pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southeast Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0054895**
Facility Type	**Industrial**	APS ID	**1040860**
Major / Minor	**Minor**	Authorization ID	**1357866**

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

Applicant and Facility Information

Applicant Name	**Palmer International Inc.**	Facility Name	**Palmer International Inc.**
Applicant Address	PO Box 315	Facility Address	2036 Lucon Road
	Skippack, PA 19474-0315		Skippack, PA 19474
Applicant Contact	Marc Ragnauth	Facility Contact	Marc Ragnauth
Applicant Phone	(610) 584-3234	Facility Phone	(610) 584-3234
Client ID	82169	Site ID	458565
SIC Code	2822	Municipality	Skippack Township
SIC Description	Manufacturing - Synthetic Rubber	County	Montgomery
Date Application Received	June 10, 2021	EPA Waived?	Yes
Date Application Accepted	August 4, 2021	If No, Reason	

Purpose of Application: NPDES permit renewal.

Summary of Review

The PA Department of Environmental Protection (PADEP/Department) received an NPDES permit renewal application from Palmer International Inc. (permittee/Palmer) on June 10, 2021 for Palmer's Skippack facility, located in Skippack Township, Montgomery County. The current permit expired on November 30, 2021. The terms and conditions were administratively extended since the renewal application was not received at least 180 days prior to the permit expiration date. This is an Individual Minor Industrial Waste Permit without ELG (MIIW1) that discharges non-process and stormwater through four outfalls into an UNT to Skippack Creek in state watershed 3-E. Renewal NPDES permit applications under Clean Water Program are not covered by PADEP's PDG per 021-2100-001.

This fact sheet is developed in accordance with 40 CFR §124.56.

Change in this renewal: Appendix J parameters replaced by Appendix F.

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.

Approve	Deny	Signatures	Date
√		Reza H. Chowdhury, E.I.T. / Project Manager	January 6, 2022
X		Pravin Patel Pravin C. Patel, P.E. / Environmental Engineer Manager	01/06/2022

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001/002	Design Flow (MGD)	0.0026/0.0021
Latitude	40º 14' 8.9"/40º 14' 6.5"	Longitude	-75º 24' 42.5"/-75º 24' 45"
Quad Name	Collegeville	Quad Code	1742
Wastewater Description:	001: Stormwater, NCCW, boiler blowdown, water softener backwash. 002: Stormwater, NCCW		
Receiving Waters	Unnamed Tributary to Skippack Creek (TSF, MF)	Stream Code	01064
NHD Com ID	25966350	RMI	1.1300
Drainage Area	0.13 mi^2	Yield (cfs/mi^2)	0.02
Q_{7-10} Flow (cfs)	0.00254	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	229.12	Slope (ft/ft)	
Watershed No.	3-E	Chapter 93 Class.	TSF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	FLOW REGIME MODIFICATION, SILTATION		
Source(s) of Impairment	RURAL (RESIDENTIAL AREAS), RURAL (RESIDENTIAL AREAS)		
TMDL Status	Final	Name	Skippack Creek Watershed TMDL
Nearest Downstream Public Water Supply Intake	Aqua PA Main in Norristown, PA		
PWS Waters	Perkiomen Creek	Flow at Intake (cfs)	
PWS RMI	0.89	Distance from Outfall (mi)	10.37

Changes Since Last Permit Issuance: Boiler blow down water is now connected to the public sewer. The facility's turbo vessel no longer uses cooling water.

Other Comments:

Drainage Area:

The drainage area upstream of the point of discharge is 0.13 mi^2 according to USGS PA StreamStats, accessible at https://streamstats.usgs.gov/ss/

Stream Flow:

The streamflow at Outfall 001/002 is corelated to USGS's watershed delineation tool StreamStats (https://streamstats.usgs.gov/ss/). The stream flow retrievals resulted in a Q_{7-10} and Q_{30-10} of 0.00254 cfs and 0.00466 cfs, respectively, at Outfall 001/002. The flow calculations are shown below:

Q_{7-10} runoff rate (yield) = 0.00254/0.13 = 0.02 cfs/mi^2.
Q_{30-10}: Q_{7-10} = 0.00466/0.00254 = 1.83:1
Default Q_{1-10}:Q_{7-10} of 0.64 will be used in modeling, if needed.

PWS Intake:

The nearby downstream PWS intake is Aqua PA Main division in Norristown, PA on Perkiomen Creek at RMI 0.89. Its approximately 10.37 miles downstream of discharge points. The discharge is expected not to impact the PWS intake.

303d Listed Streams:

The receiving stream is impaired for siltation and flow regime modification from residential areas. The permit limits, terms, and conditions were developed in such a way that the discharge from this facility is expected not to contribute to the existing impairment of the receiving stream or the watershed.

Antidegradation (93.4):
The effluent limits for this discharge have been developed to ensure that existing in-stream water uses and the level of water quality necessary to protect the existing uses are maintained and protected. No High-Quality Waters are impacted by this discharge. No Exceptional Value Waters are impacted by this discharge.

Class A Wild Trout Fisheries:
No Class A Wild Trout Fisheries are impacted by this discharge.

Skippack Creek Total Maximum Daily Load (TMDL):
Skippack Creek is a 15.2-mile stream located in sub-sub-basin 03E, Montgomery County, PA. it is a tributary to Perkiomen Creek whose drainage basin is composed of urban, suburban, agricultural, and rural components. Skippack Creek begins within Souderton Borough limits and flows generally southwest to its confluence with Perkiomen Creek at RMI 3.0. The Skippack Creek TMDL was finalized in April 9, 2005 for Sediments and Nutrients. There were 11 active NPDES permitted point source discharges in the watershed including 7 STPs, 1 meat packing plant, 1 dairy farm, and 2 manufacturers. No reduction for sediment load from point sources were proposed in the final TMDL. The nutrient portion of the TMDL was withdrawn in summer of 2007. No WLA was assigned to this treatment plant. The effluent limitations in the permit will be applied in a way that the discharge from this facility will not add to the existing impairment of the receiving stream.

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	003	Design Flow (MGD)	0
Latitude	40º 14' 11.9"	Longitude	-75º 24' 45.6"
Quad Name	Collegeville	Quad Code	1742
Wastewater Description:	Stormwater		
Receiving Waters	Unnamed Tributary to Skippack Creek (TSF, MF)	Stream Code	01064
NHD Com ID	25966350	RMI	1.1300

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	004	Design Flow (MGD)	0
Latitude	40º 14' 9.2"	Longitude	-75º 24' 50.2"
Quad Name	Collegeville	Quad Code	1742
Wastewater Description:	Stormwater		
Receiving Waters	Unnamed Tributary to Skippack Creek (TSF, MF)	Stream Code	01016
NHD Com ID	25966350	RMI	1.13

Treatment Facility Summary

Treatment Facility Name: Palmer International Skippack Facility

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Industrial			No Disinfection	0.01

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.068		Not Overloaded		

Changes Since Last Permit Issuance: None

Other Comments: Palmer International is engaged in the production of friction materials additives, epoxy resin bases, and sound dampening materials. The facility has four outfalls: 001 through 004. Outfalls 001 and 002 are discharging non process industrial wastewater and outfalls 003 and 004 discharge stormwater only. There is no treatment provided for the wastewater.

Outfall 001: The discharge at Outfall 001 consists of non-contact cooling water, water softener backwash water, and stormwater. A minimum amount of fire extinguisher water is also discharged. An inspection at the facility in 2019 indicated the outlets to the boiler and cooling towers were connected to the city sewer line which eliminated the discharge from these units.

Outfall 002: The discharge at Outfall 002 consists of non-contact cooling water and stormwater. A minimum amount of fire extinguisher water is also discharged.

Outfall 003 and 004: These are the stormwater outfalls related to industrial activities. The permit application indicated that the Outfall 004 is no exposure and consists of stormwater runoff from the roof of operations building. The current permit has sampling frequency as “upon request” which will be carried over.

Existing limitations

For Outfall 001:

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (GPD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/month	Estimate
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/week	Grab
Temperature (deg F) (ºF)	XXX	XXX	XXX	XXX	XXX	110	1/month	I-S
Total Suspended Solids	XXX	XXX	XXX	30	60	75	1/month	24-Hr Composite
Total Dissolved Solids	XXX	XXX	XXX	1000	2000	2500	1/month	24-Hr Composite
Oil and Grease	XXX	XXX	XXX	15	XXX	30	1/month	Grab

For Outfall 002:

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (GPD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/month	Estimate
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/week	Grab
Temperature (deg F) (ºF)	XXX	XXX	XXX	XXX	XXX	110	1/month	I-S
Total Suspended Solids	XXX	XXX	XXX	30	60	75	1/month	24-Hr Composite
Total Dissolved Solids	XXX	XXX	XXX	1000	2000	2500	1/month	24-Hr Composite
Oil and Grease	XXX	XXX	XXX	15	XXX	30	1/month	Grab

For Outfall 003:

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)					
	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Minimum Measurement Frequency	Required Sample Type
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	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
Ammonia-Nitrogen	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

For Outfall 004:

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)					
	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Minimum Measurement Frequency	Required Sample Type
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	Upon Request	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	XXX	XXX	XXX	XXX	Report	XXX	Upon Request	Grab
Chemical Oxygen Demand (COD)	XXX	XXX	XXX	XXX	Report	XXX	Upon Request	Grab
Total Suspended Solids	XXX	XXX	XXX	XXX	Report	XXX	Upon Request	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	Upon Request	Grab
Ammonia-Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	Upon Request	Grab
Total Kjeldahl Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	Upon Request	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	Upon Request	Grab

Compliance History

DMR Data for Outfall 001 (from November 1, 2020 to October 31, 2021)

Parameter	OCT-21	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20
Flow (GPD) Average Monthly	1388	1514	1214	975	1839	1980	1554	2092	1770	1562	1035	1972
Flow (GPD) Daily Maximum	4510	4510	4510	4510	4510	4510	4510	4510	4510	4510	4510	4510
pH (S.U.) Minimum	7.04	6.95	7.05	7.40	7.03	7.57	7.05	6.64	7.18	7.57	7.48	7.82
pH (S.U.) IMAX	7.73	7.53	7.56	8.04	8.53	8.27	7.68	7.57	7.46	9.51	7.81	8.39
Temperature (ºF) IMAX	72.14	77.72	74.66	80.6	93.02	65.84	63.68	59.9	52.7	53.78	63.76	81.32
TSS (mg/L) Average Monthly	3.68	< 2.50	2.9	< 5.00	6.0	< 5.0	9.0	2.8	E	< 5.0	< 5.0	5
TSS (mg/L) Daily Maximum	3.68	< 2.50	2.9	< 5.00	6.0	< 5.0	9.0	2.8	E	< 5.0	< 5.0	5
TDS (mg/L) Average Monthly	410	394	539	129	513	399	582	785	E	483	50	654
TDS (mg/L) Daily Maximum	410	394	539	129	513	399	582	785	E	483	50	654
Oil and Grease (mg/L) Average Monthly	< 5.00	< 5.00	< 5.00	< 5.0	< 5.6	< 5.0	< 5.0	< 5.0	E	< 5.3	< 5.0	< 7.7

DMR Data for Outfall 002 (from November 1, 2020 to October 31, 2021)

Parameter	OCT-21	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20
Flow (GPD) Average Monthly	83.3	250	166.7	218.8	152.2	87.5	129.6	152.2	262.5	184.2	00	00
Flow (GPD) Daily Maximum	2280	2280	2280	2280	2280	2280	2280	2280	2280	2280	2280	2280
pH (S.U.) Minimum	7.20	7.19	6.86	7.45	6.82	7.17	7.05	6.66	6.97	7.37	7.28	7.39
pH (S.U.) IMAX	7.85	7.97	7.76	7.91	8.23	7.81	7.56	7.33	7.18	8.32	7.70	7.76
Temperature (ºF) IMAX	71.96	80.78	75.38	84.38	92.66	66.92	62.42	60.26	50.9	52.34	57.02	65.84
TSS (mg/L) Average Monthly	< 2.50	< 2.50	< 2.50	< 2.50	< 5.0	< 2.0	< 5.0	< 2.0	E	< 5.0	< 5.0	< 5.0
TSS (mg/L) Daily Maximum	< 2.50	< 2.50	< 2.50	< 2.50	< 5.0	< 2.0	< 5.0	< 2.0	E	< 5.0	< 5.0	< 5.0

TDS (mg/L) Average Monthly	149	188	202	292	429	309	420	456	E	407	298	432
TDS (mg/L) Daily Maximum	149	188	202	292	429	309	420	456	E	407	298	432
Oil and Grease (mg/L) Average Monthly	< 5.00	< 5.00	< 5.00	< 5.0	< 5.6	< 5.9	< 5.3	< 5.0	E	< 5.6	< 5.0	< 5.0

DMR Data for Outfall 003 (from November 1, 2020 to October 31, 2021)

Parameter	OCT-21	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20
pH (S.U.) Daily Maximum					6.1						6.3	
CBOD5 (mg/L) Daily Maximum					< 20.0						16.2	
COD (mg/L) Daily Maximum					11.1						221	
TSS (mg/L) Daily Maximum					13.6						50.0	
Oil and Grease (mg/L) Daily Maximum					< 5.0						< 5.6	
Ammonia (mg/L) Daily Maximum					0.85						12	
TKN (mg/L) Daily Maximum					< 1.25						14.8	
Total Phosphorus (mg/L) Daily Maximum					0.058						0.17	

Compliance History

Effluent Violations for Outfall 001, from: December 1, 2020 to: October 31, 2021

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
pH	01/31/21	IMAX	9.51	S.U.	9.0	S.U.

Summary of Inspections:
04/18/2019 and 04/30/2019: A CEI and FUI inspection conducted. Recommended to keep totes and drums inside the containment areas during CEI. No sheen was observed from Outfall 001. Outfall 002 had a sheen but appeared to be biological sheen. FUI to inspect the planned berm construction around the staging area of building E. The berm construction was completed on May 8, 2019. No violations noted.

03/16/2018: FUI conducted to observe the results of soil sampling after the cardinal spill on 10/4/2017. The spill area was cleaned up, no residual cardinal was observed, no outfall was discharging. Recommended to ensure all totes and drums staged or stored in areas with containment. No violations were noted.

10/6/2017: INCDT inspection conducted due to illegal discharge of industrial waste from outfall and into storm swale on September 4, 2017. The distillation unit holding tanks was over-filled by CNSLD and began overflow through an air vent going through the roof which ended up into the stormwater downspout that was connected to Outfall 001. All plant water discharge going into outfall 001 was immediately stopped and storm basin drain pipe was blocked and dammed up to prevent any water from leaving and going into the creek. FUI on October 6, 2017 indicated the swale was excavated and contaminated soil apparently removed. All distillation operators were re-trained, an alarm system for the distillation PLC and an installation of an overflow vent tank was planned to collect any overfills. An NOV was issued on November 22, 2017.

03/20/2017 and 03/30/2017: CEI conducted. Recurring eDMR violations noted, sheen discharge observed. An NOV was issued on April 10, 2017.

Other Comments: None

Development of Effluent Limitations

Outfall No.	001/002	Design Flow (MGD)	0.0026/0.0021
Latitude	40º 14' 8.9"/40º 14' 6.5"	Longitude	-75º 24' 42.5"/-75º 24' 45"

Wastewater Description: 001: Stormwater, NCCW, boiler blowdown, water softener backwash.
002: Stormwater, NCCW

The following parameters were listed for both outfalls with limits/monitoring requirements which will be carried over:

Pollutant	Effluent Limit	Basis
pH	6.0 to 9.0 s.u.	25 Pa Code 95.2(i)
TDS	1,000 ppm	DRBC 3.10.4.D.2
Temp	110^0 F	DRBC IG 1.B(1)
Oil and Grease	15 AML 30 MDL	25 Pa Code 95.2(2)(ii)
TSS	30 AML 60 MDL	25 Pa Code 92a.47

The facility is an MIIW1, however, the discharges are non-process industrial wastewater and stormwater relieving them to sample for all applicable pollutant groups (group 1-6) for renewal purpose. The following sample results were submitted in the application and on later dates which showed no concern for additional parameters to be monitored:

Parameter	Average or Maximum value
BOD5 mg/l	
TSS mg/l	7.15
TDS mg/l	1,285
Oil and Grease mg/l	6.8
COD mg/l	
TOC mg/l	
NH3-N mg/l	
Temperature °C	

Therefore, all existing parameters will be carried over along with their existing limits/monitoring requirements at current frequency.

Outfall No.	003/004	Design Flow (MGD)	0
Latitude	40º 14' 11.9"/40º 14' 9.2"	Longitude	-75º 24' 45.6"/-75º 24' 50.2"

Wastewater Description: Stormwater

The following parameters were applied in the last renewal based on the general NPDES industrial stormwater permit PAG03 Appendix J:

Parameter	Effluent Concentrations (mg/l)			Sampling Frequency	Sample Type
	Average Monthly	Daily Maximum	Inst. Maximum		
$CBOD_5$		Report		1/6 Month	Grab
COD		Report		1/6 Month	Grab
Oil and Grease		Report		1/6 Month	Grab
pH (STD)		Report		1/6 Month	Grab
Total Suspended Solids		Report		1/6 Month	Grab
Oil & Grease		Report		1/6 Month	Grab
Ammonia-Nitrogen		Report		1/6 month	Grab
Total Kjeldahl Nitrogen		Report		1/6 Month	Grab
Total Phosphorus		Report		1/6 Month	Grab

The applicable SIC code for this facility is 2822 which falls under Appendix F of PAG03. The applicable monitoring requirements for Appendix F are as following:

Parameter	Monitoring requirements	
	Minimum monitoring frequency	Sample type
pH (S.U.)	1/6 months	Grab
COD (mg/l)	1/6 months	Grab
TSS (mg/l)	1/6 months	Grab
Nitrate-Nitrite-Nitrogen (mg/l)	1/6 months	Grab
Total Phosphorus (mg/l)	1/6 months	Grab
Total Lead (mg/l)	1/6 months	Grab
Total Zinc (mg/l)	1/6 months	Grab
Total Iron (mg/l)	1/6 months	Grab
Total Aluminum (mg/l)	1/6 months	Grab

Total Zinc was removed from last permit term. The sample results indicate the discharge concentration for Total Zinc is within the threshold of most stringent criterion, therefore, not a concern. Oil and Grease is recommended to be added. Total Lead, Total Zinc, and Total Aluminum may be re-evaluated during the next permit term. It is recommended that Appendix J parameters be replaced by Appendix F parameters.

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) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (GPD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/month	Estimate
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	XXX	9.0	1/week	Grab
Temperature (ºF)	XXX	XXX	XXX	XXX	XXX	110	1/month	I-S
TSS	XXX	XXX	XXX	30	60	75	1/month	24-Hr Composite
Total Dissolved Solids	XXX	XXX	XXX	1000	2000	2500	1/month	24-Hr Composite
Oil and Grease	XXX	XXX	XXX	15	XXX	30	1/month	Grab

Compliance Sampling Location: At Outfall 001

Other Comments: None

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 002, 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		
Flow (GPD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/month	Estimate
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	XXX	9.0	1/week	Grab
Temperature (ºF)	XXX	XXX	XXX	XXX	XXX	110	1/month	I-S
TSS	XXX	XXX	XXX	30	60	75	1/month	24-Hr Composite
Total Dissolved Solids	XXX	XXX	XXX	1000	2000	2500	1/month	24-Hr Composite
Oil and Grease	XXX	XXX	XXX	15	XXX	30	1/month	Grab

Compliance Sampling Location: At Outfall 002

Other Comments: None

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	Daily Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
pH (S.U.)	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
Nitrate-Nitrite as N	XXX	XXX	Report	XXX	XXX	XXX	1/6 months	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Aluminum, Total	XXX	XXX	Report	XXX	XXX	XXX	1/6 months	Grab
Iron, Total	XXX	XXX	Report	XXX	XXX	XXX	1/6 months	Grab
Lead, Total	XXX	XXX	Report	XXX	XXX	XXX	1/6 months	Grab

Compliance Sampling Location: At Outfall 003

Other Comments: None

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 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	Daily Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	Upon Request	Grab
Chemical Oxygen Demand (COD)	XXX	XXX	XXX	XXX	Report	XXX	Upon Request	Grab
Total Suspended Solids	XXX	XXX	XXX	XXX	Report	XXX	Upon Request	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	Upon Request	Grab
Nitrate-Nitrite as N	XXX	XXX	Report	XXX	XXX	XXX	Upon Request	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	Upon Request	Grab
Aluminum, Total	XXX	XXX	Report	XXX	XXX	XXX	Upon Request	Grab
Iron, Total	XXX	XXX	Report	XXX	XXX	XXX	Upon Request	Grab
Lead, Total	XXX	XXX	Report	XXX	XXX	XXX	Upon Request	Grab

Compliance Sampling Location: At Outfall 004

Other Comments: None

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:
☐	Other: