Pennsylvania Department of Environmental Protection

Southeast Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0013714**
Facility Type	**Industrial**	APS ID	**1134465**
Major / Minor	**Major**	Authorization ID	**1521993**

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

Applicant and Facility Information

Applicant Name	**Constellation Energy Generation LLC**	Facility Name	**Eddystone Generating Station**
Applicant Address	200 Exelon Way	Facility Address	#1 Industrial Highway
	Kennett Square, PA 19348-2442		Eddystone, PA 19022
Applicant Contact	Amy Hetherington	Facility Contact	Joseph Kuklinski
Applicant Phone	(267) 533-5228	Facility Phone	(610) 662-2514
Client ID	147686	Site ID	239482
SIC Code	4911,5171	Municipality	Eddystone Borough
SIC Description	Trans. & Utilities - Electric Services, Wholesale Trade - Petroleum Bulk Stations and Terminals	County	Delaware
Date Application Received	April 3, 2025	EPA Waived?	No
Date Application Accepted		If No, Reason	Major Facility
Purpose of Application	Permit Renewal		

Summary of Review

The applicant requests approval for renewal of an NPDES permit to discharge treated industrial wastewater, non-contact cooling water, once through cooling water, stormwater and hydrostatic test water from the Eddystone Generating Station.

Previously the applicant informed DEP of their plan to deactivate Eddystone Units 3 and 4 through retirement effective on or about May 31, 2025. However, recently company revised its post deactivation plan for Eddystone to allow the company to exercise its right to bid Eddystone into the PJM energy market under PJM's capacity injection rights (CIR) rules. With the demand for electricity continuing to increase, company recently decided to maintain its option to exercise its rights under PJM's CIR. Therefore, the company will maintain certain equipment in layup mode, which will entail running the river water pumps (RWP).

For the period Eddystone is in layup mode, one or more RWPs will be in operation year-round to provide cooling water to certain equipment to enable Eddystone's units to generate electricity, should company submit, and PJM accept a bid under the CIR. The United States Department of Energy ("DOE") issued Order 202-25-4, which required Constellation to maintain Eddystone Units 3 and 4 so that they would be available to operate through August 28, 2025. On August 28, 2025, DOE issued Order No. 202-25-8, extending the effective period of Order 202-25-4 an additional 90 days, through November 26, 2025. Again, DOE issued Order No. 202-25-10 on November 26, 2025, extending the previous orders to February 24, 2026.So, applicant is proposing to renew the entire existing permit, given the potential for future generation at the station.

The following changes are requested to be incorporated into the permit at this renewal:

Approve	Deny	Signatures	Date
X		*Sara Abraham* Sara Reji Abraham, E.I.T. / Project Manager	12-22-2025
X		*Pravin Patel* Pravin C. Patel, P.E. / Environmental Engineer Manager	12/22/2025

Summary of Review

(i) Prior to the demolition of the former Units 1 and 2 building in 2022, Outfall 007 had been used to collect stormwater from the roof drains. All drains associated with Outfall 007 have been sealed and stop logs have been put in place. Outfall 007 is eliminated from the permit.

(ii) Outfalls 001, 002 and 004 receive stormwater from substantially similar areas of the Eddystone site. Outfall 001 is considered as representative of Outfalls 002 and 004. Outfall 001 will be required to be monitored.

The facility's wastewater treatment plant treats a combination of low volume wastewater and stormwater runoff. The influent is coming from the following sources: reverse osmosis unit wastewater, Units 3 and 4 boiler wash water, boiler chemical wash water, Units 3 and 4 oily water, sample cooler water and miscellaneous stormwater runoff from plant operation and maintenance areas. The only treatment occurs is oil/water separation. Effluent is discharged via MP108.
It is also possible for the wastewater treatment plant to receive water from their hydrostatic testing of their holding tanks.

DEP inspection was conducted on 12-12-2024. No violations were noted on the report. DMR review shows the discharge is in compliance with the permit limitations.

The recommended limits for the new permit are mostly similar to the existing permit.

The facility has been using the following chemical additives: Versene 100XL, Citric Acid, Hypersperse MDC 772, Trisodium phosphate dodecahydrate, Disodium phosphate anhydrous, Sodium Sulfite (CORTROL IS 1050), Anodamine HPFG, ChemTreat B120, ChemTreat Uranine Dye, ChemTreat C2189G, ChemTreat CL2005 and ChemTreat A103G.

In addition, Sodium Hydroxide and Ammonium Hydroxide are used for pH adjustments and Sodium Bisulfite is used to reduce the residual chlorine.

Use of Spectrus CT 1300 was eliminated when the chemical additive ChemTreat CL2005 was approved to use at the facility. ChemTreat CL2005 is a direct replacement of Spectrus CT 1300, it is the same chemical as Spectrus CT 1300 but from a different manufacturer. Usage rate was approved based on the fact that the discharge concentration should not be greater than 0.05 mg/l for ChemTreat CL2005. The existing Spectrus CT 1300 effluent limit is eliminated from the permit. Instead ChemTreat CL2005 effluent limit is included in the permit at this renewal. Chem Treat CL2005 is also known as Alkyl Dimethyl Benzyl Ammonium Chloride and is listed as Alkyl Dimethyl Benzyl Ammonium Chloride in permit documents.

Usage of Wood Flour for the purpose of addressing small condenser tube leaks at Eddystone Generating Station's Units 3 and 4 was also approved on September 30, 2021, by DEP.

This facility is listed in the Delaware River PCB TMDL report with WLAs for Outfalls 001, 005, 007 and 008. Outfall 005 was eliminated from the site completely and no longer discharging. PCB monitoring requirement at Outfall 005 was discontinued with the agreement of DRBC. These changes were incorporated at the 2020 permit renewal. In the past, facility was discharging industrial treatment plant effluent through either Outfall 007 (via MP 107) or Outfall 008 (via MP 108). Therefore, it was decided to monitor PCB at MP 107 originally. Sometime during the 2008 -2013 permit term, the facility stopped discharging industrial treatment plant effluent through MP 107. Therefore, PCB monitoring was changed to MP 108 with the agreement of DRBC. Now the permit requires PCB monitoring at Outfall 001 and MP 108. Elimination of Outfall 007 is also incorporated into this permit at this renewal.

2024 PCB PMP Annual Report shows an average PCB loading of 0.764 mg/day which is a 99.6% decrease from 2023 loading and a 96.44% decrease from the baseline loading. The report also details the various activities the facility completed to help reducing the source of PCBs onsite and the program implemented to address the actual and potential sources. PCB Monitoring and PMP requirements are continued similar to the existing requirement.

The special condition related with the chemical metal cleaning in the current permit is eliminated based on the information provided. No chemical metal cleaning occurred at the facility during the past many years. The facility will not conduct any chemical metal cleaning at Eddystone in the future.

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

On August 15, 2014, EPA promulgated Clean Water Act Section 316(b) regulations applicable to cooling water intake structures. The regulations established best technology available (BTA) standards to reduce impingement mortality and

Summary of Review

entrainment of all life stages of fish and shellfish at existing power generating and manufacturing facilities. The Final Rule took effect on October 14, 2014. Regulations implementing the 2014 Final Rule (and the previously promulgated Phase I Rule) are provided in 40 CFR Part 125, Subparts I and J for new facilities and existing facilities, respectively. Associated NPDES permit application requirements for facilities with cooling water intake structures are provided in 40 CFR Part 122, Subpart B – Permit Application and Special NPDES Program Requirements (§ 122.21(r)).

Applicability Criteria for Existing Facilities

As an existing facility, the Eddystone Generating Station falls under 40 CFR part 125, Subpart J – Requirements Applicable to Cooling Water Intake Structures for Existing Facilities Under Section 316(b) of the Clean Water Act (§§ 125.90 – 125.99). Pursuant to the applicability criteria given by § 125.91(a), Exelon Eddystone would be subject to the requirements of §§ 125.94 – 125.99 if:

(1) The facility is a point source;

(2) The facility uses or proposes to use one or more cooling water intake structures with a cumulative design intake flow (DIF) of greater than 2 million gallons per day (mgd) to withdraw water from waters of the United States; and

(3) Twenty-five percent or more of the water the facility withdraws on an actual intake flow basis is used exclusively for cooling purposes.

The previous permit established the applicability requirements for the facility with regards to the cooling water intake structures. Annual certification reports received as required by the previous permit state that there have been no substantial modifications to the cooling water intake structure impacting design, capacity, location, or operation. A request for a reduction in § 316(b) related permit application requirements consistent with the provisions in 40 CFR 125.95(c) for this renewal was accepted. During the previous permit term between January 2020 and December 2024, the maximum monthly capacity utilization rate (CUR) was 3.2% for Unit 3 and 3.0% for Unit 4. The monthly actual intake flow (AIF) ranged from 12 mgd and 416 mgd, with a monthly average of 89 mgd, which is the five-year average AIF, consistent with the definition of AIF in 40 CFR 125.92(a).

A copy of relevant permit application materials was submitted to the Services for review. NOAA Fisheries Office of Protected Resources responded that they will not be submitting recommendations because the facility is already complying with the individual incidental take permit (IITP) issued by their office which will expire on July 13, 2030 and must be renewed if Eddystone Generating Station continues to operate.

In accordance with the IITP, the facility conducted both entrainment and impingement sampling each year between 2020 and 2024 during times of circulating water pump usage as specified. In total, two Atlantic sturgeon were collected during impingement sampling in 2022 and no sturgeon were collected during entrainment sampling. Species composition for entrainment sampling by year between 2021 and 2024 is shown on the figures below which were taken from the entrainment characterization study reports.

Table 5-1. Common name, scientific name, and total number of ichthyoplankton collected during entrainment sampling at Eddystone Generating Station in 2021.

Common Name	Scientific Name	Lifestage		Total	Percent Composition
		Post Yolk-Sac Larvae	Young-of-Year		
American eel	*Petromyzon marinus*		1	1	1.8
bay anchovy	*Anchoa mitchilli*	14	1	15	26.3
blueback herring/alewife	*Alosa aestivalis/Alosa pseudoharengus*	7	3	10	17.5
channel catfish	*Ictalurus punctatus*		3	3	5.3
mummichog	*Fundulus heteroclitus*	1		1	1.8
striped bass	*Morone saxatilis*	3	3	6	10.5
tessellated darter	*Etheostoma olmstedi*	1		1	1.8
white perch	*Morone americana*	7	13	20	35.1
	Total Individuals	33	24	57	

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Table 5-2. Common name, scientific name, and total number of ichthyoplankton collected during entrainment sampling at Eddystone Generating Station in 2022.

Common Name	Scientific Name	Life Stage					Total Number	Percent Composition
		Undetermined [1]	Egg	Yolk-sac Larvae	Post Yolk-sac Larvae	Young-of-the Year		
Alewife	*Alosa pseudoharengus*				2		2	0.8
Alewife/Blueback Herring	*Alosa aestivalis/Alosa pseudoharengus*	3		1	162		166	65.1
Atlantic Menhaden	*Brevoortia tyrannus*				10	11	21	8.2
Banded Killifish	*Fundulus diaphanus*				1		1	0.4
Bay Anchovy	*Anchoa mitchilli*		3		7		10	3.9
Channel Catfish	*Ictalurus punctatus*					3	3	1.2
Common Carp	*Cyprinus carpio*				1		1	0.4
Native minnows	Cyprinidae				2		2	0.8
American eel	*Anguilla rostrata*					9	9	3.5
Naked Goby	*Gobiosoma bosci*		3		1	1	5	2.0
Tessellated Darter	*Etheostoma olmstedi*	1			1		2	0.8
Bony fish	Osteichthyes	6			11		17	6.7
White Perch	*Morone americana*			1	11	4	16	6.3
	Total Number	10	6	2	209	28	255	

[1] Yolk-sac larvae or Post yolk-sac larvae that cannot be differentiated

Table 5-2. Common name, scientific name, and total number of ichthyoplankton collected during entrainment sampling at Eddystone Generating Station in 2023.

Common Name	Scientific Name	Life Stage					Total Number	Percent Composition
		Undetermined [1]	Egg	Yolk-sac Larvae	Post Yolk-sac Larvae	Young-of-the Year		
Alewife/Blueback Herring	*Alosa aestivalis/Alosa pseudoharengus*				1		1	0.8
Atlantic Croaker	*Micropogonias undulatus*				1		1	0.8
Bay Anchovy	*Anchoa mitchilli*				83		83	63.4
Blueback Herring	*Alosa pseudoharengus*				1	1	2	1.5
Channel Catfish	*Ictalurus punctatus*					3	3	2.3
Common Carp	*Cyprinus carpio*				4		4	3.1
Goby	*Gobiosoma sp.*				2		2	1.5
Herrings	Clupeidae				17		17	13.0
Largemouth Bass	*Micropterus salmoides*			1	1		2	1.5
Minnow	*Fundulus sp.*		1				1	0.8
Mummichog	*Fundulus heteroclitus*			3	1		4	3.1
Naked Goby	*Gobiosoma bosci*				1	1	2	1.5
Rough Silverside	*Membras martinica*				1		1	0.8
Silverside Family	Antherinidae				1		1	0.8
Striped Bass	*Morone saxatilis*				1		1	0.8
Sunfish	*Lepomis sp.*				4		4	3.1
Ray-finned Fish	Unidentified Teleost		1				1	0.8
White Perch	*Morone americana*				1		1	0.8
	Total Number		2	4	120	5	131	

[1] Yolk-sac larvae or Post yolk-sac larvae that cannot be differentiated

Summary of Review

Table 5-2. **Common name, scientific name, and number of ichthyoplankton collected during entrainment sampling at the Eddystone Generating Station in 2024.**

Sample Dates: **4-5, 8-9 April and 22-23, 26 May 2024**

Common Name	Scientific Name	Undetermined Life Stage[1]	Eggs	Yolk-sac Larvae	Post Yolk-sac Larvae	Young-of-Year	Total Number	Percent Comp.
American Eel	*Anguilla rostrata*					10	**10**	**1.1%**
Atlantic Menhaden	*Brevoortia tyrannus*				73		**73**	**8.1%**
Common Carp	*Cyprinus carpio*				3		**3**	**0.3%**
Gizzard Shad	*Dorosoma cepedianum*		137	2			**139**	**15.5%**
Herring	Clupeidae	139		306	38		**483**	**53.8%**
Minnows	Cyprinidae	17		15	6		**38**	**4.2%**
Perch	Percidae	3			2		**5**	**0.6%**
Striped Bass	*Morone saxatilis*			1			**1**	**0.1%**
Sunfish	Centrarchidae		3				**3**	**0.3%**
Tessellated Darter	*Etheostoma olmstedi*	2		28	8	9	**47**	**5.2%**
White Perch	*Morone americana*	5		2	68		**75**	**8.4%**
Unidentifiable	Osteichthyes	19	1				**20**	**2.2%**
	Total Number	**185**	**141**	**354**	**198**	**19**	**897**	**100.0%**

[1] Yolk-sac larvae or post yolk-sac larvae that cannot be differentiated

Based on a CUR less than 8 percent averaged over a 24 month block contiguous period and site-specific data, impingement mortality BTA less stringent than one of the 7 technologies described in the rule, as specified in §125.94(c)(12), will be used for Eddystone Generating Station. This includes permit conditions to maintain a CUR below 8% and implementing a Flow Reduction Alternative SOP (details included at the end of this section) proposed in the previous permit application which will further reduce withdrawals by limiting CWP usage. These permit conditions will also serve as site specific entrainment BTA based on the alternatives analysis and the totality of the information provided in the facility's 316(b) report provided with the 2019 permit application and information contained in the current application.

The Flow Reduction Alternative SOP limits cooling water pump operation to periods of power generation which do not correspond to peak impingement abundances (September – November). It is estimated to reduce average intake flow 4.5% July – September which corresponds to peak impingement abundance of some diadromous species and includes the following measures:

1. One river water pump (RWP) per unit will remain in service throughout the year to provide water needed for essential station operations.

2. During the 12-hour start-up process prior to generating electricity, both cooling water pumps (CWPs) and the second RWP per unit will be placed in service.

3. During electricity generation, both CWPS and both RWPs per unit will remain in service.

4. At the beginning of the shut-down process, one CWP and one RWP per unit will be removed from service. The remaining CWP per unit will remain in service until the turbines' temperatures have cooled to 150°F (approximately 10 days), at which point Constellation will take that CWP out of service.

Summary of Review

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:

Eddystone Borough	-	March 20, 2025
Delaware County	-	March 20, 2025

Permit Conditions:

A. Acquire Necessary Property Rights
B. Proper Sludge Disposal
C. WQM Permit Condition
D. BAT/ELG Reopener
E. Chlorine Discharge
F. Thermal Impact
G. Mixing Zone
H. Delaware Estuary Study
I. No Intake Trash Return
J. ChemTreat CL2005 Test Method
K. TMDL/WLA Analysis
L. Non-Stormwater Discharges
M. Hydrostatic Test Water
N. Chemical Additive Condition
O. Stormwater Condition
P. PCBs Requirement
Q. Cooling Water Intake Condition

Discharge, Receiving Waters and Water Supply Information

Outfall No.	010	Design Flow (MGD)	0
Latitude	39º 50' 57.61"	Longitude	-75º 19' 19.32"
Quad Name	Bridgeport	Quad Code	2043
Wastewater Description:	Stormwater, temporary hydrostatic tank testing water		
Receiving Waters	Delaware River (WWF, MF)	Stream Code	00002
NHD Com ID	25591411	RMI	84.7
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, 12/30/2006	Name	Delaware River Estuary PCB TMDLs

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0
Latitude	39º 51' 41.22"	Longitude	-75º 19' 23.65"
Quad Name	Bridgeport	Quad Code	2043
Wastewater Description:	Stormwater		
Receiving Waters	Crum Creek (WWF)	Stream Code	00692
NHD Com ID	25590671	RMI	0.26

Discharge, Receiving Waters and Water Supply Information

Outfall No.	002	Design Flow (MGD)	0
Latitude	39º 51' 41.22"	Longitude	-75º 19' 23.65"
Quad Name	Bridgeport	Quad Code	2043
Wastewater Description:	Stormwater		
Receiving Waters	Crum Creek (WWF)	Stream Code	00692
NHD Com ID	25590671	RMI	0.17

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	004	Design Flow (MGD)	0
Latitude	39º 51' 34.52"	Longitude	-75º 19' 19.26"
Quad Name	Bridgeport	Quad Code	2043
Wastewater Description:	Stormwater		
Receiving Waters	Crum Creek (WWF)	Stream Code	00692
NHD Com ID	25590671	RMI	0.132

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	008	Design Flow (MGD)	835.2*
Latitude	39º 50' 57.62"	Longitude	-75º 19' 22.14"
Quad Name	Bridgeport	Quad Code	2043
Wastewater Description:	Once through cooling water, boiler blow down, river water from intake sump area, industrial wastewater treatment plant effluent		
Receiving Waters	Delaware River (WWF, MF)	Stream Code	00002
NHD Com ID	25591411	RMI	84.65
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, 12/30/2006	Name	Delaware River Estuary PCB TMDLs

*Average flow calculated based on AIF data from January 2023 – December 2024 is 125.3 mgd.

**Q7-10 listed in the DRBC spreadsheet for Boeing (Boeing and Eddystone are close by dischargers in the Estuary) is 3,967 cfs which is a reasonable assumption for this facility also.

1% of Q7-10 flow is considered as available for dilution, which is equal to 39.67 cfs = 25.6 mgd.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	013	Design Flow (MGD)	0
Latitude	39º 50' 57.59"	Longitude	-75º 19' 14.91"
Quad Name	Bridgeport	Quad Code	2043
Wastewater Description:	Stormwater		
Receiving Waters	Delaware River (WWF, MF)	Stream Code	00002
NHD Com ID	25591411	RMI	84.9

Discharge, Receiving Waters and Water Supply Information

Outfall No.	014	Design Flow (MGD)	0
Latitude	39º 50' 57.58"	Longitude	-75º 19' 11.87"
Quad Name	Bridgeport	Quad Code	2043
Wastewater Description:	Stormwater		
Receiving Waters	Delaware River (WWF, MF)	Stream Code	00002
NHD Com ID	25591411	RMI	84.88

Discharge, Receiving Waters and Water Supply Information

Outfall No.	108	Design Flow (MGD)	3.045*
Latitude	39º 50' 57.61"	Longitude	-75º 19' 20.56"
Quad Name	Bridgeport	Quad Code	2043
Wastewater Description:	IW Process Effluent with ELG		
Receiving Waters	Delaware River (WWF, MF)	Stream Code	00002
NHD Com ID	25591411	RMI	84.62
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, 12/30/2006	Name	Delaware River Estuary PCB TMDLs

* this is the current permitted flow from the previous permit; the renewal application reported a design flow of 3.744 mgd based on the maximum pump design capacity.

Treatment Facility Summary

Treatment Facility Name: Eddystone Generating Station

WQM Permit No.	Issuance Date
2389201	08/03/1990
2389201-A1	03/01/2018

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Industrial	Other Processes (Industrial Waste)	Oil and Grease Removal (Skim/Septr)	No Disinfection	3.045

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

Compliance History

DMR Data for Outfall 001 (from March 1, 2024 to February 28, 2025)

Parameter	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24
PCBs (Wet Weather) (pg/L) Daily Maximum			440									

DMR Data for Outfall 004 (from March 1, 2024 to February 28, 2025)

Parameter	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24
pH (S.U.) Daily Maximum			7.57						7.91			
BOD5 (mg/L) Daily Maximum			4.6						3.9			
COD (mg/L) Daily Maximum			26						31			
TSS (mg/L) Daily Maximum			13						16			
Oil and Grease (mg/L) Daily Maximum			< 5						< 5			
Total Nitrogen (mg/L) Daily Maximum			1.41						< 0.99			
Total Phosphorus (mg/L) Daily Maximum			0.09						0.04			
Total Iron (mg/L) Daily Maximum			0.57						0.92			

DMR Data for Outfall 008 (from March 1, 2024 to February 28, 2025)

Parameter	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24
Flow (MGD) Average Monthly	27.2	149.64	21.6	22.43	83.43	88.57	416.41	384.94	314.9	106.89	104.88	15.61
Flow (MGD) Daily Maximum	95.85	439.2	21.6	46.35	386.85	426.30	835.2	835.20	835.2	696.9	417.6	38.1
pH (S.U.) Instantaneous Minimum	7.05	6.85	7.33	7.40	6.96	7.05	6.96	7.02	6.71	7.07	7.0	7.23

pH (S.U.) Instantaneous Maximum	7.23	7.38	7.66	7.55	7.62	7.41	7.38	7.47	7.37	7.31	7.38	7.79
TRC (mg/L) Instantaneous Maximum	< 0.005	0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.0161	0.0092	0.0232	0.0196	< 0.005	< 0.005
Temperature (ºF) Average Monthly	38.8	39.83	43.9	57.6	66.4	75.0	83.5	85.3	80.9	68.3	52.7	50.3
Temperature (ºF) Intake Average Monthly	36.2	34.63	43.0	57.0	65.2	73.7	80.9	83.6	78.9	66.8	51.7	48.0
Temperature (ºF) Instantaneous Maximum	40.1	42.8	46	60.9	71.9	76.6	89.9	89.4	84.7	72.6	60.4	51.4
Delta T (ºF) Average Monthly	2.6	5.2	0.9	0.6	1.2	1.3	2.7	1.66	2.02	1.5	1.0	2.3
TSS (mg/L) Average Monthly	27	10	30	12	17	4	9	10	10	5	15	1
TSS (mg/L) Effluent Net Average Monthly	-27	NULL9	-30	00	4	< 3	00	5	< 9	NULL2	2	-4
TSS (mg/L) Intake Average Monthly	54	29	60	12	13	< 1	9	5	< 1	17	13	5
TSS (mg/L) Daily Maximum	27	10	30	12	17	4	9	10	10	5	15	1
TSS (mg/L) Effluent Net Daily Maximum	-27	NULL9	-30	00	4	< 3	00	5	< 9	NULL2	2	-4
TSS (mg/L) Intake Daily Maximum	54	29	60	12	13	< 1	9	5	< 1	17	13	5
Ammonia (mg/L) Average Monthly	GG	1.10	GG	GG	0.03	0.06	0.03	< 0.02	< 0.02	0.08	0.26	GG
Total Copper (mg/L) Daily Maximum			0.004			0.004			0.005			0.006
Total Lead (mg/L) Daily Maximum			0.001			< 0.001			0.002			0.003
Bromide (mg/L) Daily Maximum			0.58			< 0.12			< 0.12			< 0.13
Spectrus CT 1300 (mg/L) Daily Maximum	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG

DMR Data for Outfall 010 (from March 1, 2024 to February 28, 2025)

Parameter	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24
pH (S.U.) Daily Maximum			7.1						7.09			
BOD5 (mg/L) Daily Maximum			4.8						4.7			
COD (mg/L) Daily Maximum			91						36			
TSS (mg/L) Daily Maximum			4						8			
Oil and Grease (mg/L) Daily Maximum			< 5						< 5			
Total Nitrogen (mg/L) Daily Maximum			2.08						1.08			
Total Phosphorus (mg/L) Daily Maximum			0.23						< 0.01			
Total Iron (mg/L) Daily Maximum			0.35						0.11			

DMR Data for Outfall 013 (from March 1, 2024 to February 28, 2025)

Parameter	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24
pH (S.U.) Daily Maximum			6.92						6.94			
BOD5 (mg/L) Daily Maximum			6.4						< 3.4			
COD (mg/L) Daily Maximum			< 25						44			
TSS (mg/L) Daily Maximum			16						69			
Oil and Grease (mg/L) Daily Maximum			< 5						< 5			
Total Nitrogen (mg/L) Daily Maximum			4.44						3.46			
Total Phosphorus (mg/L) Daily Maximum			0.14						0.11			

DMR Data for Outfall 014 (from March 1, 2024 to February 28, 2025)

Parameter	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24

pH (S.U.) Daily Maximum			6.05						6.04			
BOD5 (mg/L) Daily Maximum			3.9						< 2.0			
COD (mg/L) Daily Maximum			57						< 25			
TSS (mg/L) Daily Maximum			< 1						3			
Oil and Grease (mg/L) Daily Maximum			< 5						< 5			
Total Nitrogen (mg/L) Daily Maximum			2.95						1.34			
Total Phosphorus (mg/L) Daily Maximum			0.04						< 0.01			
Total Iron (mg/L) Daily Maximum			0.25						0.08			

DMR Data for Outfall 108 (from March 1, 2024 to February 28, 2025)

Parameter	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24
Flow (MGD) Average Monthly	0.115	0.195	0.187	0.144	0.174	0.165	0.259	0.246	0.224	0.128	0.161	0.126
Flow (MGD) Daily Maximum	0.515	0.677	0.651	0.615	0.750	0.677	0.853	0.863	0.853	0.712	0.687	0.710
pH (S.U.) Instantaneous Minimum	7.20	7.52	7.58	7.82	7.90	7.38	7.14	7.66	7.38	7.14	7.08	7.25
pH (S.U.) Instantaneous Maximum	8.52	8.53	8.62	8.23	8.67	8.40	8.24	8.30	8.30	8.19	8.20	8.35
TSS (mg/L) Average Monthly	17	6.5	4	10	4.5	1.5	3.5	2.5	1.5	8	6	< 1
TSS (mg/L) Daily Maximum	30	8	6	10	5	2	4	3	2	8	10	< 1
Total Dissolved Solids (mg/L) Average Monthly	466.0	337.0	449.5	641.0	428.0	258.0	375.5	325.5	221.5	192.0	222.5	244.0
Total Dissolved Solids (mg/L) Daily Maximum	518.0	364.0	454.0	668.0	465.0	282.0	418.0	356.0	243.0	204.0	258.0	280.0
Oil and Grease (mg/L) Average Monthly	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 7.5	< 5

