pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0261769**
Facility Type	**Industrial**	APS ID	**762625**
Major / Minor	**Minor**	Authorization ID	**1284305**

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

Applicant and Facility Information

Applicant Name	**Adhesives Research Inc.**	Facility Name	**Adhesives Research Inc.**
Applicant Address	400 Seaks Run Road Glen Rock, PA 17327-9500	Facility Address	400 Seaks Run Road Glen Rock, PA 17327-9500
Applicant Contact	Brian Smith	Facility Contact	Brian Smith
Applicant Phone	(717) 227-3496	Facility Phone	(717) 227-3496
Client ID	78163	Site ID	271569
SIC Code	2672,2891	Municipality	Springfield Township
SIC Description	Manufacturing - Adhesives And Sealants, Manufacturing - Paper Coated And Laminated	County	York
Date Application Received	August 5, 2019	EPA Waived?	Yes
Date Application Accepted	August 26, 2019	If No, Reason	

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

Approve	Deny	Signatures	Date
X		Nicholas Hong, P.E. / Environmental Engineer Nick Hong (via electronic signature)	April 28, 2022
x		Daniel W. Martin, P.E. / Environmental Engineer Manager Maria D. Bebenek for	May 6, 2022
x		Maria Bebenek, P.E. / Environmental Program Manager Maria D. Bebenek	May 6, 2022

Summary of Review

The application submitted by the applicant requests a NPDES renewal permit for the Adhesives Research, Inc. located at 400 Sneaks Run Road, Glen Rock, PA 17327 in York County, municipality of Springfield. The existing permit became effective on February 1, 2015 and expired on January 31, 2020. The application for renewal was received by DEP Southcentral Regional Office (SCRO) on August 26, 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 0.00085 MGD (850 GPD) treatment facility. The applicant anticipates proposed upgrades to the facility in the next five years. Buildings 5 and 6 had building extensions. The expansion included construction of a sub-surface stone infiltration bed sized for the increase in impervious area. The NPDES application has been processed as an Industrial Wastewater application 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 Commission and Springfield Township Board of Supervisors and the notice was received by the parties on May 15, 2019.

Utilizing the DEP's web-based Emap-PA information system, the receiving waters has been determined to be Seaks Run. The sequence of receiving streams that Seaks Run discharges into are the East Branch Codorus Creek, South Branch Codorus Creek, Codorus Creek, and the Susquehanna River which eventually drains into the Chesapeake Bay. The subject site is subject to the Chesapeake Bay implementation requirements. The receiving water has protected water usage for high quality-cold water fishes (HQ-CW) 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 08130 to Seaks Run is a Category 2 and 5 stream listed in the 2022 Integrated List of All Waters (formerly 303d Listed Streams). This stream is an attaining stream that supports aquatic life. The receiving stream is also impaired for recreational uses due to pathogens from an unknown source. 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:

- **IMP 101 has been added as an outfall.**
- **Phosphorus has been eliminated from monitoring**
- **Monitoring for aluminum has been reduced to 1x/quarter**

Sludge use and disposal description and location(s): The facility discharges non-contact cooling water. Biosolids 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:	Adhesives Research, Inc
NPDES Permit #	PA0261769
Physical Address:	400 Seaks Run Road Glen Rock, PA 17327
Mailing Address:	400 Seaks Run Road Glen Rock, PA 17327
Contact:	Brian Smith Manager of Environmental Affairs (717) 227-3496 blsmith@arglobal.com
Consultant:	There was not a consultant utilized for this NPDES renewal.

1.2 Permit History

Description of Facility

Adhesives Research is a developer and manufacturer of adhesives, tapes, specialty films, coatings, laminates, release liners and drug delivery technologies. The plant in York County manufactures customized specialty pressure-sensitive adhesive coated products. The facility is categorized under SIC Code- 2672- Coated and Laminated Paper- Not Classified Elsewhere Classified.

The facility is comprised of 3 manufacturing buildings- one storage building, one R&D/QC lab building, and one administrative office building. There is no storage or processing of any materials outside of the buildings. There are two underground storage tanks that contain solvents. The UST are double-walled stainless steel, have anti-corrosion systems, equipped with leak detection system, and have overfill protection/alarms. The six building roofs and parking lot constitute the impervious surface area.

The facility has a Title V Air Permit that was issued by DEP on November 1, 2019.

In the previous renewal in 2015, the permit number was changed from PAS143501 to PA0261769 because Adhesives Research discharges industrial wastewater and stormwater.

Source of Water

Water is supplied by the York Water Company. Water is used to cool the fire pump and several roll mills.

Non-Process Wastewater

Adhesives Research, Inc. operates a number of processes that discharge non-process wastewater to the stormwater outlet. The non-process wastewater discharges are non-contact cooling water and USP Water System flush water. Discharges from these units occurs at irregular hours for unpredictable periods of time making it difficult to sample. However, an exception is the non-contact cooling water from weekly testing of the fire pump. The fire pump is diesel-fired engine that must be operated weekly to satisfy NFPA requirements. The pump is run for a minimum of 30 minutes and discharges non-contact cooling water at approximately 15 gallons per minute. This is approximately 450 gallons during the 30-minute test. The discharge can be sampled before it enters the stormwater system.

For the fire pump, the basic concept of a cooling system is that the coolant is circulated through the engine by the water pump absorbing the heat and carrying it to the radiator where the moving air removes the heat from the coolant to the atmosphere.

Process Wastewater

Process cleaning water is currently generated on-site and is collected in two (2) 5,000-gallon and one (1) 3,000-gallon aboveground storage tanks (ASTs). Waste from two (2) 5,000-gallon ASTs will be sent to a local municipal treatment facility (i.e., Springettsbury Township Wastewater Treatment Plant). Waste from the 3,000-gallon AST will be sent to Environmental Recovery Corporation (Fact Sheet dated for September 2014).

The outfalls discharge through an underground pipe underneath I-83 and into Seaks Run.

Permit submittal included the following information.

- NPDES Application
- Effluent Sample Data
- Preparedness, Prevention, and Contingency (PPC) Plan

2.0 Treatment Facility Summary

2.1.1 Site location

The physical address for the facility is 400 Seaks Run Road, Glen Rock, PA 17327. 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

