pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southeast Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0244210**
Facility Type	**Storm Water**	APS ID	**1091079**
Major / Minor	**Minor**	Authorization ID	**1444370**

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

Applicant and Facility Information

Applicant Name	**Crystal Inc.**	Facility Name	**Crystal Inc. PMC**
Applicant Address	601 W 8th Street	Facility Address	601 W 8th Street
	Lansdale, PA 19446-1809		Lansdale, PA 19446-1809
Applicant Contact	Cosmo Guerra	Facility Contact	Cosmo Guerra
Applicant Phone	(215) 647-3379	Facility Phone	(215) 647-3379
Client ID	207971	Site ID	489925
SIC Code	2841	Municipality	Lansdale Borough
SIC Description	Manufacturing - Soap And Other Detergents	County	Montgomery
Date Application Received	May 4, 2023	EPA Waived?	Yes
Date Application Accepted		If No, Reason	

Purpose of Application: Permit Renewal.

Summary of Review

Applicant requests renewal of NPDES permit to discharge stormwater from a facility that manufactures soaps and waxes.

Original NPDES permit had Outfalls 001, 002, 003 and 004. Since late 2013 the facility has plugged Outfall 001 and 002. The stormwater from those outfalls has been captured and treated by the onsite pretreatment facility and discharged to the Borough of Lansdale's sanitary collection system. Stormwater from the remainder of the facility's open and parking areas runs to Outfalls 003 and 004 which is discharged to an UNT to West Branch of Neshaminy Creek. During last permit renewal, internal monitoring point MP 104 was added to permit to discharge treated stormwater from the OWS directly to Outfall 004. The OWS operates a typical flow rate of up to 100 GPM during rain events and for up to several hours/days after wards.

A "Remedial Action Plan (RAP)" was approved by PADEP in July 2015 to address the oil and grease impacts observed at the site. As part of the RAP, facility started to capture the stormwater from the northeast stormwater pipe and inlets at Final inlet (formerly Outfall 002) and pumped to an oil-water separator (OWS). Water from the OWS is currently transferred into the onsite waste water treatment system and ultimately discharged to the Borough of Lansdale's sanitary collection system.

The Crystal Inc. PMC facility produces soaps and wax-based products. Most of the operations are conducted in the building. The building houses production areas, raw product storage, and finished product storage. Floor drains in the building are tied either to the sanitary sewer line or are pumped to oil water separator unit for treatment. There are large above ground storage tanks that contain liquid wax materials and other raw products. All tanks have secondary containment. Most of the containment areas have sump pumps which pump to oil water separator. Facility inspection was conducted by Ethan Snyder on June 22, 2021. No violations were noted.

Stormwater from the facility is being discharged through Outfalls 003 and 004. The internal monitoring point IMP 104 discharges stormwater to Outfall 004. Outfall 003 receives stormwater from roof drains in the shipping & receiving areas.

Approve	Deny	Signatures	Date
X		Ketan Thaker Ketan Thaker / Project Manager	12/12/2023
X		Pravin Patel Pravin C. Patel, P.E. / Environmental Engineer Manager	12/12/2023

Summary of Review

Outfall 004 receives stormwater from tank farm truck loading/unloading, roof drains in the shipping & receiving areas. Internal monitoring point IMP 104 receives stormwater from tank farm truck loading/unloading areas.

The effluent limit/monitoring requirements for Outfalls 003, 004 and internal monitoring point IMP 104 are included as follows:

Permit Parameters	Permit Limit or Benchmark
Aluminum, Total	Report
Chemical Oxygen Demand	120 mg/l (benchmark)
Oil and Grease	30 mg/l
PH (S.U.)	9.0 S.U. (benchmark)
Total Suspended Solids (TSS)	100 mg/l (benchmark)
Total Phosphorus	Report
Total Nitrogen	Report
Iron, Total	Report
Surfactants (MBAS)	Report
Nitrate-nitrite as N	3.0 mg/l (benchmark)
Zinc, Total	Report
Lead, Total	Report

We have included all the parameters from Appendix F of General Permit PAG-03 for discharge of stormwater associated with industrial activities for this facility. The facility has SIC Code of 2841 and therefore is subjected to Appendix F (Chemicals and Allied Products) under General Permit PAG-03. We have removed sulfite from the last permit as it was not detected in the stormwater for last two years. We have added monitoring requirements for Aluminum and Lead from Appendix F of General Permit PAG-03. This permit renewal has effluent limit for Oil & Grease, and Benchmark Values requirement for COD, pH, TSS and Nitrate-nitrite as N.

Facility has been using two chemicals, BWT 190M and BWT 269 at the boiler feed water. Steam is used to transfer product to bulk storage tanks, steam condensate discharged to the ground may contain trace amounts of boiler chemicals.

Act-14 Notification to Lansdale Borough on April 7, 2023.
Act-14 Notification to Montgomery County Commissioners on April 7, 2023.

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.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	003	Design Flow (MGD)	0
Latitude	40Âº 15' 20.60"	Longitude	-75Âº 17' 22.65"
Quad Name	Telford	Quad Code	1643
Wastewater Description:	Stormwater		
Receiving Waters	Unnamed Tributary to West Branch Neshaminy Creek (WWF, MF)	Stream Code	02889
NHD Com ID	25484806	RMI	1.3
Drainage Area		Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)		Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	2-F	Chapter 93 Class.	WWF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	NUTRIENTS		
Source(s) of Impairment	MUNICIPAL POINT SOURCE DISCHARGES		
TMDL Status	Final-Nutrient Part of TMDL withdrawn	Name	Neshaminy Creek

Background/Ambient Data		Data Source
pH (SU)		
Temperature (°F)		
Hardness (mg/L)		
Other:		

Nearest Downstream Public Water Supply Intake			
PWS Waters		Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	

Discharge, Receiving Waters and Water Supply Information

Outfall No.	004	Design Flow (MGD)	0
Latitude	40Âº 15' 20.60"	Longitude	-75Âº 17' 22.65"
Quad Name	Telford	Quad Code	1643
Wastewater Description:	Stormwater		
Receiving Waters	Unnamed Tributary to West Branch Neshaminy Creek (WWF, MF)	Stream Code	02889
NHD Com ID	25484806	RMI	1.3
Drainage Area		Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)		Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	2-F	Chapter 93 Class.	WWF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	NUTRIENTS		
Source(s) of Impairment	MUNICIPAL POINT SOURCE DISCHARGES		
TMDL Status	Final-Nutrient part of TMDL is withdrawn	Name	Neshaminy Creek

Background/Ambient Data		Data Source
pH (SU)		
Temperature (°F)		
Hardness (mg/L)		
Other:		

Nearest Downstream Public Water Supply Intake			
PWS Waters		Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	

Compliance History

DMR Data for Outfall 003 (from November 1, 2022 to October 31, 2023)

Parameter	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22
pH (S.U.) Daily Maximum					7.41						7.71	
CBOD5 (mg/L) Daily Maximum					14.5						2.6	
COD (mg/L) Daily Maximum					47						34	
TSS (mg/L) Daily Maximum					48						14	
Oil and Grease (mg/L) Daily Maximum					5						6	
Nitrate-Nitrite (mg/L) Daily Maximum					0.06						0.04	
TKN (mg/L) Daily Maximum					< 0.5						1.00	
Total Phosphorus (mg/L) Daily Maximum					0.52						0.18	
Total Iron (mg/L) Daily Maximum					3.62						3.74	
Sulfite (mg/L) Daily Maximum					< 2						< 2	
Total Zinc (mg/L) Daily Maximum					0.031						0.010	
MBAS (mg/L) Daily Maximum					0.115						0.125	

DMR Data for Outfall 004 (from November 1, 2022 to October 31, 2023)

Parameter	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22
pH (S.U.) Daily Maximum					7.5						7.78	
CBOD5 (mg/L) Daily Maximum					6.2						3.7	
COD (mg/L) Daily Maximum					37						26	
TSS (mg/L) Daily Maximum					30						10	
Oil and Grease (mg/L) Daily Maximum					5						< 5	
Nitrate-Nitrite (mg/L) Daily Maximum					0.05						< 0.02	
TKN (mg/L) Daily Maximum					< 0.5						0.93	
Total Phosphorus (mg/L) Daily Maximum					0.08						0.19	
Total Iron (mg/L) Daily Maximum					2.03						3.91	
Sulfite (mg/L) Daily Maximum					< 2						< 2	
Total Zinc (mg/L) Daily Maximum					0.028						< 0.005	
MBAS (mg/L) Daily Maximum					0.116						0.116	

DMR Data for Outfall 104 (from November 1, 2022 to October 31, 2023)

Parameter	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22
pH (S.U.) Daily Maximum					7.31						7.63	
CBOD5 (mg/L) Daily Maximum					< 2.0						10.4	
COD (mg/L) Daily Maximum					40						50	
TSS (mg/L) Daily Maximum					25						42	
Oil and Grease (mg/L) Daily Maximum					< 5.0						10	
Nitrate-Nitrite (mg/L) Daily Maximum					0.03						< 0.02	
TKN (mg/L) Daily Maximum					< 0.5						0.97	
Total Phosphorus (mg/L) Daily Maximum					0.12						0.12	
Total Iron (mg/L) Daily Maximum					4.78						2.34	
Sulfite (mg/L) Daily Maximum					< 2						< 2	
Total Zinc (mg/L) Daily Maximum					0.013						0.015	
MBAS (mg/L) Daily Maximum					0.098						0.108	

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" (386-0400-001), 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	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
COD	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	XXX	30	XXX	1/6 months	Grab
Nitrate-Nitrite	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
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Lead	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Zinc	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
MBAS	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" (386-0400-001), SOPs and/or BPJ.

Outfall 004, 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
COD	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	XXX	30	XXX	1/6 months	Grab
Nitrate-Nitrite	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
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Lead	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Zinc	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
MBAS	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" (386-0400-001), SOPs and/or BPJ.

Outfall 104, 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
COD	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	XXX	30	XXX	1/6 months	Grab
Nitrate-Nitrite	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
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Lead	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Zinc	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
MBAS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab