pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

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

Application Type	**Renewal**	Application No.	**PA0247359**
Facility Type	**Industrial**	APS ID	**965281**
Major / Minor	**Minor**	Authorization ID	**1223728**

Applicant and Facility Information

Applicant Name	**Novares US LLC**	Facility Name	**Novares US Mount Olivet Rd Pit**
Applicant Address	12367 Mount Olivet Road	Facility Address	12367 Mount Olivet Road
	Felton, PA 17322-8449		Felton, PA 17322-8449
Applicant Contact	Joshua Grove	Facility Contact	Joshua Grove
Applicant Phone	(717) 246-4019	Facility Phone	(717) 246-4019
Client ID	342162	Site ID	451405
SIC Code	3089	Municipality	Winterstown Borough
SIC Description	Manufacturing - Plastics Products, Nec	County	York
Date Application Received	March 3, 2018	EPA Waived?	Yes
Date Application Accepted	April 26, 2018	If No, Reason	

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

Summary of Review

The application submitted by the applicant requests a NPDES renewal permit for the Novares US, LLC located at 12367 Mount Olivet Road, Felton, PA 17322 in York County, municipality of Winterstown Township. The existing permit became effective on September 1, 2013 and expired on August 31, 2018. The application for renewal was received by DEP Southcentral Regional Office (SCRO) on March 3, 2018. Supplementary information was submitted received on May 31, 2019 and January 7, 2020.

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 0.000235 MGD design average flow facility treatment facility. The applicant anticipates a possible proposed upgrade to the fire pump to support the fire suppression system. This may have a potential impact on the volume of discharge for Outfall 003. The NPDES application has been processed as an Industrial Wastewater Facility due to the type of wastewater and the design flow rate for the facility. The applicant disclosed the Act 14 requirement to York County Planning

Approve	Deny	Signatures	Date
X		Nicholas Hong, P.E. / Environmental Engineer Nick Hong (via electronic signature)	June 14, 2021
x		Daniel W. Martin, P.E. / Environmental Engineer Manager *Maria D. Bebenek for Daniel W. Martin*	June 15, 2021
x		Maria D. Bebenek, P.E. / Environmental Program Manager *Maria D. Bebenek*	June 15, 2021

Summary of Review

Commission and Winterstown Borough and the notice was received by the parties on May 11, 2021 and January 17, 2018. A planning approval letter was 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 08134 of East Branch Codorus Creek. The sequence of receiving streams that the Tributary 08134 of East Branch Codorus Creek discharges into are the Tributary 08133 of East Branch Codorus Creek, East Branch Codorus Creek, South Branch Codorus Creek, Codorus Creek, and Susquehanna River which 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 cold water fishes (CWF) and migratory fishes (MF). No Class A Wild Trout fisheries are impacted by this discharge. The presence of high quality and/or exceptional value surface waters triggers the need for an additional evaluation of anti-degradation requirements.

The Tributary 08134 of East Branch Codorus Creek is a Category 2 stream listed in the 2020 Integrated List of All Waters (formerly 303d Listed Streams). This stream is an attaining stream that supports aquatic life. 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:

- **There are no changes to the monitoring frequency or effluent limits**

Sludge use and disposal description and location(s): Since the facility discharges non-contact cooling water, sludge disposal is not suspected.

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:	Novares US, LLC
NPDES Permit #	PA0247359
Physical Address:	12367 Mount Olivet Road Felton, PA 17322
Mailing Address:	12367 Mount Olivet Road Felton, PA 17322
Contact:	Joshua Grove jgrove3@novaresteam.com 717-246-4019
Consultant:	There was not a consultant utilized for this NPDES renewal.

1.2 Permit History

Description of Facility

Novares (formerly Key Plastics, LLC) discharges noncontact cooling water (NCCW) and fire pump testing water. The first permit for this facility was issued in 2005, although the discharge had existed since 1978, according to the previous application.

The facility is a manufacturer of plastic automotive interior trim parts utilizing injection molding. Plastic resins, stored in silos, are vacuum conveyed to the injection molding machines. In the molding machines, the plastic resins are heated to a fluid state, and injected under pressure into a mold. After a cooling period, the mold is opened and the molded product is removed. The facility generally operates 6 out of 7 days per week.

The corporate office is located in Michigan, and there is another plant in Manchester Township, York County, whose wastes are discharged to the public sewer system. The plant was constructed in the 1950s and was operated as "Superior Mold Builders" until the 1970s when ownership changed.

The plant contracts with Rochester Midland Corporation to supply chemicals to reduce biological growth within the cooling towers and visits the facility monthly. Several chemicals are introduced into the cooling towers, including halogenated biocides and corrosion and scale inhibitors. A site visit was conducted on April 8, 2005. During the visit, the plant maintenance manager indicated that the reason the plant was seeking an NPDES permit was that it was attempting to become ISO 14000 certified.

The Water Supply Program has had concerns with this facility historically. Water testing results indicated that copper levels were above the health-based EPA action level. In response, Key Plastics requested to remove all drinking water fountains and supply employees with bottled water, and the Department allowed the company to do so. The results of a well water analysis revealed a lack of copper in the samples, which indicated that corrosion may be occurring in the plant's cooling system.

The above Description of Facility was abstracted from the Fact Sheet prepared in May 2013.

Sources of Water

Four wells supply water to the facility. Sanitary sewage is disposed through two on-lot systems, and the septic tanks are pumped every 6-8 weeks according to the plant maintenance manager. There are two buildings associated with the facility

– the Mt. Olivet Building and the Cherry Street Building. A pair of cooling towers sits atop both buildings. Well water is withdrawn and used to cool various equipment within the plant; the water does not come in contact with materials or products and is therefore noncontact cooling water (NCCW). The NCCW is recirculated until the conductivity reaches a threshold, which triggers a valve to automatically discharge the NCCW to a storm sewer located beneath the building. There is 10 minutes of blowdown discharge per day per cooling tower according to the application.

Permit submittal included the following information.

- The NPDES application received on March 3, 2018 was discarded and replaced with the NPDES Application received date of January 7, 2020.
- Flow Diagrams
- Effluent Sample Data (Pollutant Groups 1 and 3)

2.0 Treatment Facility Summary

2.1.1 Site location

The physical address for the facility is 12367 Mount Olivet Road, Felton, PA 17322. 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