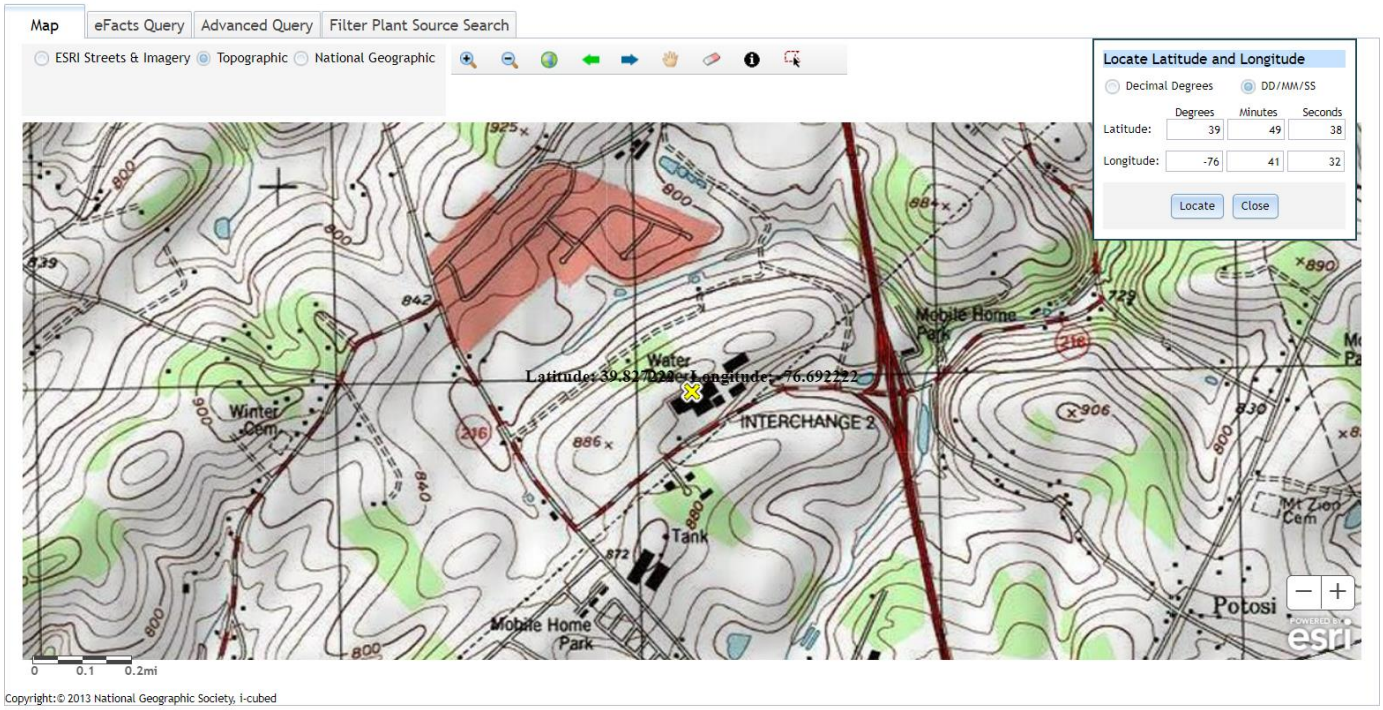
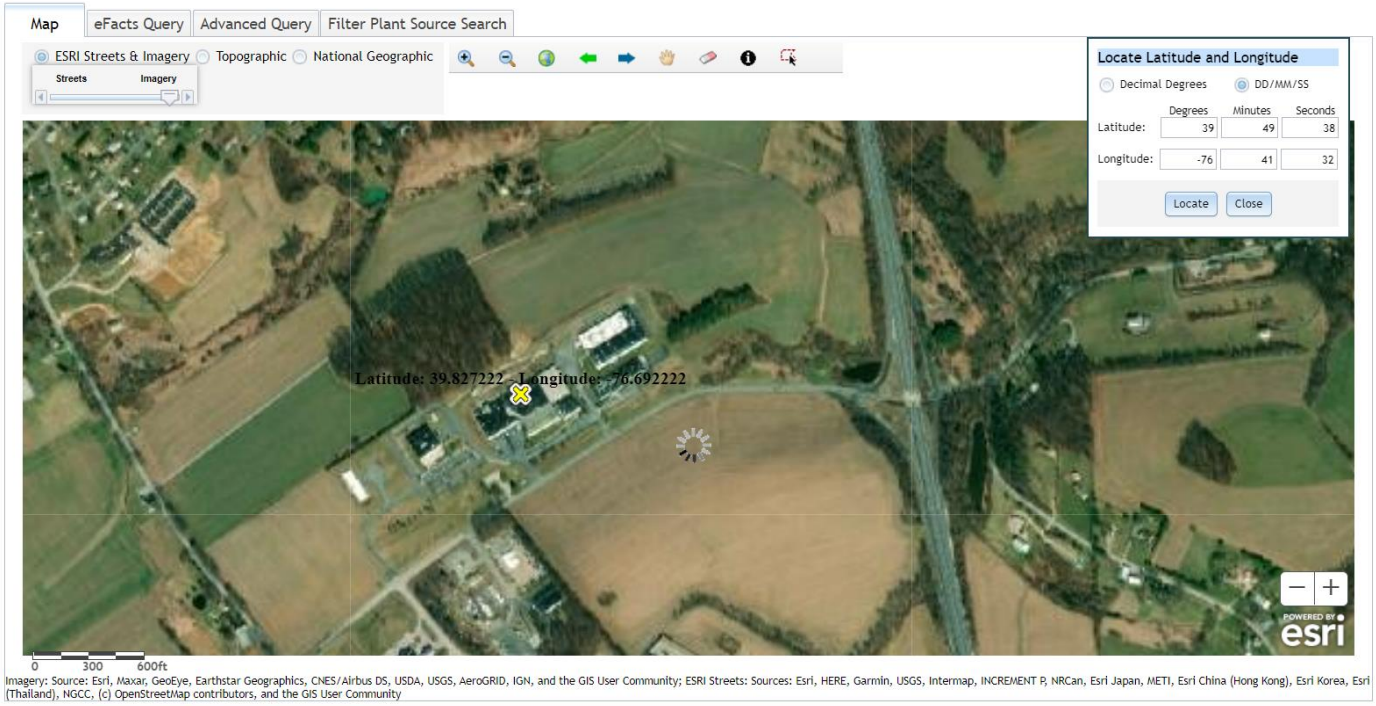


Figure 2: Aerial Photograph of the subject facility



2.1.2 Sources of Wastewater/Stormwater

The facility has the following wastewater/stormwater outfalls.

- Outfall 001 located at Latitude 39^0 49' 38" and Longitude -76^0 41' 32". The stormwater originates from lawn, roof, and the parking lot. The approximate stormwater drainage area is 2,859,918 ft^2. The approximate impervious area is 19%. Several roll mills also contribute non-contact cooling water to this outfall.
- IMP 101 located at Latitude 39^0 49' 35.724" and Longitude -76^0 41' 37.14". Water from York Water Company is used to cool the fire pump.

Via request from the facility, the internal monitoring point, IMP 101 was added to collect a more representative sample of the discharge from the fire pump. The fire pump testing accounts for nearly 50% of the total flow from the facility.

The non-contact cooling water from the various sources including the fire pump discharge flow into storm drains and to the holding pond.

Schematics of the discharge from the various wastewater sources can be found in the Correspondence section of the Fact Sheet.

The facility does not have temperature probes.

2.2 Description of Wastewater Treatment Process

The subject facility is a 0.00085 MGD (850 gpd) design flow facility. Non-contact cooling water (NCCW) from water treatment systems flushing, fire pump testing, and several rolls mills will be discharged to the existing stormwater detention pond. The breakdown of wastewater sources are summarized in the table.

Industrial Wastewater				
Wastewater	Source	Operation	Frequency	Volume (gallons per day)
Fire Pump Testing	Fire Pump	30 min/week	Weekly	450
NCCW	H2 Roll Mill	5 hr/week	Weekly	214
	Ind 2 Roll Mill	1 hr/month	Monthly	10
	Ind Rubber Hog	1 hr/week	Weekly	43
	Lab Reactors (2)	8 hr/week	Weekly	34
Water treatment systems flushing	B1 Water Softener	340 gallons/week	Weekly	50
	B5 USP	Yearly	Yearly	50
	B2 USP	Yearly	Yearly	1.0
Total				≈ 850

Stormwater will also be collected in this pond. The discharge from the pond will be through a drainage swale and ultimately to Seaks Run.

The pond dimensions are roughly 150' wide, 300' long, and 2-3' deep. Assuming the depth of the pond is 2' deep, the volume capacity of the pond would be 673,000 gallons. The normal state of the pond is dry. There is a sluice gate which is used to regulate or stop discharge flow. While the gate is usually open, the pond is normally dry.

In general, temperature requirements are imposed in the NPDES permit for heated wastewater (cooling water) discharged from industrial facilities. However, considering the quantity and frequency of cooling water discharges, temperature is not a parameter of concern. The approximate daily flow is approximately 0.000850 MGD (850 gpd) and the volume of the pond is 673,000 gallons. A significant cooling is also expected in the existing stormwater detention pond.

The facility is being evaluated for flow, pH, total aluminum, TSS, oil and grease, TKN, and total phosphorus.

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)**	0.000850
Latitude	39º 49' 38.00"	**Longitude**	-76º 41' 32.00"
Wastewater Description:	Stormwater and NCCW		

Outfall No.	IMP 101	**Design Flow (MGD)**	0.000850
Latitude	39º 49' 35.724"	**Longitude**	-76º 41' 37.14"
Wastewater Description:	Noncontact Cooling Water (NCCW)		

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.

The facility does not utilize any chemicals for their wastewater treatment.

- While the facility utilizes many chemicals, the chemicals are inside the buildings. The facility is not suspected of using any chemicals for the wastewater treatment process.

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' 38.00" , **Longitude** 76° 41' 32.00" , **River Mile Index** 0.4 , **Stream Code** 08129

Receiving Waters: Seaks Run

Type of Effluent: Noncontact Cooling Water and Stormwater

1. The permittee is authorized to discharge during the period from February 1, 2015 through January 31, 2020.
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) [3]	Report	Report	XXX	XXX	XXX	XXX	1/month	Measured
pH (S.U.) [3]	XXX	XXX	6.0	XXX	XXX	9.0	1/month	Grab
Total Aluminum [3]	XXX	XXX	XXX	Report	Report	XXX	1/month	Grab
Total Suspended Solids	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Kjeldahl Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

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.

12/17/2020: Non-contact cooling water and stormwater drains and collects at the southeastern side of the property in a stormwater pond. The pond is equipped with an emergency shut off valve than can prevent a discharge if a spill has occurred. Captured material can be removed from the stormwater pond. TSS, oil and grease TKN and Total Phosphorus should be collected during a stormwater event. Flow, pH, and aluminum should not include stormwater.

All chemical and materials are stored inside and have secondary containment. Spill kits and absorbent material are located within the facility.

A fire pump is located on the western side of the property and is regularly tested. A log book is kept for when the fire pump is operated. The water is used for emergency fire suppression and the water is potable water from the York Water Company. The fire pump is run 1x/wk. There is a sampling point located on the fire suppression and pump building that can be used for testing.

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. The maximum average flow data for the DMR reviewed was 0.0018 MGD. DEP believes that the data entered for the flow average monthly were incorrect. The daily maximum were larger in value than the flow average monthly for March 2021 to December 2021.

The off-site laboratory used for the analysis of the parameters was ALS Environmental Laboratory located at 301 Fulling Mill Road, Middletown, PA 17057.

DMR Data for Outfall 001 (from March 1, 2021 to February 28, 2022)

Parameter	FEB-22	JAN-22	DEC-21	NOV-21	OCT-21	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21
Flow (MGD) Average Monthly	0.000059	0.000059	0.000059	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018	0.0018
Flow (MGD) Daily Maximum	0.0018	0.0018	0.0018	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045	0.00045
pH (S.U.) Minimum	7.27	7.33	7.10	7.28	7.34	7.28	7.84	6.7	8.12	8.13	8.15	8.28
pH (S.U.) Instantaneous Maximum	7.27	7.33	7.10	7.28	7.34	7.28	7.84	6.7	8.12	8.13	8.15	8.28
TSS (mg/L) Daily Maximum			8						7			
Oil and Grease (mg/L) Daily Maximum			< 4.0						< 3.8			
TKN (mg/L) Daily Maximum			< 1.0						2.8			
Total Phosphorus (mg/L) Daily Maximum			0.22						0.21			
Total Aluminum (mg/L) Average Monthly	0.031	0.041	0.025	0.068	< 0.050	0.051	0.92	< 0.050	0.13	0.036	0.033	0.019
Total Aluminum (mg/L) Daily Maximum	0.031	0.041	0.025	0.068	< 0.050	0.051	0.92	< 0.050	0.13	0.036	0.033	0.019

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 February 1, 2015 to April 10, 2022, the following were observed effluent non-compliances.

The DEP computer system flagged sample type not being in accordance with NPDES permit limits numerous times from 2016 to 2018. More recent non-compliance issues were late submittal of DMR.

Non-Compliance Date	Non Compliance Type Description	Non Compliance Category	Parameter
1/27/2016	Sample type not in accordance with permit	Other Violations	Flow
3/23/2016	Late DMR Submission	Other Violations	
3/23/2016	Sample type not in accordance with permit	Other Violations	Flow
4/27/2016	Sample type not in accordance with permit	Other Violations	Flow
5/26/2016	Sample type not in accordance with permit	Other Violations	Flow
5/26/2016	Sample type not in accordance with permit	Other Violations	Flow
7/13/2016	Sample type not in accordance with permit	Other Violations	Flow
9/29/2016	Late DMR Submission	Other Violations	
9/28/2016	Sample type not in accordance with permit	Other Violations	Flow
10/21/2016	Sample type not in accordance with permit	Other Violations	Flow
11/1/2016	Sample type not in accordance with permit	Other Violations	Flow
11/18/2016	Sample type not in accordance with permit	Other Violations	Flow
12/20/2016	Sample type not in accordance with permit	Other Violations	Flow
1/20/2017	Sample type not in accordance with permit	Other Violations	Flow
3/22/2017	Sample type not in accordance with permit	Other Violations	Flow
3/27/2017	Sample type not in accordance with permit	Other Violations	Flow
5/5/2017	Sample type not in accordance with permit	Other Violations	Flow
6/28/2017	Sample type not in accordance with permit	Other Violations	Flow
7/21/2017	Sample type not in accordance with permit	Other Violations	Flow
8/24/2017	Sample type not in accordance with permit	Other Violations	Flow
8/24/2017	Sample type not in accordance with permit	Other Violations	Flow
10/10/2017	Sample type not in accordance with permit	Other Violations	Flow
12/20/2017	Sample type not in accordance with permit	Other Violations	Flow
5/23/2018	Sample type not in accordance with permit	Other Violations	Aluminum, Total
5/23/2018	Sample type not in accordance with permit	Other Violations	pH
6/27/2018	Sample type not in accordance with permit	Other Violations	Aluminum, Total
7/12/2021	Late DMR Submission	Other Violations	
8/30/2021	Late DMR Submission	Other Violations	
10/5/2021	Late DMR Submission	Other Violations	

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 February 1, 2015 to April 10, 2022, 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.

The facility discharges non-contact cooling water. Biosolids disposal was not suspected.

3.5 Open Violations

Below is a summary of open violations at the facility. Open violations will need to be addressed prior to issuance of the NPDES permit.

Summary of Open Violations

PROGRAM	VIOLATION ID	DATE	VIOLATION CODE	VIOLATION
Storage Tanks	950182	03/22/2022	245.421	Failure to meet performance standards for new/upgraded tanks

4.1 Receiving Waters

The receiving waters has been determined to be Seaks Run. The sequence of receiving streams that Seaks Run discharges into are the East Branch Codorus Creek, South Branch Codorus Creek, Codorus Creek, and the 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 9 miles downstream of the subject facility on the East Branch Codorus Creek / Lake Redman. 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 2022 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 2022 Pennsylvania Integrated Water Quality Monitoring and Assessment Report as a Category 2 and 5 waterbody. The surface waters is an attaining stream that supports aquatic life. The receiving stream is also impaired for recreational uses due to pathogens from an unknown source. The designated use has been classified as protected waters for high quality-cold water fishes (HQ-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 low flow yield and the Q710 for the subject facility was estimated using StreamStats.

The low flow yield is 0.108 $ft^3/s/mi^2$**.**

The Q710 is 0.0857 ft^3/s.

4.0 Receiving Waters and Water Supply Information Detail Summary

Outfall No.	001	Design Flow (MGD)	.000850
Latitude	39º 49' 49.69"	Longitude	-76º 41' 35.42"
Quad Name		Quad Code	
Wastewater Description:	Noncontact Cooling Water (NCCW), Stormwater		

Receiving Waters	Seaks Run (HQ-CWF)	Stream Code	8130
NHD Com ID	57472677	RMI	0.55
Drainage Area	0.79	Yield (cfs/mi^2)	0.108
Q_{7-10} Flow (cfs)	0.0857	Q_{7-10} Basis	StreamStats
Elevation (ft)	760	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)	Not appl.	
Temperature (°F)	Not appl.	
Hardness (mg/L)	Not appl.	
Other:		

Nearest Downstream Public Water Supply Intake	York Water Company		
PWS Waters	East Branch Codorus Creek / Lake Redman	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	9

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.

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 tables. The following technology-based limitations apply, subject to water quality analysis and best professional judgement (BPJ) where applicable:

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

According to the EPA's 2011 Effluent Guidelines Plan – 2011 Annual Review Report Appendix A, facilities under the SIC Code 2672 are subject to the federal ELGs for pulp, paper, or paperboard mills (i.e., 40 CFR § 430.00). However, no Effluent Limitation Guidelines (ELGs) are applicable since the facility does not discharge process wastewater. Also, since the facility does not use chlorine, total residual chlorine (TRC) effluent limitation is not applicable. For oil and grease, no oil bearing wastewater will be discharged from this facility; therefore, effluent limitation is not applicable. However, the permittee will be required to analyze stormwater samples for oil and grease (Fact Sheet dated for September 2014).

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.

5.3.1 Water Quality Modeling 7.0

The facility is not subject to water quality modeling.

5.3.2 Toxics Modeling

The facility is not subject to toxics modeling.

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 September 13, 2021.

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.

Cap Loads will be established in permits as Net Annual TN and TP loads (lbs/yr) that apply during the period of October 1 – September 30. For facilities that have received Cap Loads in any other form, the Cap Loads will be modified accordingly when the permits are renewed.

Offsets have been incorporated into Cap Loads in several permits issued to date. From this point forward, permits will be issued with the WLAs as Cap Loads and will identify Offsets separately to facilitate nutrient trading activities and compliance with the TMDL.

Based upon the supplement the subject facility has been categorized as a Sector C discharger. The supplement defines Sector C as a non-significant dischargers include 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.

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 the facility is not suspected of discharging nitrogen or phosphorus, this facility will not be 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 facility discharges non-contact cooling water should not be detrimental to the receiving waters. The volume of water generated by the facility is minimal. The discharge flows into a stormwater detention basin where the effluent can further cool. 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 (b) Nitrogen and (c) Toxics.

6.1.1.1 Conventional Pollutants and Disinfection- Stormwater Management (Outfall 001)

The PAG-03 General Permit is intended to provide NPDES permit coverage for discharges of stormwater associated with industrial activity as defined at 40 CFR § 122.26(b)(14) and other industrial stormwater discharges that may be required to obtain a permit under Pennsylvania's Clean Streams Law.

Based upon the type of activity at the facility, the facility shall be subject to stormwater monitoring requirements outlined in Appendices A, E, and J of the PAG-03.

All of chemicals are stored inside of buildings in storage rooms designed to contain these chemicals; therefore, no stormwater is expected to come in contact with these chemicals.

The facility's *Preparedness, Prevention, and Contingency (PPC) Plan/Hazardous Material Off-Site Response Plan* was submitted with the NPDES renewal application.

Summary of Proposed NPDES Parameter Details for Conventional Pollutants and Disinfection
Adhesives Research, Inc.; PA0261769; Outfall 001

Parameter	Permit Limitation Required by[1]:	Recommendation	
pH (S.U.)	PAG-03	Monitoring:	The monitoring frequency shall be 1x/month as a grab sample.
		Effluent Limit:	Effluent limits may range from pH = 6.0 to 9.0
		Rationale:	Consistent with PAG-03 Appendices A and E, monitoring shall be required.
TSS	PAG-03	Monitoring:	The monitoring frequency shall be 2x/yr as a grab sample
		Effluent Limit:	No effluent requirement
		Rationale:	Consistent with PAG-03 Appendices A, E, and J, monitoring shall be required.
Oil and Grease	PAG-03	Monitoring:	The monitoring frequency shall be 2x/yr as a grab sample
		Effluent Limit:	No effluent requirement
		Rationale:	Consistent with PAG-03 Appendix J, monitoring shall be required.
Notes:			

1 The NPDES permit was limited by PAG-03

6.1.1.1 Nitrogen Pollutants- Stormwater Management (Outfall 001)

Summary of Proposed NPDES Parameter Details for Nitrogen Species and Phosphorus

Adhesives Research, Inc.; PA0261769; Outfall 001

Parameter	Permit Limitation Required by[1]:	Recommendation	
TKN	PAG-03	Monitoring:	The monitoring frequency shall be 2x/yr as a grab sample
		Effluent Limit:	No effluent requirement
		Rationale:	Consistent with PAG-03 Appendix A monitoring shall be required.
Notes:			
1 The NPDES permit was limited by PAG-03			

6.1.1 Toxics for Outfall 001

The table below summarizes sampling results for aluminum. A maximum value of 0.92 mg/l was observed in August 2021.

Sampling Results for Total Aluminum in mg/l (Monthly Maximum)

Month / Year	2017	2018	2019	2020	2021
January	NS	0.048	<0.04	<0.04	0.041
February	NS	0.046	0.04	<0.04	0.039
March	NS	<0.04	<0.04	0.06	0.019
April	NS	<0.04	<0.04	0.046	0.033
May	NS	<0.04	0.048	0.041	0.036
June	NS	0.076	<0.04	0.044	0.13
July	0.052	0.053	<0.04	0.059	<0.05
August	0.093	<0.04	0.064	0.022	0.92
September	0.063	0.053	<0.04	0.047	0.051
October	<0.04	<0.04	0.069	0.045	<0.050
November	<0.04	<0.04	0.052	0.018	0.068
December	0.049	<0.04	<0.04	0.047	0.025
Max Concentration =		0.92	mg/l		

A summary of monitoring requirements for toxics is summarized in the table.

Summary of Proposed NPDES Parameter Details for Toxics			
Adhesives Research, Inc.; PA0261769; Outfall 001			
Parameter	**Permit Limitation Required by[1]:**	**Recommendation**	
Aluminum	Anti-backsliding	Monitoring:	The monitoring frequency shall be 1x/quarter as a grab sample (Table 6-3).
		Effluent Limit:	No effluent limit requirement.
		Rationale:	Due to antibacksliding regulations, monitoring shall continue to the proposed permit. Monitoring frequency was reduced based upon sufficient sampling from the current renewal. Data from 2017 to 2021 showed low levels of aluminum. There was one elevated sample in August 2021 at 0.92 mg/l. All other sample results were below the most stringent water criterion of 0.750 mg/l.
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 0.000850 MGD.			
3 Table 6-4 (Self Monitoring Requirements for Industrial Discharges) in Technical Guidance for the Development and Specification of Effluent			
4 Water Quality Antidegradation Implementaton Guidance (Document # 391-0300-002)			
5 Phase 2 Watershed Implementation Plan Wastewater Supplement, Revised September 6, 2017			

6.1.2.1 Conventional Pollutants and Disinfection (IMP 101)

Summary of Proposed NPDES Parameter Details for Conventional Pollutants and Disinfection			
Adhesives Research, Inc.; PA0261769; Outfall IMP 101			
Parameter	**Permit Limitation Required by[1]:**	**Recommendation**	
pH (S.U.)	TBEL	Monitoring:	The monitoring frequency shall be 1x/month as a grab sample
		Effluent Limit:	Effluent limits may range from pH = 6.0 to 9.0
		Rationale:	The monitoring frequency has been assigned in accordance with best professional judgment 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 0.000850 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.

Changes in Permit Monitoring or Effluent Quality

Parameter	Existing Permit	Draft Permit
Total Aluminum	Monitoring is required 1x/mo	Monitoring shall be required 1x/quarter. Monitoring frequency was reduced based upon sufficient sampling from the current renewal. Data from 2017 to 2021 showed low levels of aluminum. There was one elevated sample in August 2021 at 0.92 mg/l. All other sample results were below the most stringent water criterion of 0.750 mg/l.
Total Phosphorus	Monitoring is required 2x/yr	This parameter has been eliminated from monitoring. The submitted sampling data had results that did not exceed non exposure 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' 38.00" , **Longitude** 76° 41' 32.00" , **River Mile Index** 0.4 , **Stream Code** 8129

Receiving Waters: Unnamed Tributary to Seaks Run (HQ-CWF)

Type of Effluent: Noncontact Cooling Water (NCCW), Stormwater

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/month	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/month	Grab
Total Suspended Solids	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Kjeldahl Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Aluminum, Total[3]	XXX	XXX	XXX	Report Avg Qrtly	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

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

I. B. For Outfall 101 , **Latitude** 39° 49' 35.72" , **Longitude** 76° 41' 37.14" , **River Mile Index** 0.4 , **Stream Code** 8129

Receiving Waters: Seaks Run

Type of Effluent: Non-contact cooling water from fire pump testing

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	1/month	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/month	Grab

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

at Outfall 101

6.3.2 Summary of Proposed Permit Part C Conditions

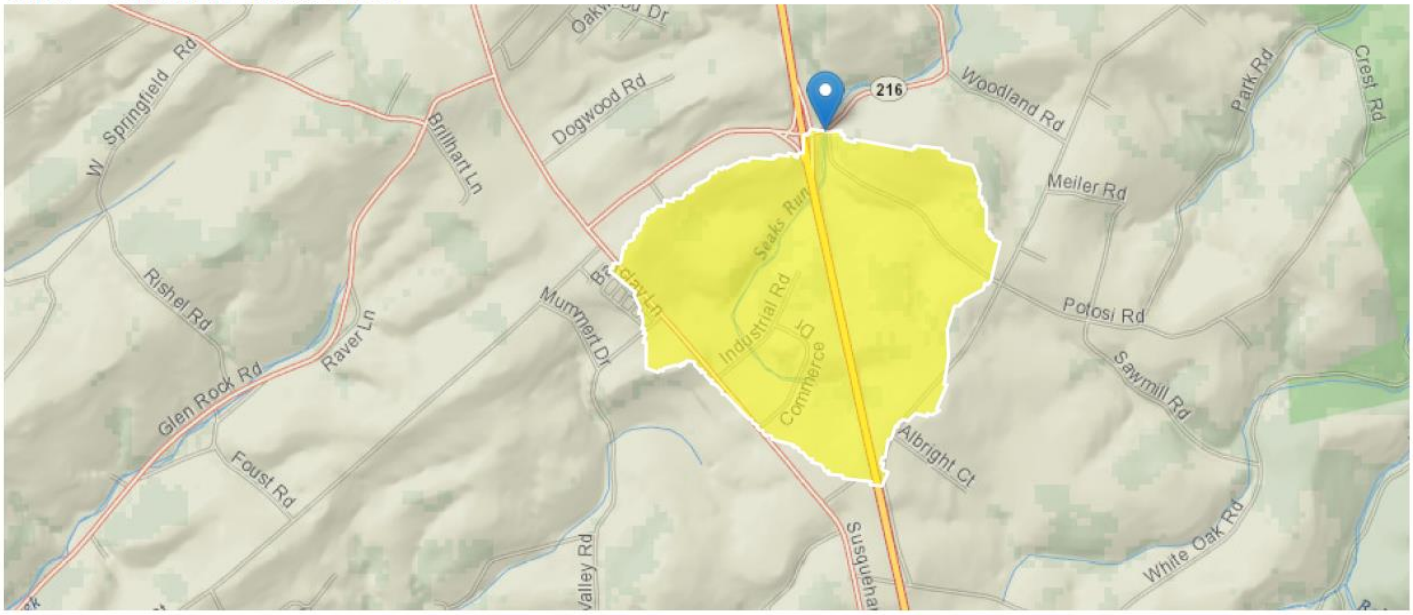
The subject facility has the following Part C conditions.

- Stormwater Requirements

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, revised 10/11/2013
☐	Other:

StreamStats Report

Region ID: PA
Workspace ID: PA20220413131708160000
Clicked Point (Latitude, Longitude): 39.82719, -76.68330
Time: 2022-04-13 09:17:35 -0400



Adhesives Research, Inc. PA0261769 Modeling Point #1 April 2022

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BSLOPD	Mean basin slope measured in degrees	4.6751	degrees
DRNAREA	Area that drains to a point on a stream	0.79	square miles
ROCKDEP	Depth to rock	5	feet
URBAN	Percentage of basin with urban development	1.0226	percent

Low-Flow Statistics Parameters [Low Flow Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.79	square miles	4.78	1150
BSLOPD	Mean Basin Slope degrees	4.6751	degrees	1.7	6.4
ROCKDEP	Depth to Rock	5	feet	4.13	5.21
URBAN	Percent Urban	1.0226	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	0.197	ft^3/s
30 Day 2 Year Low Flow	0.251	ft^3/s
7 Day 10 Year Low Flow	0.0857	ft^3/s
30 Day 10 Year Low Flow	0.115	ft^3/s

CORRESPONDENCE

Hong, Nicholas

From: Brian Smith <BLSmith@arglobal.com>
Sent: Wednesday, April 27, 2022 4:59 PM
To: Hong, Nicholas
Subject: [External] RE: NPDES renewal / PA0261769
Attachments: Site Maps- SW & NCCW.pdf

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.

Hi Nicholas.
Our site is very large and it was difficult to find a single site map that would be easy to read. I have attached site maps for our Building 1, Building 2, and overall site with locations of non-contact cooling water sources and arrows indicating the general direction of the flow of storm water on the overall site map. The roll mills and the "rubber hog" are used to reduce the size of rubber materials and increase the surface area to make them easier to dissolve in solvents. The non-contact cooling water flows once-through the equipment and is discharged outside of the building into storm water drains. Likewise with the fire pump cooling water. Water only flows when these machines are in use.
Thanks.
Brian

Brian L. Smith, CHMM
Manager of Environmental Affairs
Adhesives Research, Inc.
blsmith@arglobal.com
717-227-3496

From: Hong, Nicholas <nhong@pa.gov>
Sent: Monday, April 25, 2022 8:43 AM
To: Brian Smith <BLSmith@arglobal.com>
Subject: RE: NPDES renewal / PA0261769

Mimecast Attachment Protection was unable to create safe copies of your attachments.

Brian.

DEP has the following comments on the NPDES renewal application.

- As per your request, we can add an outfall for the non-contact cooling water from the fire pump and the roll mills. Since its an internal monitoring point we will label it IMP 001. IMP stands for internal monitoring point. The latitude and longitude reported in the NPDES application is the same as Outfall 001. Should the coordinates be the same or slightly different? If different, submit the coordinates.
- Does the facility have any temperatures probes? If so, where are they located?
- To help us better understand the different processes at the facility, a process flow diagram showing the roll mill, the fire pump, the sampling locations, and stormwater basin would be helpful.
- Below is a table abstracted from the previous Fact Sheet. Please update the table as necessary.

Industrial Wastewater

1

Wastewater	Source	Operation	Frequency	Volume (gallons per day)
Fire Pump Testing	Fire Pump	30 min/week	Weekly	260
NCCW	H2 Roll Mill	5 hr/week	Weekly	214
	Ind 2 Roll Mill	1 hr/month	Monthly	10
	Ind Rubber Hog	1 hr/week	Weekly	43
	Lab Reactors (2)	8 hr/week	Weekly	34
	Ink Room Nanopure	10 min/hr	Hourly	1.0
Water treatment systems flushing	B1 Water Softener	340 gallons/week	Weekly	50
	B5 USP	Yearly	Yearly	50
	B2 USP	Yearly	Yearly	1.0
Total				≈ 700

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PA Department of Environmental Protection
Clean Water Programs
Southcentral Regional Office
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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: Brian Smith <BLSmith@arglobal.com>
Sent: Monday, April 11, 2022 4:58 PM
To: Hong, Nicholas <nhong@pa.gov>
Subject: [External] RE: NPDES renewal / PA0261769

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.

Hi Nicholas. Thank you for reviewing our NPDES renewal application. See below for my responses to your questions. If you need to visit our site to better understand our storm water, let me know.
Thanks.

Brian
Brian L. Smith, CHMM
Manager of Environmental Affairs
Adhesives Research, Inc.
blsmith@arglobal.com
717-227-3496

From: Hong, Nicholas <nhong@pa.gov>
Sent: Sunday, April 10, 2022 8:47 AM
To: Brian Smith <BLSmith@arglobal.com>
Subject: NPDES renewal / PA0261769

Mr. Brian Smith:

This message acknowledges that DEP has received the NPDES renewal application for Adhesives Research, Inc.

We have the following preliminary comments on the renewal package. Please respond by April 18, 2022

- Confirm if the facility will have any upgrades in the next five years We have put building additions on Building 5 and Building 6 since the application was submitted. The Building 5 expansion added 9874 square feet of building space to our site and a paved ramp to the building's shipping dock. Building 6 expansion added 8401 square feet of building space and a paved driveway to the building's shipping dock. This expansion also included construction of a sub-surface stone infiltration bed sized for the increase in impervious surface area. Storm water controls were installed according to the Soil Erosion and Sediment Control Plan.

- Confirm if any chemicals or additives are used We use dozens of chemicals and additives to manufacture adhesives and coatings. All chemical storage is inside of buildings.

- Include a process flow diagram for the wastewater flows. Indicate the locations of the internal monitoring points, Outfall 001, and Outfall 002 and design flow rates. All of our process waste water is collected in indoor bulk storage tanks and is transported offsite for treatment and disposal. For non-contact cooling water discharges, the water is piped to the equipment, circulated through the equipment for cooling, and discharged onto the lawn or directly into the storm water drains. Other than the fire pump, we have three small roll mills that use non-contact cooling water. These are very small discharges and only flow water when they are in use.

  I have attached a site plan from our Land Development plan that shows the entire site with contours. Most of our site slopes toward Seaks Run Road, the road directly in front of our plant. Storm water flows down to a drainage swale which directs the water through the detention "pond", a sluice gate, and into a pipe which runs under Route 83.

  Outfall 001 is our discharge of storm water from the entire site. I am not sure that it has a design flow rate. The detention "pond" prior to the discharge can be used to regulate discharge flow rate if we have an excess of storm water.
  Outfall 002 is the discharge of Non-contact cooling water from our fire pump. We have several other small sources of non-contact cooling water that operate at irregular times and for various time intervals as production needs dictate. Discharge from the fire pump was chosen to be representative of all non-contact cooling water because it is predictable, measureable, and makes up the largest percentage of all non-contact cooling water discharges. Outfall 002 is located at the fire pump building.

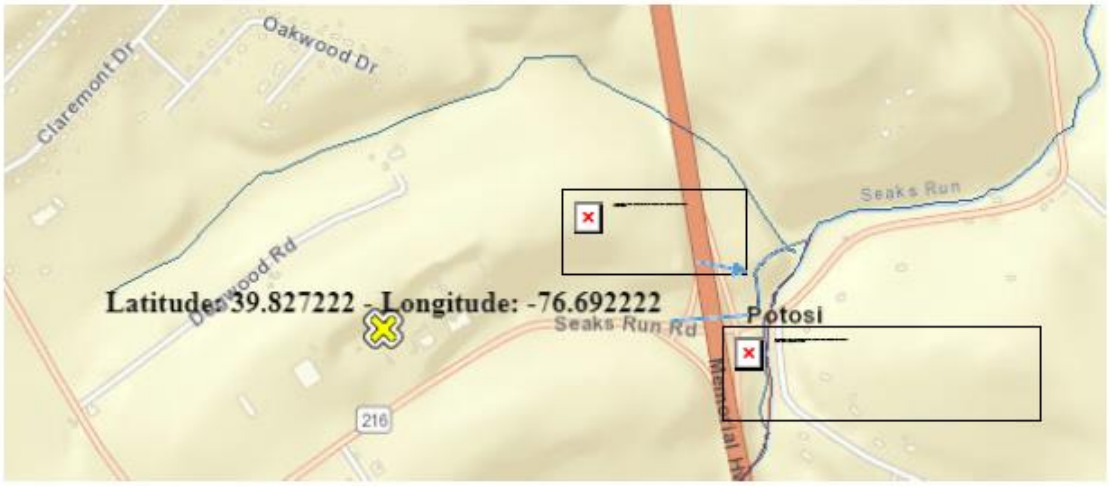
- Estimate the size (length and width) of the pond. Provide a best guess estimate on the depth of the pond. We will use the size of the pond in determining if temperature modeling needs to be completed. The detention pond is approximately 150 feet wide, 200 feet long, and 2-3 feet deep, if filled. However, the normal state of this "pond" is dry. When we have storm water leaving our site, it flows through the middle of the pond in a narrow channel to the pond discharge through a sluice gate that can be used to regulate or stop discharge flow. This gate is normally in the full open position and the "pond" is normally dry.

- Provide a narrative on the uses for Outfall 002. For the fire pump, clarify if the water is pumped from the city to a tank where it is held until it is needed for either fire suppression or weekly testing. Where does Outfall 002 discharge to? Does it go to the pond? Outfall 002 is non-contact cooling water that is York Water from the street connection. It circulates through the fire pump when it is running to cool it. The water is then discharged from the fire pump cooling system to a storm water drain where it joins storm water and flows through the detention pond to Outfall 001.

- Does sampling for Outfalls 001 and 002 occur before discharge to pond or from the effluent from the pond? Outfall 001 is the storm water that flows through a small channel through the center of the detention "pond". There is a small concrete reservoir at the discharge to the detention "pond" prior to the sluice gate where storm water collects. An automatic sampler is used to collect the storm water sample after a rain event at the sluice gate reservoir.
  Outfall 002 samples are collected at the fire pump discharge to avoid any mixing with storm water. Outfall 002 water joins the storm water in one of the storm water parking lot drains and flows down through the detention "pond".

- Confirm if the Outfall 001 and 002 flow to the stormwater detention basin and then subsequently to UNT of Seaks Run. Or does the discharge go into Seaks Run. See map markings below. An underground pipe carries storm water from Adhesives Research's site under I83. From the discharge point, there is a small stream that carries the discharge into Seaks Run. The small stream (un-named tributary added to the map below) flows through another underground pipe to discharge into Seaks Run. It is unclear if the un-named tributary joins with Trib 08130 prior to entering Seaks Run. (Most of the pipes are underground and the terrain is heavily overgrown with rose bushes and other briars.)

- Do the outfalls discharge into Trib 08130 To Seaks Run or Seaks Run. Identify the location of the discharge to which stream on the map. As stated above, it is difficult to determine if the outfall joins with Trib 08130 (I assume that is the "name" of the stream showing on the map to the north of our site.) If it does so, the run from the confluence of these two tributaries to Seaks Run is very short (<50 yards) and is through an underground pipe (3'-4' in diameter) into Seaks Run.



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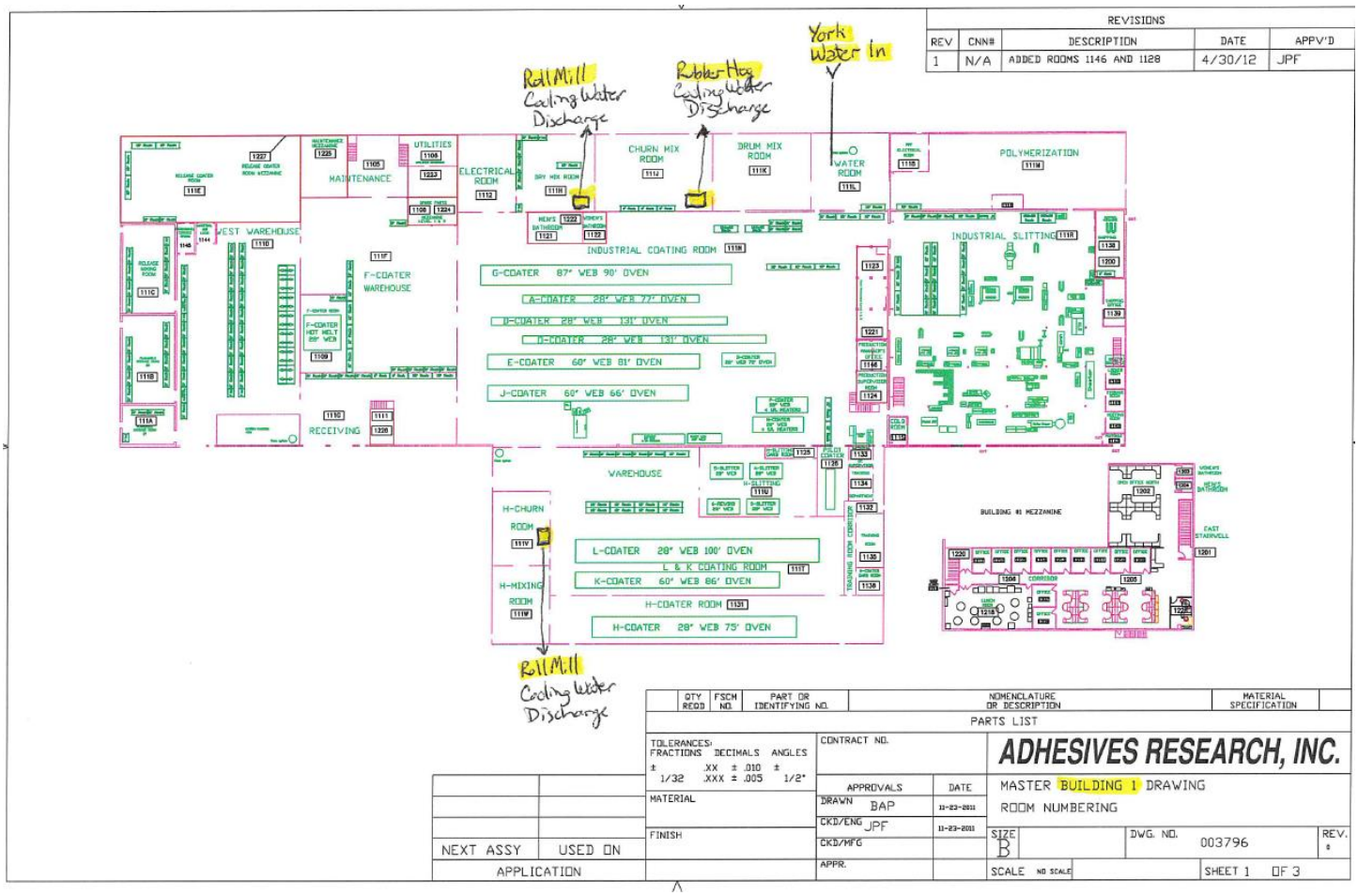
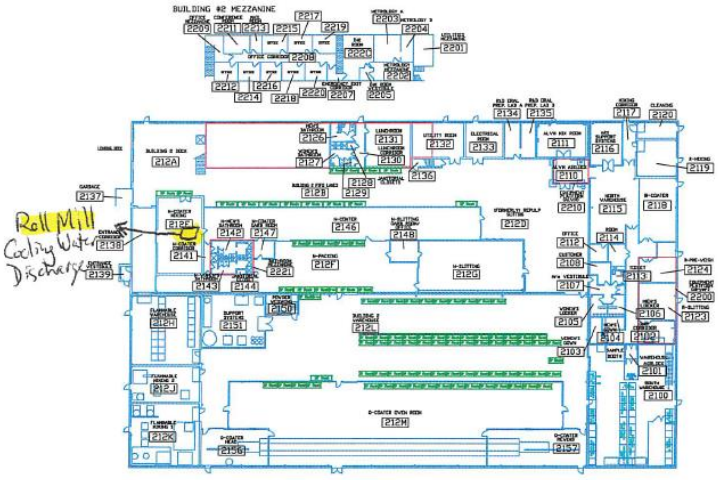
THE SOUTHCENTRAL REGIONAL OFFICE AFTER HOURS REPORTING & 24 HOUR EMERGENCY RESPONSE NUMBER IS 1-800-541-2050


REVISIONS
REV | CNN# | DESCRIPTION | DATE | APPV'D
1 | N/A | ADDED ROOMS 1146 AND 1128 | 4/30/12 | JPF
York Water In
Roll Mill Cooling Water Discharge
Rubber Hog Cooling Water Discharge
Roll Mill Cooling Water Discharge
MAINTENANCE
UTILITIES
ELECTRICAL ROOM
CHURN MIX ROOM
DRUM MIX ROOM
WATER ROOM
POLYMERIZATION
INDUSTRIAL SLITTING
WEST WAREHOUSE
F-COATER WAREHOUSE
INDUSTRIAL COATING ROOM
G-COATER 87" WEB 90' OVEN
A-COATER 28" WEB 77' OVEN
D-COATER 28" WEB 131' OVEN
B-COATER 28" WEB 131' OVEN
E-COATER 60" WEB 81' OVEN
J-COATER 60" WEB 66' OVEN
RECEIVING
WAREHOUSE
H-CHURN ROOM
H-MIXING ROOM
L-COATER 28" WEB 100' OVEN
L & K COATING ROOM
K-COATER 60" WEB 86' OVEN
H-COATER ROOM
H-COATER 28" WEB 75' OVEN
BUILDING #1 MEZZANINE
QTY REQD | FSCM NO. | PART OR IDENTIFYING NO. | NOMENCLATURE OR DESCRIPTION | MATERIAL SPECIFICATION
PARTS LIST
TOLERANCES: FRACTIONS DECIMALS ANGLES ± 1/32 .XX ± .010 .XXX ± .005 ±
CONTRACT NO.
ADHESIVES RESEARCH, INC.
APPROVALS | DATE
DRAWN BAP 11-23-2011
CKD/ENG JPF 11-23-2011
CKD/MFG
APPR.
MATERIAL
FINISH
NEXT ASSY | USED ON
APPLICATION
MASTER BUILDING 1 DRAWING
ROOM NUMBERING
SIZE B
DWG. NO. 003796
REV. 1
SCALE NO SCALE
SHEET 1 OF 3

REVISIONS				
REV	CNN#	DESCRIPTION	DATE	APPV'D
2	N/A	Added Sample Booth and Modified Room 2114 Name	01-16-14	BKB



QTY REQD	FSCM NO.	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION

PARTS LIST

TOLERANCES: FRACTIONS ± 1/32 DECIMALS .XX ± .010 .XXX ± .005 ANGLES ± 1/2°

MATERIAL

FINISH

NEXT ASSY | USED ON

APPLICATION

CONTRACT NO.

APPROVALS	DATE
DRAWN BAP	1-16-2014
CKD/ENG BKB	1-16-2014
CKD/MFG	
APPR.	

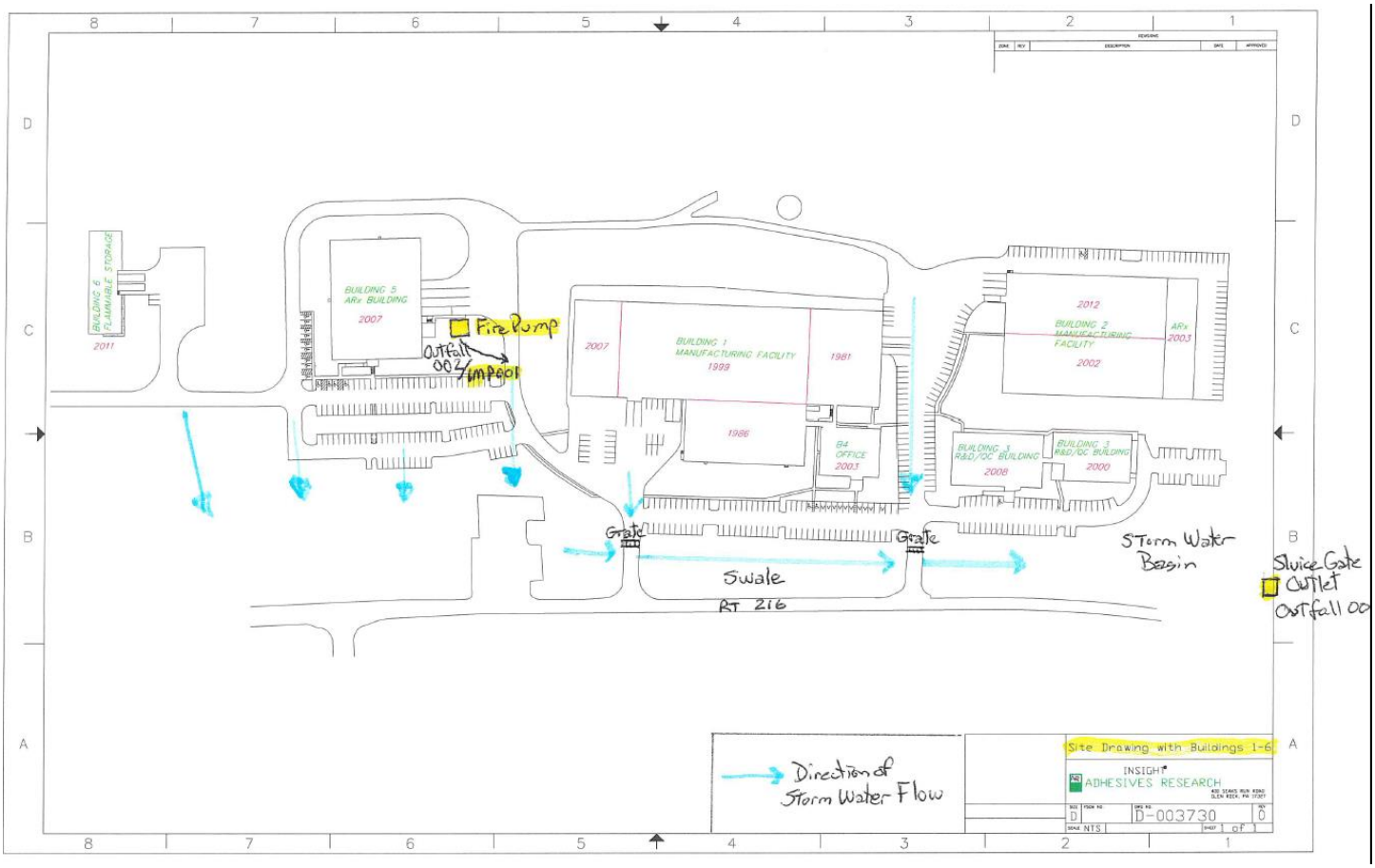
ADHESIVES RESEARCH, INC.

MASTER BUILDING 2 DRAWING

ROOM NUMBERING

SIZE B | DWG. NO. 003834 | REV. 2

SCALE NO SCALE | SHEET 1 OF 2


BUILDING 6
FLAMMABLE STORAGE
2011
BUILDING 5
ARx BUILDING
2007
Fire Pump
Outfall 002
Impaired
2007
BUILDING 1
MANUFACTURING FACILITY
1999
1981
1986
B4
OFFICE
2003
2012
BUILDING 2
MANUFACTURING FACILITY
2002
ARx
2003
BUILDING 4
R&D/QC BUILDING
2008
BUILDING 3
R&D/QC BUILDING
2000
Grate
Grate
Swale
RT 216
Storm Water Basin
Sluice Gate
Outlet
Outfall 00
Direction of Storm Water Flow
Site Drawing with Buildings 1-6
INSIGHT
ADHESIVES RESEARCH
D-003730
NTS

Flow Data for Thermal Discharge Analysis

Facility: Adhesives Research, Inc
Permit Number: PA0261769
Stream Name: Seaks Run
Analyst/Engineer: DEP
Stream Q7-10 (cfs): 0.0857

	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	0.00085	0	0.00085	1.00	0.26	0.26	0.27
Feb 1-29	0	0.00085	0	0.00085	1.00	0.30	0.30	0.30
Mar 1-31	0	0.00085	0	0.00085	1.00	0.56	0.56	0.56
Apr 1-15	0	0.00085	0	0.00085	1.00	0.77	0.77	0.77
Apr 16-30	0	0.00085	0	0.00085	1.00	0.77	0.77	0.77
May 1-15	0	0.00085	0	0.00085	1.00	0.44	0.44	0.44
May 16-31	0	0.00085	0	0.00085	1.00	0.44	0.44	0.44
Jun 1-15	0	0.00085	0	0.00085	1.00	0.25	0.25	0.25
Jun 16-30	0	0.00085	0	0.00085	1.00	0.25	0.25	0.25
Jul 1-31	0	0.00085	0	0.00085	1.00	0.12	0.12	0.12
Aug 1-15	0	0.00085	0	0.00085	1.00	0.12	0.12	0.12
Aug 16-31	0	0.00085	0	0.00085	1.00	0.12	0.12	0.12
Sep 1-15	0	0.00085	0	0.00085	1.00	0.09	0.09	0.09
Sep 16-30	0	0.00085	0	0.00085	1.00	0.09	0.09	0.09
Oct 1-15	0	0.00085	0	0.00085	1.00	0.11	0.11	0.11
Oct 16-31	0	0.00085	0	0.00085	1.00	0.11	0.11	0.11
Nov 1-15	0	0.00085	0	0.00085	1.00	0.16	0.16	0.16
Nov 16-30	0	0.00085	0	0.00085	1.00	0.16	0.16	0.16
Dec 1-31	0	0.00085	0	0.00085	1.00	0.26	0.26	0.26

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: **Adhesives Research, Inc**
Permit Number: PA0261769
Stream: Seaks Run

	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		38	N/A -- Case 2	110.0	0.00085	1.00
Feb 1-29	35		38	N/A -- Case 2	110.0	0.00085	1.00
Mar 1-31	39		42	N/A -- Case 2	110.0	0.00085	1.00
Apr 1-15	46		48	N/A -- Case 2	110.0	0.00085	1.00
Apr 16-30	52		53	N/A -- Case 2	110.0	0.00085	1.00
May 1-15	55		56	N/A -- Case 2	110.0	0.00085	1.00
May 16-31	59		60	N/A -- Case 2	110.0	0.00085	1.00
Jun 1-15	63		64	N/A -- Case 2	110.0	0.00085	1.00
Jun 16-30	67		68	N/A -- Case 2	110.0	0.00085	1.00
Jul 1-31	71		72	N/A -- Case 2	110.0	0.00085	1.00
Aug 1-15	70		71	N/A -- Case 2	110.0	0.00085	1.00
Aug 16-31	70		71	N/A -- Case 2	110.0	0.00085	1.00
Sep 1-15	66		67	N/A -- Case 2	110.0	0.00085	1.00
Sep 16-30	60		61	N/A -- Case 2	110.0	0.00085	1.00
Oct 1-15	55		56	N/A -- Case 2	110.0	0.00085	1.00
Oct 16-31	51		52	N/A -- Case 2	110.0	0.00085	1.00
Nov 1-15	46		47	N/A -- Case 2	110.0	0.00085	1.00
Nov 16-30	40		42	N/A -- Case 2	110.0	0.00085	1.00
Dec 1-31	35		40	N/A -- Case 2	110.0	0.00085	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.