Oil and Grease (mg/L) Daily Maximum	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	10	< 5
Total Copper (mg/L) Average Monthly	0.011	0.008	0.007	0.011	0.008	0.008	0.013	0.009	0.025	0.063	0.144	0.006
Total Copper (mg/L) Daily Maximum	0.014	0.008	0.007	0.011	0.008	0.008	0.013	0.009	0.025	0.063	0.144	0.006
Total Iron (mg/L) Average Monthly	1.087	0.64	0.47	0.53	0.22	0.13	0.21	0.08	0.21	0.33	0.29	0.23
Total Iron (mg/L) Daily Maximum	1.44	0.64	0.47	0.53	0.22	0.13	0.21	0.08	0.21	0.33	0.29	0.23
PCBs (Dry Weather) (pg/L) Daily Maximum			463									

DMR Data for Outfall 110 (from March 1, 2024 to February 28, 2025)

Parameter	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24
pH (S.U.) Instantaneous Minimum			7.00			6.9			6.74			7.16
pH (S.U.) Instantaneous Maximum			7.00			6.9			6.74			7.2
BOD5 (mg/L) Daily Maximum			3.7						6.8			
COD (mg/L) Daily Maximum			< 25						42			
TSS (mg/L) Daily Maximum			20						9			
Oil and Grease (mg/L) Average Quarterly			< 5			< 5			< 5			< 10.5
Oil and Grease (mg/L) Instantaneous Maximum			< 5			< 5			< 5			16
TRPH (mg/L) Average Quarterly			< 5.0			< 5.0			< 5.0			9.0
TRPH (mg/L) Instantaneous Maximum			< 5.0			< 5.0			< 5.0			13.0
Total Nitrogen (mg/L) Daily Maximum			1.50						1.06			
Total Phosphorus (mg/L) Daily Maximum			0.20						0.05			

Total Iron (mg/L) Daily Maximum			5.93						3.78			

Compliance History

None

Development of Effluent Limitations

Outfall No.	001	**Design Flow (MGD)**	0
Latitude	39º 51' 41.00"	**Longitude**	-75º 19' 24.00"
Wastewater Description:	Stormwater		

Outfall No.	002	**Design Flow (MGD)**	0
Latitude	39º 51' 41.00"	**Longitude**	-75º 19' 24.00"
Wastewater Description:	Stormwater		

Outfall No.	004	**Design Flow (MGD)**	0
Latitude	39º 51' 34.00"	**Longitude**	-75º 19' 20.00"
Wastewater Description:	Stormwater		

Outfall 001 is representative of Outfalls 002 and 004. The existing parameters at Outfall 004; Oil and Grease, BOD5, COD, TSS, Total Nitrogen, Total Phosphorus, pH and Total Iron are required to be monitored at Outfall 001.

PCB, Wet Weather analysis monitoring also continued at outfall 001.

	39º 51' 41.00"	**Longitude**	-75º 19' 24.00"
Outfall No.	010	**Design Flow (MGD)**	0
Latitude	39º 51' 23.00"	**Longitude**	-75º 19' 28.00"
Wastewater Description:	Stormwater and hydrostatic tank test water		

The following existing parameters are included in the draft permit to be monitored: Oil and Grease, BOD5, COD, TSS, Total Nitrogen, Total Phosphorus, pH and Total Iron. The requirement for the hydrostatic test water discharge is also added in Part C of the permit.

The waste streams, groundwater seepage and condensate storage overflow (listed in the existing permit) to Outfall 010 are eliminated at this permit renewal based on the information provided.

MP 110: The permittee has leased out a portion of its property to the Eddystone Rail Company (ERC). This monitoring point was established at the 2014 permit renewal to monitor the stormwater runoff from ERC's rail unloading containment system. ERC receives crude oil deliveries by rail and offload the oil into a 200,000-barrel tank at the rail unloading area. The rail unloading containment area is located within the drainage area of outfall 010. From the tank the crude oil is pumped through an aboveground pipeline onto barges where it is transported to various customers. Effluent limits for MP110 are pH-6.0 to 9.0 SU, TRPH-15 mg/l and Oil and Grease-15 mg/l/ similar to the existing permit limits. Existing parameters BOD5, COD, TSS, Total Nitrogen, Total Phosphorus and Total Iron are also included in the draft permit.

Outfall No.	013	**Design Flow (MGD)**	0
Latitude	39º 51' 26.00"	**Longitude**	-75º 19' 20.00"
Wastewater Description:	Stormwater		

This outfall discharges from the boom dock area. The following existing stormwater parameters are included in the draft permit: Oil and Grease, BOD5, COD, TSS, Total Nitrogen, Total Phosphorus and pH. Total Iron is also included based on the review of the sampling results.

Outfall No.	014	**Design Flow (MGD)**	0
Latitude	39º 51' 25.00"	**Longitude**	-75º 19' 22.00"
Wastewater Description:	Stormwater		

This outfall discharges from Unit 1 & 2 screen house roof drains. The following existing parameters are included in the draft permit: Oil and Grease, BOD5, COD, TSS, Total Nitrogen, Total Phosphorus, pH and Total Iron.

