

Application Type Renewal  
Facility Type Industrial  
Major / Minor Minor

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

Application No. PA0244252  
APS ID 1080430  
Authorization ID 1426119

**Applicant and Facility Information**

Applicant Name	<u>Southco Inc.</u>	Facility Name	<u>Southco Concordville Facility</u>
Applicant Address	<u>210 North Brinton Lake Road</u> <u>Concordville, PA 19331</u>	Facility Address	<u>210 North Brinton Lake Road</u> <u>Concordville, PA 19331</u>
Applicant Contact	<u>Michael Kulig</u>	Facility Contact	<u>Anthony Wood</u>
Applicant Phone	<u>(610) 361-6822</u>	Facility Phone	<u>(610) 459-4000</u>
Client ID	<u>6888</u>	Site ID	<u>512790</u>
SIC Code	<u>3089</u>	Municipality	<u>Concord Township</u>
SIC Description	<u>Manufacturing - Plastics Products</u>	County	<u>Delaware</u>
Date Application Received	<u>February 6, 2023</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u></u>	If No, Reason	<u></u>
Purpose of Application	<u>Permit renewal</u>		

**Summary of Review**

Southco, Inc. requests the issuance of an NPDES permit to discharge blowdown from non-contact cooling water towers and stormwater from its Concordville Facility.

The facility manufactures industrial fasteners using cold forming, machining, and injection molding processes. The entire process is under roof and no activities are exposed to stormwater. The facility has six cooling towers, and out of which, four cooling towers (MP 101, 201, 301 and 401) are discharging blowdown water to the ground. Blowdown water, along with stormwater is flowing to the detention basin. From the detention basin, the discharge is going to the receiving stream through Outfall 001. The cooling towers, MP 501 and 601 discharge directly into a stormwater inlet. MP 601 located inside the manufacturing facility usually doesn't have any discharge. Discharge occurs only when there is a malfunction of the system. The total amount of discharge will be approximately 1,440 gpd, (from previous records) from all six cooling towers together. Normally the actual discharge is much less than this amount.

Sodium Hexametaphosphate Food Grade is the only chemical additive the facility is using in the cooling towers as biocide. This chemical is used at a rate of 0.5 lb/month. The quantity of blow down from the cooling towers is very low and most of the times, the blow down just evaporates or soaks into the ground before even reaching the detention basin.

Review of the DMRs and Inspection reports show that the discharge has been in compliance with the permit requirements. No changes have been made to the process since the last permit renewal.

Since the facility discharges stormwater along with non-contact cooling water, the Department has decided to keep the coverage under "Authorization to discharge under the NPDES discharge requirements for Industrial Wastewater Facilities" similar to the existing coverage.

Approve	Deny	Signatures	Date
X		<i>Sara Abraham</i> Sara Reji Abraham, E.I.T. / Project Manager	June 1, 2023
X		<i>Pravin Patel</i> Pravin C. Patel, P.E. / Environmental Engineer Manager	06/05/2023

**Summary of Review**

The effluent limits and monitoring requirements in the existing permit will be continued in the draft permit. Effluent limits for pH (6 to 9) and temperature (110°F) stay the same for all the cooling tower monitoring points MP101 (Hale cooling tower), MP201 (Brandywine cooling tower), MP301 (Friel cooling tower), MP401 (Friel cooling tower), MP501 (Injection cooling tower) and MP601 (Injection cooling tower). Based on the applicant's request the sampling frequency of the blow down discharge is changed into annually.

Monitoring requirements for Outfall 001 will be continued for the existing stormwater parameters pH, CBOD5, Chemical Oxygen Demand, TSS, Oil and Grease, Total Phosphorus, Total Copper, Dissolved Iron, Total Lead and Total Zinc. Based on the provided SIC Code, PAG03 appendix S is applicable to this facility. To be consistent, monitoring for Total Nitrogen is included in the draft permit instead of Total Kjeldahl Nitrogen.

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:

Concord Township - February 6, 2023  
Delaware County - February 6, 2023

Permit Conditions:

- A. Acquire Necessary Property Rights
- B. Proper Sludge Disposal
- C. WQM Permits
- D. BAT/ELG Reopener
- E. Small Stream Discharge
- F. No Priority Pollutants
- G. Chemical Additive Requirement
- H. Stormwater Condition

**Discharge, Receiving Waters and Water Supply Information**

Outfall No.	<u>001</u>	Design Flow (MGD)	<u>.00144</u>
Latitude	<u>39° 53' 27.96"</u>	Longitude	<u>-75° 32' 21.47"</u>
Quad Name	<u>West Chester</u>	Quad Code	<u>1941</u>
Wastewater Description: <u>IW Process Effluent without ELG and Stormwater</u>			
Receiving Waters	<u>Unnamed Tributary to West Branch Chester Creek</u>	Stream Code	<u>00542</u>
NHD Com ID	<u>25621440</u>	RMI	<u>7.4 mi from mouth of West Branch Chester Creek</u>
Watershed No.	<u>3-G</u>	Chapter 93 Class.	<u>TSF, MF</u>
Assessment Status	<u>Impaired</u>		
Cause(s) of Impairment	<u>Cause Unknown, Other Habitat Alterations, Siltation, Water/Flow Variability</u>		
Source(s) of Impairment	<u>Habitat Modification, Urban Runoff/Storm Sewers</u>		

**Compliance History**

**DMR Data for Outfall 001 (from April 1, 2022 to March 31, 2023)**

Parameter	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22	JUL-22	JUN-22	MAY-22	APR-22
pH (S.U.) Daily Maximum				7.97						5.8		
CBOD5 (mg/L) Daily Maximum				< 2.0						< 2.0		
COD (mg/L) Daily Maximum				< 15						81		
TSS (mg/L) Daily Maximum				12						99		
Oil and Grease (mg/L) Daily Maximum				< 3.9						< 3.7		
TKN (mg/L) Daily Maximum				< 1.0						3.8		
Total Phosphorus (mg/L) Daily Maximum				0.29						0.62		
Total Copper (mg/L) Daily Maximum				0.0035						0.049		
Dissolved Iron (mg/L) Daily Maximum				< 0.06						< 0.060		
Total Lead (mg/L) Daily Maximum				0.0024						0.011		
Total Zinc (mg/L) Daily Maximum				0.0066						0.061		

**DMR Data for Outfall 201 (from April 1, 2022 to March 31, 2023)**

Parameter	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22	JUL-22	JUN-22	MAY-22	APR-22
Flow (GPD) Semi-Annual Average				86.9						1.0		
pH (S.U.) Instantaneous Minimum				8.32						8.41		
pH (S.U.) Instantaneous Maximum				8.37						8.42		

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Southco Concordville Facility**

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Temperature (°F) Instantaneous Maximum				69.1						63.7		
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**DMR Data for Outfall 301 (from April 1, 2022 to March 31, 2023)**

Parameter	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22	JUL-22	JUN-22	MAY-22	APR-22
Flow (GPD) Semi-Annual Average				98.2						45.8		
pH (S.U.) Instantaneous Minimum				8.15						8.09		
pH (S.U.) Instantaneous Maximum				8.21						8.15		
Temperature (°F) Instantaneous Maximum				62.3						60.5		

**DMR Data for Outfall 501 (from April 1, 2022 to March 31, 2023)**

Parameter	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22	JUL-22	JUN-22	MAY-22	APR-22
Flow (GPD) Semi-Annual Average				74.7						176.8		
pH (S.U.) Instantaneous Minimum				8.54						8.75		
pH (S.U.) Instantaneous Maximum				8.59						8.79		
Temperature (°F) Instantaneous Maximum				72.9						76.5		

**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 001, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Daily Maximum	Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
CBOD5	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
COD	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
TSS	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Calculation
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Total Copper	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Dissolved Iron	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Total Lead	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Total Zinc	XXX	XXX	XXX	Report	XXX	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 101, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (GPD)	Report Annl Avg	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/year	Grab
Temperature (°F)	XXX	XXX	XXX	XXX	XXX	110	1/year	I-S

**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 201, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (GPD)	Report Annl Avg	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/year	Grab
Temperature (°F)	XXX	XXX	XXX	XXX	XXX	110	1/year	I-S



**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 301, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (GPD)	Report Annl Avg	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/year	Grab
Temperature (°F)	XXX	XXX	XXX	XXX	XXX	110	1/year	I-S

**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 401, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (GPD)	Report Annl Avg	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/year	Grab
Temperature (°F)	XXX	XXX	XXX	XXX	XXX	110	1/year	I-S

**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 501, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (GPD)	Report Annl Avg	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/year	Grab
Temperature (°F)	XXX	XXX	XXX	XXX	XXX	110	1/year	I-S

**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 601, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (GPD)	Report Annl Avg	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/year	Grab
Temperature (°F)	XXX	XXX	XXX	XXX	XXX	110	1/year	I-S