pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southeast Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0013081**
Facility Type	**Industrial**	APS ID	**1079739**
Major / Minor	**Minor**	Authorization ID	**1424868**

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

Applicant and Facility Information

Applicant Name	**Kimberly Clark Corp**	Facility Name	**Kimberly Clark PA Paper MFG FAC**
Applicant Address	Front and Avenue of The States	Facility Address	Front and Avenue of The States
	Chester, PA 19013		Chester, PA 19013-4471
Applicant Contact	Amanda Katzoff	Facility Contact	Amanda Katzoff
Applicant Phone	(610) 499-6152	Facility Phone	(610) 499-6152
Client ID	205598	Site ID	237860
SIC Code	2621	Municipality	Chester City
SIC Description	Manufacturing - Paper Mills	County	Delaware
Date Application Received	January 26, 2023	EPA Waived?	Yes
Date Application Accepted		If No, Reason	

Purpose of Application: Permitting of stormwater outfalls and NCCW.

Summary of Review

The applicant requests approval for renewal of an NPDES permit to discharge stormwater and non-contact cooling water from several outfalls form Kimberly Clark PA Paper Manufacturing Facility.

The facility is a consumer tissue mill, which manufactures tissue products for consumer and commercial consumption. The facility operates 24 hours per day and seven days per week. The primary raw material is dry-lap pulp obtained from other facilities via truck and railcar. The facility includes a co-generation plant which uses natural gas to produce electricity. Other utilities critical to the production operations such as water treatment, steam distribution and compressed air are also provided by on-site unit operations.
The coal plant has been decommissioned and demolished.

The process wastewater (approximately 3 to 7 mgd) is discharged directly to DELCORA. The facility typically withdraws 3 to 5 mgd of water from Delaware River. This water is treated by on site unit operations prior to process use.

eDMR review shows the discharge has been in compliance with the effluent limitations in the permit. No comments received from operations section.

The outfalls covered under this permit are discussed below:

Outfall 003: Discharges non-contact cooling water (NCCW) from air conditioner units as well as stormwater from roof drains. This discharge has been reduced due to recycling of NCCW into the process water system. Piping changes have occurred over the years to prioritize and only allow use of purchased water from Chester Water Authority to be utilized for cooling for its consistent coldness. The maximum flow through this outfall is reported as 0.03 mgd in the application. Currently permitted flow is 0.1 mgd. Existing monitoring requirements for flow, pH (6.0 to 9.0 S.U.), temperature (110 ºF) and TDS are recommended to continue in the draft permit.

Approve	Deny	Signatures	Date
X		*Sara Abraham* Sara Reji Abraham, E.I.T. / Project Manager	November 2, 2023
X		*Pravin Patel* Pravin C. Patel, P.E. / Environmental Engineer Manager	11/03/2023

Summary of Review

Outfall 008: Discharges stormwater from building roof. This is the only outfall discharging to Chester Creek. No monitoring of stormwater parameters is required similar to the existing permit. Outfall 013 is considered as representative of Outfall 008.

Outfall 013: Discharges stormwater from roof drains from various buildings and parking areas. The existing monitoring requirements are recommended to continue as follows: pH, BOD5, COD, TSS, Oil and Grease, Total Nitrogen, Total Phosphorus.

Outfall 016: Discharges stormwater from paved and unpaved areas (former coal yard). The existing monitoring requirements are recommended to continue as follows: pH, BOD5, COD, TSS, Oil and Grease, Total Nitrogen, Total Phosphorus.

Outfall 018: Stormwater from roadway and low-lying areas. No monitoring of stormwater parameters is required similar to the existing permit. Outfall 013 is considered as representative of Outfall 018.

Outfall 050: Discharges stormwater from building roofs and parking areas. Many stormwater inlets are contributing to this outfall. Since this outfall is difficult to access, monitoring is required at the stormwater inlet located at the southwest corner of Front Street and Avenue of the States. The existing monitoring requirements are recommended to continue as follows: pH, BOD5, COD, TSS, Oil and Grease, Total Nitrogen, Total Phosphorus. Also, the existing PCBs monitoring is carried over to the draft permit. The eDMR shows PCBs concentration of 12,600 pg/l in the discharge from 2022 sampling.

Outfall 051: Discharges stormwater from building roofs, parking areas and road runoff. No monitoring of stormwater parameters is required similar to the existing permit. Outfall 050 is considered as representative of Outfall 051.

Outfall 001: This outfall was permitted for an emergency discharge from head box overflow. The last time a discharge occurred through this outfall was in 2003 and no future discharges are envisioned. The facility states it is not possible that Outfall 001 to be permanently closed and sealed as it is not physically feasible and ties into the Main Valve assembly for the Raw Water Intake. The facility would need to descend a ladder onto the Raw Water Intake piping structure in the River Intake inlet and physically turn the valve open to allow flow to exit the recirculating loop. Additionally, internal controls to access this valve from the filter plant have been locked out. If an emergency discharge is required, this will be accomplished through facility's existing connection with DELCORA. According to the permittee's request Outfall 001 is eliminated from the permit.

Outfall 012: The facility has completed many large capital projects from 2018 through 2022 which demolished many buildings on site including the building associated with Outfall 002. The pulp docks that were draining to Outfall 012 were completely demolished along with the pipe for Outfall 012. Outfall 012 is eliminated from the permit.

PCBs: The facility has been sampling for PCBs at Outfall 050. The facility does not use PCBs in its process nor is it present in any of its raw materials. Railroad sediment is the predominant source of PCB contamination to Outfall 050. Through the operation and its water filtration plant the facility provides a substantial benefit to the tidal Delaware Estuary by removing approximately 38 milligrams per day of total PCBs. All reasonable efforts to reduce PCB loadings from Outfall 050 have been achieved. There is no reason to continue PCB sampling at Outfall 050 and this monitoring requirement is eliminated from the permit. Based on DRBC's recommendation, a rotating annual PCB sampling is included in the permit to conduct sampling among the Outfalls 008, 013, 016, 018 and 051. This data will be evaluated at the next permit renewal to determine whether other PCB minimization activities are warranted for other locations on the site. The standard condition requiring the PCB PMP and monitoring is included in Part C of the permit.

In order to reduce the inflow of solids containing PCBs, the facility must implement a stormwater management program that includes: (i) maintenance of a street sweeping program to remove debris from areas of the site that receive drainage from the railway. (ii) maintenance (inspection and replacement as required) of a sediment filter trap at stormwater inlets that receive drainage from the railway.

The chemical additives listed in the application are the following: Acti-Brom 1318, Nalkat 2020, Nalclear 7768 and Sodium hypochlorite. All these are previously approved chemical additives. No new chemical additives are proposed. The listed chemicals are associated with the Outfall 001. The discharge through Outfall 001 is eliminated and there is no possibility of discharge of these additives through any other outfalls.

Clean Water Act § 316(b) – Cooling Water Intake Structures

Summary of Review

There is one submerged offshore Cooling Water Intake Structure (CWIS) at the facility with an 8.6 MGD design intake flow and a 4.3 MGD actual intake flow. The intake structure includes modified traveling screens with a through screen velocity of <0.44 fps. A cover letter included with the renewal application explains that the facility strives to re-capture and utilize all non-contact cooling water in the manufacturing process. It was reported that <0.01% of water withdrawn is used exclusively for cooling purposes. CWISs that do not meet the applicability requirements at §§ 125.91(a)(1) through (3) will follow the SOP for Clean Water Program Establishing Best Technology Available (BTA) Using Best Professional Judgement (BPJ) for Cooling Water Intake Structures at Existing NPDES Facilities. The facility will be considered to have BTA for impingement mortality based on the reported through screen velocity below 0.5 fps. The facility will also be considered to have BTA for entrainment based on minimal AIF compared to the source water body. Based on comments from the services and source water body being designated critical habit for federally endangered Atlantic Sturgeon, 1 year of entrainment sampling will be included as a monitoring component to the entrainment BTA. NOAA Fisheries also recommended that the facility pursue an Endangered Species Act Section 10 Incidental Take Permit due to the location of the intake being in an important area for rearing Atlantic Sturgeon.

Public Participation

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

Act 14 Notifications:

City of Chester - March 9, 2023
Delaware County - March 9, 2023

Permit Conditions:

A. Acquire Necessary Property Rights
B. Proper Sludge Disposal
C. WQM Permits Requirement
D. BAT/ELG Reopener
E. No Addition of Pollutants
F. TMDL/WLA Analysis
G. Chemical Additive Condition
H. Stormwater Requirement
I. PCB Requirement
J. Cooling Water Intake Structure Requirement

Discharge, Receiving Waters and Water Supply Information

Outfall No.	003	Design Flow (MGD)	.1
Latitude	39º 50' 22.61"	Longitude	-75º 21' 12.87"
Quad Name	Bridgeport	Quad Code	2043
Wastewater Description:	Noncontact Cooling Water (NCCW), Stormwater		

Receiving Waters	Delaware River (WWF, MF)	Stream Code	00002
NHD Com ID	25591397	RMI	83.0
Watershed No.	3-G	Chapter 93 Class.	WWF, MF
Assessment Status	Impaired		
Cause(s) of Impairment	polychlorinated biphenyls (pcbs)		
Source(s) of Impairment	source unknown		
TMDL Status	Final	Name	Delaware River Estuary PCB TMDLs

Treatment Facility Summary
Treatment Facility Name: Kimberly Clark PA Paper Manufacturing Facility Facility does not treat industrial waste, sewage, or stormwater on-site. River water is treated by on-site operations prior to use at the facility.

Compliance History

DMR Data for Outfall 001 (from March 1, 2022 to February 28, 2023)

Parameter	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22	JUL-22	JUN-22	MAY-22	APR-22	MAR-22
Flow (MGD) Daily Maximum									GG	GG	GG	GG
pH (S.U.) Instantaneous Minimum									GG	GG	GG	GG
pH (S.U.) Instantaneous Maximum									GG	GG	GG	GG
TRC (mg/L) Average Monthly									GG	GG	GG	GG
TRC (mg/L) Instantaneous Maximum									GG	GG	GG	GG
TRO (mg/L) Daily Maximum									GG	GG	GG	GG
TRO (mg/L) Instantaneous Maximum									GG	GG	GG	GG
Temperature (ºF) Intake Average Monthly	40	40	41	56	60	76	86	80	76	59.0	51	45
Temperature (ºF) Instantaneous Maximum									GG	GG	GG	GG
BOD5 (mg/L) Daily Maximum									GG	GG	GG	GG
TSS (mg/L) Daily Maximum									GG	GG	GG	GG
TSS (mg/L) Intake Daily Maximum	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG
Total Dissolved Solids (mg/L) Daily Maximum			234			272			180			168

DMR Data for Outfall 003 (from March 1, 2022 to February 28, 2023)

Parameter	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22	JUL-22	JUN-22	MAY-22	APR-22	MAR-22
Flow (MGD) Average Monthly	0.011	0.01	0.015	0.015	0.02	0.02	0.03	0.03	0.01	0.02	0.01	0.01
Flow (MGD) Daily Maximum	0.011	0.01	0.015	0.015	0.02	0.02	0.03	0.03	0.01	0.02	0.01	0.01
pH (S.U.) Instantaneous Minimum	7.29	7.19	7.24	7.6	7.41	7.4	7.54	7.61	7.45	7.78	7.15	7.15
pH (S.U.) Instantaneous Maximum	7.29	7.19	7.24	7.6	7.41	7.4	7.54	7.61	7.45	7.78	7.15	7.15
Temperature (ºF) Instantaneous Maximum	59.3	60.2	62	68.3	71.8	71.8	81	86.0	80.4	76.6	69.8	62.0
Total Dissolved Solids (mg/L) Daily Maximum			216			280			170			233

DMR Data for Outfall 013 (from March 1, 2022 to February 28, 2023)

Parameter	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22	JUL-22	JUN-22	MAY-22	APR-22	MAR-22
pH (S.U.) Daily Maximum			8.17						6.04			
BOD5 (mg/L) Daily Maximum			3.7						5.2			
COD (mg/L) Daily Maximum			< 25						< 25			
TSS (mg/L) Daily Maximum			4						10			
Oil and Grease (mg/L) Daily Maximum			< 5						< 5			
Total Nitrogen (mg/L) Daily Maximum			< 0.55						< 0.68			
Total Phosphorus (mg/L) Daily Maximum			< 0.01						0.01			

DMR Data for Outfall 016 (from March 1, 2022 to February 28, 2023)

Parameter	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22	JUL-22	JUN-22	MAY-22	APR-22	MAR-22
pH (S.U.) Daily Maximum			7.98						6.90			

BOD5 (mg/L) Daily Maximum			2.8						7.6			
COD (mg/L) Daily Maximum			< 25						32			
TSS (mg/L) Daily Maximum			25						38			
Oil and Grease (mg/L) Daily Maximum			< 5						< 5			
Total Nitrogen (mg/L) Daily Maximum			< 0.59						0.82			
Total Phosphorus (mg/L) Daily Maximum			0.04						0.05			

DMR Data for Outfall 050 (from March 1, 2022 to February 28, 2023)

Parameter	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22	JUL-22	JUN-22	MAY-22	APR-22	MAR-22
pH (S.U.) Daily Maximum			7.65						6.41			
BOD5 (mg/L) Daily Maximum			< 2.0						6.9			
COD (mg/L) Daily Maximum			< 25						46			
TSS (mg/L) Daily Maximum			< 1						41			
Oil and Grease (mg/L) Daily Maximum			< 5						< 5			
Total Nitrogen (mg/L) Daily Maximum			< 0.59						1.42			
Total Phosphorus (mg/L) Daily Maximum			0.02						0.08			
PCBs (Wet Weather) (ug/L) Daily Maximum			0.0126									

Proposed Effluent Limitations and Monitoring Requirements

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

Outfall 003, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report 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
Temperature (deg F) (ºF)	XXX	XXX	XXX	XXX	XXX	110	1/month	I-S
Total Dissolved Solids	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/quarter	Grab

Proposed Effluent Limitations and Monitoring Requirements

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

Outfall 008, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
PCBs Wet Weather Analysis (ug/L)	XXX	XXX	XXX	XXX	Report Daily Max	XXX	See Permit	Grab

Proposed Effluent Limitations and Monitoring Requirements

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

Outfall 013, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Biochemical Oxygen Demand (BOD5)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Chemical Oxygen Demand (COD)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	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 Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
PCBs Wet Weather Analysis (ug/L)	XXX	XXX	XXX	XXX	Report	XXX	See Permit	Grab

Proposed Effluent Limitations and Monitoring Requirements

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

Outfall 016, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Biochemical Oxygen Demand (BOD5)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Chemical Oxygen Demand (COD)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	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 Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
PCBs Wet Weather Analysis (ug/L)	XXX	XXX	XXX	XXX	Report	XXX	See Permit	Grab

Proposed Effluent Limitations and Monitoring Requirements

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

Outfall 018, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
PCBs Wet Weather Analysis (ug/L)	XXX	XXX	XXX	XXX	Report Daily Max	XXX	See Permit	Grab

Proposed Effluent Limitations and Monitoring Requirements

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

Outfall 050, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Biochemical Oxygen Demand (BOD5)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Chemical Oxygen Demand (COD)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	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 Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

Proposed Effluent Limitations and Monitoring Requirements

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

Outfall 051, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
PCBs Wet Weather Analysis (ug/L)	XXX	XXX	XXX	XXX	Report Daily Max	XXX	See Permit	Grab