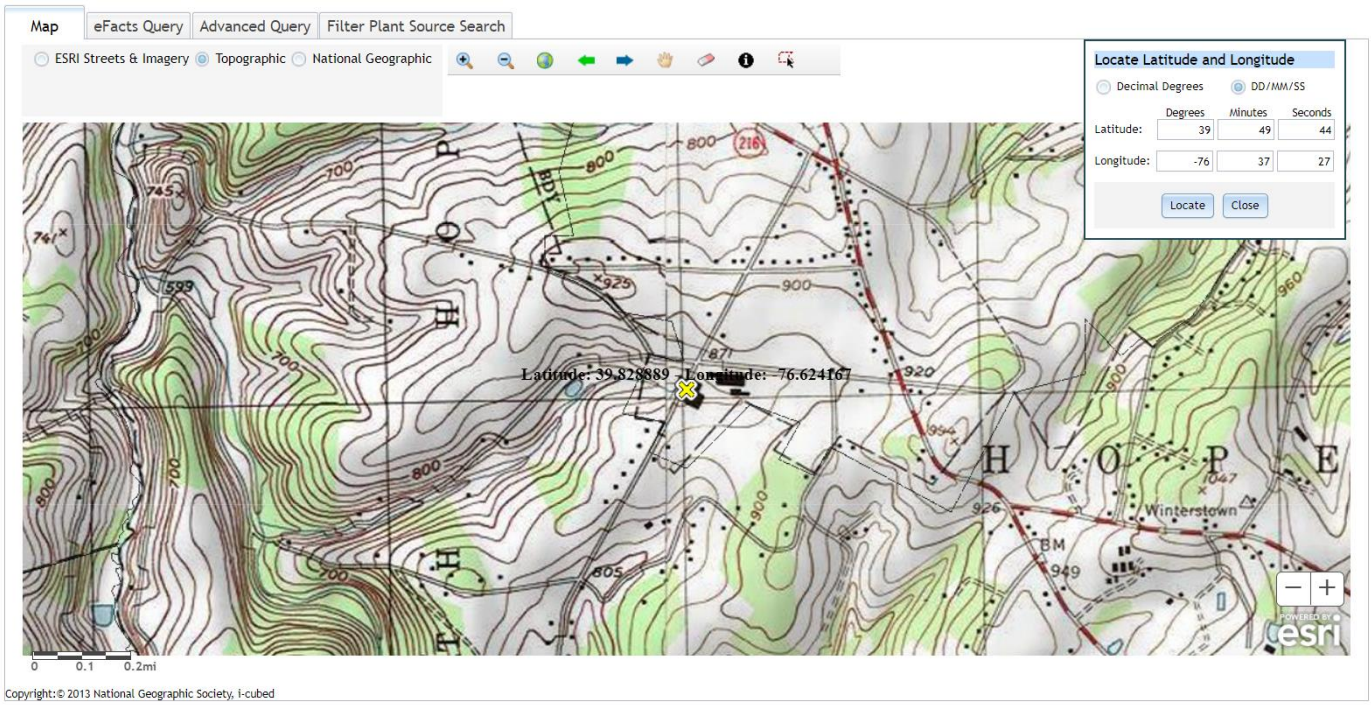
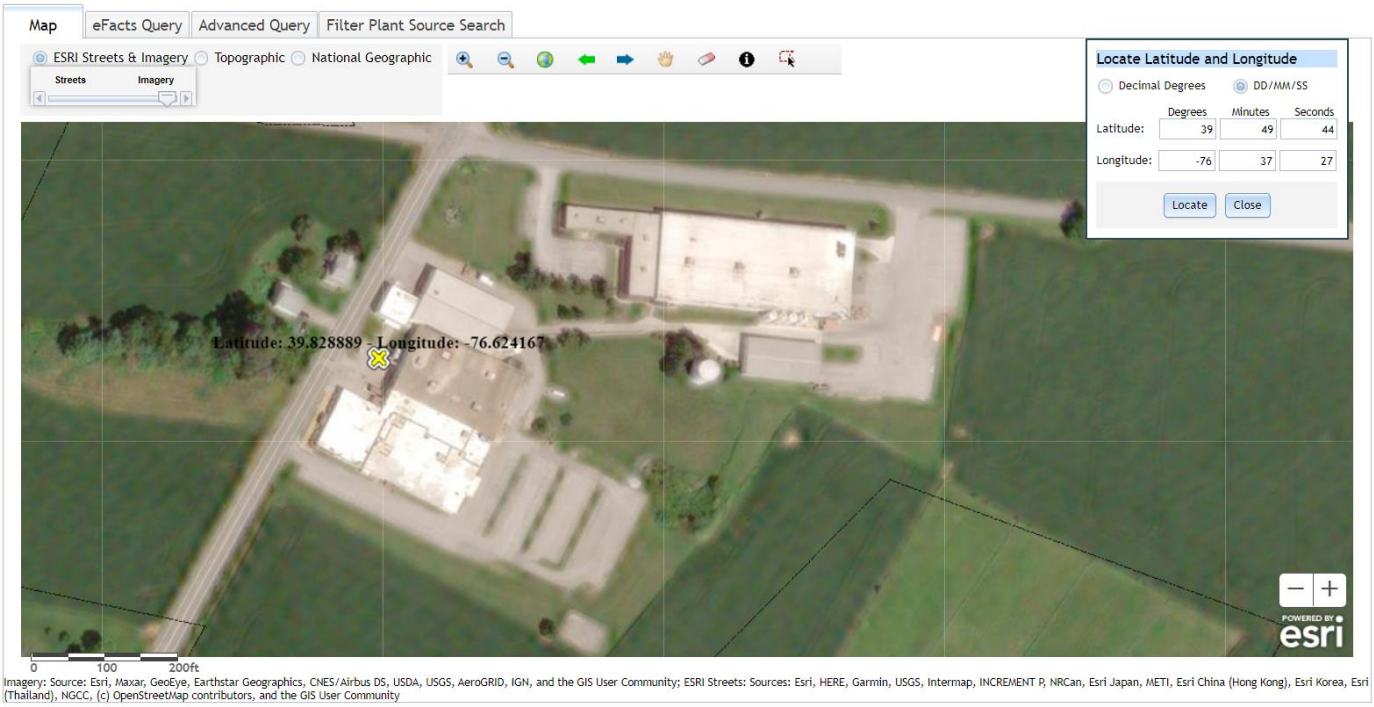


Figure 2: Aerial Photograph of the subject facility



2.2 Description of Wastewater Treatment Process

The subject facility is a 0.000235 MGD design average flow facility. The facility is being evaluated for flow, pH, conductivity, temperature, TSS, total copper, total zinc, bromoform, and chloroform. The existing permits limits for the facility is summarized in Section 2.4.

Approximately 92 gpd of water from the cooling tower on Mt. Olivet building is discharged into the storm sewer beneath the building.

Approximately 143 gpd of water from the fire pump tank on Cherry Street building is discharged into the detention basin prior to discharge into the storm sewer system. The maximum possible discharge from the fire pump is 72,000 gpd. See Section 2.3 for further discussion on discharge flow rates.

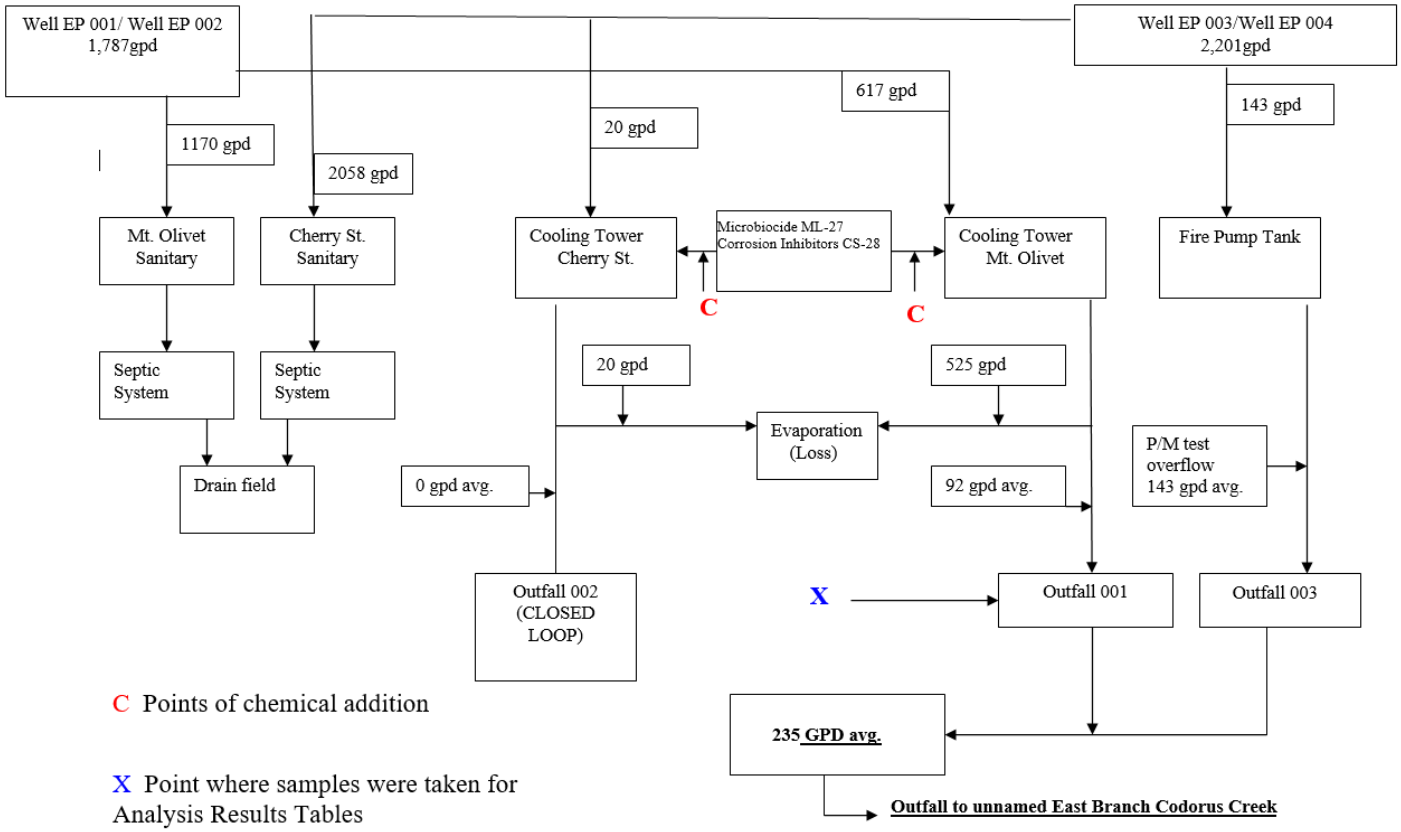
The average annual flow is 0.000235 MGD (i.e. 92 gpd + 143 gpd = 235 gpd).

The hydraulic capacity is 0.0725 MGD (i.e. 525 gpd + 72,000 gpd = 0.0725 gpd).

The treatment process is summarized in the table.

Treatment Facility Summary				
Treatment Facility Name: Novares US, LLC				
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Industrial	NA	NCCW	NA	0.000235
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.0725	NA	NA	NA	NA

A schematic of the treatment process is shown below.



2.3 Facility Outfall Information

The facility has the following outfall information for wastewater. The information was abstracted from the May 2013 Fact Sheet.

- Outfall 001 (Latitude: 39° 49’ 44”, Longitude: 76° 37’ 27”): Outfall 001 receives approximately 92 GPD of NCCW “blowdown” from the cooling towers on the Mt. Olivet building. Outfall 001 is within the building, prior to entering the storm sewer beneath the building. The facility is to collect samples for the NPDES permit at a port that will be installed in the blowdown drain line.
- Outfall 002 (Latitude: 39° 49’ 45”, Longitude: 76° 37’ 20”): The process water discharging through Outfall 002 became a closed loop in March 2020. The outfall has been switched to inactive.
- Outfall 003: (Latitude: 39° 49’ 44”, Longitude: 76° 37’ 24”): Outfall 003 receives 143 GPD (on average) of overflow from the fire pump tank located behind the Cherry Street building. The fire pump tank is an emergency reservoir for the fire suppression system. Under normal circumstances, the only discharge is from routine testing of the fire pump. This testing is usually done in 20-minute durations. There is no regular daily discharge except when the tests are completed, which is approximately 1,000 gallons per test. This averages out to 143 gallons per day. The fire pump has an overflow because it uses the water from the tank to cool the engine and then it is discharged. The overflow enters the on-site detention pond and then overflows into the storm sewer system. The maximum design flow is 72,000 gpd. Outfall 003 conveys flow to a drainage swale. The flow then goes to a detention pond before meeting up with the flow from Outfall 001 (which is discharged into an unnamed tributary of East Branch Codorus Creek).

Outfalls 001 and 003 all discharge through the same pipe that runs underneath of Mount Olivet building (Inspection Report March 2014)

2.3.1 Operational Considerations- Chemical Additives

Chemical additives are chemical products introduced into a waste stream that is used for cleaning, disinfecting, or maintenance and which may be detected in effluent discharged to waters of the Commonwealth. Chemicals excluded are those used for neutralization of waste streams, the production of goods, and treatment of wastewater.

The subject facility utilizes the following chemicals as part of their treatment process.

- CS-28 for corrosion and scale inhibitor. The chemical/additive is manufactured by Rochester Midland Corporation.
- ML-27 for microbiocide. The chemical/additive is manufactured by Rochester Midland Corporation.

The additives have been approved by PA DEP and appear on the DEP Water Management System for Approved Chemical Additives.

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° 49' 44" , **Longitude** 76° 37' 27" , **River Mile Index** 1.02 , **Stream Code** 08134

Receiving Waters: Unnamed Tributary of East Branch Codorus Creek

Type of Effluent: Cooling water blowdown (from the Mt. Olivet building)

1. The permittee is authorized to discharge during the period from September 1, 2013 through August 31, 2018.
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]	Required
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Measurement Frequency	Sample Type
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/day	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
Conductivity (µmhos/cm)	XXX	XXX	XXX	XXX	Report	XXX	1/day	Grab
Temperature (°F)	XXX	XXX	XXX	XXX	Report	XXX	1/day	I-S
Total Suspended Solids	XXX	XXX	XXX	XXX	Report	XXX	1/month	Grab
Total Copper	XXX	XXX	XXX	XXX	Report	XXX	1/month	Grab
Total Zinc	XXX	XXX	XXX	XXX	Report	XXX	1/month	Grab
Bromoform	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Chloroform	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab

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

at Outfall 001 in Mt. Olivet building prior to discharge into stormwater system

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

I. B. For Outfall 002 , **Latitude** 39° 49' 45" , **Longitude** 76° 37' 20" , **River Mile Index** 1.02 , **Stream Code** 08134

Receiving Waters: Unnamed Tributary of East Branch Codorus Creek

Type of Effluent: Cooling water blowdown (from the Cherry St. building)

1. The permittee is authorized to discharge during the period from September 1, 2013 through August 31, 2018.
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	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/day	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
Conductivity (µmhos/cm)	XXX	XXX	XXX	XXX	Report	XXX	1/day	Grab
Temperature (°F)	XXX	XXX	XXX	XXX	Report	XXX	1/day	I-S
Total Suspended Solids	XXX	XXX	XXX	XXX	Report	XXX	1/month	Grab
Total Copper	XXX	XXX	XXX	XXX	Report	XXX	1/month	Grab
Total Zinc	XXX	XXX	XXX	XXX	Report	XXX	1/month	Grab
Bromoform	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Chloroform	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab

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

at Outfall 002 in Cherry St. building prior to discharge into stormwater system

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

I. C. For Outfall 003 , **Latitude** 39° 49' 44" , **Longitude** 76° 37' 24" , **River Mile Index** 1.02 , **Stream Code** 08134

Receiving Waters: Unnamed Tributary of East Branch Codorus Creek

Type of Effluent: Overflows from fire pump tank (groundwater)

1. The permittee is authorized to discharge during the period from September 1, 2013 through August 31, 2018.
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	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/day [3]	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day [3]	Grab

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

at Outfall 003 prior to discharge into stormwater basin

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.

03/13/2014:

The facility has two main buildings- Cherry Street and Mt. Olivet Road. The facility manufactures various plastic components involved in the manufacturing of automobiles. The primary sources of discharge from the facility are Outfalls 001 and 002. They occur from reservoirs of well water used to maintain the temperatures of the molds which form the plastic components. The cooling towers onsite are used to maintain proper temperatures of the reservoirs for manufacturing processes. Discharge does not come directly from cooling towers. The discharge occurs from the reservoirs of water once the conductivity levels exceed a certain threshold of desirability for the manufacturing processes. New water is added to reservoir after automatic discharge to help reduce conductivity levels.

More recent inspection reports were not available in DEP files or WMS computer system.

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 below the design capacity of the treatment system.

For outfall 001, the maximum average flow data for the DMR reviewed was 0.000065 MGD in March 2021. The design capacity of the treatment system is 0.000525 MGD (See email correspondence from May 10, 2021). Due to the pandemic, the facility did not have any discharge from May 2020 to August 2020.

For outfall 003, the maximum average flow data for the DMR reviewed was 0.000054 MGD. The design capacity of the treatment system is 0.072 MGD (See email correspondence from May 10, 2021).

The off-site laboratory used for the analysis of the parameters was Laboratory, Analytical and Biological Services located 409 North Avenue, PO Box 836, East Berlin, PA 17316.

DMR Data for Outfall 001 (from May 1, 2020 to April 30, 2021)

Parameter	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20
Flow (MGD) Average Monthly	0.000059	0.00006 5	0.00001 9	0.00000 38	00	0.00002 4	0.00005 4	0.00002 8				
Flow (MGD) Daily Maximum	0.001129	0.00072 6	0.00050 5	0.00050 5	00	0.00045 4	0.00030 1	0.00029				
pH (S.U.) Minimum	6.89	6.79	6.39	6.49	6.96	6.38	6.92	7.02				
pH (S.U.) Maximum	7.73	7.78	7.76	7.74	7.65	7.67	7.62	7.59				
Conductivity (µmhos/cm) Daily Maximum	1191	1196	1198	1194	1047	1194	1183	1185				
Temperature (ºF) Daily Maximum	84.0	84.0	83.4	83.9	83.9	86.2	84	83.5				
TSS (mg/L) Daily Maximum	3	5	10	4	4	4	3	3				
Total Copper (mg/L) Daily Maximum	0.135	0.180	0.135	0.057	0.077	0.035	0.035	0.085				
Total Zinc (mg/L) Daily Maximum	0.235	0.260	0.240	0.069	0.086	0.031	0.024	0.097				
Bromoform (mg/L) Daily Maximum		< 0.0005			< 5.0			< 0.5				
Chloroform (mg/L) Daily Maximum		< 0.0005			< 5.0			< 0.5				

DMR Data for Outfall 003 (from May 1, 2020 to April 30, 2021)

Parameter	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20
Flow (MGD) Average Monthly	0.00002 536	0.00000 6135	0.00001 358	0.00001 23	0.00001 23	0.00005 4	0.00000 614	0.00001 84	0.00000 656		0.00000 656	0.00000 656
Flow (MGD) Daily Maximum	0.00019 02	0.00019 02	0.00019 02	0.00019 02	0.00019 02	0.00019 02	0.00019 02	0.00019 02	0.00019 02		0.00019 02	0.00019 02
pH (S.U.) Minimum	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0
pH (S.U.) Maximum	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0

3.3 Non-Compliance

3.3.1 Non-Compliance- NPDES Effluent

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

From the DMR data beginning in September 1, 2013 to June 9, 2021, the following were the observed effluent non-compliances.

Summary of Non-Compliance with NPDES Effluent Limits
Beginning September 1, 2013 and Ending June 9, 2021

NON COMPLIANCE DATE	NON COMPLIANCE TYPE	NON COMPLIANCE CATEGORY	PARAMETER	SAMPLE VALUE	VIOLATION CONDITION	PERMIT VALUE	UNIT OF MEASURE	STATISTICAL BASE CODE
02/07/2019	Violation of permit condition	Concentration 1 Effluent Violation	pH	5.55	<	6.0	S.U.	Minimum
03/22/2019	Violation of permit condition	Concentration 1 Effluent Violation	pH	5.9	<	6.0	S.U.	Minimum

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 September 1, 2013 to June 09, 2021, 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 non-contact cooling water, no biosolids disposal is suspected.

3.5 Open Violations

No open violations existed as of June 2021.

4.0 Receiving Waters and Water Supply Information Detail Summary

4.1 Receiving Waters

The receiving waters has been determined to be Tributary 08134 of East Branch Codorus Creek. The sequence of receiving streams that the Tributary 08134 of East Branch Codorus Creek discharges into are the Tributary 08133 of East Branch Codorus Creek, East Branch Codorus Creek, South Branch Codorus Creek, Codorus Creek, and Susquehanna River which eventually drains into the Chesapeake Bay.

4.2 Public Water Supply (PWS) Intake

The closest PWS to the subject facility is York Water Company (PWS ID #7670100) located approximately 17.5 miles downstream of the subject facility on the South Branch Codorus Creek. 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 receiving water is Tributary 08134 of East Branch Codorus Creek. This stream then discharges into Tributary 08133 to East Branch Codorus Creek which is a Class A trout natural reproduction waters. eMAP did not classify the waters as a Class A wilderness trout stream.

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

4.4 2020 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 2020 Pennsylvania Integrated Water Quality Monitoring and Assessment Report as a Category 2 waterbody. The surface waters is an attaining stream that supports aquatic life. The designated use has been classified as protected waters for cold water fishes (CWF) 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 30 miles downstream of the subject facility.

For WQM modeling, pH and stream water temperature data from the water quality network station was used. pH was estimated to be 8.2 and the stream water temperature was estimated to be 22.8 C.

The hardness of the stream was estimated by collecting a sample upstream of the facility. The sampling result was 110 mg/l $CaCO_3$.This sample result was reported on the NPDES renewal application form.

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

A point of first use survey was performed by DEP biologist, Jeremey Miller on February 11, 2013. It was determined that the point of first use was at a point very close to a farm pond that exists approximately 0.20 miles downstream of the discharge point. In addition, it was observed that subsurface flow exists between the discharge point and point of first use for a distance of about 0.12 miles (Abstracted from Fact Sheet dated August 2013).

When the point of discharge (Modeling Point #1) was selected using StreamStrats, the output stated that the estimates were extrapolated with unknown errors. Thus, a point further downstream on the Tributary 08133 to East Branch Codorus Creek as selected. The low flow yield from Modeling Point #2 (LFY = 0.984 ft^3/s / 6.08 mi^2 = 0.161 $ft^3/s/mi^2$) was then used to estimate the Q710 for Modeling Point #1 as 0.021 ft^3/s (Q710 = 0.161 $ft^3/s/mi^2$ x 0.13 mi^2 = 0.021 ft^3/s).

This Q710 (0.021 ft^3/s) is nearly consistent with Q710 (0.027 ft^3/s) from the August 2013 Fact Sheet.

For purposes of this fact sheet, the updated Q710 estimate of 0.021 ft^3/s shall be used.

4.6.1 Summary of Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	.000525
Latitude	39º 49' 43.83"	Longitude	-76º 37' 26.02"
Quad Name		Quad Code	
Wastewater Description:	Noncontact Cooling Water (NCCW) Blowdown		
Receiving Waters	Unnamed Tributary of East Branch Codorus Creek (HQ-CWF); (Dry Swale)	Stream Code	8134
NHD Com ID	57472173	RMI	1
Drainage Area	0.13	Yield (cfs/mi^2)	0.161
Q_{7-10} Flow (cfs)	0.021	Q_{7-10} Basis	StreamStats
Elevation (ft)	843	Slope (ft/ft)	
Watershed No.	7-H	Chapter 93 Class.	HQ-CWF, MF
Existing Use	Same as Chapter 93 class	Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s) supports aquatic life		
Cause(s) of Impairment	Not appl.		
Source(s) of Impairment	Not appl.		
TMDL Status	Not appl.	Name	

Background/Ambient Data		Data Source
pH (SU)	8.2	WQN286; Median July to Sept
Temperature (°F)	22.8	WQN286; Median July to Sept
Hardness (mg/L)	110	Sample reported in NPDES app dated 5/30/19
Other:		

Nearest Downstream Public Water Supply Intake		York Water Company	
PWS Waters	South Branch Codorus Creek	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	17.5

4.6.2 Summary of Discharge, Receiving Waters and Water Supply Information

Outfall No.	003	Design Flow (MGD)	.072
Latitude	39º 49' 43.56"	Longitude	-76º 37' 24.06"
Quad Name		Quad Code	
Wastewater Description:	Other Miscellaneous Discharges (Overflows from Fire Pump Tank)		
Receiving Waters	Unnamed Tributary of East Branch Codorus Creek (HQ-CWF, MF); (Dry Swale)	Stream Code	8134
NHD Com ID	57472173	RMI	1
Drainage Area	0.13	Yield (cfs/mi^2)	0.161
Q_{7-10} Flow (cfs)	0.021	Q_{7-10} Basis	StreamStats
Elevation (ft)	843	Slope (ft/ft)	
Watershed No.	7-H	Chapter 93 Class.	HQ-CWF, MF
Existing Use	Same as Chapter 93 class	Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s) supports aquatic life		
Cause(s) of Impairment	Not appl.		
Source(s) of Impairment	Not appl.		
TMDL Status	Not appl.	Name	

Background/Ambient Data		Data Source
pH (SU)	8.2	WQN286; Median July to Sept
Temperature (°F)	22.8	WQN286; Median July to Sept
Hardness (mg/L)	110	Sample reported in NPDES app dated 5/30/19
Other:		

Nearest Downstream Public Water Supply Intake		York Water Company	
PWS Waters	South Branch Codorus Creek	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	17.5

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). Available TBEL requirements for the state of Pennsylvania are itemized in PA Code 25, Chapter 92a.47.

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

5.3 Water Quality-Based Limitations

The facility is not subject to water quality based limits.

5.3.1 Water Quality Modeling 7.0

The facility is not subject to water quality modeling.

5.3.2 Toxics Modeling

The Toxics Management Spreadsheet model is a computer model that is used to determine effluent limitations for toxics (and other substances) for single discharge wasteload allocations. This computer model uses a mass-balance water quality analysis that includes consideration for mixing, first-order decay, and other factors used to determine recommended water quality-based effluent limits. Toxics Management Spreadsheet does not assume that all discharges completely mix with the stream. The point of compliance with water quality criteria are established using criteria compliance times (CCTs). The available CCTs are either acute fish criterion (AFC), chronic fish criterion (CFC), or human health criteria (THH & CRL).

Acute Fish Criterion (AFC) measures the criteria compliance time as either the maximum criteria compliance time (i.e.15 minutes travel time downstream of the current discharge) or the complete mix time whichever comes first. AFC is evaluated at Q710 conditions.

Chronic Fish Criterion (CFC) measures the criteria compliance time as either the maximum criteria compliance time (i.e. 12 hours travel time downstream of the current discharge) or the complete mix time whichever comes first. CFC is evaluated at Q710 conditions.

Threshold Human Health (THH) measures the criteria compliance time as either the maximum criteria compliance time (i.e. 12 hours travel time downstream of the current discharge) or the estimated travel time downstream to the nearest potable water supply intake whichever comes first. THH is evaluated at Q710 conditions.

Cancer Risk Level (CRL) measures the criteria compliance time as either the maximum criteria compliance time (i.e. 12 hours travel time downstream of the current discharge) or the complete mix time whichever comes first. CRL is evaluated at Qh (harmonic mean or normal flow) conditions.

The Toxics Model requires several input values for calculating output values. The source of data originates from either EMAP, the National Map, or Stream Stats. Data for stream gauge information, if any, was abstracted from USGS Low-Flow, Base-Flow, and Mean-Flow Regression Equations for Pennsylvania Streams authored by Marla H. Stuckey (Scientific Investigations Report 2006-5130).

5.3.2.1 Determining if NPDES Permit Will Require Monitoring/Limits in the Proposed Permit for Toxic Pollutants

To determine if Toxics modeling is necessary, DEP has developed a Toxics Management Spreadsheet to identify toxics of concern. Toxic pollutants whose maximum concentrations as reported in the permit application or on DMRs are greater than the most stringent applicable water quality criterion are pollutants of concern. A Reasonable Potential Analysis was utilized to determine (a) if the toxic parameters modeled would require monitoring or (b) if permit limitations would be required for the parameters. The toxics reviewed for reasonable potential were the pollutants in Groups 1, 3, total copper and total zinc.

Based upon the SOP- Establishing Water Quality-Based Effluent Limitations (WQBELs) and Permit Conditions for Toxic Pollutants (Revised January 10, 2019), monitoring and/or limits will be established as follows.

(a) When reasonable potential is demonstrated, establish limits where the maximum reported concentration equals or exceeds 50% of the WQBEL.
(b) For non-conservative pollutants, establish monitoring requirements where the maximum reported concentration is between 25% - 50% of the WQBEL.

For conservative pollutants, establish monitoring requirements where the maximum reported concentration is between 10% - 50% of the WQBEL.

5.3.3 Whole Effluent Toxicity (WET)

The facility is not subject to WET.

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. Monitoring for facilities with other discharges will generally conform to the following minimum sampling frequencies, with the permit writer having final discretion: Phase 3 WIP Wastewater Supplement Revised, December 17, 2019

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.

The facility discharges non-contact cooling water. 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 special protection waters and the permit conditions are imposed to protect existing instream water quality and uses. The East Branch Codorus Creek was designated as high-quality waters in October 1979. The facility commenced the discharge of NCCW without a permit prior to the time the high quality designation became effective. Thus, the facility predates the high quality water designation.

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 tables are categorized by (a) Conventional Pollutants and Disinfection and (b) Toxics.

6.1.1 Conventional Pollutants and Disinfection

Outfall 001 has an average monthly discharge flow rate of 92 gpd.

Temperature was modelled using a flow rate for the combined flow rates from Outfalls 001 and 003 (i.e. 525 gpd).

Summary of Proposed NPDES Parameter Details for Conventional Pollutants and Disinfection
Novares US, LLC; PA0247359; Outfall 001

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).
TSS	BPJ	Monitoring:	The monitoring frequency shall be 1x/month as a grab sample (Table 6-4).
		Effluent Limit:	There are no effluent performance limits.
		Rationale:	The monitoring frequency has been assigned in accordance with Table 6-4
Conductivity	BPJ	Monitoring:	The monitoring frequency shall be on a daily basis as a grab sample (Table 6-4).
		Effluent Limit:	There are no effluent performance limits.
		Rationale:	The monitoring frequency has been assigned in accordance with best professional judgement (BPJ)
Temperature (F)	WQBEL	Monitoring:	The monitoring frequency shall be 1x/month as a grab sample.
		Effluent Limit:	The facility may discharge up to 110 F.
		Rationale:	Due to the low flow rate generated by the facility, consistent with the existing permit conditions, no effluent temperature limit is being required.
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 0.000092 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			

Summary of Proposed NPDES Parameter Details for Conventional Pollutants and Disinfection
Novares US, LLC; PA0247359; Outfall 003

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).
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 0.000143 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			

6.1.2 Toxics

The wastewater process involves discharge of cooling water and discharge of fire pump water. The facility submitted sampling results for Pollutant Groups 1 and 3.

The current permit has required monitoring for total copper and total zinc since elevated levels of these parameters were detected in cooling water. The facility has historically had some concerns with copper. The results of a well water analysis revealed a lack of copper in the samples which indicated that corrosion may be occurring in the plant's cooling system.

The total discharge from Outfalls 01 and 003 were modeled as one discharge. The maximum concentration for total copper and total zinc from available data from 2019 through 2021 was used for the Toxics Management Spreadsheet. The data has been summarized in the tables below. Data from the earlier months in 2020 were absent likely due to the plant shutdown from the pandemic.

2019 DMR Data		
Month	Copper	Zinc
	mg/l	mg/l
January	0.049	0.06
February	0.07	0.09
March	0.13	0.16
April	0.045	0.03
May	0.032	0.23
June	0.014	<0.05
July	0.038	0.052
August	0.02	<0.05
September	0.025	0.07
October	0.019	0.06
November	0.11	0.15
December	0.09	0.09
Max	**0.13**	**0.23**

2020 DMR Data		
Month	Copper	Zinc
	mg/l	mg/l
September	0.085	0.097
October	0.035	0.024
November	0.035	0.031
December	0.077	0.086
Max	**0.085**	**0.069**

2021 DMR Data		
Month	Copper	Zinc
	mg/l	mg/l
January	0.057	0.069
February	0.135	0.24
March	0.18	0.26
April	0.135	0.235
Max	**0.18**	**0.26**

The maximum concentrations for copper and zinc from the DMS from 2019 through 2021 were used for modeling. Copper was modelled using a concentration at 0.18 mg/l and zinc at 0.26 mg/l. The Toxics Management Spreadsheet recommends monitoring for copper. Zinc shall remain in the permit for monitoring due to anti-backsliding.

The facility reported usage of chemical additives. These were modeled in the Toxics Management Spreadsheet. The usage rates are different from current permit limits due to (a) an adjustment in the flow rate when modeling. Outfall 002 is no longer active and not part of the overall flow rate. Outfalls 001 and 003 were included in the overall flow rate for modeling (b) the Toxics Management Spreadsheet was modeled based upon assumption that 4 samples/month are collected. This may differ from previous toxics modeling. The Toxics Management Spreadsheet does not allow for a selection for a sample less than 4 samples/month when modeling.

6.1.3.2 Summary of Toxics Monitoring/Limits

Summary of Proposed NPDES Parameter Details for Toxics

Novares US, LLC; PA0247359; Outfall 001

Parameter	Permit Limitation Required by[1]:	Recommendation	
Total Copper	WQBEL	Monitoring:	The monitoring frequency shall be 1x/month as a grab sample.
		Effluent Limit:	There are no effluent performance limits.
		Rationale:	Toxics Management Spreadsheet recommends monitoring.
Total Zinc	Antibacksliding	Monitoring:	The monitoring frequency shall be 1x/month as a grab sample.
		Effluent Limit:	There are no effluent performance limits.
		Rationale:	Due to anti-backsliding, this parameter shall coninue to be monitored for the proposed permit
Bromoform	Antibacksliding	Monitoring:	The monitoring frequency shall be 1x/quarter as a grab sample.
		Effluent Limit:	There are no effluent performance limits.
		Rationale:	Due to anti-backsliding, this parameter shall coninue to be monitored for the proposed permit
Chloroform	Antibacksliding	Monitoring:	The monitoring frequency shall be 1x/quarter as a grab sample.
		Effluent Limit:	There are no effluent performance limits.
		Rationale:	Due to anti-backsliding, this parameter shall coninue to be monitored for the proposed permit

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 0.000092 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

6.2 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.

No changes to the monitoring frequency or effluent limits.

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.

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

I. A. For Outfall 001, **Latitude** 39° 49' 44.00", **Longitude** 76° 37' 26.00", **River Mile Index** 1, **Stream Code** 8134

Receiving Waters: Unnamed Tributary of East Branch Codorus Creek (HQ-CWF)

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	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/day	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
Conductivity (µmhos/cm)	XXX	XXX	XXX	XXX	Report	XXX	1/day	Grab
Temperature (deg F) (°F)	XXX	XXX	XXX	XXX	Report	XXX	1/day	I-S
Total Suspended Solids	XXX	XXX	XXX	XXX	Report	XXX	1/month	Grab
Copper, Total	XXX	XXX	XXX	XXX	Report	XXX	1/month	Grab
Zinc, Total	XXX	XXX	XXX	XXX	Report	XXX	1/month	Grab
Bromoform	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Chloroform	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab

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

at Outfall 001 in Mt. Olivet building prior to discharge into stormwater system

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

I. B. For Outfall 003 , **Latitude** 39° 49' 44.00" , **Longitude** 76° 37' 24.00" , **River Mile Index** 1 , **Stream Code** 8134

Receiving Waters: Unnamed Tributary of East Branch Codorus Creek (HQ-CWF, MF)

Type of Effluent: Other Miscellaneous Discharges

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] [3] 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	1/day	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab

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

at Outfall 003 prior to discharge into stormwater basin

6.3.2 Summary of Proposed Permit Part C Conditions

The subject facility has the following Part C conditions.

- Dry Stream
- Cooling Tower Maintenance
- Chemical Additives

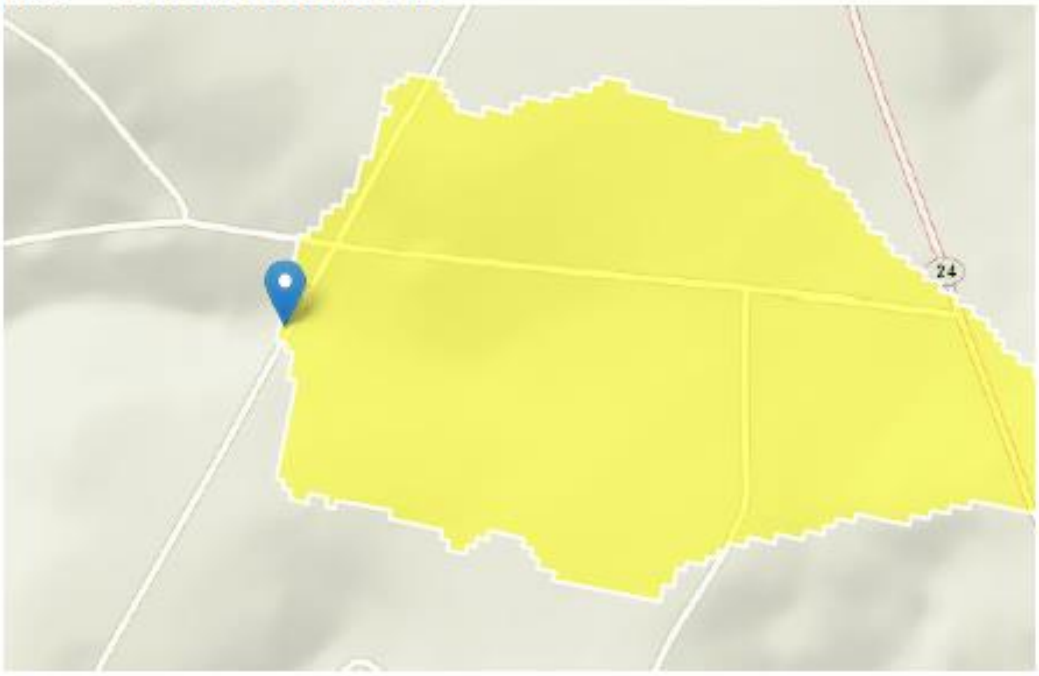
Tools and References Used to Develop Permit	
☐	WQM for Windows Model (see Attachment)
☒	Toxics Management Spreadsheet (see Attachment)
☐	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☐	Technical 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, rev October 11, 2013
☐	Other:

Attachment A

Stream Stats/Gauge Data

StreamStats Report

Region ID: PA
Workspace ID: PA20210409120029055000
Clicked Point (Latitude, Longitude): 39.82890, -76.62451
Time: 2021-04-09 08:00:45 -0400



Novares US, LLC PA0247359 Modeling Point #1 April 2021

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.13	square miles
BSLOPD	Mean basin slope measured in degrees	2.5805	degrees
ROCKDEP	Depth to rock	5	feet

Parameter Code	Parameter Description	Value	Unit
URBAN	Percentage of basin with urban development	0	percent

Low-Flow Statistics Parameters [Low Flow Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.13	square miles	4.78	1150
BSLOPD	Mean Basin Slope degrees	2.5805	degrees	1.7	6.4
ROCKDEP	Depth to Rock	5	feet	4.13	5.21
URBAN	Percent Urban	0	percent	0	89

Low-Flow Statistics Disclaimers [Low Flow Region 1]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Low-Flow Statistics Flow Report [Low Flow Region 1]

Statistic	Value	Unit
7 Day 2 Year Low Flow	0.0148	ft^3/s
30 Day 2 Year Low Flow	0.0218	ft^3/s
7 Day 10 Year Low Flow	0.00476	ft^3/s
30 Day 10 Year Low Flow	0.00759	ft^3/s
90 Day 10 Year Low Flow	0.0163	ft^3/s

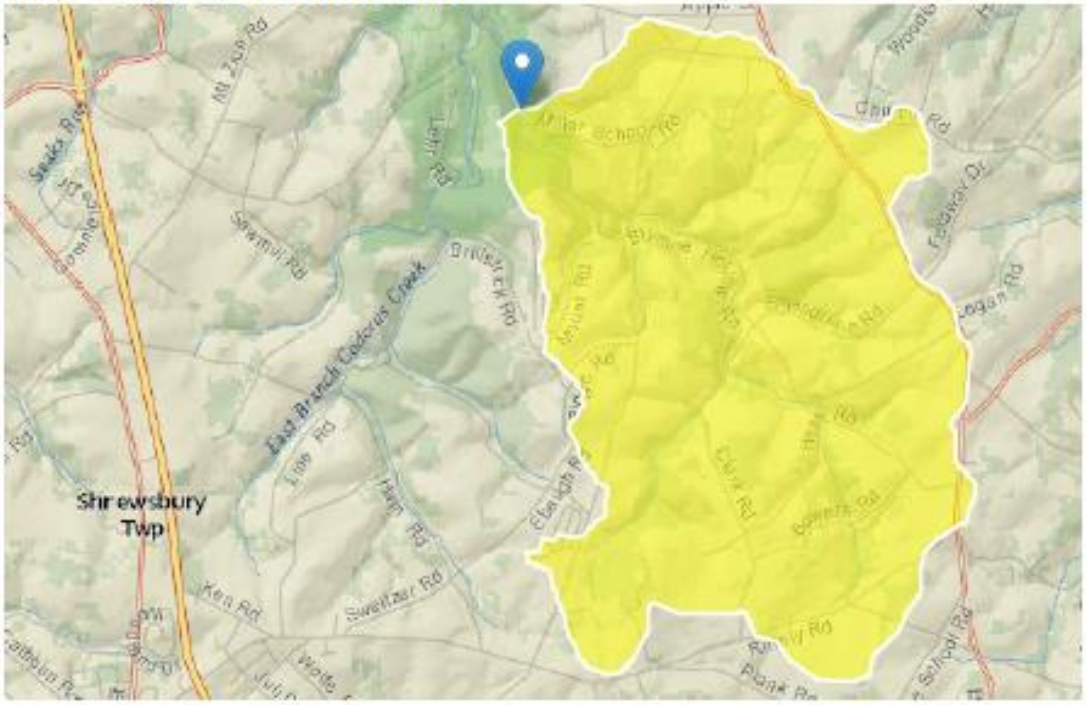
Low-Flow Statistics Citations

Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)

Application Version: 4.5.1
StreamStats Services Version: 1.2.22
NSS Services Version: 2.1.1

StreamStats Report

Region ID: PA
Workspace ID: PA20210409121835830000
Clicked Point (Latitude, Longitude): 39.82545, -76.64097
Time: 2021-04-09 08:18:52 -0400



Novares US, LLC PA0247359 Modeling Point #2 April 2021

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	6.08	square miles
BSLOPD	Mean basin slope measured in degrees	6.029	degrees
ROCKDEP	Depth to rock	4.9	feet

Parameter Code	Parameter Description	Value	Unit
URBAN	Percentage of basin with urban development	0.4058	percent

Low-Flow Statistics Parameters [Low Flow Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	6.08	square miles	4.78	1150
BSLOPD	Mean Basin Slope degrees	6.029	degrees	1.7	6.4
ROCKDEP	Depth to Rock	4.9	feet	4.13	5.21
URBAN	Percent Urban	0.4058	percent	0	89

Low-Flow Statistics Flow Report [Low Flow Region 1]

PII: Prediction Interval-Lower, PIu: Prediction Interval-Upper, SEp: Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	SE	SEp
7 Day 2 Year Low Flow	1.92	ft^3/s	46	46
30 Day 2 Year Low Flow	2.31	ft^3/s	38	38
7 Day 10 Year Low Flow	0.984	ft^3/s	51	51
30 Day 10 Year Low Flow	1.21	ft^3/s	46	46
90 Day 10 Year Low Flow	1.64	ft^3/s	41	41

Low-Flow Statistics Citations

Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)

Application Version: 4.5.1
StreamStats Services Version: 1.2.22
NSS Services Version: 2.1.1

Attachment B
Toxics Management Spreadsheet Output Values

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.3, March 2021

Discharge Information

Instructions | Discharge | Stream

Facility: Novares US, LLC | NPDES Permit No.: PA0247359 | Outfall No.: 001 & 003

Evaluation Type: Major Sewage / Industrial Waste | Wastewater Description: NCCW; effluent has additives for towers

Discharge Characteristics									
Design Flow (MGD)*	Hardness (mg/l)*	pH (SU)*	Partial Mix Factors (PMFs)				Complete Mix Times (min)		
			AFC	CFC	THH	CRL	Q_{7-10}	Q_h	
0.000235	100	7.18							

					0 if left blank		0.6 if left blank		0 if left blank			1 if left blank	
	Discharge Pollutant	Units	Max Discharge Conc		Trib Conc	Stream Conc	Daily CV	Hourly CV	Stream CV	Fate Coeff	FOS	Criteria Mod	Chem Transl
Group 1	Total Dissolved Solids (PWS)	mg/L		1226									
	Chloride (PWS)	mg/L		250									
	Bromide	mg/L		0.5									
	Sulfate (PWS)	mg/L		29									
	Fluoride (PWS)	mg/L		0.2									
Group 2	Total Aluminum	µg/L											
	Total Antimony	µg/L											
	Total Arsenic	µg/L											
	Total Barium	µg/L											
	Total Beryllium	µg/L											
	Total Boron	µg/L											
	Total Cadmium	µg/L											
	Total Chromium (III)	µg/L											
	Hexavalent Chromium	µg/L											
	Total Cobalt	µg/L											
	Total Copper	mg/L		0.18									
	Free Cyanide	µg/L											
	Total Cyanide	µg/L											
	Dissolved Iron	µg/L											
	Total Iron	µg/L											
	Total Lead	µg/L											
	Total Manganese	µg/L											
	Total Mercury	µg/L											
	Total Nickel	µg/L											
	Total Phenols (Phenolics) (PWS)	µg/L											
	Total Selenium	µg/L											
	Total Silver	µg/L											
	Total Thallium	µg/L											
	Total Zinc	mg/L		0.26									
	Total Molybdenum	µg/L											
	Acrolein	µg/L	<	2									
	Acrylamide	µg/L											
	Acrylonitrile	µg/L	<	2									
	Benzene	µg/L	<	0.5									
	Bromoform	µg/L	<	0.5									
	Carbon Tetrachloride	µg/L	<	0.5									
	Chlorobenzene	µg/L	<	0.5									
	Chlorodibromomethane	µg/L	<	0.5									
	Chloroethane	µg/L	<	0.5									
	2-Chloroethyl Vinyl Ether	µg/L	<	0.5									

Group 3	Chloroform	µg/L	<	0.5									
	Dichlorobromomethane	µg/L	<	0.5									
	1,1-Dichloroethane	µg/L	<	0.5									
	1,2-Dichloroethane	µg/L	<	0.5									
	1,1-Dichloroethylene	µg/L	<	0.5									
	1,2-Dichloropropane	µg/L	<	0.5									
	1,3-Dichloropropylene	µg/L	<	0.5									
	1,4-Dioxane	µg/L	<	5									
	Ethylbenzene	µg/L	<	0.5									
	Methyl Bromide	µg/L	<	0.5									
	Methyl Chloride	µg/L	<	0.5									
	Methylene Chloride	µg/L	<	0.5									
	1,1,2,2-Tetrachloroethane	µg/L	<	0.5									
	Tetrachloroethylene	µg/L	<	0.5									
	Toluene	µg/L	<	0.5									
	1,2-trans-Dichloroethylene	µg/L	<	0.5									
	1,1,1-Trichloroethane	µg/L	<	0.5									
	1,1,2-Trichloroethane	µg/L	<	0.5									
	Trichloroethylene	µg/L	<	0.5									
	Vinyl Chloride	µg/L	<	0.5									
Group 4	2-Chlorophenol	µg/L	<										
	2,4-Dichlorophenol	µg/L	<										
	2,4-Dimethylphenol	µg/L	<										
	4,6-Dinitro-o-Cresol	µg/L	<										
	2,4-Dinitrophenol	µg/L	<										
	2-Nitrophenol	µg/L	<										
	4-Nitrophenol	µg/L	<										
	p-Chloro-m-Cresol	µg/L	<										
	Pentachlorophenol	µg/L	<										
	Phenol	µg/L	<										
	2,4,6-Trichlorophenol	µg/L	<										
Group 5	Acenaphthene	µg/L	<										
	Acenaphthylene	µg/L	<										
	Anthracene	µg/L	<										
	Benzidine	µg/L	<										
	Benzo(a)Anthracene	µg/L	<										
	Benzo(a)Pyrene	µg/L	<										
	3,4-Benzofluoranthene	µg/L	<										
	Benzo(ghi)Perylene	µg/L	<										
	Benzo(k)Fluoranthene	µg/L	<										
	Bis(2-Chloroethoxy)Methane	µg/L	<										
	Bis(2-Chloroethyl)Ether	µg/L	<										
	Bis(2-Chloroisopropyl)Ether	µg/L	<										
	Bis(2-Ethylhexyl)Phthalate	µg/L	<										
	4-Bromophenyl Phenyl Ether	µg/L	<										
	Butyl Benzyl Phthalate	µg/L	<										
	2-Chloronaphthalene	µg/L	<										
	4-Chlorophenyl Phenyl Ether	µg/L	<										
	Chrysene	µg/L	<										
	Dibenzo(a,h)Anthrancene	µg/L	<										
	1,2-Dichlorobenzene	µg/L	<										
	1,3-Dichlorobenzene	µg/L	<										
	1,4-Dichlorobenzene	µg/L	<										
	3,3-Dichlorobenzidine	µg/L	<										
	Diethyl Phthalate	µg/L	<										
	Dimethyl Phthalate	µg/L	<										
	Di-n-Butyl Phthalate	µg/L	<										
	2,4-Dinitrotoluene	µg/L	<										
	2,6-Dinitrotoluene	µg/L	<										
	Di-n-Octyl Phthalate	µg/L	<										
	1,2-Diphenylhydrazine	µg/L	<										
	Fluoranthene	µg/L	<										
	Fluorene	µg/L	<										
	Hexachlorobenzene	µg/L	<										
	Hexachlorobutadiene	µg/L	<										
	Hexachlorocyclopentadiene	µg/L	<										
	Hexachloroethane	µg/L	<										
	Indeno(1,2,3-cd)Pyrene	µg/L	<										

	Isophorone	µg/L	<											
	Naphthalene	µg/L	<											
	Nitrobenzene	µg/L	<											
	n-Nitrosodimethylamine	µg/L	<											
	n-Nitrosodi-n-Propylamine	µg/L	<											
	n-Nitrosodiphenylamine	µg/L	<											
	Phenanthrene	µg/L	<											
	Pyrene	µg/L	<											
	1,2,4-Trichlorobenzene	µg/L	<											
Group 6	Aldrin	µg/L	<											
	alpha-BHC	µg/L	<											
	beta-BHC	µg/L	<											
	gamma-BHC	µg/L	<											
	delta BHC	µg/L	<											
	Chlordane	µg/L	<											
	4,4-DDT	µg/L	<											
	4,4-DDE	µg/L	<											
	4,4-DDD	µg/L	<											
	Dieldrin	µg/L	<											
	alpha-Endosulfan	µg/L	<											
	beta-Endosulfan	µg/L	<											
	Endosulfan Sulfate	µg/L	<											
	Endrin	µg/L	<											
	Endrin Aldehyde	µg/L	<											
	Heptachlor	µg/L	<											
	Heptachlor Epoxide	µg/L	<											
	PCB-1016	µg/L	<											
	PCB-1221	µg/L	<											
	PCB-1232	µg/L	<											
	PCB-1242	µg/L	<											
	PCB-1248	µg/L	<											
	PCB-1254	µg/L	<											
	PCB-1260	µg/L	<											
	PCBs, Total	µg/L	<											
	Toxaphene	µg/L	<											
	2,3,7,8-TCDD	ng/L	<											
Group 7	Gross Alpha	pCi/L												
	Total Beta	pCi/L	<											
	Radium 226/228	pCi/L	<											
	Total Strontium	µg/L	<											
	Total Uranium	µg/L	<											
	Osmotic Pressure	mOs/kg												
	ML-27, Microbiocide	µg/L		1.00E+11										
	CS-28, Corrosion and Scale Inhibito	µg/L		1.00E+11										

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Toxics Management Spreadsheet
Version 1.3, March 2021

Stream / Surface Water Information

Novares US, LLC, NPDES Permit No. PA0247359, Outfall 001 & 003

Instructions | Discharge | Stream

Receiving Surface Water Name: Trib 08134 of East Branch CodorusCre

No. Reaches to Model: 1

- (•) Statewide Criteria
- ( ) Great Lakes Criteria
- ( ) ORSANCO Criteria

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi²)*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	008134	1	843	0.13			Yes
End of Reach 1	008134	0	624	6.08			Yes

Q_{7-10}

Location	RMI	LFY (cfs/mi²)*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness*	pH*	Hardness	pH
Point of Discharge	1	0.161										110	8.2		
End of Reach 1	0	0.161										110	8.2		

Q_h

Location	RMI	LFY (cfs/mi²)	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness	pH	Hardness	pH
Point of Discharge	1														
End of Reach 1	0														

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Toxics Management Spreadsheet
Version 1.3, March 2021

Model Results

Novares US, LLC, NPDES Permit No. PA0247359, Outfall 001 & 003

Instructions | Results | RETURN TO INPUTS | SAVE AS PDF | PRINT | ◉ All ○ Inputs ○ Results ○ Limits

☐ ***Hydrodynamics***

☑ ***Wasteload Allocations***

		CCT (min):	PMF:	Analysis Hardness (mg/l):	Analysis pH:
☐	*AFC*	0.111	1	109.83	8.13
☐	*CFC*	0.111	1	109.83	8.13
☐	*THH*	0.111	1	N/A	N/A
☐	*CRL*	0.022	1	N/A	N/A

☑ ***Recommended WQBELs & Monitoring Requirements***

No. Samples/Month: 4

	Mass Limits		*Concentration Limits*						
Pollutants	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units	Governing WQBEL	WQBEL Basis	Comments
Total Copper	Report	Report	Report	Report	Report	mg/L	0.57	AFC	Discharge Conc > 10% WQBEL (no RP)
ML-27, Microbiocide	0.006	0.009	2,929	4,569	7,321	µg/L	2,929	CFC	Discharge Conc ≥ 50% WQBEL (RP)
CS-28, Corrosion and Scale Inhibitor	0.12	0.18	60,329	94,123	150,823	µg/L	60,329	CFC	Discharge Conc ≥ 50% WQBEL (RP)

☐ ***Other Pollutants without Limits or Monitoring***

Attachment C
Thermal Modeling

Flow Data for Thermal Discharge Analysis

Facility: Novares US, LLC
Permit Number: PA0247359
Stream Name: Tributary 08134 of East Branch Codorus Creek
Analyst/Engineer: DEP Engineer
Stream Q7-10 (cfs): 0.021

	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	0.000235	0	0.000235	1.00	0.06	0.06	0.07
Feb 1-29	0	0.000235	0	0.000235	1.00	0.07	0.07	0.07
Mar 1-31	0	0.000235	0	0.000235	1.00	0.14	0.14	0.14
Apr 1-15	0	0.000235	0	0.000235	1.00	0.19	0.19	0.19
Apr 16-30	0	0.000235	0	0.000235	1.00	0.19	0.19	0.19
May 1-15	0	0.000235	0	0.000235	1.00	0.11	0.11	0.11
May 16-31	0	0.000235	0	0.000235	1.00	0.11	0.11	0.11
Jun 1-15	0	0.000235	0	0.000235	1.00	0.06	0.06	0.06
Jun 16-30	0	0.000235	0	0.000235	1.00	0.06	0.06	0.06
Jul 1-31	0	0.000235	0	0.000235	1.00	0.03	0.03	0.03
Aug 1-15	0	0.000235	0	0.000235	1.00	0.03	0.03	0.03
Aug 16-31	0	0.000235	0	0.000235	1.00	0.03	0.03	0.03
Sep 1-15	0	0.000235	0	0.000235	1.00	0.02	0.02	0.02
Sep 16-30	0	0.000235	0	0.000235	1.00	0.02	0.02	0.02
Oct 1-15	0	0.000235	0	0.000235	1.00	0.03	0.03	0.03
Oct 16-31	0	0.000235	0	0.000235	1.00	0.03	0.03	0.03
Nov 1-15	0	0.000235	0	0.000235	1.00	0.04	0.04	0.04
Nov 16-30	0	0.000235	0	0.000235	1.00	0.04	0.04	0.04
Dec 1-31	0	0.000235	0	0.000235	1.00	0.06	0.06	0.06

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

Cold Water Fishes (CWF) Stream

Facility: **Novares US, LLC**
Permit Number: PA0247359
Stream: Tributary 08134 of East Branch Codorus Creek

	CWF Ambient Stream Temperature (°F) (Default)	Ambient Stream Temperature (°F) (Site-specific data)	Target Maximum Stream Temp.[1] (°F)	**CWF** Daily WLA[2] (Million BTUs/day)	**CWF** Daily WLA[3] (°F)	at Discharge Flow (MGD)	**PMF**
Jan 1-31	34	0	38	N/A – Case 2	110.0	0.000235	1.00
Feb 1-29	35	0	38	N/A – Case 2	110.0	0.000235	1.00
Mar 1-31	39	0	42	N/A – Case 2	110.0	0.000235	1.00
Apr 1-15	46	0	48	N/A – Case 2	110.0	0.000235	1.00
Apr 16-30	52	0	53	N/A – Case 2	110.0	0.000235	1.00
May 1-15	55	0	56	N/A – Case 2	110.0	0.000235	1.00
May 16-31	59	0	60	N/A – Case 2	110.0	0.000235	1.00
Jun 1-15	63	0	64	N/A – Case 2	110.0	0.000235	1.00
Jun 16-30	67	0	68	N/A – Case 2	110.0	0.000235	1.00
Jul 1-31	71	0	72	N/A – Case 2	110.0	0.000235	1.00
Aug 1-15	70	0	71	N/A – Case 2	110.0	0.000235	1.00
Aug 16-31	70	0	71	N/A – Case 2	110.0	0.000235	1.00
Sep 1-15	66	0	67	N/A – Case 2	110.0	0.000235	1.00
Sep 16-30	60	0	61	N/A – Case 2	110.0	0.000235	1.00
Oct 1-15	55	0	56	N/A – Case 2	110.0	0.000235	1.00
Oct 16-31	51	0	52	N/A – Case 2	110.0	0.000235	1.00
Nov 1-15	46	0	47	N/A – Case 2	110.0	0.000235	1.00
Nov 16-30	40	0	42	N/A – Case 2	110.0	0.000235	1.00
Dec 1-31	35	0	40	N/A – Case 2	110.0	0.000235	1.00

[1] This is the maximum of the CWF WQ criterion or the ambient temperature. The ambient temperature may be either the design (median) temperature for CWF, 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.

Thermal Discharge Limit Calc PA0247359.xls

6/14/2021

Correspondence

Hong, Nicholas

From: GROVE, Joshua <JGrove3@novaresteam.com>
Sent: Monday, May 10, 2021 1:18 PM
To: Hong, Nicholas
Subject: [External] RE: Novares US, LLC / PA0247359 / comments on draft NPDES app

ATTENTION: *This email message is from an external sender. Do not open links or attachments from unknown sources. To report suspicious email, forward the message as an attachment to CWOPA_SPAM@pa.gov.*

Good Afternoon Nick,

Please see the below comments in red regarding our renewal package and please let me know if you have any additional questions or if anything else is needed to continue forward with our renewal application. Please feel free to contact me via email or by my phone numbers (desk- 717-246-4019 cell- 717-683-9956).

Thank you,

Josh

We have the following preliminary comments on the renewal package.

- The DMR for Outfall 001 do not show data for April 2020 to August 2020. Provide explanation for the absent data. We were monitoring but there was no discharge for these months, therefore our report did not specify any actual readings. We did mark "No Discharge" when the report was submitted. This was in part due to COVID-19 and the shutdown period at our facility.

- The DMR for Outfall 02 do not show data for April 2020 to February 2021. Provide explanation for the absent data. This is a closed loop system and therefore there is no discharge or anything to report.

- The DMR for Outfall 003 do not show data for March 2020, April 2020, and July 2020. Provide explanation for the absent data. We were monitoring but there was no discharge for these months, therefore our report did not specify any actual readings. We did mark "No Discharge" when the report was submitted. This was in part due to COVID-19 and the shutdown period at our facility.

- Explain the purpose of the fire pump tank and how much flow is discharged from this unit on a gallons per day. Explain what is meant by P/M test overflow 143 gpd avg. Explain why the fire pump has an overflow. This tank is an emergency reservoir for our fire suppression system. Under normal circumstances, the only discharge is from routine testing of the fire pump. This testing is usually done in 20 minute durations. There is no regular daily discharge except when the tests are completed, which is approximately 1,000 gallons per test. This averages out to 143 gallons per day. "P/M" is Preventative Maintenance, meaning this test is done to ensure our fire pump is working correctly as part of our maintenance plan. The fire pump has an overflow because it uses the water from the tank to cool the engine and then it is discharged. This is what is monitored for PH, etc. and reported monthly on our DMP.

- The flow diagram submitted with the application gave average flow rates for Outfalls 001, 002, and 003. Provide the maximum design flow rates for Outfalls 001, 002, and 003.
  -001: Maximum is 525gpd
  -002: Closed Loop system = no discharge

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-003: Maximum is 72,000gpd

- Confirm if the facility anticipates any upgrades in the next 5 years. We are currently investigating an upgrade to our fire pump to support our fire suppression system. This is currently the only modification that we're considering which could have a potential impact on the volume of discharge that we have (in this case, for 003).

- Clarify if the cooling water in the reservoir has any contact with the manufacturing product. The cooling water does not have any contact with our product at any point. DEP notes indicate that discharge occurs after the water in the reservoir reaches a conductivity threshold. Does this imply the reservoir water comes into contact with the product material. No, there is no contact with product material. Explain if the reservoir has any treatment prior to being discharged through the outfall. There is no treatment done right before discharge.

- Act 14, which amended the Commonwealth's Administrative Code (effective April 17, 1984), requires every applicant for a new, amended, or renewed NPDES permit to give written notice to each municipality and county in which the facility is located. Copies of the Act 14 notice were received by DEP for Winterstown Borough. DEP also needs copies of the Act 14 notice that was sent to the county. Please submit the following as proof the Act 14 notice was sent to the county: (1) A copy of your correspondence notifying your intentions to the county in which the permitted activity will occur. (2) Evidence that the county has received your notification. Acceptable forms of this evidence include certified mail receipt or written acknowledgment of the notification from the county. We are currently following up regarding this notification and will provide this evidence as soon as it is available.

The permit renewal is long overdue. We will attempt to process the permit as quickly as possible. We request that this information be submitted to DEP by April 16, 2021.

NOVARES Beyond plastics
POSITIVE ENERGY COURAGE TRANSPARENCY ONE TEAM RESULT DRIVEN

Joshua GROVE
Plant QHSE Manager
Business Unit - Americas Body Parts
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www.novaresteam.com

From: Hong, Nicholas <nhong@pa.gov>
Sent: Friday, May 7, 2021 9:08 AM
To: GROVE, Joshua <JGrove3@novaresteam.com>
Subject: FW: Novares US, LLC / PA0247359 / comments on draft NPDES app

Josh:

I called the main and the receptionist picked up the call. She informed me Sean Preller is no longer employed thee.

Please refer to the message sent on April 11, 2021 (email chain below) on questions on the NPDES renewal application.

Please have the responses by May 14, 2021.

Nick Hong, PE | Environmental Engineer
PA Department of Environmental Protection
Clean Water Programs
Southcentral Regional Office

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909 Elmerton Avenue | Harrisburg, PA 17110
Phone: 717.705.4824 | Fax: 717.705.4760
www.dep.pa.gov

THE SOUTHCENTRAL REGIONAL OFFICE AFTER HOURS REPORTING & 24 HOUR EMERGENCY RESPONSE NUMBER IS 1-800-541-2050

From: Hong, Nicholas
Sent: Tuesday, May 4, 2021 8:25 AM
To: spreller@novaresteam.com
Subject: RE: Novares US, LLC / PA0247359 / comments on draft NPDES app

Sean:

This is the 3rd message we are sending to obtain information for the NPDES renewal.

The first 2 messages were apparently not addressed by the facility.

Please respond.

Nick Hong, PE | Environmental Engineer
PA Department of Environmental Protection
Clean Water Programs
Southcentral Regional Office
909 Elmerton Avenue | Harrisburg, PA 17110
Phone: 717.705.4824 | Fax: 717.705.4760
www.dep.pa.gov

THE SOUTHCENTRAL REGIONAL OFFICE AFTER HOURS REPORTING & 24 HOUR EMERGENCY RESPONSE NUMBER IS 1-800-541-2050

From: Hong, Nicholas
Sent: Monday, April 26, 2021 2:28 PM
To: spreller@novaresteam.com
Subject: RE: Novares US, LLC / PA0247359 / comments on draft NPDES app

Please be reminded to provide responses for the information requested on April 11, 2021.

Nick Hong, PE | Environmental Engineer
PA Department of Environmental Protection
Clean Water Programs
Southcentral Regional Office
909 Elmerton Avenue | Harrisburg, PA 17110
Phone: 717.705.4824 | Fax: 717.705.4760
www.dep.pa.gov

THE SOUTHCENTRAL REGIONAL OFFICE AFTER HOURS REPORTING & 24 HOUR EMERGENCY RESPONSE NUMBER IS 1-800-541-2050

From: Hong, Nicholas
Sent: Sunday, April 11, 2021 7:43 AM
To: spreller@novaresteam.com
Subject: Novares US, LLC / PA0247359 / comments on draft NPDES app

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This message acknowledges that DEP has received the NPDES renewal application for the Novares US, LLC (PA0247357).

We have the following preliminary comments on the renewal package.

- The DMR for Outfall 001 do not show data for April 2020 to August 2020. Provide explanation for the absent data.
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- The DMR for Outfall 003 do not show data for March 2020, April 2020, and July 2020. Provide explanation for the absent data.
- Explain the purpose of the fire pump tank and how much flow is discharged from this unit on a gallons per day. Explain what is meant by P/M test overflow 143 gpd avg. Explain why the fire pump has an overflow.
- The flow diagram submitted with the application gave average flow rates for Outfalls 001, 002, and 003. Provide the maximum design flow rates for Outfalls 001, 002, and 003.
- Confirm if the facility anticipates any upgrades in the next 5 years.
- Clarify if the cooling water in the reservoir has any contact with the manufacturing product. DEP notes indicate that discharge occurs after the water in the reservoir reaches a conductivity threshold. Does this imply the reservoir water comes into contact with the product material. Explain if the reservoir has any treatment prior to being discharged through the outfall.
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The permit renewal is long overdue. We will attempt to process the permit as quickly as possible. We request that this information be submitted to DEP by April 16, 2021.

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