



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

NPDES PERMIT NO: PA0012637

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.*,

**Monroe Energy, LLC
Trainer Refinery, 4101 Post Road
Trainer, PA 19061-5052**

is authorized to discharge from a facility known as **Trainer Refinery**, located at **4101 Post Road, Trainer Borough, Delaware County**, to **Marcus Hook Creek, Stoney Creek, and Delaware River Estuary Zone 4** in Watershed(s) **3-G** 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 DECEMBER 1, 2018

THIS PERMIT SHALL EXPIRE AT MIDNIGHT ON NOVEMBER 30, 2023

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 November 13, 2018

ISSUED BY /s/

**Thomas L. Magge
Clean Water Program Manager
Southeast Regional Office**

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

For
Monitoring

I. A. Point 101, Latitude 39° 49' 16.57", Longitude 75° 24' 27.94", River Mile Index 0.417, Stream Code 0051

Receiving Waters: Marcus Hook Creek

Type of Effluent: Non-contact cooling water, stormwater, steam condensate and backwash from water softening system.

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.
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	Minimum	Average Quarterly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Recorded
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/week	Grab
Total Residual Chlorine *	XXX	XXX	XXX	0.16 Avg Mo	XXX	0.5	1/week	Grab
Temperature (°F)	XXX	XXX	XXX	XXX	XXX	110	Continuous	Recorded
Heat Rejection Rate** (MBTUs/day)	XXX	67470	XXX	XXX	XXX	XXX	1/day	Calculation
Total Suspended Solids	XXX	XXX	XXX	Report Avg Mo	Report	XXX	1/week	24-Hr Composite
Total Suspended Solids Intake	XXX	XXX	XXX	Report Avg Mo	Report	XXX	1/week	24-Hr Composite
Total Suspended Solids Effluent Net	16460	32920	XXX	30.0 Avg Mo	60.0	75	1/week	Calculation
Total Dissolved Solids Effluent Net	XXX	XXX	XXX	Report Avg Mo	Report	XXX	1/week	Calculation
Total Dissolved Solids Intake	XXX	XXX	XXX	Report Avg Mo	Report	XXX	1/week	24-Hr Composite

Monitoring Point 101, Continued (from Permit Effective Date through Permit Expiration Date)

Total Dissolved Solids	XXX	XXX	XXX	Report Avg Mo	Report	XXX	1/week	24-Hr Composite
Oil and Grease	8230	XXX	XXX	15 Avg Mo	XXX	30	1/week	3 Grabs/24 Hours
Aluminum, Total Intake	XXX	XXX	XXX	Report	Report	XXX	1/quarter	24-Hr Composite
Aluminum, Total	XXX	XXX	XXX	Report	Report	XXX	1/quarter	24-Hr Composite
Aluminum, Total Effluent Net	XXX	XXX	XXX	Report	Report	XXX	1/quarter	Calculation
Cadmium, Total	XXX	XXX	XXX	Report	Report	XXX	1/quarter	24-Hr Composite
Cadmium, Total Intake	XXX	XXX	XXX	Report	Report	XXX	1/quarter	24-Hr Composite
Cadmium, Total Effluent Net	XXX	XXX	XXX	Report	Report	XXX	1/quarter	Calculation
Copper, Total	XXX	XXX	XXX	Report	Report	XXX	1/quarter	24-Hr Composite
Copper, Total Intake	XXX	XXX	XXX	Report	Report	XXX	1/quarter	24-Hr Composite
Copper, Total Effluent Net	XXX	XXX	XXX	Report	Report	XXX	1/quarter	Calculation
Iron, Total Intake	XXX	XXX	XXX	Report	Report	XXX	1/quarter	24-Hr Composite
Iron, Total Effluent Net	XXX	XXX	XXX	Report	Report	XXX	1/quarter	Calculation
Iron, Total	XXX	XXX	XXX	Report	Report	XXX	1/quarter	24-Hr Composite
Lead, Total Effluent Net	XXX	XXX	XXX	Report	Report	XXX	1/quarter	Calculation
Lead, Total Intake	XXX	XXX	XXX	Report	Report	XXX	1/quarter	24-Hr Composite
Lead, Total	XXX	XXX	XXX	Report	Report	XXX	1/quarter	24-Hr Composite
Total Organic Carbon Effluent Net	XXX	XXX	XXX	XXX	XXX	5.0	1/week	Calculation
Total Organic Carbon Intake	XXX	XXX	XXX	XXX	XXX	Report	1/week	Grab
Total Organic Carbon	XXX	XXX	XXX	XXX	XXX	Report	1/week	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at Monitoring Point 101.

*Sample must be collected during use of sodium hypochlorite in the river water intake and fire water system . **See Part C. IV. Heat Rejection Rate Limitations.

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

For
Monitoring
I. B. Point 201, Latitude 39° 49' 16.61", Longitude 75° 24' 27.97", River Mile Index 0.398, Stream Code 00511

Receiving Waters: Marcus Hook Creek

Type of Effluent: Industrial wastewater treatment plant effluent consists of process wastewater, miscellaneous wastewater, and stormwater.

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Completion of the 24th month**.
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	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Aluminum, Total	XXX	XXX	XXX	Report	Report	XXX	1/month	24-Hr Composite
Selenium, Total	XXX	XXX	XXX	Report	Report	XXX	1/month	24-Hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at Monitoring Point 201

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

For Monitoring
I. C. Point 201, Latitude 39° 49' 16.61", Longitude 75° 24' 27.97", River Mile Index 0.398, Stream Code 00511

Receiving Waters: Marcus Hook Creek

Type of Effluent: Industrial wastewater treatment plant effluent consists of process wastewater, miscellaneous wastewater, and stormwater.

1. The permittee is authorized to discharge during the period from **Beginning of the 25th month** through **Permit Expiration Date**.
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	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Aluminum, Total	Report	135	XXX	Report	4.64	4.64	1/month	24-Hr Composite
Selenium, Total	0.88	1.75	XXX	0.03	0.06	0.08	1/month	24-Hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at Monitoring Point 201

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

For
Monitoring
I. D. Point 201, Latitude 39° 49' 16.61", Longitude 75° 24' 27.97", River Mile Index 0.398, Stream Code 00511

Receiving Waters: Marcus Hook Creek

Type of Effluent: Industrial wastewater treatment plant effluent consists of process wastewater, miscellaneous wastewater, and stormwater.

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.
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	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Recorded
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
Dissolved Oxygen	XXX	XXX	4.0 Inst Min	XXX	XXX	XXX	1/week	Grab
Total Residual Chlorine (TRC)*	XXX	XXX	XXX	0.16	XXX	0.50	1/week	Grab
Biochemical Oxygen Demand (BOD5)	1000	2000	XXX	34.0	68.0	85	2/week	24-Hr Composite
BOD, carbonaceous, 20 day, 20 C	1500	XXX	XXX	XXX	XXX	XXX	2/month	24-Hr Composite
Chemical Oxygen Demand (COD)	17608	33130	XXX	603.0	1135.0	1508	2/week	24-Hr Composite
Total Suspended Solids	875	1750	XXX	30.0	60.0	75	2/week	24-Hr Composite
Total Dissolved Solids Effluent Net	29190	58380	XXX	1000.0	2000.0	2500	2/week	Calculation

Monitoring Point 201, Continued (from Permit Effective Date through Permit Expiration Date)

Total Dissolved Solids Intake	XXX	XXX	XXX	Report	Report	XXX	2/week	24-Hr Composite
Total Dissolved Solids	XXX	XXX	XXX	Report	Report	XXX	2/week	24-Hr Composite
Oil and Grease	438	876	XXX	15.0	30.0	30	2/week	Grab
Total Nitrogen	XXX	XXX	XXX	Report	Report	XXX	1/month	24-Hr Composite
Ammonia-Nitrogen	1020	2040	XXX	35.0	70.0	87	2/week	24-Hr Composite
Total Phosphorus	58	83	XXX	2.0	4.0	5	2/month	24-Hr Composite
Chromium, Hexavalent	1.1	2.4	XXX	0.04	0.08	0.1	2/week	24-Hr Composite
Chromium, Total	13	37	XXX	0.45	1.27	1.27	2/week	24-Hr Composite
Cyanide, Free	XXX	XXX	XXX	Report	Report	XXX	1/month	24-Hr Composite
Antimony, Total	XXX	XXX	XXX	Report	Report	XXX	1/month	24-Hr Composite
Sulfide, Total	13	30	XXX	0.45	1.03	1.13	2/week	24-Hr Composite
Phenolics, Total	11	34	XXX	0.38	1.16	1.16	2/week	24-Hr Composite
PCBs Dry Weather Analysis ** (pg/L)	XXX	XXX	XXX	XXX	Report	XXX	1/year	24-Hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at Monitoring Point 201.

