facility is the Wrightsville Borough Municipal Authority (PWS ID #7670097) located approximately 18 miles downstream of the subject facility on the Susquehanna River. Based upon the distance and the flow rate of the facility, the PWS should not be impacted.

4.3 Class A Wild Trout Streams

Class A Wild Trout Streams are waters that support a population of naturally produced trout of sufficient size and abundance to support long-term and rewarding sport fishery. DEP classifies these waters as high-quality coldwater fisheries.

The information obtained from EMAP suggests that no Class A Wild Trout Fishery will be impacted by this discharge.

4.4 2018 Integrated List of All Waters (303d Listed Streams):

Section 303(d) of the Clean Water Act requires States to list all impaired surface waters not supporting uses even after appropriate and required water pollution control technologies have been applied. The 303(d) list includes the reason for impairment which may be one or more point sources (i.e. industrial or sewage discharges) or non-point sources (i.e. abandoned mine lands or agricultural runoff and the pollutant causing the impairment such as metals, pH, mercury or siltation).

States or the U.S. Environmental Protection Agency (EPA) must determine the conditions that would return the water to a condition that meets water quality standards. As a follow-up to listing, the state or EPA must develop a Total Maximum Daily Load (TMDL) for each waterbody on the list. A TMDL identifies allowable pollutant loads to a waterbody from both point and non-point sources that will prevent a violation of water quality standards. A TMDL also includes a margin of safety to ensure protection of the water.

The water quality status of Pennsylvania's waters uses a five-part categorization (lists) of waters per their attainment use status. The categories represent varying levels of attainment, ranging from Category 1, where all designated water uses are met to Category 5 where impairment by pollutants requires a TMDL for water quality protection.

The receiving waters is listed in the 2018 Pennsylvania Integrated Water Quality Monitoring and Assessment Report as a Category 4c and 5 waterbody. The surface waters is an impaired stream for aquatic life from water/flow variability due to urban runoff/storm sewers. The receiving water is also impaired for aquatic life from siltation due to urban/storm sewers. The designated use has been classified as protected waters for warm water fishes (WWF) and migratory fishes (MF).

4.5 Low Flow Stream Conditions

Water quality modeling estimates are based upon conservative data inputs. The data are typically estimated using either a stream gauge or through USGS web based StreamStats program. The NPDES effluent limits are based upon the combined flows from both the stream and the facility discharge.

A conservative approach to estimate the impact of the facility discharge using values which minimize the total combined volume of the stream and the facility discharge. The volumetric flow rate for the stream is based upon the seven-day, 10-year low flow (Q710) which is the lowest estimated flow rate of the stream during a 7 consecutive day period that occurs once in 10 -year time period. The facility discharge is based upon a known design capacity of the subject facility.

The closest WQN station to the subject facility is the Codorus Creek station (WQN286). This WQN station is located approximately 9 miles downstream of the subject facility.

The closest gauge station to the subject facility is the Susquehanna River station at Marietta, PA (USGS station number 1576000). This gauge station is located approximately 16 miles downstream of the subject facility.

The low flow yield and the Q710 for the subject facility was estimated using StreamStats.

The Q710 is 0.183 ft^3/s and the low flow yield is 0.0867 $ft^3/s/mi^2$.

4.6 Summary of Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	.2
Latitude	39Âº 59' 28.90"	Longitude	-76Âº 44' 8.43"
Quad Name		Quad Code	
Wastewater Description:	Noncontact Cooling Water (NCCW)		

Receiving Waters	Unnamed Tributary to Codorus Creek (WWF)	Stream Code	8055
NHD Com ID	57467591	RMI	0.92
Drainage Area	2.11	Yield (cfs/mi^2)	0.0867
Q_{7-10} Flow (cfs)	0.183	Q_{7-10} Basis	StreamStats
Elevation (ft)	371	Slope (ft/ft)	
Watershed No.	7-H	Chapter 93 Class.	WWF, MF
Existing Use	Same as Chapter 93 class	Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	FLOW REGIME MODIFICATION, SILTATION		
Source(s) of Impairment	URBAN RUNOFF/STORM SEWERS, URBAN RUNOFF/STORM SEWERS		
TMDL Status	Not appl.	Name	

Background/Ambient Data		Data Source
pH (SU)	Not appl.	
Temperature (°F)	Not appl.	
Hardness (mg/L)	Not appl.	
Other:		

Nearest Downstream Public Water Supply Intake	Wrightsville Borough Municipal Authority		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	
PWS RMI	42	Distance from Outfall (mi)	18

5.0 Overview of Presiding Water Quality Standards

5.1 General

There are at least six (6) different policies which determines the effluent performance limits for the NPDES permit. The policies are technology based effluent limits (TBEL), water quality based effluent limits (WQBEL), antidegradation, total maximum daily loading (TMDL), anti-backsliding, and whole effluent toxicity (WET) The effluent performance limitations enforced are the selected permit limits that is most protective to the designated use of the receiving waters. An overview of each of the policies that are applicable to the subject facility has been presented in Section 6.

5.2.1 Technology-Based Limitations

TBEL treatment requirements under section 301(b) of the Act represent the minimum level of control that must be imposed in a permit issued under section 402 of the Act (40 CFR 125.3). The presiding sources for the basis for the effluent limitations are governed by either federal or state regulation. The reference sources for each of the parameters is itemized in the table. The following technology-based limitations apply, subject to water quality analysis and best professional judgement (BPJ) where applicable.

pH is regulated by Chapter 95.2(1) while temperature of the receiving stream for thermal discharges is regulated by Chapter 93.7.

