COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM DISCHARGE REQUIREMENTS FOR INDUSTRIAL WASTEWATER FACILITIES

NPDES PERMIT NO: PA0011533

In compliance with the provisions of the Clean Water Act, 33 U.S.C. Section 1251 *et seq.* ("the Act") and Pennsylvania's Clean Streams Law, as amended, 35 P.S. Section 691.1 *et seq.*,

Philadelphia Energy Solutions Refining and Marketing, LLC
3144 W. Passyunk Avenue
Philadelphia, PA 19145-5208

is authorized to discharge from a facility known as **Girard Point Processing Area**, located in **City of Philadelphia, Philadelphia County**, to **Schuylkill River** in Watershed(s) - **3F** in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts A, B and C hereof.

THIS PERMIT SHALL BECOME EFFECTIVE ON **NOVEMBER 1, 2012**

THIS PERMIT SHALL EXPIRE AT MIDNIGHT ON **OCTOBER 31, 2017**

The authority granted by this permit is subject to the following further qualifications:

1. If there is a conflict between the application, its supporting documents and/or amendments and the terms and conditions of this permit, the terms and conditions shall apply.

2. Failure to comply with the terms, conditions or effluent limitations of this permit is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. (40 CFR 122.41(a))

3. A complete application for renewal of this permit, or notice of intent to cease discharging by the expiration date, must be submitted to DEP at least 180 days prior to the above expiration date (unless permission has been granted by DEP for submission at a later date), using the appropriate NPDES permit application form. (40 CFR 122.41(b), 122.21(d)(2))

   In the event that a timely and complete application for renewal has been submitted and DEP is unable, through no fault of the permittee, to reissue the permit before the above expiration date, the terms and conditions of this permit, including submission of the Discharge Monitoring Reports (DMRs), will be automatically continued and will remain fully effective and enforceable against the discharger until DEP takes final action on the pending permit application. (25 Pa. Code 92a.7 (b), (c))

4. This NPDES permit does not constitute authorization to construct or make modifications to wastewater treatment facilities necessary to meet the terms and conditions of this permit.

DATE PERMIT ISSUED September 21, 2012 **ISSUED BY** /S/

Jenifer L. Fields, P.E.
Clean Water Program Manager
Southeast Regional Office

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. A. For Outfall 001 , **Latitude** 39° 54' 35.29" , **Longitude** 75° 12' 34.49" , **River Mile Index** 2.82 , **Stream Code** 00833

Receiving Waters: Schuylkill River

Type of Effluent: Emergency Overflow from Oil-Water Separator during Heavy Storm Event

1. The permittee is authorized to discharge during the period from November 1, 2012 through October 31, 2017.

2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Daily when Discharging*	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	Daily when Discharging*	Grab
BOD5	XXX	XXX	XXX	26.4	48.0	66.0	Daily when Discharging*	Grab
Chemical Oxygen Demand	XXX	XXX	XXX	180	360	450	Daily when Discharging*	Grab
Total Suspended Solids	XXX	XXX	XXX	21.6	34.0	55.0	Daily when Discharging*	Grab
Oil and Grease**	XXX	XXX	XXX	8.0	15.6	20.0	Daily when Discharging*	Grab
Hexavalent Chromium	XXX	XXX	XXX	0.028	0.062	0.070	Daily when Discharging*	Grab
Total Chromium	XXX	XXX	XXX	0.22	0.60	0.75	Daily when Discharging*	Grab
Total Phenolics	XXX	XXX	XXX	0.17	0.35	0.43	Daily when Discharging*	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at Outfall 001

* Samples shall be collected immediately following start of the discharge and daily thereafter until discharge cease.
** If concentrations of the parameters exceed these values, the quality of pollutants discharged shall be calculated in accordance with Other Requirements – T.

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. B. For Outfall 002 , **Latitude** 39° 54' 35.67" , **Longitude** 75° 12' 41.40" , **River Mile Index** 2.72 , **Stream Code** 00833

Receiving Waters: Schuylkill River

Type of Effluent: Emergency overflow from Separators of Contaminated Stormwater Runoffs

1. The permittee is authorized to discharge during the period from November 1, 2012 through October 31, 2017.

2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly		Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Daily when Discharging*	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	Daily when Discharging*	Grab
Oil and Grease	XXX	XXX	XXX	XXX	XXX	15	Daily when Discharging*	Grab
Total Organic Carbon**	XXX	XXX	XXX	XXX	XXX	110	Daily when Discharging*	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at Outfall 002

* Samples shall be collected immediately following start of the discharge and daily thereafter until discharge cease.
** If concentrations of the parameters exceed these values, the quality of pollutants discharged shall be calculated in accordance with Other Requirements – T.

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. C. For Outfall 004, **Latitude** 39° 54' 20.00", **Longitude** 75° 12' 53.00", **River Mile Index** 2.3, **Stream Code** 00833

Receiving Waters: Schuylkill River

Type of Effluent: Air Compressors Wastewater

1. The permittee is authorized to discharge during the period from November 1, 2012 through October 31, 2017.

2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/week	Estimate
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/week	Grab
Temperature (°F)*	XXX	XXX	XXX	XXX	XXX	110	1/week	I-S
Total Organic Carbon Effluent Net**	XXX	XXX	XXX	XXX	XXX	5.0	1/week	Grab
$CBOD_5$	XXX	XXX	XXX	Report	Report	XXX	1/month	Grab
Total Suspended Solids	XXX	XXX	XXX	Report	Report	XXX	1/month	Grab
Ammonia Nitrogen	XXX	XXX	XXX	Report	Report	XXX	1/month	Grab
Total Dissolved Solids	XXX	XXX	XXX	Report	Report	XXX	1/month	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at Outfall 004

* See Other Requirements – D.
** See Other Requirements – T.

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. D. For Outfall 005*, **Latitude** 39° 54' 19.70", **Longitude** 75° 12' 51.76", **River Mile Index** 2.22, **Stream Code** 00833

Receiving Waters: Schuylkill River

Type of Effluent: Roof Drain (Stormwater Uncontaminated)

1. The permittee is authorized to discharge during the period from November 1, 2012 through October 31, 2017.

2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly		Minimum	Annual Average	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	Report	Report	XXX	1/year	Grab
CBOD5	XXX	XXX	XXX	Report	Report	XXX	1/year	Grab
Chemical Oxygen Demand	XXX	XXX	XXX	Report	Report	XXX	1/year	Grab
Total Suspended Solids	XXX	XXX	XXX	Report	Report	XXX	1/year	Grab
Oil and Grease	XXX	XXX	XXX	Report	Report	XXX	1/year	Grab
Total Kjeldahl Nitrogen	XXX	XXX	XXX	Report	Report	XXX	1/year	Grab
Total Phosphorus	XXX	XXX	XXX	Report	Report	XXX	1/year	Grab
Dissolved Iron	XXX	XXX	XXX	Report	Report	XXX	1/year	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at Outfall 005

* See Other Requirements – IV.

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. E. For Outfall 009 , **Latitude** 39° 54' 4.74" , **Longitude** 75° 12' 47.56" , **River Mile Index** 2.04 , **Stream Code** 00833

Receiving Waters: Schuylkill River

Type of Effluent: Emergency Overflow from Oil-Water Separator during Heavy Storm Event

1. The permittee is authorized to discharge during the period from November 1, 2012 through October 31, 2017.

2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Daily when Discharging*	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	Daily when Discharging*	Grab
BOD5	XXX	XXX	XXX	26.4	48.0	66.0	Daily when Discharging*	Grab
Chemical Oxygen Demand	XXX	XXX	XXX	180	360	450	Daily when Discharging*	Grab
Total Suspended Solids	XXX	XXX	XXX	21.6	34.0	55.0	Daily when Discharging*	Grab
Oil and Grease**	XXX	XXX	XXX	8.0	15.6	20.0	Daily when Discharging*	Grab
Hexavalent Chromium	XXX	XXX	XXX	0.028	0.062	0.070	Daily when Discharging*	Grab
Total Chromium	XXX	XXX	XXX	0.22	0.60	0.75	Daily when Discharging*	Grab
Total Phenolics	XXX	XXX	XXX	0.17	0.35	0.43	Daily when Discharging*	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at Outfall 009

* Samples shall be collected immediately following start of the discharge and daily thereafter until discharge cease.
** If concentrations of the parameters exceed these values, the quality of pollutants discharged shall be calculated in accordance with Other Requirements – T.

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. F. For Outfall 010* , **Latitude** 39° 53' 42.05" , **Longitude** 75° 12' 10.27" , **River Mile Index** 1.22 , **Stream Code** 00833

Receiving Waters: Schuylkill River

Type of Effluent: Roof Drain (Stormwater Uncontaminated)

1. The permittee is authorized to discharge during the period from November 1, 2012 through October 31, 2017.

2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly		Minimum	Annual Average	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	Report	Report	XXX	1/year	Grab
CBOD5	XXX	XXX	XXX	Report	Report	XXX	1/year	Grab
Chemical Oxygen Demand	XXX	XXX	XXX	Report	Report	XXX	1/year	Grab
Total Suspended Solids	XXX	XXX	XXX	Report	Report	XXX	1/year	Grab
Oil and Grease	XXX	XXX	XXX	Report	Report	XXX	1/year	Grab
Total Kjeldahl Nitrogen	XXX	XXX	XXX	Report	Report	XXX	1/year	Grab
Total Phosphorus	XXX	XXX	XXX	Report	Report	XXX	1/year	Grab
Dissolved Iron	XXX	XXX	XXX	Report	Report	XXX	1/year	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at Outfall 010

* See Other Requirements – IV.

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. G. For Outfall 011 , **Latitude** 39° 54' 4.32" , **Longitude** 75° 12' 47.28" , **River Mile Index** 1.99 , **Stream Code** 00833

Receiving Waters: Schuylkill River

Type of Effluent: Air Compressors wastewater

1. The permittee is authorized to discharge during the period from November 1, 2012 through October 31, 2017.

2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/week	Estimate
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/week	Grab
Temperature (°F) *	XXX	XXX	XXX	XXX	XXX	110	1/week	I-S
Total Organic Carbon Effluent Net **	XXX	XXX	XXX	XXX	XXX	5.0	1/week	Grab
$CBOD_5$	XXX	XXX	XXX	Report	Report	XXX	1/month	Grab
Total Suspended Solids	XXX	XXX	XXX	Report	Report	XXX	1/month	Grab
Ammonia Nitrogen	XXX	XXX	XXX	Report	Report	XXX	1/month	Grab
Total Dissolved Solids	XXX	XXX	XXX	Report	Report	XXX	1/month	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at Outfall 011

* See Other Requirements – D.
** See Other Requirements – T.

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. H. For Outfall 012* , **Latitude** 39° 53' 41.00" , **Longitude** 75° 12' 9.00" , **River Mile Index** 1.13 , **Stream Code** 00833

Receiving Waters: Schuylkill River

Type of Effluent: Roof Drain (Stormwater Uncontaminated)

1. The permittee is authorized to discharge during the period from November 1, 2012 through October 31, 2017.

2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly		Minimum	Annual Average	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	Report	Report	XXX	1/year	Grab
CBOD5	XXX	XXX	XXX	Report	Report	XXX	1/year	Grab
Chemical Oxygen Demand	XXX	XXX	XXX	Report	Report	XXX	1/year	Grab
Total Suspended Solids	XXX	XXX	XXX	Report	Report	XXX	1/year	Grab
Oil and Grease	XXX	XXX	XXX	Report	Report	XXX	1/year	Grab
Total Kjeldahl Nitrogen	XXX	XXX	XXX	Report	Report	XXX	1/year	Grab
Total Phosphorus	XXX	XXX	XXX	Report	Report	XXX	1/year	Grab
Dissolved Iron	XXX	XXX	XXX	Report	Report	XXX	1/year	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at Outfall 012

* See Other Requirements – IV.

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. I. For Outfall 014 , **Latitude** 39° 53' 48.57" , **Longitude** 75° 12' 31.22" , **River Mile Index** 1.61 , **Stream Code** 00833

Receiving Waters: Schuylkill River

Type of Effluent: Emergency Overflow from Separators of Contaminated Stormwater Runoffs

1. The permittee is authorized to discharge during the period from November 1, 2012 through October 31, 2017.

2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly		Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Daily when Discharging	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	Daily when Discharging	Grab
Oil and Grease	XXX	XXX	XXX	XXX	XXX	15	Daily when Discharging	Grab
Total Organic Carbon	XXX	XXX	XXX	XXX	XXX	110	Daily when Discharging	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at Outfall 014

* Samples shall be collected immediately following start of the discharge and daily thereafter until discharge cease.
** If concentrations of the parameters exceed these values, the quality of pollutants discharged shall be calculated in accordance with Other Requirements – T.

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. J. For Outfall 015 , **Latitude** 39° 54' 22.39" , **Longitude** 75° 12' 52.10" , **River Mile Index** 2.36 , **Stream Code** 00833

Receiving Waters: Schuylkill River

Type of Effluent: Girard Point Processing Area IWWTP

1. The permittee is authorized to discharge during the period from November 1, 2012 through October 31, 2017.

2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Recorded
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
Total Residual Oxidants*	XXX	XXX	XXX	Report	0.2	0.5	1/quarter	Grab
BOD5	1,410	2,653	XXX	27	51	68	2/week	24-Hr Composite
CBOD20 % Removal (%) Percent Removal	89.25 Min % Removal	XXX	XXX	XXX	XXX	XXX	2/month	24-Hr Composite
CBOD20	2,170	XXX	XXX	XXX	XXX	XXX	2/month	24-Hr Composite
Chemical Oxygen Demand Effluent Net	9,673	18,794	XXX	XXX	XXX	XXX	2/week	24-Hr Composite
Chemical Oxygen Demand	XXX	XXX	XXX	186	362	466	2/week	24-Hr Composite
Total Suspended Solids Effluent Net	1,161	1,824	XXX	XXX	XXX	XXX	2/week	24-Hr Composite
Total Suspended Solids	XXX	XXX	XXX	22.4	35	56	2/week	24-Hr Composite

* See Other Requirements – M.

Outfall 015, Continued (from November 1, 2012 through October 31, 2017)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Total Dissolved Solids	151,221	206,204	XXX	3,939	4,108	4,108	2/week	24-Hr Composite
Oil and Grease Effluent Net	442	829	XXX	XXX	XXX	XXX	1/week	Grab
Oil and Grease	XXX	XXX	XXX	8.5	15.9	21.25	1/week	Grab
Ammonia-Nitrogen Effluent Net	525	1,147	XXX	XXX	XXX	XXX	1/week	24-Hr Composite
Ammonia-Nitrogen	XXX	XXX	XXX	10	22	25	1/week	24-Hr Composite
Hexavalent Chromium Effluent Net	0.7	1.6	XXX	XXX	XXX	XXX	1/quarter	24-Hr Composite
Hexavalent Chromium	XXX	XXX	XXX	0.01	0.03	0.03	1/quarter	24-Hr Composite
Total Chromium Effluent Net	8.5	24.3	XXX	XXX	XXX	XXX	1/quarter	24-Hr Composite
Total Chromium	XXX	XXX	XXX	0.16	0.4	0.4	1/quarter	24-Hr Composite
Total Sulfide Effluent Net	7.7	17.1	XXX	XXX	XXX	XXX	1/week	24-Hr Composite
Total Sulfide	XXX	XXX	XXX	0.14	0.3	0.35	1/week	24-Hr Composite
Total Phenolics Effluent Net	7.2	19.4	XXX	XXX	XXX	XXX	1/week	24-Hr Composite
Total Phenolics	XXX	XXX	XXX	0.13	0.37	0.37	1/week	24-Hr Composite
Phenol	XXX	XXX	XXX	Report	0.5	0.5	1/month	24-Hr Composite
Total Fluoride	648	1,297	XXX	12.5	25.0	33.0	1/day	Grab

Outfall 015, Continued (from November 1, 2012 through October 31, 2017)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Total Iron	XXX	XXX	XXX	Report	Report	XXX	1/month	24-Hr Composite
Total Lead	XXX	XXX	XXX	0.066	0.13	0.17	1/quarter	24-Hr Composite
Total Thallium	XXX	XXX	XXX	Report	Report	XXX	1/month	24-Hr Composite
Hexachlorobenzene	XXX	XXX	XXX	Report	Report	XXX	1/month	Grab
Benzidine	XXX	XXX	XXX	Report	Report	XXX	1/month	Grab
N-Nitrosodimethylamine	XXX	XXX	XXX	Report	Report	XXX	1/month	Grab
Total BTEX	XXX	XXX	XXX	0.10	0.20	0.25	1/month	Grab
Naphthalene	XXX	XXX	XXX	1.14	2.28	2.85	1/month	Grab
Benzene	XXX	XXX	XXX	0.10	0.20	0.25	1/month	Grab
PCBs (Dry Weather) (pg/L)**	XXX	XXX	XXX	XXX	Report	XXX	1/year	24-Hr Composite
PCBs (Wet Weather) (pg/L)**	XXX	XXX	XXX	XXX	Report	XXX	1/year	24-Hr Composite
Acute toxicity (Ceriodaphnia) (TUa)***	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	24-Hr Composite
Chronic toxicity (Ceriodaphnia) (TUc)***	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	24-Hr Composite
Acute toxicity (Pimephales) (TUa)***	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	24-Hr Composite
Chronic toxicity (Pimephales) (TUc)***	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	24-Hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at Outfall 015

** See Other Requirements – N.
*** See Other Requirements – O.

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS (Continued)

Additional Requirements

The permittee may not discharge:

1. Floating solids, scum, sheen or substances that result in observed deposits in the receiving water. (25 Pa Code 92a.41(c))

2. Oil and grease in amounts that cause a film or sheen upon or discoloration of the waters of this Commonwealth or adjoining shoreline, or that exceed 15 mg/l as a daily average or 30 mg/l at any time (or lesser amounts if specified in this permit). (25 Pa. Code 92a.47(a)(7) and 95.2(2))

3. Substances in concentration or amounts sufficient to be inimical or harmful to the water uses to be protected or to human, animal, plant or aquatic life. (25 Pa Code 93.6(a))

4. Foam or substances that produce an observed change in the color, taste, odor or turbidity of the receiving water, unless those conditions are otherwise controlled through effluent limitations or other requirements in this permit. (25 Pa Code 92a.41(c))

Footnotes

(1) When sampling to determine compliance with mass effluent limitations, the discharge flow at the time of sampling must be measured and recorded.

(2) This is the minimum number of sampling events required. Permittees are encouraged, and it may be advantageous in demonstrating compliance, to perform more than the minimum number of sampling events.

Supplemental Information

(1) The effluent limitations for Outfall 015 were determined using effluent discharge of 6.22 million gallon per day.

(2) The effluent limitations for Outfall 004 were determined using effluent discharge of 1.3 million gallon per day.

(3) The effluent limitations for Outfall 011 were determined using non-contact cooling water discharge of 1.2 million gallon per day.

II. DEFINITIONS

At Outfall (XXX) means a sampling location in outfall line XXX below the last point at which wastes are added to outfall line (XXX), or where otherwise specified.

Average refers to the use of an arithmetic mean, unless otherwise specified in this permit. (40 CFR 122.41(l)(4)(iii))

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures and other management practices to prevent or reduce the pollution to surface waters of the Commonwealth. BMPs also include treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. (25 Pa. Code 92a.2)

Bypass means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR 122.41(m)(1)(i))

Calendar Week is defined as the seven consecutive days from Sunday through Saturday, unless the permittee has been given permission by DEP to provide weekly data as Monday through Friday based on showing excellent performance of the facility and a history of compliance. In cases when the week falls in two separate months, the month with the most days in that week shall be the month for reporting.

Clean Water Act means the Federal Water Pollution Control Act, as amended. (33 U.S.C.A. §§1251 to 1387).

Chemical Additive means the chemicals that are used to control corrosion, algae, slime, fouling, oxygen or other blow down discharges in systems within a facility that might be present in its wastewater discharge. Other chemicals that would be included in this category include by are not limited to polymers, water softeners, flocculants, coagulants, emulsion breakers, dispersants, other oxygen scavenger or possible known carcinogens.

Composite Sample (for all except GC/MS volatile organic analysis) means a combination of individual samples (at least eight for a 24-hour period or four for an 8-hour period) of at least 100 milliliters (mL) each obtained at spaced time intervals during the compositing period. The composite must be flow-proportional; either the volume of each individual sample is proportional to discharge flow rates, or the sampling interval is proportional to the flow rates over the time period used to produce the composite. (EPA Form 2C)

Composite Sample (for GC/MS volatile organic analysis) consists of at least four aliquots or grab samples collected during the sampling event (not necessarily flow proportioned). The samples must be combined in the laboratory immediately before analysis and then one analysis is performed. (EPA Form 2C)

Daily Average Temperature means the average of all temperature measurements made, or the mean value plot of the record of a continuous automated temperature recording instrument, either during a calendar day or during the operating day if flows are of a shorter duration.

Daily Discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day. (25 Pa. Code 92a.2 and 40 CFR 122.2)

Daily Maximum Discharge Limitation means the highest allowable "daily discharge."

Discharge Monitoring Report (DMR) means the DEP or EPA supplied form(s) for the reporting of self-monitoring results by the permittee. (25 Pa. Code 92a.2 and 40 CFR 122.2)

Estimated Flow means any method of liquid volume measurement based on a technical evaluation of the sources contributing to the discharge including, but not limited to, pump capabilities, water meters and batch discharge volumes.

Geometric Mean means the average of a set of n sample results given by the nth root of their product.

Grab Sample means an individual sample of at least 100 mL collected at a randomly selected time over a period not to exceed 15 minutes. (EPA Form 2C)

Hazardous Substance means any substance designated under 40 CFR Part 116 pursuant to Section 311 of the Clean Water Act. (40 CFR 122.2)

Hauled-In Wastes means any waste that is introduced into a treatment facility through any method other than a direct connection to the wastewater collection system. The term includes wastes transported to and disposed of within the treatment facility or other entry points within the collection system.

Immersion Stabilization (i-s) means a calibrated device is immersed in the wastewater until the reading is stabilized.

Instantaneous Maximum Effluent Limitation means the highest allowable discharge of a concentration or mass of a substance at any one time as measured by a grab sample. (25 Pa. Code 92a.2)

Measured Flow means any method of liquid volume measurement, the accuracy of which has been previously demonstrated in engineering practice, or for which a relationship to absolute volume has been obtained.

Monthly Average Discharge Limitation means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month. (25 Pa. Code 92a.2)

Non-contact Cooling Water means water used to reduce temperature which does not come in direct contact with any raw material, intermediate product, waste product (other than heat), or finished product.

Severe Property Damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 CFR 122.41(m)(1)(ii))

Stormwater means the runoff from precipitation, snow melt runoff, and surface runoff and drainage. (25 Pa. Code 92a.2)

Stormwater Associated With Industrial Activity means the discharge from any conveyance that is used for collecting and conveying stormwater and that is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant, and as defined at 40 CFR 122.26(b)(14) (i) - (ix) & (xi) and 25 Pa. Code 92a.2.

Total Dissolved Solids means the total dissolved (filterable) solids as determined by use of the method specified in 40 CFR Part 136.

Toxic Pollutant means those pollutants, or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains may, on the basis of information available to DEP cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions, including malfunctions in reproduction, or physical deformations in these organisms or their offspring. (25 Pa. Code 92a.2)

III. SELF-MONITORING, REPORTING AND RECORDKEEPING

A. Representative Sampling

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity (40 CFR 122.41(j)(1)). Representative sampling includes the collection of samples during periods of adverse weather, changes in treatment plant performance and changes in treatment plant loading. If possible, effluent samples must be collected where the effluent is well mixed near the center of the discharge conveyance and at the approximate mid-depth point, where the turbulence is at a maximum and the settlement of solids is minimized.

2. Records Retention (40 CFR 122.41(j)(2))

   Except for records of monitoring information required by this permit related to the permittee's sludge use and disposal activities which shall be retained for a period of at least 5 years, all records of monitoring activities and results (including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records), copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained by the permittee for 3 years from the date of the sample measurement, report or application, unless a longer retention period is required by the permit. The 3-year period shall be extended as requested by DEP or the EPA Regional Administrator.

3. Recording of Results (40 CFR 122.41(j)(3))

   For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

   a. The exact place, date and time of sampling or measurements.
   b. The person(s) who performed the sampling or measurements.
   c. The date(s) the analyses were performed.
   d. The person(s) who performed the analyses.
   e. The analytical techniques or methods used; and the associated detection level.
   f. The results of such analyses.

4. Test Procedures (40 CFR 122.41(j)(4))

   Facilities that test or analyze environmental samples used to demonstrate compliance with this permit shall be in compliance with laboratory accreditation requirements of Act 90 of 2002 (27 Pa. C.S. §§4101-4113) and 25 Pa. Code Chapter 252, relating to environmental laboratory accreditation. Unless otherwise specified in this permit, the test procedures for the analysis of pollutants shall be those approved under 40 CFR Part 136 (or in the case of sludge use or disposal, approved under 40 CFR Part 136, unless otherwise specified in 40 CFR Part 503 or Subpart J of 25 Pa. Code Chapter 271), or alternate test procedures approved pursuant to those parts, unless other test procedures have been specified in this permit.

5. Quality/Assurance/Control

   In an effort to assure accurate self-monitoring analyses results:

   a. The permittee, or its designated laboratory, shall participate in the periodic scheduled quality assurance inspections conducted by DEP and EPA. (40 CFR 122.41(e), 122.41(i)(3))

   b. The permittee, or its designated laboratory, shall develop and implement a program to assure the quality and accurateness of the analyses performed to satisfy the requirements of this permit, in accordance with 40 CFR Part 136. (40 CFR 122.41(j)(4))

B. Reporting of Monitoring Results

1. The permittee shall effectively monitor the operation and efficiency of all wastewater treatment and control facilities, and the quantity and quality of the discharge(s) as specified in this permit. (40 CFR 122.41(e),122.44(i)(1))

2. Discharge Monitoring Reports (DMRs) must be completed in accordance with DEP's published DMR Instructions (3800-BPNPSM-0463). DMRs are based on calendar reporting periods. DMR(s) must be received by the agency(ies) specified in paragraph 3 below in accordance with the following schedule:

   - Monthly DMRs must be received within 28 days following the end of each calendar month.

   - Quarterly DMRs must be received within 28 days following the end of each calendar quarter, i.e., January 28, April 28, July 28, and October 28.

   - Semiannual DMRs must be received within 28 days following the end of each calendar semiannual period, i.e., January 28 and July 28.

   - Annual DMRs must be received by January 28, unless Part C of this permit requires otherwise.

3. The permittee shall complete all Supplemental Reporting forms (Supplemental DMRs) provided by DEP in this permit (or an approved equivalent), and submit the signed, completed forms as an attachment to the DMR(s). If the permittee elects to use DEP's electronic DMR (eDMR) system, one electronic submission may be made for DMRs and Supplemental DMRs. If paper forms are used, the completed forms shall be mailed to:

   Department of Environmental Protection
   Clean Water Program
   2 East Main Street
   Norristown, PA 19401

   NPDES Enforcement Branch (3WP42)
   Office of Permits & Enforcement
   Water Protection Division
   U.S. EPA - Region III
   1650 Arch Street
   Philadelphia, PA 19103-2029

4. If the permittee elects to begin using DEP's eDMR system to submit DMRs required by the permit, the permittee shall, to assure continuity of business operations, continue using the eDMR system to submit all DMRs and Supplemental Reports required by the permit, unless the following steps are completed to discontinue use of eDMR:

   a. The permittee shall submit written notification to the regional office that issued the permit that it intends to discontinue use of eDMR. The notification shall be signed by a principal executive officer or authorized agent of the permittee.

   b. The permittee shall continue using eDMR until the permittee receives written notification from DEP's Central Office that the facility has been removed from the eDMR system, and electronic report submissions are no longer expected.

5. The completed DMR Form shall be signed and certified by either of the following applicable persons, as defined in 25 Pa. Code 92a.22:

   - For a corporation - by a principal executive officer of at least the level of vice president, or an authorized representative, if the representative is responsible for the overall operation of the facility from which the discharge described in the NPDES form originates.
   - For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.

- For a municipality, state, federal or other public agency - by a principal executive officer or ranking elected official.

If signed by a person other than the above, written notification of delegation of DMR signatory authority must be submitted to DEP in advance of or along with the relevant DMR form. (40 CFR 122.22(b))

6. If the permittee monitors any pollutant at monitoring points as designated by this permit, using analytical methods described in Part A III.A.4. herein, more frequently than the permit requires, the results of this monitoring shall be incorporated, as appropriate, into the calculations used to report self-monitoring data on the DMR. (40 CFR 122.41(l)(4)(ii))

C. Reporting Requirements

1. Planned Changes to Physical Facilities – The permittee shall give notice to DEP as soon as possible but no later than 30 days prior to planned physical alterations or additions to the permitted facility. A permit under 25 Pa. Code Chapter 91 may be required for these situations prior to implementing the planned changes. A permit application, or other written submission to DEP, can be used to satisfy the notification requirements of this section.

   Notice is required when:

   a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR §122.29(b). (40 CFR 122.41(l)(1)(i))

   b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are not subject to effluent limitations in this permit. (40 CFR 122.41(l)(1)(ii))

   c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 CFR 122.41(l)(1)(iii))

   d. The planned change may result in noncompliance with permit requirements. (40 CFR 122.41(l)(2))

   e. The facility is proposing an expansion or modifications to its treatment processes.

2. Planned Changes to Waste Stream – Under the authority of 25 Pa. Code 92a.24(a), the permittee shall provide notice to DEP as soon as possible but no later than 45 days prior to any changes in the volume or pollutant concentration of its influent waste stream as a result of indirect discharges or hauled-in wastes, as specified in paragraphs 2.a. and 2.b., below. Notice shall be provided on the "Planned Changes to Waste Stream" Supplemental Report (3800-FM-BPNPSM0482), available on DEP's web site. The permittee shall provide information on the quality and quantity of waste introduced into the facility, and any anticipated impact of the change on the quantity or quality of effluent to be discharged from the facility. The Report shall be sent via Certified Mail or other means to confirm DEP's receipt of the notification. DEP will determine if the submission of a new application and receipt of a new or amended permit is required.

   a. Introduction of New Pollutants (25 Pa. Code 92a.24(a))

      New pollutants are defined as parameters that meet one or more of the following criteria:

      (i) Were not detected in the facilities' influent waste stream as reported in the permit application, or were otherwise not analyzed in the influent and reported to DEP prior to permit issuance;

      (ii) Have not been previously approved to be included in the permittee's influent waste stream by DEP in writing.

The permittee shall provide notification of the introduction of new pollutants in accordance with paragraph 2 above. The permittee may not authorize the introduction of new pollutants until the permittee receives DEP's written approval.

b. Increased Loading of Approved Pollutants (25 Pa. Code 92a.24(a))

Approved pollutants are defined as parameters that meet one or more of the following criteria:

(i) Were detected in the facilities' influent waste stream as reported in the permittee's permit application or were otherwise analyzed and reported to DEP prior to permit issuance;

(ii) Have an effluent limitation or monitoring requirement in this permit;

(iii) Have been previously approved for the permittee's influent waste stream by DEP in writing.

The permittee shall provide notification of the introduction of increased influent loading (lbs/day) of approved pollutants in accordance with paragraph 2 above when (1) the cumulative increase in influent loading (lbs/day) exceeds 10% of the maximum loading reported in the permit application, or a loading previously approved by DEP, or (2) may cause an exceedance in the effluent of Effluent Limitation Guidelines (ELGs) or limitations in Part A of this permit, or (3) may cause interference or pass through at the facility, or (4) may cause exceedances of the applicable water quality standards in the receiving stream. Unless specified otherwise in this permit, if DEP does not respond to the notification within 30 days of its receipt, the permittee may proceed with the increase in loading. The acceptance of increased loading of approved pollutants may not result in an exceedance of ELGs or effluent limitations and may not cause exceedances of the applicable water quality standards in the receiving stream.

3. Reporting Requirements for Hauled-In Wastes

a. Receipt of Residual Waste

(i) The permittee shall document the receipt of all hauled-in residual wastes (including but not limited to wastewater from oil and gas wells, food processing waste, and landfill leachate) received for processing at the treatment facility. The permittee shall report hauled-in residual wastes on a monthly basis to DEP on the "Hauled In Residual Wastes" Supplemental Report (3800-FM-BPNPSM0450) as an attachment to the DMR. If no residual wastes were received during a month, submission of the Supplemental Report is not required.

The following information is required by the Supplemental Report. The information used to develop the Report shall be retained by the permittee for five years from the date of receipt and must be made available to DEP or EPA upon request.

(1) The dates that residual wastes were received.

(2) The volume (gallons) of wastes received.

(3) The license plate number of the vehicle transporting the waste to the treatment facility.

(4) The permit number(s) of the well(s) where residual wastes were generated, if applicable.

(5) The name and address of the generator of the residual wastes.

(6) The type of wastewater.

(7) Documentation of whether or not a chemical analysis of the residual wastes were reported on a Residual Waste Form 26R, or a separate waste characterization using the parameters from Form 26R.

The transporter of residual waste must maintain these and other records as part of the daily operational record (25 Pa. Code 299.219). If the transporter is unable to provide this information, the residual wastes shall not be accepted by the permittee until such time as the transporter is able to provide the required information.

(ii) The following conditions apply to the characterization of residual wastes received by the permitted treatment facility:

(1) The permitted facility must receive and maintain on file a characterization of the residual wastes it receives from the generator, as required by 25 Pa. Code 287.54. The characterization shall conform to the Bureau of Waste Management's Form 26R except as noted in paragraph (2), below. Each load of residual waste received must be characterized accordingly.

(2) For wastewater generated from hydraulic fracturing operations ("frac wastewater") within the first 30 production days of a well site, the characterization may be a general frac wastewater characterization approved by DEP. Thereafter, the characterization must be waste-specific and reported on the Form 26R.

b. Receipt of Municipal Waste

(i) The permittee shall document the receipt of all hauled-in municipal wastes (including but not limited to septage and liquid sewage sludge) received for processing at the treatment facility. The permittee shall report hauled-in municipal wastes on a monthly basis to DEP on the "Hauled In Municipal Wastes" Supplemental Report (3800-FM-BPNPSM0437) as an attachment to the DMR. If no municipal wastes were received during a month, submission of the Supplemental Report is not required.

The following information is required by the Supplemental Report:

(1) The dates that municipal wastes were received.

(2) The volume (gallons) of wastes received.

(3) The BOD_5 concentration (mg/l) and load (lbs) for the wastes received.

(4) The location(s) where wastes were disposed of within the treatment facility.

(ii) Sampling and analysis of hauled-in municipal wastes must be completed to characterize the organic strength of the wastes, unless composite sampling of influent wastewater is performed at a location downstream of the point of entry for the wastes.

4. Unanticipated Noncompliance or Potential Pollution Reporting

a. Immediate Reporting - The permittee shall immediately report any incident causing or threatening pollution in accordance with the requirements of 25 Pa. Code Sections 91.33 and 92a.41(b).

(i) If, because of an accident, other activity or incident a toxic substance or another substance which would endanger users downstream from the discharge, or would otherwise result in pollution or create a danger of pollution or would damage property, the permittee shall immediately notify DEP by telephone of the location and nature of the danger. Oral notification to the Department is required as soon as possible, but no later than 4 hours after the permittee becomes aware of the incident causing or threatening pollution.

(ii) If reasonably possible to do so, the permittee shall immediately notify downstream users of the waters of the Commonwealth to which the substance was discharged. Such notice shall include the location and nature of the danger.

(iii) The permittee shall immediately take or cause to be taken steps necessary to prevent injury to property and downstream users of the waters from pollution or a danger of pollution and, in addition, within 15 days from the incident, shall remove the residual substances contained thereon or therein from the ground and from the affected waters of this Commonwealth to the extent required by applicable law.

b. The permittee shall report any noncompliance which may endanger health or the environment in accordance with the requirements of 40 CFR 122.41(l)(6). These requirements include the following obligations:

(i) 24 Hour Reporting - The permittee shall orally report any noncompliance with this permit which may endanger health or the environment within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which must be reported within 24 hours under this paragraph:

(1) Any unanticipated bypass which exceeds any effluent limitation in the permit;

(2) Any upset which exceeds any effluent limitation in the permit; and

(3) Violation of the maximum daily discharge limitation for any of the pollutants listed in the permit as being subject to the 24-hour reporting requirement. (40 CFR 122.44(g))

(ii) Written Report - A written submission shall also be provided within 5 days of the time the permittee becomes aware of any noncompliance which may endanger health or the environment. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

(iii) Waiver of Written Report - DEP may waive the written report on a case-by-case basis if the associated oral report has been received within 24 hours from the time the permittee becomes aware of the circumstances which may endanger health or the environment. Unless such a waiver is expressly granted by DEP, the permittee shall submit a written report in accordance with this paragraph. (40 CFR 122.41(l)(6)(iii))

5. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under paragraph C.4 of this section or specific requirements of compliance schedules, at the time DMRs are submitted, on the Non-Compliance Reporting Form (3800-FM-BPNPSM0440). The reports shall contain the information listed in paragraph C.4.b.(ii) of this section. (40 CFR 122.41(l)(7))

D. Specific Toxic Pollutant Notification Levels (for Manufacturing, Commercial, Mining, and Silvicultural Direct Dischargers) - The permittee shall notify DEP as soon as it knows or has reason to believe the following: (40 CFR 122.42(a))

1. That any activity has occurred, or will occur, which would result in the discharge of any toxic pollutant which is not limited in this permit, if that discharge on a routine or frequent basis will exceed the highest of the following "notification levels": (40 CFR 122.42(a)(1))

a. One hundred micrograms per liter.

b. Two hundred micrograms per liter for acrolein and acrylonitrile.

c. Five hundred micrograms per liter for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol.

d. One milligram per liter for antimony.

e. Five times the maximum concentration value reported for that pollutant in this permit application.

f. Any other notification level established by DEP.

2. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following "notification levels": (40 CFR 122.42(a)(2))

a. Five hundred micrograms per liter.

b. One milligram per liter for antimony.

c. Ten times the maximum concentration value reported for that pollutant in the permit application.

d. Any other notification level established by DEP.

PART B

I. MANAGEMENT REQUIREMENTS

A. Compliance Schedules (25 Pa. Code 92a.51 and 40 CFR 122.47(a))

1. The permittee shall achieve compliance with the terms and conditions of this permit within the time frames specified in this permit.

2. The permittee shall submit reports of compliance or noncompliance, or progress reports as applicable, for any interim and final requirements contained in this permit. Such reports shall be submitted no later than 14 days following the applicable schedule date or compliance deadline. (40 CFR 122.47(a)(4))

B. Permit Modification, Termination, or Revocation and Reissuance

1. This permit may be modified, terminated, or revoked and reissued during its term in accordance with 25 Pa. Code 92a.72 and 40 CFR 122.41(f).

2. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition. (40 CFR 122.41(f))

3. In the absence of DEP action to modify or revoke and reissue this permit, the permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time specified in the regulations that establish those standards or prohibitions. (40 CFR 122.41(a)(1))

C. Duty to Provide Information

1. The permittee shall furnish to DEP, within a reasonable time, any information which DEP may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. (40 CFR 122.41(h))

2. The permittee shall furnish to DEP, upon request, copies of records required to be kept by this permit. (40 CFR 122.41(h))

3. Other Information - Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to DEP, it shall promptly submit the correct and complete facts or information. (40 CFR 122.41(l)(8))

D. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes, but is not limited to, adequate laboratory controls including appropriate quality assurance procedures. This provision also includes the operation of backup or auxiliary facilities or similar systems that are installed by the permittee, only when necessary to achieve compliance with the terms and conditions of this permit. (40 CFR 122.41(e))

E. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge, sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment. (40 CFR 122.41(d))

F. Bypassing

1. Bypassing Not Exceeding Permit Limitations - The permittee may allow a bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions in paragraphs two, three and four of this section. (40 CFR 122.41(m)(2))

2. Other Bypassing - In all other situations, bypassing is prohibited and DEP may take enforcement action against the permittee for bypass unless:

   a. A bypass is unavoidable to prevent loss of life, personal injury or "severe property damage." (40 CFR 122.41(m)(4)(i)(A))

   b. There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance. (40 CFR 122.41(m)(4)(i)(B))

   c. The permittee submitted the necessary notice required in F.4.a. and b. below. (40 CFR 122.41(m)(4)(i)(C))

3. DEP may approve an anticipated bypass, after considering its adverse effects, if DEP determines that it will meet the conditions listed in F.2. above. (40 CFR 122.41(m)(4)(ii))

4. Notice

   a. Anticipated Bypass – If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least 10 days before the bypass. (40 CFR 122.41(m)(3)(i))

   b. Unanticipated Bypass

      (i) The permittee shall submit immediate notice of an unanticipated bypass causing or threatening pollution. The notice shall be in accordance with Part A III.C.3.a.

      (ii) The permittee shall submit oral notice of any other unanticipated bypass within 24 hours, regardless of whether the bypass may endanger health or the environment or whether the bypass exceeds effluent limitations. The notice shall be in accordance with Part A III.C.3.b.

II. PENALTIES AND LIABILITY

A. Violations of Permit Conditions

Any person violating Sections 301, 302, 306, 307, 308, 318 or 405 of the Clean Water Act or any permit condition or limitation implementing such sections in a permit issued under Section 402 of the Act is subject to civil, administrative and/or criminal penalties as set forth in 40 CFR §122.4l(a)(2).

Any person or municipality, who violates any provision of this permit; any rule, regulation or order of DEP; or any condition or limitation of any permit issued pursuant to the Clean Streams Law, is subject to criminal and/or civil penalties as set forth in Sections 602, 603 and 605 of the Clean Streams Law.

B. Falsifying Information

Any person who does any of the following:

- Falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit, or

- Knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit (including monitoring reports or reports of compliance or noncompliance)

Shall, upon conviction, be punished by a fine and/or imprisonment as set forth in *18 Pa.C.S.A § 4904* and 40 CFR §122.41(j)(5) and (k)(2).

C. Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance pursuant to Section 309 of the Clean Water Act or Sections 602, 603 or 605 of the Clean Streams Law.

Nothing in this permit shall be construed to preclude the institution of any legal action or to relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject to under the Clean Water Act and the Clean Streams Law.

D. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (40 CFR 122.41(c))

III. OTHER RESPONSIBILITIES

A. Right of Entry

Pursuant to Sections 5(b) and 305 of Pennsylvania's Clean Streams Law, and Title 25 Pa. Code Chapter 92 and 40 CFR §122.41(i), the permittee shall allow authorized representatives of DEP and EPA, upon the presentation of credentials and other documents as may be required by law:

1. To enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit; (40 CFR 122.41(i)(1))

2. To have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit; (40 CFR 122.41(i)(2))

3. To inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and (40 CFR 122.41(i)(3))

4. To sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act or the Clean Streams Law, any substances or parameters at any location. (40 CFR 122.41(i)(4))

B. Transfer of Permits

1. Transfers by modification. Except as provided in paragraph 2 of this section, a permit may be transferred by the permittee to a new owner or operator only if this permit has been modified or revoked and reissued, or a minor modification made to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act. (40 CFR 122.61(a))

2. Automatic transfers. As an alternative to transfers under paragraph 1 of this section, any NPDES permit may be automatically transferred to a new permittee if:

   a. The current permittee notifies DEP at least 30 days in advance of the proposed transfer date in paragraph 2.b. of this section; (40 CFR 122.61(b)(1))

b. The notice includes the appropriate DEP transfer form signed by the existing and new permittees containing a specific date for transfer of permit responsibility, coverage and liability between them; (40 CFR 122.61(b)(2))

c. DEP does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue this permit, the transfer is effective on the date specified in the agreement mentioned in paragraph 2.b. of this section; and (40 CFR 122.61(b)(3))

d. The new permittee is in compliance with existing DEP issued permits, regulations, orders and schedules of compliance, or has demonstrated that any noncompliance with the existing permits has been resolved by an appropriate compliance action or by the terms and conditions of the permit (including compliance schedules set forth in the permit), consistent with 25 Pa. Code 92a.51 (relating to schedules of compliance) and other appropriate DEP regulations. (25 Pa. Code 92a.71)

3. In the event DEP does not approve transfer of this permit, the new owner or controller must submit a new permit application.

C. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege. (40 CFR 122.41(g))

D. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for a new permit. (40 CFR 122.41(b))

E. Other Laws

The issuance of this permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations.

IV. ANNUAL FEES

Permittees shall pay an annual fee in accordance with 25 Pa. Code § 92a.62. Annual fee amounts are specified in the following schedule and are due on each anniversary of the effective date of the most recent new or reissued permit. All flows identified in the schedule are annual average design flows. (25 Pa. Code 92a. 62)

Minor IW Facility without ELG (Effluent Limitation Guideline)	$500
Minor IW Facility with ELG	$1,500
Major IW Facility < 250 MGD (million gallons per day)	$5,000
Major IW Facility ≥ 250 MGD	$25,000
IW Stormwater Individual Permit	$1,000
CAAP (Concentrated Aquatic Animal Production Facility)	$0

As of the effective date of this permit, the facility covered by the permit is classified in the following fee category: **Major IW Facility <250 MGD**.

Invoices for annual fees will be mailed to permittees approximately three months prior to the due date. In the event that an invoice is not received, the permittee is nonetheless responsible for payment. Throughout a five year permit term, permittees will pay four annual fees followed by a permit renewal application fee in the last year of permit coverage. Permittees may contact the DEP at 717-787-6744 with questions related to annual fees.

Payment for annual fees shall be remitted to DEP at the address below by the anniversary date. Checks should be made payable to the Commonwealth of Pennsylvania.

PA Department of Environmental Protection
Bureau of Point and Non-Point Source Management
Re: Chapter 92a Annual Fee
P.O. Box 8466
Harrisburg, PA 17105-8466

PART C

I. OTHER REQUIREMENTS

A. If at any time the Department determines that the discharge permitted herein creates a public nuisance or causes environmental harm to the receiving water of the Commonwealth, the Department may require the permittee to adopt such remedial measures as will produce a satisfactory effluent. In such an event, the permittee shall have the right to appeal that new remedial requirement as provided by law. If the permittee fails to adopt such remedial measures within the time specified by the Department, the right herein granted to discharge to the receiving water of the Commonwealth shall, upon notice by the Department, cease and become null and void.

B. If the applicable standard or effluent guideline limitation relating to the application for Best Available Technology (BAT) Economically Achievable or to Best Conventional Technology (BCT) is developed by the DEP, or by EPA for this type of industry, and if such standard or limitation is more stringent than the corresponding conditions of this permit (or if it controls pollutants not covered by this permit), then the DEP reserves the right to modify, or to revoke and reissue the permit to conform with that standard or limitation.

C. The First Stage Oxygen Demand ($CBOD_{20}$) allocation of 2,170 pounds per day is a requirement of the Delaware River Basin Commission.

D. The following requirements apply with respect to the thermal impact of the discharge from Outfall 004 and 011 upon the Delaware River Zone 4 at the boundary of the assigned thermal mixing zone. The assigned thermal mixing zones of Outfall 004 and 011 shall each be a maximum of 200 feet in width, and a length of 700 feet upstream from and 700 feet downstream of the point of discharge from each outfall.

Not more than 5°F above ambient temperature or a maximum of 86°F, whichever is less. Temperatures shall be measured outside of designated heat dissipation areas.

Period	Zone 4 Average Daily Stream Temperature
January 1-31	42
February 1-29	36
March 1-31	40
April 1-30	47
May 1-31	58
June 1-30	72
July 1-31	80
August 1-31	81
September 1-15	78
September 16-30	76
October 1-31	70
November 1-30	60
December 1-15	50
December 16-31	45

E. Analysis for the following pollutant(s) shall be performed using the following test method(s) contained in 40 C.F.R. Part 136, Guidelines Establishing Test Procedures for the Analysis of Pollutants, or any approved test method(s) of equal or greater sensitivity:

Parameter	Test Method
Chromium Hexavalent	3120 (ICP)
Chromium, Total	3111 B (AA, Flame)

Benzidine	625 GC/MS
Hexachlorobenzene	612 GC/ECD
N-Nytrosodimethylamine	607 GC/N-PD
Lead	200.7 (ICP/AES)
Benzene	602 GC/PID
Phenols, Total	420.1 (4AAP, Manual)
Thallium	279.2 (AA, furnace)
Phenol	1625B-GC/MS(isotope)
Naphthalene	1625B GC/MS

F. If there is a change in ownership of this facility or in the name of the permittee, an application for transfer of the permit must be submitted to the DEP.

G. Collected screenings, slurries, sludges, and other solids shall be handled and disposed of in compliance with 25 Pa. Code, Chapters 287, 288, 289, 291, 295, 297, and 299 (relating to general provisions and requirements for landfilling, impoundments, land application, composting, processing, and storage of residual waste), Chapters 261a, 262a, 263a, and 270a (related to identification of hazardous waste, requirements for generators and transporters, and hazardous waste, requirements for generators and transporters, and hazardous waste permit programs) and applicable Federal Regulations, the Federal Clean Water Act, RCRA, and their amendments.