*Sample must be collected during the use of sodium hypochlorite in the river water intake and fire water system. **See Part C.V. PCB Pollutant Minimization Plan and Monitoring.

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

I. E. For Outfall 002, Latitude 39° 49' 30.61", Longitude 75° 24' 1.61", River Mile Index 0.208, Stream Code 00517

Receiving Waters: Stoney Creek

Type of Effluent: Noncontact Cooling Water, Stormwater, and steam trap condensate.

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Startup of New or Upgraded Facilities**.
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	Minimum	Average Monthly	Maximum			Instant. Maximum
Total Residual Chlorine*	XXX	XXX	XXX	0.16	XXX	0.5	1/week	Grab
Heat Rejection Rate** (MBTUs/day)	XXX	43200	XXX	XXX	XXX	XXX	1/day	Calculation
Total Organic Carbon Effluent Net	XXX	XXX	XXX	XXX	XXX	5.0	1/week	Calculation
Total Organic Carbon Intake	XXX	XXX	XXX	XXX	XXX	Report	1/week	Grab
Total Organic Carbon	XXX	XXX	XXX	XXX	XXX	Report	1/week	Grab

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

* Sample must be collected during the use of sodium hypochlorite in river intake water and fire water system. ** See Part C. IV. Heat Rejection Rate Limitations.

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

I. F. For Outfall 002, Latitude 39° 49' 30.61", Longitude 75° 24' 1.61", River Mile Index 0.208, Stream Code 00517

Receiving Waters: Stoney Creek

Type of Effluent: Stormwater, steam trap condensate and heat exchanger cooling water backwash.

1. The permittee is authorized to discharge during the period from **Startup of New or Upgraded Facilities** through **Permit Expiration Date**.
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	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Total Residual Chlorine*	XXX	XXX	XXX	0.02	XXX	0.05	1/week	Grab

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

* Sample must be collected during the use of sodium hypochlorite in river intake water and fire water system.

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

I. G. For Outfall 002, Latitude 39° 49' 30.61", Longitude 75° 24' 1.61", River Mile Index 0.208, Stream Code 00517

Receiving Waters: Stoney Creek

Type of Effluent: Noncontact Cooling Water (before the implementation of Area 3 cooling tower), stormwater, steam trap condensate, and heat exchanger cooling water back wash (after the implementation of Area 3 cooling tower).

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.
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	Average Weekly	Minimum	Average Quarterly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Recorded
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/week	Grab
Temperature (°F)	XXX	XXX	XXX	XXX	XXX	110	Continuous	Recorded
Total Suspended Solids Intake	XXX	XXX	XXX	Report Avg Mo	Report	XXX	1/week	24-Hr Composite
Total Suspended Solids Effluent Net	XXX	XXX	XXX	30.0 Avg Mo	60.0	75	1/week	Calculation
Total Suspended Solids	XXX	XXX	XXX	Report Avg Mo	Report	XXX	1/week	24-Hr Composite
Total Dissolved Solids Intake	XXX	XXX	XXX	Report Avg Mo	Report	XXX	1/week	24-Hr Composite
Total Dissolved Solids Effluent Net	XXX	XXX	XXX	Report Avg Mo	Report	XXX	1/week	Calculation
Total Dissolved Solids	XXX	XXX	XXX	Report Avg Mo	Report	XXX	1/week	24-Hr Composite
Oil and Grease	XXX	XXX	XXX	15 Avg Mo	XXX	30	1/week	3 Grabs/24 Hours

Outfall 002 , Continued (from Permit Effective Date through Permit Expiration Date)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Quarterly	Daily Maximum	Instant. Maximum		
Aluminum, Total Effluent Net	XXX	XXX	XXX	Report	Report	XXX	1/quarter	Calculation
Aluminum, Total	XXX	XXX	XXX	Report	Report	XXX	1/quarter	24-Hr Composite
Aluminum, Total Intake	XXX	XXX	XXX	Report	Report	XXX	1/quarter	24-Hr Composite
Cadmium, Total Intake	XXX	XXX	XXX	Report	Report	XXX	1/quarter	24-Hr Composite
Cadmium, Total Effluent Net	XXX	XXX	XXX	Report	Report	XXX	1/quarter	Calculation
Cadmium, Total	XXX	XXX	XXX	Report	Report	XXX	1/quarter	24-Hr Composite
Copper, Total	XXX	XXX	XXX	Report	Report	XXX	1/quarter	24-Hr Composite
Copper, Total Intake	XXX	XXX	XXX	Report	Report	XXX	1/quarter	24-Hr Composite
Copper, Total Effluent Net	XXX	XXX	XXX	Report	Report	XXX	1/quarter	Calculation
Silver, Total	XXX	XXX	XXX	Report	Report	XXX	1/quarter	24-Hr Composite
Silver, Total Effluent Net	XXX	XXX	XXX	Report	Report	XXX	1/quarter	Calculation
Silver, Total Intake	XXX	XXX	XXX	Report	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 002

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

I. H. For Outfall 003, Latitude 39° 49' 18.26", Longitude 75° 24' 32.94", River Mile Index 0.568, Stream Code 00511

Receiving Waters: Marcus Hook Creek

Type of Effluent: Stormwater from a parking lot and roadway

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.
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).

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Not monitored

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

I. I. For Outfall 005, Latitude 39° 49' 3.72", Longitude 75° 24' 25.61", River Mile Index 0.208, Stream Code 00511

Receiving Waters: Marcus Hook Creek

Type of Effluent: Stormwater from Dock Drive roadway leading to West Tank Field and steam trap condensate

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.
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	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Chemical Oxygen Demand (COD)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Suspended Solids	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Nitrate-Nitrite as N	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Aluminum, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Iron, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Lead, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Zinc, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

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

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

I. J. For Outfall 006, Latitude 39° 49' 21.40", Longitude 75° 23' 55.80", River Mile Index 0.009, Stream Code 00517

Receiving Waters: Stoney Creek

Type of Effluent: Stormwater from PECO Boulevard and railroad right of way.

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.
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	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Chemical Oxygen Demand (COD)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Suspended Solids	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Nitrate-Nitrite as N	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Aluminum, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Iron, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Lead, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Zinc, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
PCBs Wet Weather Analysis* (pg/L)	XXX	XXX	XXX	XXX	Report	XXX	1/year	24-Hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at Outfall 006

* See Part C.V. PCB Pollutant Minimization Plan and Monitoring.

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

I. K. For Outfall 007, Latitude 39° 49' 23.92", Longitude 75° 23' 56.85", River Mile Index 0.0018, Stream Code 00517

Receiving Waters: Stoney Creek

Type of Effluent: Stormwater from South Drive roadway, fire training area and railroad right of way, and steam trap condensate.

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.
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	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Chemical Oxygen Demand (COD)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Suspended Solids	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Nitrate-Nitrite as N	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Aluminum, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Copper, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Iron, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Lead, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Zinc, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
PCBs Wet Weather Analysis* (pg/L)	XXX	XXX	XXX	XXX	Report	XXX	1/year	24-Hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at Outfall 007

* See Part C.V. PCB Pollutant Minimization Plan and Monitoring.

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

I. L. For Outfall 008, Latitude 39° 49' 27.94", Longitude 75° 23' 59.98", River Mile Index 0.17, Stream Code 00517

Receiving Waters: Stoney Creek

Type of Effluent: Stormwater from Crude Drive roadway and steam trap condensate.

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.
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	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Chemical Oxygen Demand (COD)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Suspended Solids	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Nitrate-Nitrite as N	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Aluminum, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Iron, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Lead, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Zinc, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
PCBs Wet Weather Analysis* (pg/L)	XXX	XXX	XXX	XXX	Report	XXX	1/year	24-Hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at Outfall 008

* See Part C.V. PCB Pollutant Minimization Plan and Monitoring.

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

I. M. For Outfall 011, Latitude 39° 49' 8.16", Longitude 75° 23' 56.21", River Mile Index 80.55, Stream Code 00002

Receiving Waters: Delaware River

Type of Effluent: Stormwater from non-process areas and roadways.

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.
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).

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Not monitored

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

I. N. For Outfall 012, Latitude 39° 49' 17.52", Longitude 75° 23' 49.47", River Mile Index 80.55, Stream Code 00002

Receiving Waters: Delaware River

Type of Effluent: Stormwater from non-process areas and roadways.

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.
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	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Chemical Oxygen Demand (COD)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Suspended Solids	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Nitrate-Nitrite as N	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Aluminum, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Copper, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Iron, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Lead, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Zinc, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

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

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

I. O. For Outfall 013, Latitude 39° 48' 59.57", Longitude 75° 24' 17.39", River Mile Index 0.3, Stream Code 00511

Receiving Waters: Marcus Hook Creek

Type of Effluent: Stormwater from non-process areas and roadways.

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.
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	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Chemical Oxygen Demand (COD)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Suspended Solids	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Nitrate-Nitrite as N	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Aluminum, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Copper, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Iron, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Lead, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Zinc, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at Outfall 013

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

I. P. For Outfall 014, Latitude 39° 49' 15.06", Longitude 75° 24' 32.43", River Mile Index 0.7000, Stream Code 00511

Receiving Waters: Marcus Hook Creek

Type of Effluent: Stormwater from a parking lot

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.
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).

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): Not monitored

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

I. Q. For Outfall 015, Latitude 39° 49' 10.09", Longitude 75° 24' 31.64", River Mile Index 0.7000, Stream Code 00511

Receiving Waters: Marcus Hook Creek

Type of Effluent: Stormwater from non-process area

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.
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	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Chemical Oxygen Demand (COD)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Suspended Solids	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Nitrate-Nitrite as N	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Aluminum, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Iron, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Lead, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Zinc, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

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

*samples may be collected from the stormwater retention basin.

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

I. R. For Outfall 001, Latitude 39° 49' 13.94", Longitude 75° 24' 32.45", River Mile Index 0.73, Stream Code 00511

Receiving Waters: Marcus Hook Creek

Type of Effluent: Industrial wastewater treatment plant effluent, Noncontact Cooling Water (NCCW), Stormwater

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.
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	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Toxicity, Chronic - Ceriodaphnia Survival (TUc)	XXX	XXX	XXX	XXX	Report	XXX	1/year	*24-Hr Composite
Toxicity, Chronic - Ceriodaphnia Reproduction (TUc)	XXX	XXX	XXX	XXX	Report	XXX	1/year	*24-Hr Composite
Toxicity, Chronic - Pimephales Survival (TUc)	XXX	XXX	XXX	XXX	Report	XXX	1/year	*24-Hr Composite
Toxicity, Chronic - Pimephales Growth (TUc)	XXX	XXX	XXX	XXX	Report	XXX	1/year	*24-Hr Composite

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

* Aliquots shall be collected every 30 minutes for the 24-hour sampling period.

**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), § 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. For the purpose of determining compliance with this condition, DEP will compare conditions in the receiving water upstream of the discharge to conditions in the receiving water approximately 100 feet downstream of the discharge to determine if there is an observable change in the receiving water. (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

The effluent limitations for Outfalls 001 and 002 were determined using effluent discharge rates of 69.27 MGD and 36.17 MGD respectively.

The effluent limitations for Monitoring Points 101 and 201 were determined using effluent discharge rates of 65.77 MGD and 3.5 MGD respectively.

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 pollutant loading to surface waters of the Commonwealth. The term also includes treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. The term includes activities, facilities, measures, planning or procedures used to minimize accelerated erosion and sedimentation and manage stormwater to protect, maintain, reclaim, and restore the quality of waters and the existing and designated uses of waters within this Commonwealth before, during and after earth disturbance activities. (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 a chemical product (including products of disassociation and degradation, collectively "products") introduced into a waste stream that is used for cleaning, disinfecting, or maintenance and which may be detected in effluent discharged to waters of the Commonwealth. The term generally excludes chemicals used for neutralization of waste streams, the production of goods, and treatment of wastewater.

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). A separate analysis should be performed for each sample and the results should be averaged.

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, 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, 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)

Municipal Waste means garbage, refuse, industrial lunchroom or office waste and other material, including solid, liquid, semisolid or contained gaseous material resulting from operation of residential, municipal, commercial or institutional establishments and from community activities; and sludge not meeting the definition of residual or hazardous waste under this section from a municipal, commercial or institutional water supply treatment plant, waste water treatment plant or air pollution control facility. (25 Pa. Code § 271.1)

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.

Residual Waste means garbage, refuse, other discarded material or other waste, including solid, liquid, semisolid or contained gaseous materials resulting from industrial, mining and agricultural operations and sludge from an industrial, mining or agricultural water supply treatment facility, wastewater treatment facility or air pollution control facility, if it is not hazardous. The term does not include coal refuse as defined in the Coal Refuse Disposal Control Act. The term does not include treatment sludges from coal mine drainage treatment plants, disposal of which is being carried on under and in compliance with a valid permit issued under the Clean Streams Law. (25 Pa Code § 287.1)

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, where possible, 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. (40 CFR 122.48, 25 Pa. Code § 92a.61)
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

- a. 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.
- b. Test procedures (methods) for the analysis of pollutants or pollutant parameters shall be those approved under 40 CFR Part 136 or required under 40 CFR Chapter I, Subchapters N or O, unless the method is specified in this permit or has been otherwise approved in writing by DEP. (40 CFR 122.41(j)(4), 122.44(i)(1)(iv))
- c. Test procedures (methods) for the analysis of pollutants or pollutant parameters shall be sufficiently sensitive. A method is sufficiently sensitive when 1) the method minimum level is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or 2) the method has the lowest minimum level of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR Chapter I, Subchapters N or O, for the measured pollutant or pollutant parameter; or 3) the method is specified in this permit or has been otherwise approved in writing by DEP for the measured pollutant or pollutant parameter. Permittees have the option of providing matrix or sample-specific minimum levels rather than the published levels. (40 CFR 122.44(i)(1)(iv))

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. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.44, 92a.61(i) and 40 CFR §§ 122.41(e), 122.44(i)(1))
2. The permittee shall use DEP's electronic Discharge Monitoring Report (eDMR) system to report the results of compliance monitoring under this permit (see www.dep.pa.gov/edmr). Permittees that are not using the eDMR system as of the effective date of this permit shall submit the necessary registration and trading partner agreement forms to DEP's Bureau of Clean Water (BCW) within 30 days of the effective date of this permit and begin using the eDMR system when notified by DEP BCW to do so. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.61(g) and 40 CFR § 122.41(l)(4))
3. Submission of a physical (paper) copy of a Discharge Monitoring Report (DMR) is acceptable under the following circumstances:
 - a. For a permittee that is not yet using the eDMR system, the permittee shall submit a physical copy of a DMR to the DEP regional office that issued the permit during the interim period between the submission of registration and trading partner agreement forms to DEP and DEP's notification to begin using the eDMR system.
 - b. For any permittee, as a contingency a physical DMR may be mailed to the DEP regional office that issued the permit if there are technological malfunction(s) that prevent the successful submission of a DMR through the eDMR system. In such situations, the permittee shall submit the DMR through the eDMR system within 5 days following remedy of the malfunction(s).
4. DMRs must be completed in accordance with DEP's published DMR instructions (3800-FM-BPNPSM0463). DMRs must be received by DEP no later than 28 days following the end of the monitoring period. DMRs are based on calendar reporting periods and must be received by DEP 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.
5. The permittee shall complete all Supplemental Reporting forms (Supplemental DMRs) attached to this permit, or an approved equivalent, and submit the signed, completed forms as attachments to the DMR, through DEP's eDMR system. DEP's Supplemental Laboratory Accreditation Form (3800-FM-BPNPSM0189) must be completed and submitted to DEP with the first DMR following issuance of this permit, and anytime thereafter when changes to laboratories or methods occur. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.61(g) and 40 CFR § 122.41(l)(4))
6. 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 and for co-permittees, 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))

7. 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))
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 planned changes in the volume or pollutant concentration of its influent waste stream, 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 website. 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 all of the following criteria:

- (i) Were not detected in the facilities’ influent waste stream as reported in the permit application; and

- (ii) Have not been 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
- (ii) Have been approved to be included in the permittee's influent waste stream by DEP in writing; or
- (iii) Have an effluent limitation or monitoring requirement in this permit.

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 20% 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), as defined at 25 Pa. Code § 287.1, that are 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.

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 or the permittee has not otherwise received the information from the generator, the residual wastes shall not be accepted by the permittee until such time as the permittee receives such information from the transporter or generator.

- (ii) The following conditions apply to the characterization of residual wastes received by the permittee:
 - (1) If the generator is required to complete a chemical analysis of residual wastes in accordance with 25 Pa. Code § 287.51, the permittee must receive and maintain on file a chemical analysis of the residual wastes it receives. The chemical analysis must 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 covered by a chemical analysis if the generator is required to complete it.
 - (2) For wastewater generated from hydraulic fracturing operations ("frac wastewater") within the first 30 production days of a well site, the chemical analysis may be a general frac wastewater characterization approved by DEP. Thereafter, the chemical analysis must be waste-specific and be 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), as defined at 25 Pa. Code § 271.1, that are 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 BOD₅ 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 §§ 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

1. The permittee shall comply with all conditions of this permit. If a compliance schedule has been established in this permit, the permittee shall achieve compliance with the terms and conditions of this permit within the time frames specified in this permit. (40 CFR 122.41(a)(1))
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. (25 Pa. Code § 92a.51(c), 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 – 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.4.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 122.41(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 92a 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 operator 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 DEP at 717-787-6744 with questions related to annual fees. The fees identified above are subject to change in accordance with 25 Pa. Code § 92a.62(e).

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 Clean Water
 Re: Chapter 92a Annual Fee
 P.O. Box 8466

Harrisburg, PA 17105-8466

PART C

I. OTHER REQUIREMENTS

- A. The approval herein given is specifically made contingent upon the permittee acquiring all necessary property rights by easement or otherwise, providing for the satisfactory construction, operation, maintenance or replacement of all structures associated with the herein approved discharge in, along, or across private property, with full rights of ingress, egress and regress.
- B. Collected screenings, slurries, sludges, and other solids shall be handled, recycled and/or disposed of in compliance with the Solid Waste Management Act (35 P.S. §§ 6018.101 – 6018.1003), 25 Pa. Code Chapters 287, 288, 289, 291, 295, 297, and 299 (relating to 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), federal regulation 40 CFR Part 257, The Clean Streams Law, and the Federal Clean Water Act and its amendments. Screenings collected at intake structures shall be collected and managed and not be returned to the receiving waters.

The permittee is responsible to obtain or assure that contracted agents have all necessary permits and approvals for the handling, storage, transport and disposal of solid waste materials generated as a result of wastewater treatment.

- C. 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 DEP or EPA for this type of industry, and if such standard or limitation is more stringent than the corresponding limitations of this permit (or if it controls pollutants not covered by this permit), DEP may modify or revoke and reissue the permit to conform with that standard or limitation.
- D. The permittee shall optimize chlorine dosages used for disinfection or other purposes to minimize the concentration of Total Residual Chlorine (TRC) in the effluent, meet applicable effluent limitations, and reduce the possibility of adversely affecting the receiving waters. Optimization efforts may include an evaluation of wastewater characteristics, mixing characteristics, and contact times, adjustments to process controls, and maintenance of the disinfection facilities. If DEP determines that effluent TRC is causing adverse water quality impacts, DEP may reopen this permit to apply new or more stringent effluent limitations and/or require implementation of control measures or operational practices to eliminate such impacts.

Where the permittee does not use chlorine for primary or backup disinfection, but proposes the use of chlorine for cleaning or other purposes, the permittee shall notify DEP prior to initiating use of chlorine and monitor TRC concentrations in the effluent on each day in which chlorine is used. The results shall be submitted as an attachment to the DMR.

- E. 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.
- F. This permit may be modified, revoked, and reissued to incorporate revised effluent limitations or other water quality standards in accordance with any determination of a Section 316(a) Clean Water Act relative to thermal discharge from this permitted facility.
- G. This NPDES permit is subject to all permit conditions as set forth in the Water Quality Management permits 2371207, 2372201, 2376203 and 2386201.

H. Stormwater Credits

The effluent limitations contained on pages 5, 6, 7 and 8 for Monitoring Point 201 are based on a dry weather flow condition. During wet weather condition, the credits for stormwater runoff through industrial wastewater treatment plant/Monitoring Point 201 shall be calculated based on the following procedure:

- a. The quantity of pollutants discharged through stormwater for the purpose of stormwater credit shall be determined by using the values listed in the following table:

<u>Parameter</u>	<u>30 Day Average lb/1000 Gallons of Stormwater</u>	<u>Daily Maximum lb/1000 Gallons of Stormwater</u>
BOD5	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
Total Phenolics	0.0014	0.0029
Chromium, Total	0.0018	0.0050
Chromium, Hexavalent	0.00023	0.00052

- b. On any day, the stormwater mass loading for the pollutant listed in the above table shall be calculated by multiplying 30-day average value for that pollutant from the above table times the stormwater flow for that day.
- c. If the total credit exceeds the gross mass the net mass for that day shall be considered zero.
- d. The average monthly mass for reporting on the DMRs is the arithmetic average of all of the daily net mass values including zeros.
- e. When sampling and analytical determination is done more frequently than required, all daily determinations must be given equal weight in the calculation of average monthly mass loading.
- f. The calculated net mass loading for a day can be converted into concentration (mg/l) based on the flow on that day. The average monthly concentration is the arithmetic average of these daily net concentrations.
- g. If any day's net mass/concentrations exceed the daily maximum permit limits, the permittee may recalculate that day's mass/concentration using daily maximum values from the above tables. The recalculated values must be referred to as net daily maximum values on the DMRs. These shall not be used for calculating average monthly.
- h. All calculations used in determining the net values as reported on the DMRs shall be submitted monthly as an attachment to the DMRs.
- i. An example calculation work sheet is enclosed with the permit.

II. WHOLE EFFLUENT TOXICITY (WET)

A. General Requirements

1. The permittee shall conduct Chronic WET tests as specified in this section. The permittee shall collect discharge samples and perform WET tests to generate chronic survival and reproduction data for the cladoceran, *Ceriodaphnia dubia* and chronic survival and growth data for the fathead minnow, *Pimephales promelas*.
2. Samples shall be collected at Outfall 001 in accordance with paragraph E.
3. The permittee shall perform testing using the following dilution series: 20%, 40%, 79%, 90%, and 100% effluent, with a control, where 79% is the facility-specific Target In-Stream Waste Concentration (TIWC).
4. The determination of whether a test endpoint passes or fails shall be made using DEP's WET Analysis Spreadsheet (available at www.depweb.state.pa.us/wett) by comparing replicate data for the control with replicate data for the TIWC dilution or any dilution greater than the TIWC.
5. The permittee shall submit only valid WET test results to DEP.

B. Test Frequency and Reporting

1. WET testing shall be conducted annually, at a minimum, during the period January 1 – December 31. Annual WET tests must be completed at least 6 months apart, and shall start in the year the permit becomes effective if the permit effective date is prior to October 1.
2. A complete WET test report shall be submitted to the DEP regional office that issued the permit within 45 days of test completion. A complete WET test report submission shall include the information contained in paragraph H, below. The permittee shall continue annual WET monitoring, at a minimum, during the permit renewal review period and during any period of administrative extension of this permit.
3. If a test failure is determined for any endpoint during annual monitoring, the permittee shall initiate a re-test for the species with the failure within 45 days of test completion. All endpoints for the species shall be evaluated in the re-test. The results of the re-test shall be submitted to the DEP regional office that issued the permit.
4. If a passing result is determined for all endpoints in a re-test, the permittee may resume annual monitoring.
5. If there is a failure for one or more endpoints in a re-test, the permittee shall initiate or continue quarterly WET testing for both species until there are four consecutive passing results for all endpoints. The results of all tests shall be submitted to the DEP regional office that issued the permit. In addition, the permittee shall initiate a Phase I Toxicity Reduction Evaluation (TRE) as specified in paragraph C, below.
6. The permittee shall attach the WET Analysis Spreadsheet for the latest four consecutive WET tests to the NPDES permit renewal application that is submitted to DEP at least 180 days prior to the permit expiration date.

C. Phase I Toxicity Reduction Evaluation (TRE)

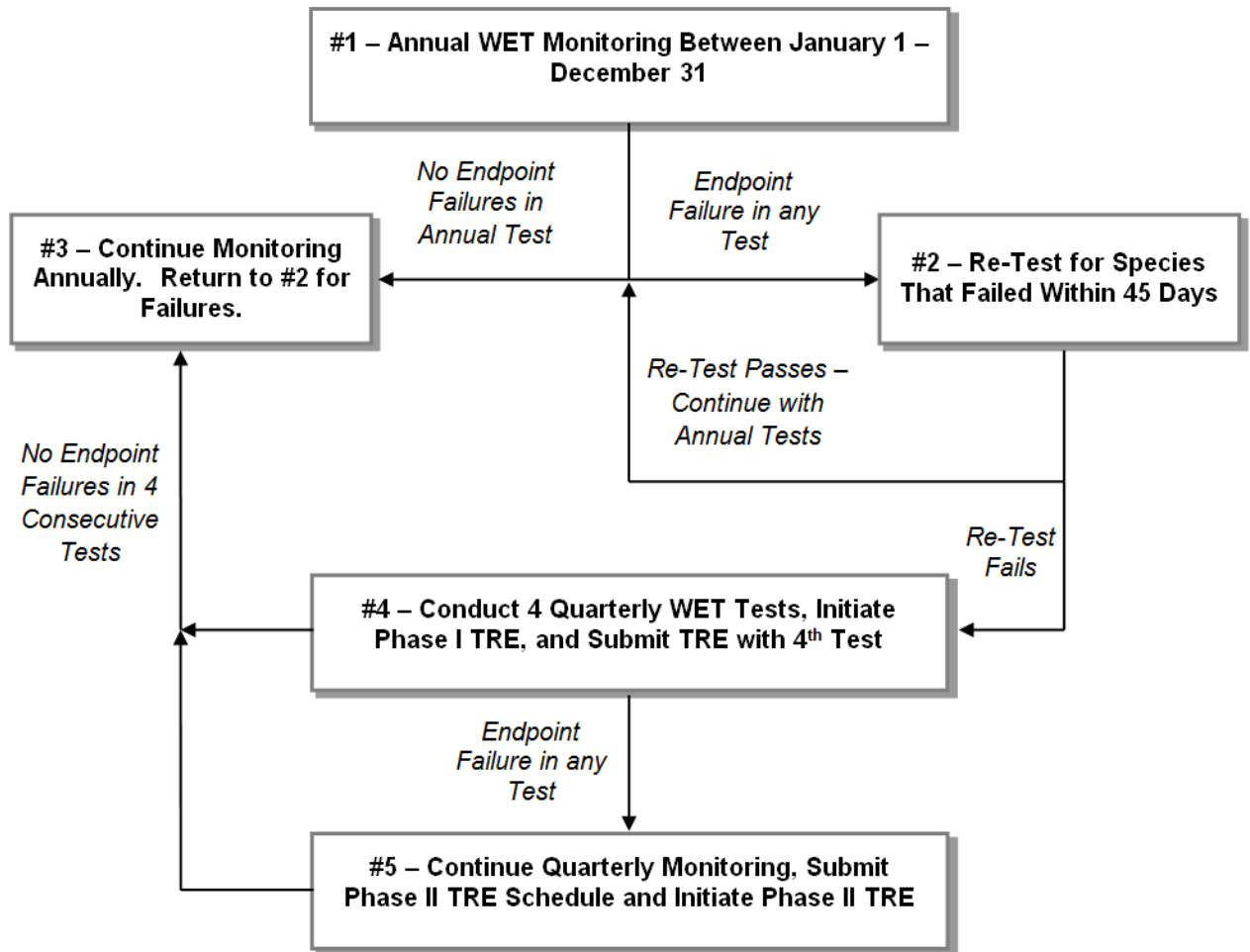
1. The Phase I TRE trigger is one WET endpoint failure followed by a re-test that confirms the failure for the same species. When the TRE process is triggered, quarterly WET testing shall be initiated for both species until there are four consecutive passing results for all endpoints. The Phase I TRE may include a Toxicity Identification Evaluation (TIE) if the permittee cannot immediately identify the possible causes of the effluent toxicity and the possible sources of the causative agents.

2. The permittee shall, within one year following the Phase I TRE trigger, submit a Phase I TRE report to the DEP regional office that issued the permit. The Phase I TRE shall be conducted in accordance with EPA's guidance, "Toxicity Reduction Evaluation for Municipal Wastewater Treatment Plants" (EPA/833B-99/002), "Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations" (EPA/600/2-88/070), and other relevant EPA guidance, as applicable. If a TIE is conducted as part of the Phase I TRE, it shall conform to EPA's guidance, "Methods for Aquatic Toxicity Identification Evaluations Phase I" (EPA/600/6-91/003), "Phase II" (EPA/600/R-92/080), "Phase III" (EPA/600/R-92/081) and other relevant EPA guidance. The Phase I TRE report shall be submitted with the fourth quarterly WET test report that is completed following the Phase I TRE trigger. The TRE shall include all activities undertaken to identify the cause(s) and source(s) of toxicity and any control efforts.
3. If all four quarterly WET tests produce passing results for all endpoints during the Phase I TRE process, performance of a Phase II TRE is not required, and annual WET testing in accordance with paragraph B.1 may resume.
4. If the four WET tests produce at least one failing result during the Phase I TRE process, the permittee shall continue quarterly WETT monitoring for both species and initiate a Phase II TRE in accordance with paragraph D. In this case, the Phase I TRE must include a schedule for completion of the Phase II TRE. The schedule must include interim milestones and a final completion date not to exceed two years from the initiation of the Phase II TRE. The permittee shall implement the Phase II TRE in accordance with the schedule unless DEP issues written approval to modify the schedule or cease performance of the Phase II TRE.
5. Re-tests during the TRE process are required for invalid tests but are optional and at the discretion of the permittee for valid tests. The results of all re-tests must be submitted to the DEP regional office that issued the permit along with the required elements in paragraph H.

D. Phase II Toxicity Reduction Evaluation (TRE)

1. The Phase II TRE trigger is one WET endpoint failure during performance of the Phase I TRE. A Phase II TRE, if required, shall conform to EPA's guidance, "Toxicity Reduction Evaluation for Municipal Wastewater Treatment Plants" (EPA/833B-99/002), "Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations" (EPA/600/2-88/070), and other relevant EPA guidance, as applicable. A Phase II TRE evaluates the possible control options to reduce or eliminate the effluent toxicity and the implementation of controls.
2. Once initiated, the Phase II TRE must continue until the source(s) of toxicity are controlled as evidenced by four consecutive WET test passing results for all endpoints, and a final TRE report must be submitted on or before the date specified in the schedule, unless otherwise approved by DEP in writing.
3. If four consecutive quarterly WET tests produce passing results for all endpoints during the Phase II TRE process, annual WET testing in accordance with paragraph B.1 may be initiated or resume.

An overview of the process described in paragraphs B, C and D is presented below:



E. Sample Collection

For each acute testing event, a 24-hour time-based composite sample shall be collected. For each chronic testing event, three 24-hour time-based, composite samples shall be collected over a seven day exposure period. Aliquots shall be collected every thirty minutes for the 24-hour sampling period. The samples must be collected at the permit compliance sampling location. Samples must be analyzed within 36 hours from the end of the compositing period and must be placed on ice and held at $\leq 6^{\circ}\text{C}$. Refer to the sample handling and preservation regulations set forth in 40 CFR 136, 25 Pa. Code Chapter 252, The NELAC Institute (TNI) Standard, and the appropriate EPA methods.

F. Test Conditions and Methods

Laboratories must be accredited by the DEP Laboratory Accreditation Program in order to perform and report WET tests for NPDES permit compliance. Laboratories must be either State or NELAP accredited.

1. Acute tests shall be completed in accordance with EPA’s “Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms” (EPA-821-R-02-012, latest edition). Forty eight (48) hour static non-renewal tests shall be used.
2. Chronic tests shall be completed in accordance with EPA’s “Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms” (EPA-821-R-02-013, latest edition). Seven (7) day tests shall be used with renewal every 24 hours.

3. The quality assurance and control (QA/QC) requirements and test acceptability standards specified in EPA's test methods and the requirements set forth in 25 Pa Code Chapter 252 or the TNI Standard must be followed.
4. If the permittee or its accredited laboratory determines that QA/QC requirements and/or test acceptability standards have not been met, a re-test shall be initiated within 45 days. Original test data must be maintained by the laboratory and be submitted to DEP upon request. The justification for a re-test must be clearly documented and kept on file with the sample results.

G. Chemical Analyses

Chemical analyses must follow the requirements of the EPA methods and applicable State and/or Federal regulations.

1. Chemical analysis on effluent samples shall include pH, Conductivity, Total Alkalinity, Total Hardness, Total Residual Chlorine, Total Ammonia (Unionized Ammonia), Dissolved Oxygen and temperature. Chemical analyses as described in the EPA Methods (above) shall be performed for each sampling event, including each new batch of dilution water and each testing event.
2. In addition to the chemical analyses required above, those parameters listed in Part A of the NPDES permit for the outfall(s) tested shall be analyzed concurrently with the WET test by using the method(s) specified in the permit.