Parameter	Limit (mg/l)	SBC	Federal Regulation	State Regulation
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)

Chater 93.7 Thermal Criteria for Warm Water Fishes

Month	WWF Criteria (ºF)
Jan 1-31	40
Feb 1-29	40
Mar 1-31	46
Apr 1-15	52
Apr 16-30	58
May 1-15	64
May 16-31	72
Jun 1-15	80
Jun 16-30	84
Jul 1-31	87
Aug 1-15	87
Aug 16-31	87
Sep 1-15	84
Sep 16-30	78
Oct 1-15	72
Oct 16-31	66
Nov 1-15	58
Nov 16-30	50
Dec 1-31	42

5.3 Water Quality-Based Limitations

WQBEL are based on the need to attain or maintain the water quality criteria and to assure protection of designated and existing uses (PA Code 25, Chapter 92a.2). The subject facility that is typically enforced is the more stringent limit of either the TBEL or the WQBEL.

Determination of WQBEL is calculated by spreadsheet analysis or by a computer modeling program developed by DEP. DEP permit engineers utilize the following computing programs for WQBEL permit limitations: (1) MS Excel worksheet for Total Residual Chorine (TRC); (2) WQM 7.0 for Windows Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen Version 1.0 (WQM Model) and (3) PENTOXSD for Windows 2.0 (PENTOXSD) for Toxics pollutants.

5.3.1 Water Quality Modeling 7.0 (for CBOD, TSS, and ammonia-nitrogen)

Since the parameters TRC, dissolved oxygen, or ammonia nitrogen are not of concern, WQM modeling was not necessary.

5.3.1.1 Thermal Modeling

Since the facility discharges non-contact cooling water, DEP's thermal worksheet was utilized for temperature limits.

Table A summarizes the thermal discharge recommended permit limits on a monthly basis. Default values for ambient stream temperature and the target maximum stream temperature were utilized to arrive at the TSF Daily Waste Load Allocation (WLA) for temperature on a monthly basis. The column with the arrow represents the temperature limit for each month.

While the current permit only has temperature limits for January through April, November, and December, the proposed permit renewal will have permit limits for all 12 months. This will make the permit more complete with temperature limits for each month.

Minor differences in temperature limits from the current permit to the existing permit will occur. This is due to minor changes in the Thermal Worksheets that DEP had developed. The minor changes are how the upstream flows and adjusted stream flow is calculated.

The thermal temperature limits have been modeled using Case 2 scenario. This occurs when the source of the water is from a different source that the receiving stream.

Table A
Summary of Monthly Temperature Limits

	WWF Ambient Stream Temperature (ºF) (Default)	Ambient Stream Temperature (ºF) (Site-specific data)	Target Maximum Stream Temp.1 (ºF)	WWF Daily WLA2 (Million BTUs/day)	WWF Daily WLA3 (ºF)	at Discharge Flow (MGD)	PMF
Jan 1-31	35	0	40	N/A -- Case 2	49.0	0.2	1.00
Feb 1-29	35	0	40	N/A -- Case 2	50.2	0.2	1.00
Mar 1-31	40	0	46	N/A -- Case 2	68.7	0.2	1.00
Apr 1-15	47	0	52	N/A -- Case 2	78.1	0.2	1.00
Apr 16-30	53	0	58	N/A -- Case 2	84.1	0.2	1.00
May 1-15	58	0	64	N/A -- Case 2	81.7	0.2	1.00
May 16-31	62	0	72	N/A -- Case 2	101.6	0.2	1.00
Jun 1-15	67	0	80	N/A -- Case 2	102.4	0.2	1.00
Jun 16-30	71	0	84	N/A -- Case 2	106.4	0.2	1.00
Jul 1-31	75	0	87	N/A -- Case 2	96.5	0.2	1.00
Aug 1-15	74	0	87	N/A -- Case 2	97.5	0.2	1.00
Aug 16-31	74	0	87	N/A -- Case 2	97.5	0.2	1.00
Sep 1-15	71	0	84	N/A -- Case 2	92.2	0.2	1.00
Sep 16-30	65	0	78	N/A -- Case 2	86.2	0.2	1.00
Oct 1-15	60	0	72	N/A -- Case 2	80.9	0.2	1.00
Oct 16-31	54	0	66	N/A -- Case 2	74.9	0.2	1.00
Nov 1-15	48	0	58	N/A -- Case 2	68.5	0.2	1.00
Nov 16-30	42	0	50	N/A -- Case 2	58.4	0.2	1.00
Dec 1-31	37	0	42	N/A -- Case 2	50.7	0.2	1.00

[1] This is the maximum of the WWF WQ criterion or the ambient temperature. The ambient temperature may be either the design (median) temperature for WWF, or the ambient stream temperature based on site-specific data entered by the user. A minimum of 1ºF above ambient stream temperature is allocated.

[2] The WLA expressed in Million BTUs/day is valid for Case 1 scenarios, and disabled for Case 2 scenarios.

[3] The WLA expressed in ºF is valid only if the limit is tied to a daily discharge flow limit (may be used for Case 1 or Case 2).

WLAs greater than 110ºF are displayed as 110ºF.

5.3.2 PENTOXSD Modeling

The facility is not subject to PENTOXSD.

5.4 Total Maximum Daily Loading (TMDL)

5.4.1 TMDL

The goal of the Clean Water Act (CWA), which governs water pollution, is to ensure that all of the Nation's waters are clean and healthy enough to support aquatic life and recreation. To achieve this goal, the CWA created programs designed to regulate and reduce the amount of pollution entering United States waters. Section 303(d) of the CWA requires states to assess their waterbodies to identify those not meeting water quality standards. If a waterbody is not meeting standards, it is listed as impaired and reported to the U.S. Environmental Protection Agency. The state then develops a plan to clean up the impaired waterbody. This plan includes the development of a Total Maximum Daily Load (TMDL) for the pollutant(s) that were found to be the cause of the water quality violations. A Total Maximum Daily Load (TMDL) calculates the maximum amount of a specific pollutant that a waterbody can receive and still meet water quality standards.

Pennsylvania has committed to restoring all impaired waters by developing TMDLs and TMDL alternatives for all impaired waterbodies. The TMDL serves as the starting point or planning tool for restoring water quality.

5.4.1.1 Local TMDL

The subject facility does not discharge into a local TMDL.

5.4.1.2 Chesapeake Bay TMDL Requirement

The Chesapeake Bay Watershed is a large ecosystem that encompasses approximately 64,000 square miles in Maryland, Delaware, Virginia, West Virginia, Pennsylvania, New York and the District of Columbia. An ecosystem is composed of interrelated parts that interact with each other to form a whole. All of the plants and animals in an ecosystem depend on each other in some way. Every living thing needs a healthy ecosystem to survive. Human activities affect the Chesapeake Bay ecosystem by adding pollution, using resources and changing the character of the land.

Most of the Chesapeake Bay and many of its tidal tributaries have been listed as impaired under Section 303(d) of the federal Water Pollution Control Act ("Clean Water Act"), 33 U.S.C. § 1313(d). While the Chesapeake Bay is outside the boundaries of Pennsylvania, more than half of the State lies within the watershed. Two major rivers in Pennsylvania are part of the Chesapeake Bay Watershed. They are (a) the Susquehanna River and (b) the Potomac River. These two rivers total 40 percent of the entire Chesapeake Bay watershed.

The overall management approach needed for reducing nitrogen, phosphorus and sediment are provided in the Bay TMDL document and the Phase I, II, and III WIPs which is described in the Bay TMDL document and Executive Order 13508.

The Bay TMDL is a comprehensive pollution reduction effort in the Chesapeake Bay watershed identifying the necessary pollution reductions of nitrogen, phosphorus and sediment across the seven Bay watershed jurisdictions of Delaware, Maryland, New York, Pennsylvania, Virginia, West Virginia and the District of Columbia to meet applicable water quality standards in the Bay and its tidal waters.

The Watershed Implementation Plans (WIPs) provides objectives for how the jurisdictions in partnership with federal and local governments will achieve the Bay TMDL's nutrient and sediment allocations.

Phase 3 WIP provides an update on Chesapeake Bay TMDL implementation activities for point sources and DEP's current implementation strategy for wastewater. The latest revision of the supplement was December 17, 2019.

The Chesapeake Bay TMDL (Appendix Q) categorizes point sources into four sectors:

- Sector A- significant sewage dischargers;
- Sector B- significant industrial waste (IW) dischargers;
- Sector C- non-significant dischargers (both sewage and IW facilities); and
- Sector D- combined sewer overflows (CSOs).

All sectors contain a listing of individual facilities with NPDES permits that were believed to be discharging at the time the TMDL was published (2010). All sectors with the exception of the non-significant dischargers have individual wasteload allocations (WLAs) for TN and TP assigned to specific facilities. Non-significant dischargers have a bulk or aggregate allocation for TN and TP based on the facilities in that sector that were believed to be discharging at that time and their estimated nutrient loads.

Based upon the supplement the subject facility has been categorized as a Sector C discharger. The supplement defines Sector C as a non-significant discharger that includes sewage facilities (Phase 4 facilities: ≥ 0.2 MGD and < 0.4 MGD and Phase 5 facilities: > 0.002 MGD and < 0.2 MGD), small flow/single residence sewage treatment facilities (≤ 0.002 MGD), and non-significant IW facilities, all of which may be covered by statewide General Permits or may have individual NPDES permits.

At this time, there are approximately 850 Phase 4 and 5 sewage facilities, approximately 715 small flow sewage treatment facilities covered by a statewide General Permit, and approximately 300 non-significant IW facilities.

For non-significant IW facilities, monitoring and reporting of TN and TP will be required throughout the permit term in renewed or amended permits anytime the facility has the potential to introduce a net TN or TP increase to the load contained within the intake water used in processing.

In general, facilities that discharge groundwater and cooling water with no addition of chemicals containing N or P do not require monitoring

Non-significant IW facilities that propose expansion or production increases and as a result will discharge at least 75 lbs/day TN or 25 lbs/day TP (on an annual average basis), will be classified as Significant IW dischargers and receive Cap Loads in their permits based on existing performance (existing TN/TP concentrations at current average annual flow).

In general, for new non-significant IW discharges (including existing facilities discharging without a permit), DEP will issue permits containing Cap Loads of "0" and these facilities will be expected to purchase credits and/or apply offsets to achieve compliance.

Since this facility discharges non-contact cooling water only, this facility is not subject to Sector C monitoring requirements.

5.5 Anti-Degradation Requirement

Chapter 93.4a of the PA regulations requires that surface water of the Commonwealth of Pennsylvania may not be degraded below levels that protect the existing uses. The regulations specifically state that *Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected*. Antidegradation requirements are implemented through DEP's guidance manual entitled Water Quality Antidegradation Implementation Guidance (Document #391-0300-02).

The policy requires DEP to protect the existing uses of all surface waters and the existing quality of High Quality (HQ) and Exceptional Value (EV) Waters. Existing uses are protected when DEP makes a final decision on any permit or approval for an activity that may affect a protected use. Existing uses are protected based upon DEP's evaluation of the best available information (which satisfies DEP protocols and Quality Assurance/Quality Control (QA/QC) procedures) that indicates the protected use of the waterbody.

For a new, additional, or increased point source discharge to an HQ or EV water, the person proposing the discharge is required to utilize a nondischarge alternative that is cost-effective and environmentally sound when compared with the cost of the proposed discharge. If a nondischarge alternative is not cost-effective and environmentally sound, the person must use the best available combination of treatment, pollution prevention, and wastewater reuse technologies and assure that any discharge is nondegrading. In the case of HQ waters, DEP may find that after satisfaction of intergovernmental coordination and public participation requirements lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In addition, DEP will assure that cost-effective and reasonable best management practices for nonpoint source control in HQ and EV waters are achieved.

The subject facility's discharge will be to a non-special protection waters and the permit conditions are imposed to protect existing instream water quality and uses. Neither HQ waters or EV waters is impacted by this discharge.

5.6 Anti-Backsliding

Anti-backsliding is a federal regulation which prohibits a permit from being renewed, reissued, or modified containing effluent limitations which are less stringent than the comparable effluent limitations in the previous permit (40 CFR 122.l.1 and 40 CFR 122.l.2). A review of the existing permit limitations with the proposed permit limitations confirm that the facility is consistent with anti-backsliding requirements. The facility has proposed effluent limitations that are as stringent as the existing permit.

6.0 NPDES Parameter Details

The basis for the proposed sampling and their monitoring frequency that will appear in the permit for each individual parameter are itemized in this Section. The final limits are the more stringent of technology based effluent treatment (TBEL) requirements, water quality based (WQBEL) limits, TMDL, antidegradation, anti-degradation, or WET.

The reader will find in this section:

a) a justification of recommended permit monitoring requirements and limitations for each parameter in the proposed NPDES permit;
b) a summary of changes from the existing NPDES permit to the proposed permit; and
c) a summary of the proposed NPDES effluent limits.

6.1 Recommended Monitoring Requirements and Effluent Limitations

A summary of the recommended monitoring requirements and effluent limitations are itemized in the tables. The table is categorized by (a) Conventional Pollutants and Temperature.

Summary of Proposed NPDES Parameter Details for Conventional Pollutants and Disinfection

Rutters Dairy, PA0081418

Parameter	Permit Limitation Required by[1]:	Recommendation	
pH (S.U.)	TBEL	Monitoring:	The monitoring frequency shall be daily as a grab sample (Table 6-4).
		Effluent Limit:	Effluent limits may range from pH = 6.0 to 9.0
		Rationale:	The monitoring frequency has been assigned in accordance with Table 6-4 and the effluent limits assigned by Chapter 95.2(1).
Temperature (F)	WQBEL	Monitoring:	The monitoring frequency shall be daily as a grab sample (Table 6-4).
		Effluent Limit:	Temperature limits vary dependent upon the month of the year. Refer to the permit table for individual temperature limits.
		Rationale:	The monitoring frequency has been assigned in accordance with Table 6-4 and the effluent limits assigned by DEP Thermal Worksheet

Notes:

1 The NPDES permit was limited by (a) anti-Backsliding, (b) Anti-Degradation, (c) SOP, (d) TBEL, (e) TMDL, (f) WQBEL, (g) WET, or (h) Other

2 Monitoring frequency based on flow rate of 0.20 MGD.

3 Table 6-4 (Self Monitoring Requirements for Industrial Discharges) in Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits) (Document # 362-0400-001) Revised 10/97

4 Water Quality Antidegradation Implementaton Guidance (Document # 391-0300-002)

5 Phase 2 Watershed Implementation Plan Wastewater Supplement, Revised September 6, 2017

6.1.1 Conventional Pollutants and Disinfection

The evaluation of Pollutant Group 1 parameters was limited to the pollutants under the NPDES Application for Individual Permit to Discharge- Industrial Wastewater Instructions. Facilities that discharge only non-process wastewater not regulated by an ELG or new source performance standard can, in lieu of completing three analyses for all Group 1 pollutants, complete three analyses for the following pollutants:

- 5-Day Biochemical Oxygen Demand (BOD5);
- Total Suspended Solids (TSS);
- Total Dissolved Solids (TDS);
- Total Residual Chlorine (TRC) (if chlorine is used);
- Oil and Grease;
- Chemical Oxygen Demand (COD) (if non-contact cooling water is or will be discharged);
- Total Organic Carbon (TOC) (if non-contact cooling water is or will be discharged); and
- Ammonia-Nitrogen;

The sampling results are summarized in the table.

Pollutant Group 1 Sample Results Reported in NPDES Application	
Parameter	**Max Daily Value**
	mg/l
BOD	<2
TSS	<5
TDS	385
TRC	<0.10
Oil and Grease	<2.1
COD	<15
TOC	2.6
NH3-N	<0.1

6.1.3 Toxics

While the facility is subject to federal ELG under Dairy Products Processing Point Source Category (40 CFR Part 405), the facility is exempt since their process involves only non-contact cooling water and stormwater.

6.2 Summary of Changes From Existing Permit to Proposed Permit

A summary of how the proposed NPDES permit differs from the existing NPDES permit is summarized as follows.

Changes in Permit Monitoring or Effluent Quality

Parameter	Existing Permit	Draft Permit
Temperature Jan	Temperature limit of 49.3 F	Due to updates in the temperature spreadsheet, the temperature limit shall be 49.0 F
Temperature Feb	Temperature limit of 50.2 F	Temperature limit of 50.2 F
Temperature Mar	Temperature limit of 70.4 F	Due to updates in the temperature spreadsheet, the temperature limit shall be 68.7 F
Temperature Apr 1 -15	Temperature limit of 79.1 F	Due to updates in the temperature spreadsheet, the temperature limit shall be 78.1 F
Temperature Apr 16 - 30	Temperature limit of 85.1 F	Due to updates in the temperature spreadsheet, the temperature limit shall be 84.1 F
Temperature May 1 -15	No effluent limits.	Temperature limit of 81.7 F
Temperature May 16 - 31	No effluent limits.	Temperature limit of 101.6 F
Temperature Jun 1 -15	No effluent limits.	Temperature limit of 102.4 F
Temperature Jun 16 - 30	No effluent limits.	Temperature limit of 106.4 F
Temperature Jul	No effluent limits.	Temperature limit of 96.5 F
Temperature Aug 1 -15	No effluent limits.	Temperature limit of 97.5 F
Temperature Apr 16 - 31	No effluent limits.	Temperature limit of 97.5 F
Temperature Sep 1 -15	No effluent limits.	Temperature limit of 92.2 F
Temperature Sep 16 - 30	No effluent limits.	Temperature limit of 86.2 F
Temperature Oct 1 -15	No effluent limits.	Temperature limit of 80.9 F
Temperature Oct 16 - 31	No effluent limits.	Temperature limit of 74.9 F
Temperature Nov 1-15	Temperature limit of 67.3 F	Due to updates in the temperature spreadsheet, the temperature limit shall be 68.5 F
Temperature Nov 15-30	Temperature limit of 57.4 F	Due to updates in the temperature spreadsheet, the temperature limit shall be 58.4 F
Temperature Dec	Temperature limit of 49.0 F	Due to updates in the temperature spreadsheet, the temperature limit shall be 50.7 F

6.3.1 Summary of Proposed NPDES Effluent Limits

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.

The proposed NPDES effluent limitations are summarized in the table below.

3800-PM-BCW0011 Rev. 2/2020
Permit

Permit No. PA0081418

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. A. For Outfall 001 , **Latitude** 39° 59' 29.00" , **Longitude** 76° 44' 9.00" , **River Mile Index** 0.92 , **Stream Code** 8055

Receiving Waters: Unnamed Tributary to Codorus Creek (WWF)

Type of Effluent: Noncontact Cooling Water (NCCW)

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.
2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

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 Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
Temperature (deg F) (°F) Jan 1 - 31	XXX	XXX	XXX	49.0	XXX	XXX	1/day	I-S
Temperature (deg F) (°F) Feb 1 - 29	XXX	XXX	XXX	50.2	XXX	XXX	1/day	I-S
Temperature (deg F) (°F) Mar 1 - 31	XXX	XXX	XXX	68.7	XXX	XXX	1/day	I-S
Temperature (deg F) (°F) Apr 1 - 15	XXX	XXX	XXX	78.1	XXX	XXX	1/day	I-S
Temperature (deg F) (°F) Apr 16 - 30	XXX	XXX	XXX	84.1	XXX	XXX	1/day	I-S
Temperature (deg F) (°F) May 1 - 15	XXX	XXX	XXX	81.7	XXX	XXX	1/day	I-S
Temperature (deg F) (°F) May 16 - 31	XXX	XXX	XXX	101.6	XXX	XXX	1/day	I-S
Temperature (deg F) (°F) Jun 1 - 15	XXX	XXX	XXX	102.4	XXX	XXX	1/day	I-S
Temperature (deg F) (°F) Jun 16 - 30	XXX	XXX	XXX	106.4	XXX	XXX	1/day	I-S

Permit No. PA0081418

Outfall 001, Continued (from 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		
Temperature (deg F) (°F) Jul 1 - 31	XXX	XXX	XXX	96.5	XXX	XXX	1/day	I-S
Temperature (deg F) (°F) Aug 1 - 15	XXX	XXX	XXX	97.5	XXX	XXX	1/day	I-S
Temperature (deg F) (°F) Aug 16 - 31	XXX	XXX	XXX	97.5	XXX	XXX	1/day	I-S
Temperature (deg F) (°F) Sep 1 - 15	XXX	XXX	XXX	92.2	XXX	XXX	1/day	I-S
Temperature (deg F) (°F) Sep 16 - 30	XXX	XXX	XXX	86.2	XXX	XXX	1/day	I-S
Temperature (deg F) (°F) Oct 1 - 15	XXX	XXX	XXX	80.9	XXX	XXX	1/day	I-S
Temperature (deg F) (°F) Oct 16 - 31	XXX	XXX	XXX	74.9	XXX	XXX	1/day	I-S
Temperature (deg F) (°F) Nov 1 - 15	XXX	XXX	XXX	68.5	XXX	XXX	1/day	I-S
Temperature (deg F) (°F) Nov 16 - 30	XXX	XXX	XXX	58.4	XXX	XXX	1/day	I-S
Temperature (deg F) (°F) Dec 1 - 31	XXX	XXX	XXX	50.7	XXX	XXX	1/day	I-S

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

at Outfall 001

6.3.2 Summary of Proposed Permit Part C Conditions

The subject facility has the following Part C conditions.

- Stormwater Requirements

7.0 Stormwater Sample Results

The permittee must monitor and report analytical results for parameters of concern on Discharge Monitoring Reports (DMRs) for representative outfalls. Sampling results submitted with the NPDES renewal application are summarized in the table. TSS exceeded the benchmark value.

Stormwater Sampling Results

Parameter	Max Cocentration mg/l	Benchmark Values mg/l	Exceed Benchmark Values (Yes/No)
Oil and Grease	3.65	30	No
BOD	4.3	XXX	Not applicable
COD	112	120	No
TSS	366	100	Yes
Total Nitrogen	0.573	XXX	Not applicable
Total Phosphorus	0.172	XXX	Not applicable
pH	8.23	XXX	Not applicable

Notes:

- Stormwater Sampling Results were abstracted from the NPDES Renewal application , Module 1- Stormwater, dated for March 28, 2019
- Benchmark Values abstracted from Appendix I- Food and Kindred Products

The benchmark values listed below are not effluent limitations, and exceedances do not constitute permit violations. However, if the permittee's sampling demonstrates exceedances of benchmark values for two consecutive monitoring periods, the permittee shall submit a corrective action plan within 90 days of the end of the monitoring period triggering the plan.