H. The DEP may identify and require certain discharge specific data to be submitted before the expiration date of this permit. Upon notification by the DEP, the permittee will have 12 months from the date of the notice to provide the required data. These data, along with any other data available to the DEP, will be used in completing the Watershed TMDL/WLA Analysis and in establishing discharge effluent limits.

I. Instantaneous maximum limitations are imposed to allow for a grab sample to be collected by the appropriate regulatory agency to determine compliance. The permittee does not have to monitor for the instantaneous maximum limitation except for the parameters temperature, oil and grease, pH, total residual chlorine, and fecal coliform. However, if grab samples are collected for parameters normally monitored through composite sampling, the results must be reported.

J. Parameters with a sampling frequency of twice per month must be sampled at least 10 days apart. If more than the required two samples are taken, then only two must be at least 10 days apart. All samples taken must be reported.

K. The permittee shall develop a treatment facility operations and maintenance plan addressing key wastewater processes. The plan shall be reviewed yearly and updated when appropriate. Said plan shall be in writing or in an electronic format. Upon request, this plan shall be submitted to DEP for review. For the purpose of this section, a key wastewater process includes any piece of equipment, or a process that if it fails may likely cause the discharge of raw wastewater or wastewater that fails to meet NPDES permit discharge requirements, or a failure that may likely threaten human or environmental health. Said plan shall include:

- A process control strategy that includes a schedule for process control sampling, monitoring, testing, and recordkeeping.
- A plan that identifies how key wastewater processes shall be monitored and adjusted while the facility is staffed.
- A plan that identifies how key wastewater processes will be monitored while the treatment facility is not staffed.
- For treatment plants that are impacted by wet weather flows, the permittee shall develop and implement a wet weather operations strategy that minimizes or eliminates the wash out of solids from the treatment system while maximizing the flow through the treatment plant.

- An emergency plan that identifies how the facility will be operated during times of emergency. For example, the plan shall detail how key wastewater processes will be repaired or replaced in the event of a failure while minimizing loss of life and property damage to the facility. This plan shall also include emergency contact numbers for local emergency response agencies, plant personnel, critical suppliers and vendors, and DEP contacts, at a minimum.

- A preventative maintenance plan that includes a schedule for preventative maintenance for all equipment within the treatment system. A spare parts inventory shall be included as part of this plan.

- A solids management plan that identifies how solids produced by the facility will be wasted, treated, and ultimately disposed of.

L. Laboratory Certification

The Environmental Laboratory Accreditation Act of 2002 requires that all environmental laboratories register with the DEP. An environmental laboratory is any facility engaged in the testing or analysis of environmental samples required by a statute administered by the DEP relating to the protection of the environment or of public health, safety, and welfare.

M. The term total residual oxidants, for water with bromides generated through the use of a chemical additive, is defined as the value obtained using the amperometric method for total residual chlorine as described in 40 C.F.R. Section 136. This method is described in Standard Methods as the "amperometric titration method."

N. On December 15, 2003, the U.S. Environmental Protection Agency (EPA), Regions 2 and 3, adopted a Total Maximum Daily Loads (TMDLs) for Polychlorinated Biphenyls (PCBs) for Zones 2, 3, 4, and 5 of the tidal Delaware River. The TMDLs require the facilities identified as discharging PCBs to these zones of the Delaware River or to the tidal portions of tributaries to these zones to conduct monitoring for 209 PCB congeners, and prepare and implement a PCB Pollutant Minimization Plan (PMP).

Subsequent monitoring required by Delaware River Basin Commission (DRBC) in 2005 confirmed the presence of PCBs, and indicates that this facility does not contribute to 99 percent of the cumulative loadings from all point sources.

Therefore, the permittee shall collect one 24-hour composite samples annually during a wet weather flow and one 24-hour composite samples annually during a dry weather flow. The samples shall be collected from Outfall 015.

All sample analyses shall be performed using EPA Method 1668A, Revision A: Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by HRGC/HRMS. EPA-821-R-00-002, December 1999 as supplemented or amended, and results for all 209 PCB congeners shall be reported. Project-specific, sample collection protocols, analytical procedures, and reporting requirements found at http://www.state.nj.us/drbc/quality/toxics/pcbs/monitoring.html shall be followed. Monitoring information, sample data, and reports associated with PCB monitoring shall be submitted to the DEP and DRBC in the form of two compact discs in the format referenced at http://www.state.nj.us/drbc/library/documents/PCB-EDD011309.pdf.

In accordance with the U.S. EPA, Regions 2 and 3, TMDLs for PCBs for Zones 2–5 of the Tidal Delaware River, the permittee submitted a PMP for PCBs to the DRBC on 08/31/2008 is under review. The permittee shall continue to comply with the requirements of Section 4.30.9 of DRBC's Water Quality Regulations. Therefore, the permittee shall:

1. Continue to implement the proposed PMP to achieve PCB loading reduction goals.

2. Submit an Annual Report on the yearly anniversary of the commencement of the PMP to DRBC and DEP consistent with the guidance specified at http://www.state.nj.us/drbc/programs/quality/pmp.html.

The PMP Annual Report and PCB data shall be submitted to the DEP and DRBC at the following addresses:

PA Department of Environmental Protection
Southeast Regional Office
Clean Water
2 East Main Street
Norristown, PA 19401

Delaware River Basin Commission
Modeling/Monitoring Branch
P.O. Box 7360
West Trenton, NJ 08628

O. DRBC's Whole Effluent Toxicity Requirements

The permittee must perform quarterly Whole Effluent Toxicity (WET) tests to generate chronic toxicity data on the cladoceran, *Ceriodaphnia dubia* and the fathead minnow, *Pimephales promelas*. The results shall be reported as No Observed Effect Concentration (NOEC) and Chronic Toxic Units (TUc) with a Percent Minimum Significant Difference (PMSD) reported. The results shall also be reported as Inhibitory Concentration, 25 percent (IC_{25}). The testing should follow USEPA guidance on Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (EPA 821-R-02-013, 4th Ed, 2002). A serial dilution test is required generally consisting of control, 6.25, 12.5, 25, 50 and 100% effluent. Chronic target in-stream waste concentration ($TIWC_c$) based on site-specific partial mixing factor is 3.8%; therefore NOEC endpoints results higher than $TIWC_c$ of 3.8% will considered as passed.

The permittee must also perform quarterly the Whole Effluent Toxicity (WET) tests to generate acute toxicity data. Acute toxicity testing shall follow EPA Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition (EPA-821-R-02-012). A serial dilution test is required generally consisting of control, 6.25, 12.5, 25, 50 and 100% effluent. Acute target in-stream waste concentration ($TIWC_a$) based on site-specific partial mixing factor is 23 %; therefore NOEC endpoints results higher than $TIWC_a$ of 23 % will considered as passed.

The results shall be reported as Lethal Concentration for 50% of the population (LC_{50}) and Acute Toxic Units (TUa) at 48 h and 96 h durations for the fathead minnow *Pimephales promelas* and at 48h duration for the cladoceran, *Ceriodaphnia dubia.*

The complete laboratory report with a summary page of results from the testing must be submitted to:

Dr. Thomas Fikslin
Delaware River Basin Commission
P.O. Box 7360
West Trenton, NJ 08628 – 0360
Thomas.Fikslin@drbc.state.nj.us

and

PA Department of Environmental Protection
Southeast Regional Office
Clean Water
2 East Main Street
Norristown, PA 19401

P. To ensure the most effective and efficient treatment plant operation, the permittee is required to operate the sand filter system continuously.

Q. For the purpose of determining credit for stormwater runoff as contained in the Other Requirement IV-Stormwater Requirements of this permit, the stormwater flow shall be calculated by the following relationship:

$$SWRO = P \times A \times F$$

SWRO = Stormwater runoff to Outfall 015
P = Average rainfall generating stormwater runoff
A = Area contributing stormwater to the Outfall 015
F = Runoff factor based on the type of the area. Appropriate value should be used with proper justification

R. For purposes of determining compliance with the discharge limitations on pages 11 through 13 for Outfall 015, the following procedures should apply:

Net effluent values may be reported by calculating the total mass discharged from the wastewater treatment plant less the mass due to ballast water, stormwater, intake service water and intake filtered water.

All calculations used in determining the net values as reported on the Discharge Monitoring Report (DMRs) shall be submitted monthly as an attachment to the DMRs.

Credits for various pollutants for various waste streams shall be calculated as follows:

1. Ballast Water:

The quantity of pollutants discharged through ballast water for the purpose of ballast water credit shall be determined by multiplying the flow of ballast water times the concentrations listed in the following table:

Parameter	30 Day Average lb/1,000 gal	Daily Maximum lb/1,000 gal
BOD_5	0.2	0.4
Chemical Oxygen Demand	2.0	3.9
Total Suspended Solids	0.17	0.26
Oil and Grease	0.067	0.126

2. Storm Water:

The quantity of pollutants discharged through stormwater runoff for the purpose of stormwater runoff credit shall be determined by multiplying the flow of stormwater times the concentrations listed in the following table:

Parameter	30 Day Average lb./1,000 gal	Daily Maximum lb./1,000 gal
BOD_5	0.22	0.40
Total Suspended Solids	0.18	0.28
Chemical Oxygen Demand	1.5	3.0
Oil and Grease	0.067	0.13
Phenolic Compounds (4AAP)	0.0014	0.0029
Chromium, Total	0.0018	0.0050
Chromium, Hexavalent	0.00023	0.00052

3. Intake Filtered Water:

The quantity of pollutants discharged through filtered water, to allow credit for intake filtered water shall be determined by multiplying the flow of filtered water times the concentrations listed below. These concentrations are based on intake filtered water analytical results submitted by permittee. The intake filtered water shall be measured by flow meter which accurately and solely measures filter water to be used in the process generating wastewater to Outfall 015:

Parameter	30 Day Average lb./1,000 gal	Daily Maximum lb./1,000 gal
BOD_5	0.01	0.03
Total Suspended Solids	0.03	0.09
Chemical Oxygen Demand	0.33	0.56
Ammonia-Nitrogen	0.002	0.006
Phenols, Total	0.000008	0.00003
Sulfide	0.001	0.0017
Oil and Grease	0.011	0.033
Chromium, Total	0.00016	0.00033
Chromium, Hexavalent	0.00016	0.00016

4. Intake Service Water:

The quantity of pollutants discharged through service water, to allow credit for intake service water shall be determined by multiplying the flow of service water times the concentrations listed below. These concentrations are based on the service water intake analytical results submitted by the permittee. The intake service water flow shall be accurately measured by using a flow meter:

Parameter	30 Day Average lb./1,000 gal	Daily Maximum lb./1,000 gal
BOD_5	0.02	0.06
Total Suspended Solids	0.008 x TSS	0.024 x TSS
Chemical Oxygen Demand	0.35	0.80
Ammonia-Nitrogen	0.004	0.012
Phenols, Total	0.000016	0.00008
Sulfide	0.0012	0.0024
Oil and Grease	0.011	0.024
Chromium, Total	0.00016	0.0004
Chromium, Hexavalent	0.00016	0.00016

TSS: measured service water concentration in mg/l

S. In accordance with the net-total organic carbon (TOC) limits for Outfalls 004 and 011, the intake water withdrawn from the Schuylkill River Zone 4 shall be monitored once a week using a grab sample for TOC.

T. If contaminated runoff through Outfalls 001, 002, 009 and 014 exceed 15 mg/l oil and grease or 110 mg/l Total Organic Carbon, the quantity of pollutants discharged shall not exceed the quantity determined by multiplying the flow of contaminated runoff times the concentrations listed in the following table:

Parameter	30 Day Average lb./1,000 gal	Daily Maximum lb./1,000 gal
BOD_5	0.22	0.40
Total Suspended Solids	0.18	0.28
Chemical Oxygen Demand	1.5	3.0
Oil and Grease	0.067	0.13
Phenolic Compounds (4AAP)	0.0014	0.0029

Chromium, Total	0.0018	0.0050
Chromium, Hexavalent	0.00023	0.00052
pH	Within the range of 6.0-9.0 Standard Units	

The permittee shall collect and hold extra samples from Outfalls 001, 002, 009 and 014 at any time there is a discharge for use in the event that initial analysis shows concentration above TOC and Oil and Grease limitations.

When the condition goes into effect the loading shall be calculated for each individual day in which the discharge exceeds the referenced concentration limits.

U. The permittee shall perform Total Dissolved Solids (TDS) Modeling Study of the effluent from Outfall 015 using appropriate ambient velocity data and Q_{7-10} flow of 159 MGD to determine what area of influence is for TDS and resultant mixing zone. It shall be submitted to Pennsylvania DEP and DRBC for review and approval by December 31, 2013.

V. When the effluent BOD_5 as monthly average is less than 100 mg/l attained of a monthly average effluent, the limit of 10 mg/l BOD_5 or less will be considered compliance with the 89.25 percent Zone 4 $CBOD_{20}$ removal requirement. The permittee shall monitor the influent BOD_5 twice a week and shall calculate weekly and monthly percent removal achieved by the industrial wastewater treatment plant. When influent BOD_5 as monthly average is 100 mg/l or higher, the effluent BOD_5 shall be reduced by at least 89.25 percent as monthly average as per Zone 4 $CBOD_{20}$ removal requirements.

The permittee shall also conduct a study to establish a ratio between $CBOD_{20}$ and BOD_5 in accordance with the DRBC Docket No.D-1969-115-3 requirement. The permittee may request reducing $CBOD_{20}$ monitoring after the ratio is established between $CBOD_{20}$ and BOD_5 based on the results of permittee's study.

W. Except as explicitly authorized elsewhere in this Permit, the permittee may not accept non-process wastewater at Girard Point Industrial Wastewater Treatment Plant other than the following from the Point Breeze and Girard Point Processing Area, collected by vacuum trucks from various type of wastewater: tank or vessel cleanout rinsates; process sewer system cleanouts; stormwater system maintenance and cleanouts; oil/water separation system maintenance cleanouts; spill cleanup residue and related rinsates; filtrates from dewatering sludge from tank cleanings; waste materials that cannot be completely purged or drained from process equipment or piping prior to maintenance; stormwater that accumulates in containment dikes or basins; off-specification material that cannot be returned to the processing units; and/or remediation wastes (including groundwater well development and purge wastewaters or wastewaters from other remediation system activities). The rate of acceptance of these wastewaters must be controlled to ensure that it will not adversely affect the operation of the Industrial Wastewater Treatment Plant and/or its effluent quality.

II. CHEMICAL ADDITIVES

The additive(s) and usage rate(s) currently approved are the following:

Name	Usage Rate (lbs./day) Maximum Daily
BOILER POLYMERS	
BPB55715	559
SOLVENT	
Sulfolane	2,200
CAUSTIC	
Sodium Hydroxide	Controlled by pH Limit

OXYGEN SCAVENGERS	
BPB59396	250
BPB90001	1,215
SCALE INHIBITORS	
BPC60002	334
BPC68970	233
BPC65300	400
Y7BH972	1,071
ANTIFOAMS	
BPC67525	328
BPW76910	744
Nalco 7473	500
FO-920	364.5
FO-621	230
FO-120	40
FO-240	40
FO-114	100
CATIONIC WATER TREATMENT POLYMERS	
BPW76453	694
SPC680	375
SPC692	375
Y9BH1351	Controlled by effluent limit of 0.007 mg/l
BPW76001	Controlled by pH
COOLING TOWER POLYMERS	
BPC67275	575
Y9BH1246	3,188
Y8BH1129	2,224
NEUTRALIZING AMINES	
BPB59456	1,256
Y9BH1233	1,000
BPR81150	2,000
BPR82365	100
TGD1156	Controlled by effluent limit of 5.3 mg/l
Nalco EC 1495A	3,000
CORROSION INHIBITORS	
BPC68095	365
BPC68570	1,425
Y9BH1331	200
Nalco EC 1417A	120
ACIDS	
EXCAL7511	67,200
EXCAL7551	48,000
Y9BH1330	45,000
BRS2755	Controlled by pH
EC2656A	Controlled by pH
Nalco EC 2483A	44880
Phosphoric Acid	Controlled by pH Limit
Sulfuric Acid	Controlled by pH Limit
Citric Acid	Controlled by pH Limit
POLYMER	
Ferric Chloride	Controlled by pH

CLEANING AGENT	
Chem Station 7021	130
Chem Station 6583	1000
Chem Station 5032	2800
Enviro Super Solvent	500
Enviro Power Clean	900
Enviro CV Cleaner	900
Mayco-Chemical-AMT 328	2lbs/Application
Citrikleen	150
United 657 Zyme-Flow	As Needed
Sanosil C	500
Sunny Sol 150	As Needed
Rust 2000 CG	As Needed
Rust HDC 305	As Needed
Chlorine	Controlled by TRO Limit
Zep TNT Product 0378	Controlled by TRO Limit
Rezyd-x	40

A. Chemical additives to control corrosion, scaling, algae, slime, fouling or oxygen, etc., and blowdown discharge rates shall be managed by the permittee to ensure that toxic effects in the receiving stream are prevented. These also include substances/compounds added to the wastewater such as polymers, water softeners, flocculent, coagulants, emulsion breakers, dispersants, and oxygen scavengers. Chemical additives do not include chemicals or other substances that are utilized in the manufacturing of products, which are not expected in wastewater effluent or otherwise will have effluent concentrations that are quantified in the permit application.

B. Usage rates shall be consistent with the quantities and rates approved by the DEP and shall be limited to the minimum amount necessary to accomplish the intended purposes of chemical addition.

C. Accurate usage records (name of additive, quantity added, date added) of any approved chemical additive and blowdown discharge volumes must be maintained on the Chemical Additive Reporting form and kept on site by the permittee. To the maximum extent possible, sampling and laboratory analytical procedures for these chemicals are to conform with the "Sampling and Analytical Testing Instructions for Industrial Discharges" routinely used for completion of NPDES permit applications.

D. Whenever a change in chemical additive or increase in usage rates is desired by the permittee, a written notification shall be submitted to the DEP at least sixty (60) days prior to the proposed use of the chemical. All required data must be provided on the form for each new or changed chemical additive or proposed change in the usage rate.

E. As a minimum, the following information must be provided on the whole product (if data on the whole product is not available, monitoring data for all active ingredients in the product shall be provided):

1. Trade names of additive.

2. Name and address of additive manufacturer.

3. Material Safety Data Sheet (MSDS) or other available information on mammalian or aquatic toxicological effects.

4. Bioassay data including the 96-hour LC50 on the whole product.

5. Proposed average and maximum additive usage rates in lbs/day.

6. A flow diagram showing the point of chemical addition and the affected outfalls.

7. The expected concentration of the product at the final outfall.

8. The product density for liquids (lb/gal) used to convert usage rate (gpd) to in-system concentrations (mg/l).

9. The analytical test method that could be used to verify final discharge concentrations when the product is in use and the associated minimum analytical detection level (mg/l).

10. Conditioned water discharge rate (blowdown rate) and duration (hours).

11. Available data on the degradation of or decomposition of the additive in the aquatic environment.

12. Any other data or information the permittee believes would be helpful to the DEP in completing its review.

F. Based on the information presented, the DEP will decide whether specific effluent limitations for one or more active ingredients or other control requirements are necessary. Where necessary, the DEP may establish permit limits, require other controls or deny use of these chemicals. If the information is complete, use of the proposed chemical additive or usage rate will be considered approved 60 days after the date of notification to the DEP. If the notification is incomplete or the DEP notifies the permittee that the proposed usage rate will cause violations of water quality standards, the permittee will be advised that a permit amendment is required and would likely be denied. All such letters and notifications must be kept on site with the required daily chemical usage data.

G. Use of chemicals that contain one or more ingredients that are carcinogens is generally prohibited. Before proposing limited use of such products or chemicals, the permittee must thoroughly investigate the use of alternative products or chemicals to avoid the use of the carcinogens. If no alternatives are available, the permittee must submit written documentation as part of the information required above, that demonstrates to the satisfaction of the DEP that no suitable alternatives are available and that any carcinogen in the proposed chemical or product will not be detectable in the <u>final</u> effluent using the most sensitive analytical method available. Based on the information presented, the DEP will decide whether specific effluent limitations or other control requirements are necessary for the chemicals, and where necessary, establish permit limits require other controls or deny use of these chemicals.

III. COOLING WATER INTAKE STRUCTURES

Section 316(b) of the Clean Water Act (CWA) requires establishing the best technology available (BTA) for minimizing adverse environmental impacts associated with the use of cooling water intake structures. As the operator of a facility with an existing cooling water intake structure, the following conditions apply:

A. The location, design, construction and capacity of the facility's cooling water intake structure(s) must conform to requirements pursuant to Section 316(b) of the CWA and any state regulations effective at the time an appropriate BTA is approved by the Department.

B. The facility must submit the following information by December 31, 2015:

1. Source water physical data. This includes:

a. A narrative description and scaled drawings showing the physical configuration of all source waterbodies used by your facility, including areal dimensions, depths, salinity and temperature regimes, and any other documentation that supports your determination of the water body type where each cooling water intake structure is located;

b. Identification and characterization of the source waterbody's hydrological and geomorphologic features, including the low flow and mean annual flow, as well as the methods used to conduct any physical studies to determine the intake's area of influence within the waterbody and the results of such studies;

c. Locational maps.

2. Cooling water intake structure data. This includes:

   a. A narrative description of the configuration of each cooling water intake structure(s) and its location in the waterbody and water column;

   b. Latitude and longitude in degrees, minutes, and seconds for each cooling water intake structure(s);

   c. A detailed description of any racks, bars or screens, including dimensions and mesh size, if applicable;

   d. A narrative description of the operation of each cooling water intake structure(s), including design intake flows, actual average intake flows, daily hours of operation, number of days of the year in operation and seasonal changes, if applicable;

   e. Measured and/or calculated approach and through-screen velocities including a copy of the calculations used to determine velocities, if applicable;

   f. A flow distribution and water balance diagram that includes all sources of water to the facility, re-circulating flows, and discharges;

   g. A narrative description of the cooling towers, that includes detail about make-up water, blow down and cycles of concentration;

   h. Engineering drawings of the cooling water intake structure.

3. Source water biological characterization data. The following may be determined from existing documentation, reports or biological studies:

   a. A list of species (or relevant taxa) for all life stages and their relative abundance in the vicinity of the cooling water intake structure;

   b. Identification of the species and life stages that would be most susceptible to impingement and entrainment. Species evaluated should include the forage base as well as those most important in terms of significance to commercial and recreational fisheries;

   c. Identification and evaluation of the primary period of reproduction, larval recruitment, and period of peak abundance for relevant taxa;

   d. Identification of all federal and/or state threatened, endangered and other protected species that might be susceptible to impingement and entrainment at your cooling water intake structures;

   e. Identification of all aquatic invasive species recorded or observed in the vicinity of the cooling water intake structure.

4. A description of any technology or operational measures that are proposed or currently in place that minimize impingement and entrainment.

5. A plan to minimize impingement mortality which includes an evaluation of technologies and operational measures expected to minimize adverse environmental impact due to impingement at the cooling water intake structures.

6. A plan to minimize entrainment mortality which includes an evaluation of technologies and operational measures expected to minimize adverse environmental impact due to entrainment at the cooling water intake structures.

C. If the Department requests any additional information to review any submission required by this permit regarding Section 316(b), the permittee shall submit the additional information within 30 days of receipt of the Department's request.

D. The permittee must maintain and retain data and other records for any information developed pursuant to Section 316(b) for a minimum of ten years.

E. The information submission requirements for Section 316(b) of the CWA are for the purpose of establishing BTA for minimizing adverse environmental impacts associated with the use of cooling water intake structures. This permit may be modified to incorporate additional requirements as information becomes available to the Department.

F. The permittee is allowed to use EPA site visit report dated July 14, 2009 to develop report on the cooling water intake technology.

IV. REQUIREMENTS APPLICABLE TO STORMWATER OUTFALLS

A. Prohibition of Nonstormwater Discharges

1. Except as provided in A.2, all discharges to stormwater Outfalls 005, 010, 012 shall be composed entirely of stormwater and allowable nonstormwater as specified in A.2 below.

2. The following nonstormwater discharges may be authorized, provided the discharge is in compliance with D.2.b: discharges from fire fighting activities; fire hydrant flushings, potable water sources, including waterline flushings, irrigation drainage, lawn watering, routine external building washdown which does not use detergents or other compounds, pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used, air conditioning condensate, springs, uncontaminated groundwater, and foundation or footing drains where flows are not contaminated with process materials such as solvents.

B. Spills

This permit does not authorize the discharge of any polluting substances resulting from an on-site spill. Such spills shall be controlled through proper implementation of a Preparedness, Prevention, and Contingency (PPC) Plan as stated in Section D below.

C. This permit does not authorize any discharge (stormwater or nonstormwater) containing any pollutant that may cause or contribute to an impact on aquatic life or pose a substantial hazard to human health or the environment due to its quantity or concentration.

D. Preparedness, Prevention, and Contingency Plans

1. Development of Plan

Operators of facilities shall have developed a PPC Plan in accordance with 25 Pa. Code Section 91.34 and the "Guidelines for the Development and Implementation of Environmental Emergency Response Plans." The PPC Plan shall identify potential sources of pollution that may reasonably be expected to affect the quality of stormwater discharges from the facility. In addition, the PPC Plan shall describe the BMPs that are to be used to reduce the pollutants in stormwater discharges at the facility ensuring compliance with the terms and conditions of this permit. The PPC Plan shall be completed within 90 days from the permit effective date.

2. Nonstormwater Discharges

a. The PPC Plan shall contain a certification that the discharge has been tested or evaluated for the presence of nonstormwater discharges. The certification shall include the identification of potential significant sources of nonstormwater at the site, a description of the results of any test and/or evaluation for the presence of nonstormwater discharges, the evaluation criteria or testing methods used, the date of any testing and/or evaluation, and the on-site drainage points that were directly observed during the test. Such certification may not be feasible if the facility operating the stormwater discharge does not have access to an outfall, manhole, or other point of access to the ultimate conduit that receives the discharge. In such cases, the source identification section of the PPC Plan shall indicate why the certification was not feasible. A discharger that is unable to provide the certification must notify the DEP within 90 days of the effective date of this permit.

b. Except for flows from fire fighting activities, sources of nonstormwater listed in A.2. (authorized nonstormwater discharges) that are combined with stormwater discharges must be identified in the Plan. The Plan shall identify and ensure the implementation of appropriate pollution prevention measures for the nonstormwater component(s) of the discharge.

3. Special Requirements for SARA Title III, Section 313 Facilities

a. Facilities subject to SARA Title III, Section 313 shall include in the PPC Plan a description of releases to land or water of Section 313 water priority chemicals that have occurred within the last three years. Each of the following shall be evaluated for the reasonable potential for contributing pollutants to runoff: loading and unloading operations, outdoor storage activities, outdoor manufacturing or processing activities, significant dust or particulate generating process, and on-site waste disposal practices. Factors to consider include the toxicity of chemicals; quantity of chemicals used, produced or discharged; the likelihood of contact with stormwater; and history of significant leaks or spills of toxic or hazardous pollutants.

b. Engineering Certification. No stormwater PPC Plan for facilities subject to SARA Title III, Section 313 requirements for chemicals that are classified as "Section 313 water priority chemicals" shall be effective unless it has been reviewed by a Registered Professional Engineer and certified to by such Professional Engineer. A Registered Professional Engineer shall recertify the PPC Plan every year thereafter. This certification may be combined with the required annual evaluation in D.4. By means of these certifications, the engineer, having examined the facility and being familiar with the provisions of this part, shall attest that the storm water PPC Plan has been prepared in accordance with good engineering practices. Such certification shall in no way relieve the owner or operator of a facility covered by the PPC Plan of the duty to prepare and fully implement such Plan.

4. Comprehensive Site Compliance Evaluations and Recordkeeping

Qualified personnel shall conduct site compliance evaluations at least once a year. Such evaluations shall include:

a. Visual inspection and evaluation of areas contributing to a stormwater discharge for evidence of, or the potential for, pollutants entering the drainage system. Measures to reduce pollutant loadings shall be evaluated to determine whether they are adequate and properly implemented in accordance with the terms of the permit or whether additional control measures are needed. Structural stormwater management measures, sediment and erosion control measures, and other structural pollution prevention measures identified in the Plan shall be observed to ensure that they are operating correctly. A visual inspection of equipment needed to implement the Plan, such as spill response equipment, shall be made.

b. Based on the results of the inspection, the description of potential pollutant sources identified in the PPC Plan, and pollution prevention measures and controls identified in the Plan shall be revised as appropriate within 15 days of such inspection and shall provide for implementation of any changes to the Plan in a timely manner, but in no case more than 90 days after the inspection.

c. A report summarizing the scope of the inspection, using the DEP's Annual Inspection form shall be completed and made available upon request and retained as part of the PPC Plan for at least one year after coverage under this permit terminates.

E. Stormwater Sampling and Reporting

1. If stormwater samples are required by this permit, they shall be collected as grab samples during the first 30 minutes, but no later than one-hour of the discharge resulting from a storm event that occurs at least 72 hours from the previously measurable storm event.

2. When the discharger is unable to collect samples due to adverse climatic conditions, the discharger must submit, in lieu of sampling data, a description of why samples could not be collected, including available documentation of the event. This sampling waiver may not be used more than once during a two-year period.

3. Stormwater monitoring results shall be summarized on a DMR form and the DEP's "Additional Information for the Reporting of Stormwater Monitoring" form.

4. When a facility has two or more outfalls that may reasonably be believed to discharge substantially identical effluents, based on a consideration of features and activities within the area drained by the outfall, the permittee may sample one such outfall and report that the quantitative data also applies to the substantially identical outfalls.