H. WET Report Elements

WET test reports that are submitted to DEP must include the requirements identified in 25 Pa. Code § 252.401(j)(1) – (15) or in the TNI Standard, or equivalent, as well as the following information:

1. A general test description, including the origin and age of test organisms, dates and results of reference toxicant tests, light and temperature regimes, and other documentation that QA and test acceptability criteria as specified in EPA's methods and DEP's QA Summaries have been met.
2. A description of sample collection procedures and sampling location.
3. Name(s) of individual(s) collecting and transporting samples, including sample renewals, and the date(s) and time(s) of sample collection.
4. All chemical and physical data including laboratory quantitation limits and observations made on the species. The hardness shall be reported for each test condition.
5. Copies of raw data sheets and/or bench sheets with data entries and signatures.
6. When effluents are dechlorinated, dechlorination procedures must be described and if applicable a thiosulfate control used in addition to the normal dilution water control. If the thiosulfate control results are significantly different from the normal control, as determined using DEP's WET Analysis Spreadsheet, the thiosulfate control shall be used in the spreadsheet for comparison with the TIWC condition. The WET report must specify which control was used to determine whether the test result is pass or fail.
7. A description of all observations or test conditions that may have affected the test outcome.
8. Control charts for the species tested regarding age, temperature test range, mortality data and all reference toxicant tests.
9. A completed WET test summary report (3800-FM-BPNPSM0485).
10. A DEP WET Analysis Spreadsheet printout that provides control and TIWC replicate data and displays the outcome of the test (pass or fail) for each endpoint tested.

WETT reports shall be submitted to the DEP regional office that issued the permit and, for discharges to the Delaware River basin, the Delaware River Basin Commission (DRBC).

III. CHEMICAL ADDITIVES

A. Approved Chemical Additives List

1. The permittee is authorized to use chemical additives that are published on DEP's Approved Chemical Additives List (Approved List) (see www.depweb.state.pa.us/chemicaladditives) subject to paragraphs A.2 and A.3, below.
2. The permittee may not discharge a chemical additive at a concentration that is greater than the water quality-based effluent limitation (WQBEL) for the chemical additive or, if applicable, a technology-based effluent limitation. If effluent limitations are not specified in Part A of this permit for the chemical additive, the permittee is responsible for determining the WQBEL and ensuring the WQBEL is not exceeded by restricting usage to an amount that will not cause an excursion above in-stream water quality standards.
3. If the permittee decides to use a chemical additive that is on DEP's Approved List and the use would either (1) constitute an increase in the usage rate specified in the NPDES permit application or previous notification to DEP or (2) constitute a new use, not identified in the NPDES permit application or otherwise no previous notification occurred, the permittee shall complete and submit the "Chemical Additives Notification Form" (3800-FM-BPNPSM0487) to the DEP regional office that issued the permit. The permittee may proceed to use the chemical additive as reported on the Form upon receipt by the DEP regional office.

B. New Chemical Additives, Not on Approved Chemical Additives List

1. In the event the permittee wishes to use a chemical additive that is not listed on DEP's Approved List, the permittee shall submit the "New Chemical Additives Request Form" (3800-FM-BPNPSM0486) to DEP's Central Office, Bureau of Point and Non-Point Source Management (BPNPSM), Division of Planning and Permitting, Rachel Carson State Office Building, PO Box 8774, Harrisburg, PA 17105-8774, prior to use. A copy shall be submitted to the DEP regional office that issued the permit. The form must be completed in whole in order for BPNPSM to approve the chemical additive, and a Material Safety Data Sheet (MSDS) that meets the minimum requirements of 29 CFR 1910.1200(g) must be attached.
2. Following placement of the chemical additive on the Approved List, the permittee may submit the Chemical Additive Notification Form in accordance with paragraph A.3, above, to notify DEP of the intent to use the approved chemical additive. The permittee may proceed with usage when the new chemical has been identified on DEP's Approved List and following DEP's receipt of the Chemical Additives Notification Form.
3. The permittee shall restrict usage of chemical additives to the maximum usage rates determined and reported to DEP on Chemical Additives Notification Forms.

C. Chemical Additives Usage Reporting Requirements

The "Chemical Additives Usage Form" (3800-FM-BPNPSM0439) shall be used to report the usage of chemical additives and shall be submitted as an attachment to the Discharge Monitoring Report (DMR) at the time the DMR is submitted.

- D. DEP may amend this permit to include WQBELs or otherwise control usage rates of chemical additives if there is evidence that usage is adversely affecting receiving waters, producing Whole Effluent Toxicity test failures, or is causing excursions of in-stream water quality standards.

IV. HEAT REJECTION RATE LIMITATIONS

- A. To comply with the Heat Rejection Rate limitations and monitoring requirements for Monitoring Point 101 and Outfall 002, the permittee shall monitor the following parameters:

Parameter	Units	Monitoring Location
Average Daily Discharge, Q_d	MGD	101 and 002
Average Daily Plant Intake Temperature, T_i	°F	Intake Port on Delaware River
Average Daily Effluent Temperature, T_d	°F	101 and 002

- B. For reporting purposes, the permittee shall perform the following calculation:

$$Q_d \times 8.34 (T_d - T_i) = \text{actual Heat Rejection Rate in million BTUs/day (MBTUs/day)}$$

- C. Report the daily Heat Rejection Rate on the Daily Effluent Monitoring supplemental form, and the maximum daily Heat Rejection Rate recorded during the reporting period on the DMR.

V. PCB POLLUTANT MINIMIZATION PLAN AND MONITORING

- A. On December 15, 2003, the U.S. Environmental Protection Agency (EPA), Regions 2 and 3, adopted a Total Maximum Daily Load (TMDL) 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 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.

- B. The permittee shall collect one 24-hour composite sample annually during a wet weather flow from Outfalls 006, 007 and 008 and one 24-hour composite sample annually during a dry weather flow from Monitoring Point 201.

- C. 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 of the Delaware River Basin Commission (DRBC) shall be followed (see www.state.nj.us/drbc/quality/toxics/pcbs/monitoring.html). Monitoring information, sample data, and reports associated with PCB monitoring shall be submitted to DEP and DRBC in the form of two compact discs in the format referenced at www.state.nj.us/drbc/library/documents/PCB-EDD011309.pdf.

In accordance with the EPA Regions 2 and 3 TMDLs for PCBs for Zones 2–5 of the Tidal Delaware River, a PMP for PCBs was submitted to DRBC by the previous permittee Conocophillips Company and a completeness determination was issued on **January 25, 2006**. 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 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 www.state.nj.us/drbc/programs/quality/pmp.html.

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

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

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

VI. COOLING WATER INTAKE STRUCTURE(S)

- A. Nothing in this permit authorizes a take of endangered or threatened species under the Endangered Species Act.
- B. Technology and operational measures employed at the cooling water intake structures must be operated in a way that minimizes impingement mortality and entrainment to the fullest extent possible.
- C. The location, design, construction or capacity of the intake structure(s) may not be altered without prior approval of DEP.
- D. As part of its requirement to implement Best Technology Available (BTA) to minimize adverse impacts from impingement and entrainment, the permittee will install a closed-cycle recirculating cooling system. To comply with these BTA requirements the permittee shall:
1. Complete construction and installation of the proposed closed cycle recirculating system according to the following schedule:

Start-up Area 3 Cooling Tower(CT)	January 31, 2019
Define Scope/Make Selection of Alky and FCC CTs	December 31, 2019
Submit Progress Report (Alky CT/FCC CT)	December 31, 2020
Complete Detailed Design (Alky CT/FCC CT)	December 31, 2021
Complete construction and tie-ins (Alky CT/FCC CT)	December 31, 2022
Start-up (Alky CT/FCC CT)	June 30, 2023
Submit Progress Report (Alky CT/FCC CT)	June 30, 2024 (if permit is extended)
Complete Detailed Design (Alky CT/FCC CT)	June 30, 2025
Submit Progress Report (Alky CT/FCC CT)	June 30, 2026
Complete construction and start-up (Alky CT/FCC CT)	December 31, 2026
Complete construction and start-up of all cooling towers	December 31, 2026

2. Upon completion of construction, operate the closed cycle recirculating system as defined at 40 CFR §125.92(c) and comply with reporting requirements outlined in 40 CFR §125.94(c).
- E. During construction of the closed cycle recirculating system, the permittee will estimate average monthly intake flows as reported to the DRBC. The permittee will report the monthly flows, in million gallons per day, as an attachment to Annual DMRs.
- F. If DEP determines that the proposed closed cycle recirculating system is not sufficient to meet impingement and entrainment BTA requirements, the permittee will employ additional controls, as approved by DEP, to reduce adverse impacts from impingement and entrainment.
- G. Entrainment Sampling
1. Within 90 days of the permit effective date, the permittee shall submit an entrainment sampling plan to the Department. The entrainment sampling study plan shall include details regarding the permittee's

collection of 1 year of entrainment data (simple enumeration) for each species over a 24- hour period and no less than biweekly during the primary period of reproduction, larval recruitment, and peak abundance identified in the waterbody.

2. The entrainment sampling shall be completed during the period identified in condition G.1 above after Department approval of the entrainment sampling plan.
 3. Entrainment sampling results shall be submitted to the Department within 30 days of receipt by the permittee.
- H. The permittee shall submit all monitoring data with the next permit renewal application.
- I. If the permittee wishes to submit a request for a reduction in permit application requirements as outlined in 40 CFR §125.95 (c) it must be submitted to DEP at least two years and six months before this permit expires.
- J. The permittee shall retain data and other records for any information developed pursuant to Section 316(b) of the Clean Water Act for a minimum of ten years.
- K. New Units.

The permittee must submit applicable information in 40 CFR §122.21(r) at least 180 days prior to the planned commencement of cooling water withdrawals associated with the operation of a new unit (as defined in 40 CFR §125.92(u)).

VII. HYDROSTATIC TEST WATER DISCHARGE REQUIREMENTS

The discharge of hydrostatic test water from aboveground storage tanks is approved on an as-needed basis and is subject to the following conditions:

- A. The permittee shall notify the Department 24 hours before the discharge occurs. This notification shall include the tank number, material previously stored, quantity of water, and the receiving stream.
- B. No streams shall be dewatered to the extent that downstream uses, including aquatic life are impacted during filling operations.
- C. Non-tidal receiving stream flow shall not be increased by more than 25 percent of the stream flow. No erosion of banks or streambeds shall be induced by the discharge; appropriate erosion and sedimentation controls will be installed at the discharge point. The rate of discharge must be controlled to prevent scouring of streambed and erosion of the streambank.
- D. The discharge shall not contain any substances in concentration or amount sufficient to be harmful to water uses protected or to human, animal, plant, or aquatic life. The discharger is responsible for any impairment of water use that occurs as a result of this discharge. The DEP reserves the right to require that the discharge be discontinued.
- E. All water discharged must be properly directed so that it causes no nuisance conditions and does not pool or pond prior to reaching a surface water.
- F. The monitoring report shall be submitted to the Department. The monitoring report must also include the name of the receiving stream, the discharge location point, the starting and ending date and time for the test/discharge, the tank number, and the location, date and time of sample collection, and all test data presented in a summary table by sampling location and time.
- G. A laboratory /sampling QA/QC plan shall be submitted with the monitoring reports.
- H. The discharge of hydrostatic test water must comply with the following effluent limitations and monitoring requirements:

<u>Parameter</u>	<u>Instantaneous Maximum (mg/l)</u>	<u>Sampling Frequency</u>	<u>Sample Type</u>
Flow (gpm)	Monitor/Report	2/Discharge	Measured
Duration (hours)	Monitor/Report	Continuous	N/A
Dissolved Oxygen	Minimum of 5.0	2/Discharge	Grab
Suspended Solids(Net)	60	2/Discharge	Grab
Oil and Grease	30	2/Discharge	Grab
Iron, Total (Net)	1.5	2/Discharge	Grab
Iron, Dissolved (Net)	0.3	2/Discharge	Grab
Copper, Total (Net)	0.1	2/Discharge	Grab
Temperature	110°F	2/Discharge	Grab
pH Standard Units	Between 6 and 9 at all times	2/Discharge	Grab

The river intake water shall be sampled as it is pumped to the tank for suspended solids; iron, total; iron, dissolved; and copper, total; to compute net discharge limits.

VIII. REQUIREMENTS APPLICABLE TO STORMWATER OUTFALLS

- A. The permittee is authorized to discharge non-polluting stormwater from its site, alone or in combination with other wastewaters, through the following outfalls:

Outfall No.	Area Drained (ft²)	Latitude	Longitude	Description
001	2,381,807	39° 49' 13.94"	-75° 24' 32.45"	Roadways, process areas and AWWTP
002	177,780	39° 49' 30.61"	-75° 24' 1.61"	Roadways and process areas
003	49,720	39° 49' 18.26"	-75° 24' 32.94"	Roadway
005	89,152	39° 49' 3.72"	-75° 24' 25.61"	Roadway
006	417,545	39° 49' 21.4"	-75° 23' 55.8"	Roadway and railroad right-of-way
007	501,765	39° 49' 23.92"	-75° 23' 56.85"	Roadway and open areas near process units
008	509,545	39° 49' 27.94"	-75° 23' 59.98"	Roadways, open areas near process units and maintenance shops
011	52,595	39° 49' 8.16"	-75° 23' 56.21"	Roadway and open vegetated area
012	128,159	39° 49' 17.52"	-75° 23' 49.47"	Roadway and open vegetated area
013	211,433	39° 48' 59.57"	-75° 24' 17.39"	Roadway and open vegetated area
014	61,765	39° 49' 15.06"	-75° 24' 32.43"	Parking lot and open vegetated rain garden
015	140,490	39° 49' 10.09"	-75° 24' 31.64"	Roadway, impervious equipment storage area, and open retention basin

Monitoring requirements and effluent limitations for these outfalls are specified in Part A of this permit, if applicable.

- B. Stormwater Annual Report.

The permittee shall submit a complete Annual Report to the DEP office that issued the permit by May 1 each year using DEP's Annual Report template, attached to this permit. The Annual Report shall address activities under the permit for the previous calendar year. The permittee shall submit the Annual Report electronically if notified by DEP in writing. If the permittee discharges to a municipal separate storm sewer system (MS4), a copy of the Annual Report shall be submitted to the operator of the MS4.

C. Best Management Practices (BMPs).

The permittee shall implement and, as necessary, maintain the following BMPs to remain in compliance with this permit.

1. Pollution Prevention and Exposure Minimization.

The permittee shall minimize the exposure of manufacturing, processing, and material storage areas (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations) to rain, snow, snowmelt, and runoff in order to minimize pollutant discharges by either locating industrial materials and activities inside or protecting them with storm resistant coverings wherever feasible. The permittee shall implement and maintain the following measures, at a minimum:

- a. Use grading, berming or curbing to prevent runoff of polluted stormwater and divert run-on away from areas that contain polluted stormwater
- b. Locate materials, equipment, and activities so that potential leaks and spills are contained or able to be contained or diverted before discharge to surface waters
- c. Clean up spills and leaks promptly using dry methods (e.g., absorbents) to prevent the discharge of pollutants to surface waters
- d. Store leaky vehicles and equipment indoors or, if stored outdoors, use drip pans and absorbents to prevent the release of pollutants to the environment.
- e. Use spill/overflow protection equipment.
- f. Perform all vehicle and/or equipment cleaning operations indoors, under cover, or in bermed areas that prevent runoff and run-on and also that capture any overspray.
- g. Drain fluids from equipment and vehicles that will be decommissioned, and, for any equipment and vehicles that will remain unused for extended periods of time, inspect at least monthly for leaks.
- h. Keep all dumpster lids closed when not in use. For dumpsters and roll off boxes that do not have lids, ensure that discharges have a control (e.g., secondary containment, treatment). This General Permit does not authorize dry weather discharges from dumpsters or roll off boxes.
- i. Minimize contamination of stormwater runoff from fueling areas by implementing the following BMPs where determined to be feasible: cover fueling areas; install oil/water separators or oil and grease traps in fueling area storm drains; use berms to prevent run-on to and runoff from fueling areas; use spill/overflow protection and cleanup equipment; use dry cleanup methods; and/or treat and/or recycle collected stormwater runoff.
- j. Train employees routinely (no less than annually) on pollution prevention practices as contained in the PPC Plan.

2. Good Housekeeping.

The permittee shall perform good housekeeping measures in order to minimize pollutant discharges including the routine implementation of the following measures, at a minimum:

- a. Implement a routine cleaning and maintenance program for all impervious areas of the facility where particulate matter, dust or debris may accumulate to minimize the discharge of pollutants in stormwater. The cleaning and maintenance program must encompass, as appropriate, areas where material loading and unloading, storage, handling and processing occur.
 - b. Store materials in appropriate containers.
 - c. Minimize the potential for waste, garbage and floatable debris to be discharged by keeping exposed areas free of such materials, or by intercepting them before they are discharged.
 - d. Eliminate floor drain connections to storm sewers.
 - e. Use drip pans, drain boards, and drying racks to direct drips back into a fluid holding tank for reuse. Drain fluids from all equipment and parts prior to disposal. Promptly transfer used fluids to the proper container; do not leave full drip pans or other open containers around the shop. Empty and clean drip pans and containers.
 - f. Label and track the recycling of waste material (e.g., used oil, spent solvents, batteries).
 - g. Prohibit the practice of hosing down an area where the practice would result in the discharge of pollutants to a municipal or other storm water collection system that conveys pollutants off-site without proper treatment.
3. Erosion and Sediment Controls.
- a. The permittee shall minimize erosion and pollutant discharges by stabilizing exposed soils and placing flow velocity dissipation devices at discharge locations to minimize channel and stream bank erosion and scour in the immediate vicinity of stormwater outfalls.
 - b. The permittee shall conduct all earth disturbance activities and, when applicable, shall maintain all post-construction stormwater management (PCSM) BMPs in accordance with 25 Pa. Code Chapter 102.
 - c. The permittee may not utilize polymers or other chemicals to treat stormwater unless written permission is obtained from DEP.
4. Spill Prevention and Responses.

The permittee shall minimize the potential for leaks, spills and other releases that may be exposed to stormwater and develop a PPC Plan for effective responses to such releases. The permittee shall conduct the following spill prevention and response measures, at a minimum:

- a. Maintain an organized inventory of materials on-site. Plainly label containers (e.g., "Used Oil," "Spent Solvents," "Fertilizers and Pesticides") that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur.
- b. Implement procedures for material storage and handling, including the use of secondary containment and barriers between material storage and traffic areas, or a similarly effective means designed to prevent the discharge of pollutants from these areas.
- c. Develop and implement employee and contractor training on the procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases. The permittee shall conduct periodic training, no less than annually, and document the training on the Annual Report specified in paragraph B of this section.
- d. Keep spill kits on-site, located near areas where spills may occur or where a rapid response can be made.

- e. Notify appropriate facility personnel when a leak, spill, or other release occurs.
- f. To the extent possible, eliminate or reduce the number and amount of hazardous materials and waste by substituting non-hazardous or less hazardous materials of equal function, as determined by the permittee.
- g. Clean up leaks, drips, and other spills without using large amounts of water or liquid cleaners. Use absorbents for dry cleanup whenever possible.

When a leak, spill or other release occurs during a 24-hour period that contains a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under 40 CFR Parts 110, 117 or 302, the permittee shall, in addition to the notification requirements contained in Part A III.C.4 of this permit, notify the National Response Center (NRC) at (800) 424-8802 in accordance with the requirements of 40 CFR Parts 110, 117, and 302 as soon as the permittee becomes aware of the discharge.

5. Sector- and Site-Specific BMPs.

- a. The permittee shall implement the BMPs in the applicable Appendix to the NPDES PAG-03 General Permit for Discharges of Stormwater Associated with Industrial Activities that is currently in effect.

D. Routine Inspections.

- 1. The permittee shall visually inspect the following areas and BMPs on a semiannual basis (calendar periods), at a minimum:
 - a. Areas where industrial materials or activities are exposed to stormwater.
 - b. Areas identified in the PPC Plan as potential pollutant sources.
 - b. Areas where spills or leaks have occurred in the past three years.
 - c. Stormwater outfalls and locations where authorized non-stormwater discharges may commingle.
 - d. Physical BMPs used to comply with this permit.

At least once each calendar year, the routine inspection must be conducted during a period when a stormwater discharge is occurring.

- 2. The permittee shall evaluate and document the following conditions, at a minimum, in the Annual Report required by paragraph B of this section through required inspections:
 - a. Raw materials, products or wastes that may have or could come into contact with stormwater.
 - b. Leaks or spills from equipment, drums, tanks and other containers.
 - c. Off-site tracking of industrial or waste materials, or sediment where vehicles enter or exit the site.
 - d. Tracking or blowing of raw, final or waste materials from areas of no exposure to exposed areas.
 - e. Control measures or BMPs needing replacement, maintenance or repair.
 - f. The presence of authorized non-stormwater discharges that were not identified in the permit application and non-stormwater discharges not authorized by this permit.

E. Preparedness, Prevention and Contingency (PPC) Plan

1. The permittee shall develop and implement a PPC Plan in accordance with 25 Pa. Code § 91.34 following the guidance contained in DEP's "Guidelines for the Development and Implementation of Environmental Emergency Response Plans" (DEP ID 400-2200-001), its NPDES-specific addendum and the minimum requirements below.
 - a. The PPC Plan must identify all potential sources of pollutants that may reasonably be expected to affect the quality of stormwater discharges from the facility.
 - b. The PPC Plan must describe preventative measures and BMPs that will be implemented to reduce or eliminate pollutants from coming into contact with stormwater resulting from routine site activities and spills.
 - c. The PPC Plan must address actions that will be taken in response to on-site spills or other pollution incidents.
 - d. The PPC Plan must identify areas which, due to topography or other factors, have a high potential for soil erosion, and identify measures to limit erosion. Where necessary, erosion and sediment control measures must be developed and implemented in accordance with 25 Pa. Code Chapter 102 and DEP's "Erosion and Sediment Pollution Control Manual" (DEP ID 363-2134-008).
 - e. The PPC Plan must address security measures to prevent accidental or intentional entry which could result in an unintentional discharge of pollutants.
 - f. The PPC Plan must include a plan for training employees and contractors on pollution prevention, BMPs, and emergency response measures. This training must be conducted in accordance with paragraph C.4.c of this section.
 - g. If the facility is subject to SARA Title III, Section 313, the PPC Plan must identify releases of "Water Priority Chemicals" within the previous three years. Water Priority Chemicals are those identified in EPA's "Guidance for the Determination of Appropriate Methods for the Detection of Section 313 Water Priority Chemicals" (EPA 833-B-94-001, April 1994). The Plan must include an evaluation of all activities that may result in the stormwater discharge of Water Priority Chemicals.
 - h. Spill Prevention Control and Countermeasure (SPCC) plans may be used to meet the requirements of this section if the minimum requirements are addressed.
2. The permittee shall review and if necessary update the PPC Plan on an annual basis, at a minimum, and when one or more of the following occur:
 - a. Applicable DEP or federal regulations are revised, or this permit is revised.
 - b. The PPC Plan fails in an emergency.
 - c. The facility's design, industrial process, operation, maintenance, or other circumstances change in a manner that materially increases the potential for fires, explosions or releases of toxic or hazardous constituents; or which changes the response necessary in an emergency.
 - d. The list of emergency coordinators or equipment changes.
 - e. When notified in writing by DEP.

The permittee shall maintain all PPC Plan updates on-site, make the updates available to DEP upon request, and document the updates in Annual Reports.

F. Stormwater Monitoring Requirements.

1. The permittee shall conduct monitoring of its stormwater discharges at the representative outfalls identified in Part A of this permit, if applicable. The permittee shall document stormwater sampling event

information and no exposure conditions for each calendar year on the Annual Report required by paragraph B of this section.

2. The permittee shall, upon written notice from DEP, install inlets, pipes, and/or other structures or devices that are considered necessary in order to conduct representative stormwater sampling, in accordance with a schedule provided by DEP.
3. The permittee shall collect all samples from discharges resulting from a storm event that is greater than 0.1 inch in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. The 72-hour storm interval is waived when the preceding storm did not yield a measurable discharge, or if the permittee is able to document that a less than 72-hour interval is representative for local storm events during the sample period.
4. The permittee shall collect all grab samples within the first 30 minutes of a discharge, unless the permittee determines that this is not possible, in which case grab samples must be collected as soon as possible after the first 30 minutes of a discharge. The permittee shall explain why samples could not be collected within the first 30 minutes of any discharge on the Annual Report required by paragraph B of this section.
5. The permittee shall collect stormwater samples at times when commingling with non-stormwater discharges is not occurring or at locations prior to the commingling of non-stormwater discharges, unless Part A of this permit recognizes commingling of stormwater and non-stormwater discharges.
6. In the event that stormwater discharge concentrations for a parameter exceeds the benchmark values identified below at the same outfall for two or more consecutive monitoring periods, the permittee shall develop a corrective action plan to reduce the concentrations of the parameters in stormwater discharges. The permittee shall submit the corrective action plan to DEP within 90 days of the end of the monitoring period triggering the need for the plan, and shall implement the plan immediately upon submission or at a later time if authorized by DEP in writing. The permittee shall, in developing the plan, evaluate alternatives to reduce stormwater concentrations and select one or more BMPs or control measures for implementation, unless the permittee can demonstrate in the plan that (1) the exceedances are solely attributable to natural background sources; (2) no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice; or (3) further pollutant reductions are not necessary to prevent stormwater discharges from causing or contributing to an exceedance of applicable water quality standards.

Parameter	Benchmark Value (mg/L)
Total Suspended Solids	100
Chemical Oxygen Demand	120

IX. SCHEDULE OF COMPLIANCE

The permittee shall achieve compliance with final effluent limitations on Page 6 for Aluminum, and Selenium in accordance with the following schedule:

1. Submit a report detailing the upgrade of the plant or additional treatment within 6 months from the permit effective date.
2. Complete the plant upgrade or provide additional treatment within 18 months of the permit effective date.
3. Achieve compliance with the effluent limitations within 24 months of the permit effective date.