Tools and References Used to Develop Permit	
☐	WQM for Windows Model (see Attachment)
☐	PENTOXSD for Windows Model (see Attachment)
☐	TRC Model Spreadsheet (see Attachment)
☒	Temperature Model Spreadsheet (see Attachment)
☐	Toxics Screening Analysis Spreadsheet (see Attachment)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☐	Technical Guidance for the Development and Specification of Effluent Limitations, 362-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 362-2000-003, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 362-2000-008, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 362-2183-003, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 362-2183-004, 12/97.
☐	Pennsylvania CSO Policy, 385-2000-011, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 391-2000-002, 4/97.
☐	Determining Water Quality-Based Effluent Limits, 391-2000-003, 12/97.
☐	Implementation Guidance Design Conditions, 391-2000-006, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 391-2000-007, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 391-2000-008, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 391-2000-010, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 391-2000-011, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 391-2000-013, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 391-2000-014, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 391-2000-015, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 391-2000-017, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 391-2000-018, 10/97.
☐	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 391-2000-019, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 391-2000-021, 3/99.
☐	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 391-2000-022, 3/1999.
☐	Design Stream Flows, 391-2000-023, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 391-2000-024, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 391-3200-013, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☒	SOP: *New and Reissuance Industrial Waste and Industrial Stormwater, Revised October 11, 2015*
☐	Other:

Attachment A
Stream Stats/Gauge Data

Table 1. List of U.S. Geological Survey streamgage locations in and near Pennsylvania with updated streamflow statistics.—Continued

[Latitude and Longitude in decimal degrees; mi², square miles]

Streamgage number	Streamgage name	Latitude	Longitude	Drainage area (mi²)	Regulated[1]
01561000	Brush Creek at Gapsville, Pa.	39.956	-78.254	36.8	N
01562000	Raystown Branch Juniata River at Saxton, Pa.	40.216	-78.265	756	N
01562500	Great Trough Creek near Marklesburg, Pa.	40.350	-78.130	84.6	N
01563200	Raystown Branch Juniata River below Rays Dam nr Huntingdon, Pa.	40.429	-77.991	960	Y
01563500	Juniata River at Mapleton Depot, Pa.	40.392	-77.935	2,030	Y
01564500	Aughwick Creek near Three Springs, Pa.	40.213	-77.925	205	N
01565000	Kishacoquillas Creek at Reedsville, Pa.	40.655	-77.583	164	N
01565700	Little Lost Creek at Oakland Mills, Pa.	40.605	-77.311	6.52	N
01566000	Tuscarora Creek near Port Royal, Pa.	40.515	-77.419	214	N
01566500	Cocolamus Creek near Millerstown, Pa.	40.566	-77.118	57.2	N
01567000	Juniata River at Newport, Pa.	40.478	-77.129	3,354	Y
01567500	Bixler Run near Loysville, Pa.	40.371	-77.402	15.0	N
01568000	Sherman Creek at Shermans Dale, Pa.	40.323	-77.169	207	N
01568500	Clark Creek near Carsonville, Pa.	40.460	-76.751	22.5	LF
01569000	Stony Creek nr Dauphin, Pa.	40.380	-76.907	33.2	N
01569800	Letort Spring Run near Carlisle, Pa.	40.235	-77.139	21.6	N
01570000	Conodoguinet Creek near Hogestown, Pa.	40.252	-77.021	470	LF
01570500	Susquehanna River at Harrisburg, Pa.	40.255	-76.886	24,100	Y
01571000	Paxton Creek near Penbrook, Pa.	40.308	-76.850	11.2	N
01571500	Yellow Breeches Creek near Camp Hill, Pa.	40.225	-76.898	213	N
01572000	Lower Little Swatara Creek at Pine Grove, Pa.	40.538	-76.377	34.3	N
01572025	Swatara Creek near Pine Grove, Pa.	40.533	-76.402	116	N
01572190	Swatara Creek near Inwood, Pa.	40.479	-76.531	167	N
01573000	Swatara Creek at Harper Tavern, Pa.	40.403	-76.577	337	N
01573086	Beck Creek near Cleona, Pa.	40.323	-76.483	7.87	N
01573160	Quittapahilla Creek near Bellegrove, Pa.	40.343	-76.562	74.2	N
01573500	Manada Creek at Manada Gap, Pa.	40.397	-76.709	13.5	N
01573560	Swatara Creek near Hershey, Pa.	40.298	-76.668	483	N
01574000	West Conewago Creek near Manchester, Pa.	40.082	-76.720	510	N
01574500	Codorus Creek at Spring Grove, Pa.	39.879	-76.853	75.5	Y
01575000	South Branch Codorus Creek near York, Pa.	39.921	-76.749	117	Y
01575500	Codorus Creek near York, Pa.	39.946	-76.755	222	Y
01576000	Susquehanna River at Marietta, Pa.	40.055	-76.531	25,990	Y
01576085	Little Conestoga Creek near Churchtown, Pa.	40.145	-75.989	5.82	N
01576500	Conestoga River at Lancaster, Pa.	40.050	-76.277	324	N
01576754	Conestoga River at Conestoga, Pa.	39.946	-76.368	470	N
01578310	Susquehanna River at Conowingo, Md.	39.658	-76.174	27,100	Y
01578400	Bowery Run near Quarryville, Pa.	39.895	-76.114	5.98	N
01580000	Deer Creek at Rocks, Md.	39.630	-76.403	94.4	N
01581500	Bynum Run at Bel Air, Md.	39.541	-76.330	8.52	N
01581700	Winters Run near Benson, Md.	39.520	-76.373	34.8	N
01582000	Little Falls at Blue Mount, Md.	39.604	-76.620	52.9	N
01582500	Gunpowder Falls at Glencoe, Md.	39.550	-76.636	160	Y
01583000	Slade Run near Glyndon, Md.	39.495	-76.795	2.09	N
01583100	Piney Run at Dover, Md.	39.521	-76.767	12.3	N

Table 2. Selected low-flow statistics for streamgage locations in and near Pennsylvania.—Continued

[ft³/s; cubic feet per second; —, statistic not computed; <, less than]

Streamgage number	Period of record used in analysis[1]	Number of years used in analysis	1-day, 10-year (ft³/s)	7-day, 10-year (ft³/s)	7-day, 2-year (ft³/s)	30-day, 10-year (ft³/s)	30-day, 2-year (ft³/s)	90-day, 10-year (ft³/s)
01565000	1941–2008	37	17.6	18.6	28.6	20.3	32.4	24.4
01565700	1965–1981	17	.4	.4	.9	.5	1.1	.8
01566000	1913–2008	52	4.3	7.9	18.8	12.4	25.6	19.2
01566500	1932–1958	27	1.7	2.4	4.0	3.2	5.7	4.9
01567000	[2]1974–2008	35	504	534	725	589	857	727
01567000	[3]1901–1972	72	311	367	571	439	704	547
01567500	1955–2008	54	2.0	2.2	3.3	2.6	3.8	3.1
01568000	1931–2008	78	12.7	15.5	25.5	19.2	32.0	26.0
01568500	[2]1943–1997	55	1.8	2.3	4.3	2.7	5.0	3.1
01569000	1939–1974	14	2.6	4.0	7.4	5.1	9.4	7.8
01569800	1978–2008	31	15.9	17.0	24.4	18.4	26.1	20.3
01570000	[3]1913–1969	35	—	63.1	110	76.1	124	95.3
01570000	[2]1971–2008	38	63.1	69.3	109	78.3	125	97.8
01570500	[3]1901–1972	72	2,310	2,440	4,000	2,830	4,950	3,850
01570500	[2]1974–2008	35	3,020	3,200	5,180	3,690	6,490	4,960
01571000	1941–1995	16	.1	.2	.6	.3	1.2	.8
01571500	1911–2008	62	81.6	86.8	115	94.0	124	105
01572000	1921–1984	14	2.1	2.3	4.8	3.0	6.5	4.5
01572025	1990–2008	17	15.2	16.4	26.7	18.5	34.6	27.7
01572190	1990–2008	17	19.1	20.5	36.2	23.9	45.8	35.3
01573000	1920–2008	89	18.0	22.0	52.0	30.8	69.2	50.9
01573086	1965–1981	17	.5	.6	2.6	.8	3.3	1.1
01573160	1977–1994	18	26.9	29.6	46.4	33.6	51.9	39.5
01573500	1939–1958	20	1.3	1.4	2.5	1.8	3.2	2.6
01573560	1977–2008	30	50.3	62.0	104	76.9	131	108
01574000	1930–2008	79	8.0	11.1	32.0	17.7	47.0	33.9
01574500	[2]1968–2008	41	14.2	24.0	35.9	29.4	42.0	33.3
01574500	[3]1930–1966	34	2.3	7.1	11.5	9.3	14.8	12.7
01575000	[2]1973–1995	23	.7	1.4	6.7	3.2	12.0	9.3
01575000	[3]1929–1971	43	.1	.6	10.3	2.3	15.0	6.1
01575500	[2]1948–1996	49	12.1	18.7	41.3	23.9	50.0	33.8
01576000	[3]1933–1972	40	2,100	2,420	4,160	2,960	5,130	4,100
01576000	[2]1974–2008	35	2,990	3,270	5,680	3,980	7,180	5,540
01576085	1984–1995	12	.4	.5	.8	.7	1.2	1.2
01576500	1931–2008	78	27.2	38.6	79.4	49.1	97.3	66.1
01576754	1986–2008	23	74.2	84.9	151	106	189	147
[4]01578310	1969–2008	40	549	2,820	5,650	4,190	7,380	6,140
01578400	1964–1981	18	1.4	1.5	2.7	1.9	3.2	2.5
[4]01580000	1928–2008	81	19.7	22.8	48.1	28.1	51.8	35.4
[4]01581500	1946–2008	28	.2	.3	1.2	.8	1.7	1.5
[4]01581700	1969–2008	40	4.7	5.5	17.5	8.1	18.3	12.0
[4]01582000	1946–2008	63	11.3	12.5	25.0	15.5	28.0	20.3
[4]01582500	1979–2008	27	41.2	43.9	78.8	53.8	90.6	74.1
[4]01583000	1949–1981	33	.3	.3	.7	.3	1.0	.6
[4]01583100	1984–2008	15	2.1	2.4	5.5	3.2	6.0	4.2

Attachment B

Modeling Input Values

Master Input Sheet				
Rutter's Dairy				
PA0081418				
August 2020				
General Data 1 (Modeling Point #1)	***Type***	***Default***	***Input Value***	***Units***
Stream Code	R		8055	
River Mile Index	R		0.92	miles
Elevation	R		370.93	feet
Latitude			39.991389	
Longitude			-76.735833	
Drainage Area	R		2.11	sq miles
Reach Slope	O		Default	ft/ft
Low Flow Yield	R	0.1	0.0867	cfs/sq mile
Potable Water Supply Withdrawal	O	0	Default	mgd
General Data 2 (Modeling Point #2)	***Type***	***Default***	***Input Value***	***Units***
Stream Code	R		8055	
River Mile Index	R		0	miles
Elevation	R		352.94	feet
Latitude			39.990025	
Longitude			-76.723694	
Drainage Area	R		2.82	sq miles
Reach Slope	O		Default	ft/ft
Low Flow Yield	R	0.1	0.0867	cfs/sq mile
Potable Water Supply Withdrawal	O	0	Default	mgd
Discharge Data	***Type***	***Default***	***Input Value***	***Units***
Discharge Name	R		Rutter's Dairy	15 character
Permit Number	R		PA0081418	PA0000000
Existing Discharge Flow	R		0.2	mgd
Permitted Discharge Flow	R		0.2	mgd
Design Discharge Flow	R		0.2	mgd
Reserve Factor	O	0	Default	decimal percent
Discharge Temperature	R	25	Varies	C
Discharge pH	R	7	Not applicable	pH units
Discharge Hardness	R (Pentox)	100	Not applicable	mg/l

Attachment C

DEP Thermal Worksheets

Flow Data for Thermal Discharge Analysis

Facility: Rutter's Dairy
Permit Number: PA0081418
Stream Name: Tributary 08055 to Codorus Creek
Analyst/Engineer: DEP SCRO
Stream Q7-10 (cfs): 0.18

	Facility Flows				Stream Flows			
	Intake (Stream) (MGD)	Intake (External) (MGD)	Consumptive Loss (MGD)	Discharge Flow (MGD)	PMF	Upstream Stream Flow (cfs)	Adjusted Stream Flow (cfs)	Downstream Stream Flow (cfs)
Jan 1-31	0	0.2	0	0.2	1.00	0.56	0.56	0.87
Feb 1-29	0	0.2	0	0.2	1.00	0.63	0.63	0.94
Mar 1-31	0	0.2	0	0.2	1.00	1.17	1.17	1.48
Apr 1-15	0	0.2	0	0.2	1.00	1.61	1.61	1.92
Apr 16-30	0	0.2	0	0.2	1.00	1.61	1.61	1.92
May 1-15	0	0.2	0	0.2	1.00	0.91	0.91	1.22
May 16-31	0	0.2	0	0.2	1.00	0.91	0.91	1.22
Jun 1-15	0	0.2	0	0.2	1.00	0.53	0.53	0.84
Jun 16-30	0	0.2	0	0.2	1.00	0.53	0.53	0.84
Jul 1-31	0	0.2	0	0.2	1.00	0.24	0.24	0.55
Aug 1-15	0	0.2	0	0.2	1.00	0.25	0.25	0.56
Aug 16-31	0	0.2	0	0.2	1.00	0.25	0.25	0.56
Sep 1-15	0	0.2	0	0.2	1.00	0.19	0.19	0.50
Sep 16-30	0	0.2	0	0.2	1.00	0.19	0.19	0.50
Oct 1-15	0	0.2	0	0.2	1.00	0.23	0.23	0.54
Oct 16-31	0	0.2	0	0.2	1.00	0.23	0.23	0.54
Nov 1-15	0	0.2	0	0.2	1.00	0.33	0.33	0.64
Nov 16-30	0	0.2	0	0.2	1.00	0.33	0.33	0.64
Dec 1-31	0	0.2	0	0.2	1.00	0.54	0.54	0.85

Please forward all comments to Tom Starosta at 717-787-4317, tstarosta@state.pa.us.
Version 2.0 -- 07/01/2005 Reference: Implementation Guidance for Temperature Criteria, DEP-ID: 391-2000-017
NOTE: The user can only edit fields that are blue.
NOTE: MGD x 1.547 = cfs.

Thermal Discharge Recommended Permit Limits

Warm Water Fishes (WWF) Stream

Facility: **Rutter's Dairy**
Permit Number: PA0081418
Stream: Tributary 08055 to Codorus Creek

	WWF Ambient Stream Temperature (°F) (Default)	Ambient Stream Temperature (°F) (Site-specific data)	Target Maximum Stream Temp.[1] (°F)	WWF Daily WLA[2] (Million BTUs/day)	WWF Daily WLA[3] (°F)	at Discharge Flow (MGD)	PMF
Jan 1-31	35	0	40	N/A – Case 2	49.0	0.2	1.00
Feb 1-29	35	0	40	N/A – Case 2	50.2	0.2	1.00
Mar 1-31	40	0	46	N/A – Case 2	68.7	0.2	1.00
Apr 1-15	47	0	52	N/A – Case 2	78.1	0.2	1.00
Apr 16-30	53	0	58	N/A – Case 2	84.1	0.2	1.00
May 1-15	58	0	64	N/A – Case 2	81.7	0.2	1.00
May 16-31	62	0	72	N/A – Case 2	101.6	0.2	1.00
Jun 1-15	67	0	80	N/A – Case 2	102.4	0.2	1.00
Jun 16-30	71	0	84	N/A – Case 2	106.4	0.2	1.00
Jul 1-31	75	0	87	N/A – Case 2	96.5	0.2	1.00
Aug 1-15	74	0	87	N/A – Case 2	97.5	0.2	1.00
Aug 16-31	74	0	87	N/A – Case 2	97.5	0.2	1.00
Sep 1-15	71	0	84	N/A – Case 2	92.2	0.2	1.00
Sep 16-30	65	0	78	N/A – Case 2	86.2	0.2	1.00
Oct 1-15	60	0	72	N/A – Case 2	80.9	0.2	1.00
Oct 16-31	54	0	66	N/A – Case 2	74.9	0.2	1.00
Nov 1-15	48	0	58	N/A – Case 2	68.5	0.2	1.00
Nov 16-30	42	0	50	N/A – Case 2	58.4	0.2	1.00
Dec 1-31	37	0	42	N/A – Case 2	50.7	0.2	1.00

[1] This is the maximum of the WWF WQ criterion or the ambient temperature. The ambient temperature may be either the design (median) temperature for WWF, or the ambient stream temperature based on site-specific data entered by the user. A minimum of 1°F above ambient stream temperature is allocated.
[2] The WLA expressed in Million BTUs/day is valid for Case 1 scenarios, and disabled for Case 2 scenarios.
[3] The WLA expressed in °F is valid only if the limit is tied to a daily discharge flow limit (may be used for Case 1 or Case 2). WLAs greater than 110°F are displayed as 110°F.