Development of Effluent Limitations

Outfall No. 008 **Design Flow (MGD)** 835.2
Latitude 39º 51' 23.00" **Longitude** -75º 19' 27.00"
Wastewater Description: Once-through cooling water, boiler blow down, industrial wastewater treatment plant effluent, and river water from intake sump area

Technology-Based Limitations

EFFLUENT PARAMETER	TECHNOLOGY BASED LIMITS								BASIS FOR LIMIT
	BPT				BAT				
	DAILY AVERAGE		DAILY MAXIMUM		DAILY AVERAGE		DAILY MAXIMUM		
	CONC. (MG/L)	LOAD (LBS/DAY)	CONC. (MG/L)	LOAD (LBS/DAY)	CONC. (MG/L)	LOAD (LBS/DAY)	CONC. (MG/L)	LOAD (LBS/ DAY)	
TRC							0.2		40 CFR:423.13(b)1

Water Quality-Based Limitations

EFFLUENT PARAMETER	WATER QUALITY BASED LIMITS					BASIS FOR LIMIT
	MONTHLY AVERAGE		DAILY MAXIMUM		INST. MAX.	
	CONC. (MG/L)	LOAD (LBS/DAY)	CONC. (MG/L)	LOAD (LBS/DAY)	CONC. (MG/L)	
Temperature, Delta (ºF)	21*					DRBC docket # D-1992-066 CP-3
Temperature					110	DRBC/ Public Safety
PH	6.0 to 9.0 STD					Chapter 95
TSS (net)	30		100			Existing**
TDS						Limit at MP108***
NH3-N	Monitor/Report					Existing
ChemTreat CL2005**** (Alkyl Dimethyl Benzyl Ammonium Chloride)			0.05			MDL of the available analytical method
Bromide			Report			existing

* A CORMIX modeling study conducted by the permittee in 2014, determined that the heat dissipation area required during maximum flow and a temperature rise of 21 ºF from Intake No. 2 to Outfall 008 is 420 feet by 400 feet. This requirement is incorporated into Part C of the permit.

** based on the technology limit at MP 108

***DRBC's basin wide effluent limit for TDS is 1000 mg/l at the end of pipe and it was determined that since the NCCW that comingles with the industrial wastewater at MP 108 contains no additional TDS, the permittee may monitor TDS at MP 108 as a surrogate (this is an excerpt from the previous fact sheet). This is similar to the existing permit requirement

**** existing Spectrus CT1300 limit is replaced with ChemTreat CL2005 limit as the chemical Spectrus CT1300 is replaced with chemical ChemTreat CL2005.

A Reasonable Potential Analysis determined the following parameters are of concern:

Parameter	Maximum Concentration in Application	Most Stringent Criterion (ug/l)	Max. Allowable Concentration using dilution factor	Comments
			No dilution available	
Total Copper	8	9.0		Monitor*
Total Lead	2	2.5		Monitor*
Acrylamide	<23	0.07		** No monitoring
3, 3' Dichlorobenzidine	<10	0.05		*** No monitoring

Discharge is to tidal Delaware Estuary. Q7-10 listed in the DRBC spreadsheet for Boeing (Boeing and Eddystone are close by dischargers in the Estuary) is 3,967 cfs which is a reasonable assumption for this facility also.

1% of Q7-10 flow is considered as available for dilution, which is equal to 39.67 cfs = 25.6 mgd.

Qd = 835.2 mgd

* Existing Copper monitoring and Lead monitoring requirements are carried over to the draft permit.

** Reported as non-detectable and there is no TQL established for acrylamide.

***Reported as non-detectable using a QL higher than the DEP recommended TQL. DEP suggests using more sensitive test method to achieve DEP recommended TQL in future analyses.

Anti-Backsliding

N/A

Development of Effluent Limitations

Outfall No. 108 **Design Flow (MGD)** 3.045
Latitude 39º 51' 23.00" **Longitude** -75º 19' 27.00"
Wastewater Description: IW Process Effluent with ELG

Technology-Based Limitations

EFFLUENT PARAMETER	TECHNOLOGY BASED LIMITS								BASIS FOR LIMIT
	BPT				BAT				
	MONTHLY AVERAGE		DAILY MAXIMUM		DAILY AVERAGE		DAILY MAXIMUM		
	CONC. (MG/L)	LOAD (LBS/DAY)	CONC. (MG/L)	LOAD (LBS/DAY)	CONC. (MG/L)	LOAD (LBS/DAY)	CONC. (MG/L)	LOAD (LBS/DAY)	
TSS	30		100						423.12 (b)3, 4, 5
Oil and Grease	15		20						" "
pH	6.0 to 9.0								423.12(b) 1

*Copper and Iron limits/monitoring were historically included in the permit based on metal cleaning wastewaters. Chemical metal cleaning wastewater was previously permitted to discharge to the treatment plant. It is believed that the last time a chemical metal cleaning was performed was in the late 1980's. Facility will not conduct any metal cleaning in the future based on the information provided at this permit renewal. Therefore, Copper and Iron limits are not applicable for this discharge.

Water Quality-Based Limitations

EFFLUENT PARAMETER	WATER QUALITY BASED LIMITS					
	MONTHLY AVERAGE		DAILY MAXIMUM		INST. MAX.	BASIS FOR LIMIT
	CONC. (MG/L)	LOAD (LBS/DAY)	CONC. (MG/L)	LOAD (LBS/DAY)	CONC. (MG/L)	
TDS	1000		2000		2500	DRBC *
TSS	Recommend BPT					
Oil and Grease						
PCB, Dry Weather			Monitor			Existing

*Docket No. D-1992-066 CP-3

A Reasonable Potential Analysis determined the following parameters are of concern:

Parameter	Maximum Concentration in Application	Most Stringent Criterion (ug/l) (a)	Max. Allowable Concentration using dilution factor (a* 9.4)	Comments
Total Dissolved Solids	518000	500000		Existing limit recommended to continue
Total Copper	144	9.0	84.6	Limit is recommended
Total Iron	1440	1500	14100	Monitoring
Total Phenols	<2	5	47	No monitoring
Total Zinc	127	117	1099.8	Monitoring
Chlorodibromomethane	1.0	0.8	7.52	No monitoring
Chloroform	15.3	5.7	53.58	Monitoring
Dichlorobromomethane	4.0	0.95	8.93	Monitoring
Acrylamide	<21	0.07	0.658	* No monitoring
3,3' - Dichlorobenzidine	<10	0.05	0.47	** No monitoring

Q7-10 available for dilution = 39.67 cfs = 25.6 mgd (discharge to the tidal Delaware River 1% of Q7-10 flow is considered as available for dilution)

Qd = 3.045 mgd

Dilution factor = $\frac{Q7\text{-}10 + Qd}{Qd}$ = 9.4

Discharge via MP 108 is continuous when the plant is generating electricity but operates in batch mode when not generating.

* Reported as non-detectable and there is no TQL established for acrylamide.

**Reported as non-detectable using a QL higher than the DEP recommended TQL. DEP suggests using more sensitive test method to achieve DEP recommended TQL in future analyses.

Monitoring for Zinc, Chloroform and Dichlorobromomethane are new requirements.

PFAS: As part of the permit renewal, facility provided the PFAS sampling results. The reported maximum concentrations for MP 108 are 9.7 ng/L for PFOA, 5.4 ng/L for PFOS, 5.3 ng/L for PFBS and <1.6 ng/L for HFPO-DA. Non-Detect results are reported only for HFPO-DA. Quarterly monitoring for these PFAS parameters is included in the permit for MP 108. These are new parameters required to be monitored according to our new guidance.

The following footnote is also included in Part A of the permit according to DEP's Standard Operating Procedure for Clean Water Program, Establishing Effluent Limitations for Individual Industrial Permits, SOP No. BCW-PMT-032: The permittee may discontinue monitoring for PFOA, PFOS, HFPO-DA, and PFBS if the results in 4 consecutive monitoring periods indicate non-detect results at or below Quantitation Limits of 4.0 ng/L for PFOA, 3.7 ng/L for PFOS, 3.5 ng/L for PFBS and

6.4 ng/L for HFPO-DA. When monitoring is discontinued, permittees should enter a No Discharge Indicator (NODI) Code of “GG” on DMRs.

Anti-Backsliding

N/A

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	Daily Maximum	Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Biochemical Oxygen Demand (BOD5)	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Chemical Oxygen Demand (COD)	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Total Suspended Solids	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	Grab
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Iron, Total	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
PCBs Wet Weather Analysis (pg/L)	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	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)	Required
	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Measurement Frequency	Sample Type
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	See Permit	Calculation
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	See Permit	Grab
Total Residual Chlorine (TRC)	XXX	XXX	XXX	XXX	XXX	0.2	See Permit	Grab
Temperature (ºF)	XXX	XXX	XXX	Report	XXX	110	See Permit	I-S
Temperature (ºF) Intake	XXX	XXX	XXX	Report	XXX	XXX	See Permit	I-S
Temperature, Delta (Discharge - Intake) (ºF)	XXX	XXX	XXX	21	XXX	XXX	See Permit	Calculation
Total Suspended Solids Effluent Net	XXX	XXX	XXX	30	100	XXX	1/month	Calculation
Total Suspended Solids Intake	XXX	XXX	XXX	Report	Report	XXX	1/month	24-Hr Composite
Total Suspended Solids	XXX	XXX	XXX	Report	Report	XXX	1/month	24-Hr Composite
Ammonia-Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	See Permit	24-Hr Composite
Copper, Total	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/quarter	24-Hr Composite
Lead, Total	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/quarter	24-Hr Composite
Bromide	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/quarter	24-Hr Composite

Outfall 008, Continued (from 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		
Alkyl Dimethyl Benzyl Ammonium Chloride	XXX	XXX	XXX	XXX	0.05	XXX	1/day	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 010, 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	Daily Maximum	Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Biochemical Oxygen Demand (BOD5)	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Chemical Oxygen Demand (COD)	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Total Suspended Solids	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	Grab
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Iron, Total	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 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	Daily Maximum	Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Biochemical Oxygen Demand (BOD5)	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Chemical Oxygen Demand (COD)	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Total Suspended Solids	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	Grab
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Iron, Total	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 014, 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	Daily Maximum	Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Biochemical Oxygen Demand (BOD5)	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Chemical Oxygen Demand (COD)	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Total Suspended Solids	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	Grab
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Iron, Total	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 108, 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 (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Recorded
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
Total Suspended Solids	XXX	XXX	XXX	30	100	XXX	2/month	24-Hr Composite
Total Dissolved Solids	XXX	XXX	XXX	1000.0	2000.0	2500	2/month	24-Hr Composite
Oil and Grease	XXX	XXX	XXX	15	20	30	2/month	Grab
Copper, Total	XXX	XXX	XXX	0.085	0.17	XXX	1/month	24-Hr Composite
Iron, Total	XXX	XXX	XXX	Report	Report	XXX	1/month	24-Hr Composite
Zinc, Total	XXX	XXX	XXX	Report	Report	XXX	1/month	24-Hr Composite
Dichlorobromomethane	XXX	XXX	XXX	Report	Report	XXX	1/month	Grab
Chloroform	XXX	XXX	XXX	Report	Report	XXX	1/month	Grab
PCBs Dry Weather Analysis (pg/L)	XXX	XXX	XXX	XXX	Report	XXX	1/year	24-Hr Composite
PFOA (ng/L)	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
PFOS (ng/L)	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab

Outfall 108, Continued (from 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		
PFBS (ng/L)	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
HFPO-DA (ng/L)	XXX	XXX	XXX	XXX	Report	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 110, 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	Daily Maximum	Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/quarter	Grab
Biochemical Oxygen Demand (BOD5)	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Chemical Oxygen Demand (COD)	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Total Suspended Solids	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	15 Avg Qrtly	XXX	30	1/quarter	Grab
Total Recoverable Petroleum Hydrocarbons	XXX	XXX	XXX	15.0 Avg Qrtly	XXX	30.0	1/quarter	Grab
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Iron, Total	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab