



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

**NPDES PERMIT NO: PA0011657  
Amendment No. 1**

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.*,

**Exelon Generation Co. LLC  
300 Exelon Way  
Kennett Square, PA 19348**

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

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

**THIS PERMIT SHALL EXPIRE AT MIDNIGHT ON March 31, 2013**

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 March 4, 2008**

**DATE PERMIT AMENDMENT ISSUED April 27, 2012**

**ISSUED BY Signed**

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

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

I. A. For Outfall 001, Latitude 39° 56' 34.51", Longitude 75° 11' 27.71", River Mile Index 5.6, Stream Code 00833

**Discharging to Schuylkill River**

which receives wastewater from Schuylkill Generating Station equipment, Trigen equipment, and Grays Ferry facility and backwash from traveling screen.

1. The permittee is authorized to discharge during the period from Permit Effective Date through March 31, 2013.
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, Footnotes and Supplemental Information).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/day	Estimate
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
Total Residual Oxidants	XXX	XXX	XXX	XXX	XXX	0.2	1/week	Grab
Temperature (°F)	XXX	XXX	XXX	XXX	XXX	110	1/week	I-S
Total Suspended Solids	XXX	XXX	XXX	30	60	75	2/month	24-Hr Composite
Oil and Grease	XXX	XXX	XXX	15.0	XXX	30.0	2/week	Grab
PCBs (Dry Weather) (pg/L)	XXX	XXX	XXX	XXX	Report	XXX	1/year	24-Hr Composite
PCBs (Wet Weather) (pg/L)	XXX	XXX	XXX	XXX	Report	XXX	1/year	24-Hr Composite
Spectrus CT 1300*	XXX	XXX	XXX	XXX	0.05	XXX	1/day	Grab

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

\* Shall be sampled only during the use of the chemical additive. See Other Requirement – I.M.  
Permittee shall submit a report justify the optimum usage of DT 1400 indicating the CT1300 level during usage of DT1400 as an attachment to the DMR.

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

**For Monitoring**

I. B. Point (MP) 101, Latitude 39° 56' 30.00", Longitude -75° 11' 15.00", River Mile Index 5.6, Stream Code 00833

**Discharging to Schuylkill River through Outfall 001**

which receives wastewater from boiler chemical cleaning wastewater

1. The permittee is authorized to discharge during the period from Permit Effective Date through March 31, 2013.
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, Footnotes and Supplemental Information).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	When Discharging	Estimate
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	When Discharging	Grab
Total Suspended Solids	XXX	XXX	XXX	30	100	XXX	When Discharging	8-Hr Composite
Oil and Grease	XXX	XXX	XXX	15.0	20.0	30.0	When Discharging	Grab
Total Copper	XXX	XXX	XXX	1.0	1.0	XXX	When Discharging	8-Hr Composite
Total Iron	XXX	XXX	XXX	1.0	1.0	XXX	When Discharging	8-Hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at MP 101, effluent of neutralization tank

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

For Monitoring

I. C. Point (MP) 201, Latitude 39° 56' 30", Longitude -75° 11' 14", River Mile Index 5.6, Stream Code 00833

Discharging to Schuylkill River through Outfall 001

which receives wastewater from floor drains and oil-water separator

1. The permittee is authorized to discharge during the period from Permit Effective Date through March 31, 2013.
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, Footnotes and Supplemental Information).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/week	Estimate
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/week	Grab
Total Suspended Solids	XXX	XXX	XXX	30	100	XXX	2/month	Grab
Oil and Grease	XXX	XXX	XXX	15.0	20.0	30.0	2/month	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at MP201, effluent of oil-water separator

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

For Monitoring

I. D. Point (MP) 301, Latitude 39° 56' 35", Longitude -75° 11' 28", River Mile Index 5.6, Stream Code 00833

**Discharging to Schuylkill River through Outfall 001**

which receives wastewater from cooling water from Trigen and Greys Ferry cogeneration facilities

1. The permittee is authorized to discharge during the period from Permit Effective Date through March 31, 2013.
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, Footnotes and Supplemental Information).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/day	Estimate
Total Suspended Solids	XXX	XXX	XXX	30	100	XXX	2/month	Grab
Oil and Grease	XXX	XXX	XXX	15.0	20.0	30.0	2/month	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at MP 301 prior to blending with Schuylkill generating wastewater

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

Additional Requirements

The permittee may not discharge:

1. Floating solids, scum, sheen or substances that result in observed deposits in the receiving water. (25 Pa Code 92a.41(c))
2. Oil and grease in amounts that cause a film or sheen upon or discoloration of the waters of this Commonwealth or adjoining shoreline, or that exceed 15 mg/l as a daily average or 30 mg/l at any time (or lesser amounts if specified in this permit). (25 Pa. Code 92a.47(a)(7) and 95.2(2))
3. Substances in concentration or amounts sufficient to be inimical or harmful to the water uses to be protected or to human, animal, plant or aquatic life. (25 Pa Code 93.6(a))
4. Foam or substances that produce an observed change in the color, taste, odor or turbidity of the receiving water, unless those conditions are otherwise controlled through effluent limitations or other requirements in this permit. (25 Pa Code 92a.41(c))

Footnotes

- (1) When sampling to determine compliance with mass effluent limitations, the discharge flow at the time of sampling must be measured and recorded.
- (2) This is the minimum number of sampling events required. Permittees are encouraged, and it may be advantageous in demonstrating compliance, to perform more than the minimum number of sampling events.

Supplemental Information

- (1) The effluent limitations for this outfall were determined using an effluent discharge rate of 231.84 million gallons per day.

## II. DEFINITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



### III. SELF-MONITORING, REPORTING AND RECORDKEEPING

#### A. Representative Sampling (40 CFR 122.4(j)(1))

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. Records Retention (40 CFR 122.41(j)(2))

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

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

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

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

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

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

5. Quality/Assurance/Control

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

- a. The permittee, or its designated laboratory, shall participate in the periodic scheduled quality assurance inspections conducted by DEP and EPA. (40 CFR 122.41(e), 122.41(i)(3))
- b. The permittee, or its designated laboratory, shall develop and implement a program to assure the quality and accurateness of the analyses performed to satisfy the requirements of this permit, in accordance with 40 CFR Part 136. (40 CFR 122.41(j)(4))

#### B. Reporting of Monitoring Results

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

2. Unless instructed otherwise in Part C of this permit, properly completed DMR(s) must be received by the agency(ies) below within 28 days after the end of each reporting period. The permittee shall complete all Supplemental Reporting forms (Supplemental DMRs) provided by DEP in this permit (or an approved equivalent), and submit the signed, completed forms as an attachment to the DMR(s). If the permittee elects to use DEP's electronic DMR (eDMR) system, one electronic submission may be made for DMRs and Supplemental DMRs. If paper forms are used, the completed forms shall be mailed to:

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

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

3. If the permittee elects to begin using DEP's eDMR system to submit DMRs required by the permit, the permittee shall, to assure continuity of business operations, continue using the eDMR system to submit all DMRs and Supplemental Reports required by the permit, unless the following steps are completed to discontinue use of eDMR:
  - a. The permittee shall submit written notification to the regional office that issued the permit that it intends to discontinue use of eDMR. The notification shall be signed by a principal executive officer or authorized agent of the permittee.
  - b. The permittee shall continue using eDMR until the permittee receives written notification from DEP's Central Office that the facility has been removed from the eDMR system, and electronic report submissions are no longer expected.
4. The completed DMR Form shall be signed and certified by either of the following applicable persons, as defined in 25 Pa. Code 92a.22:
  - For a corporation - by a principal executive officer of at least the level of vice president, or an authorized representative, if the representative is responsible for the overall operation of the facility from which the discharge described in the NPDES form originates.
  - For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.
  - For a municipality, state, federal or other public agency - by a principal executive officer or ranking elected official.

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

5. 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 of any planned physical alterations or additions to the permitted facility. A permit under 25 Pa. Code Chapter 91 may be required for these situations prior to implementing the planned changes. A permit application, or other written submission to DEP, can be used to satisfy the notification requirements of this section. Notice is required when:

- a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR §122.29(b). (40 CFR 122.41(l)(1)(i))
  - b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are not subject to effluent limitations in this permit. (40 CFR 122.41(l)(1)(ii))
  - c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 CFR 122.41(l)(1)(iii))
  - d. The planned change may result in noncompliance with permit requirements. (40 CFR 122.41(l)(2))
  - e. The facility is proposing an expansion or modifications to its treatment processes. (25 Pa. Code 92a.24(a))
2. Planned Changes to Waste Stream – Under the authority of 25 Pa. Code 92a.24(a), the permittee shall provide notice to DEP as soon as possible but no later than 45 days prior to any changes in the volume or pollutant concentration of its influent waste stream as a result of indirect discharges or hauled-in wastes, as specified in paragraphs 2.a. and 2.b., below. Notice shall be provided on the “Planned Changes to Waste Stream” Supplemental Report (3800-FM-WSFR0482), available on DEP’s web site. The permittee shall provide information on the quality and quantity of waste introduced into the facility, and any anticipated impact of the change on the quantity or quality of effluent to be discharged from the facility. The Report shall be sent via Certified Mail or other means to confirm DEP’s receipt of the notification. DEP will determine if the submission of a new application and receipt of a new or amended permit is required.
- a. Introduction of New Pollutants (25 Pa. Code 92a.24(a))

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

- (i) Were not detected in the facilities’ influent waste stream as reported in the permit application, or were otherwise not analyzed in the influent and reported to DEP prior to permit issuance;
- (ii) Have not been previously approved to be included in the permittee’s influent waste stream by DEP in writing.

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

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

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

- (i) Were detected in the facilities’ influent waste stream as reported in the permittee’s permit application or were otherwise analyzed and reported to DEP prior to permit issuance;
- (ii) Have an effluent limitation or monitoring requirement in this permit;
- (iii) Have been previously approved for the permittee’s influent waste stream by DEP in writing.

The permittee shall provide notification of the introduction of increased influent loading (lbs/day) of approved pollutants in accordance with paragraph 2 above when (1) the cumulative increase in influent loading (lbs/day) exceeds 10% of the maximum loading reported in the permit application,

or a loading previously approved by DEP, or (2) may cause an exceedance in the effluent of Effluent Limitation Guidelines (ELGs) or limitations in Part A of this permit, or (3) may cause interference or pass through at the facility, or (4) may cause exceedances of the applicable water quality standards in the receiving stream. Unless specified otherwise in this permit, if DEP does not respond to the notification within 30 days of its receipt, the permittee may proceed with the increase in loading. The acceptance of increased loading of approved pollutants may not result in an exceedance of ELGs or effluent limitations and may not cause exceedances of the applicable water quality standards in the receiving stream.

### 3. Reporting Requirements for Hauled-In Wastes

#### a. Receipt of Residual Waste

- (i) The permittee shall document the receipt of all hauled-in residual wastes (including but not limited to wastewater from oil and gas wells, food processing waste, and landfill leachate) received for processing at the treatment facility. The permittee shall report hauled-in residual wastes on a monthly basis to DEP on the "Hauled In Residual Wastes" Supplemental Report (3800-FM-WSFR0450) as an attachment to the DMR. If no residual wastes were received during a month, submission of the Supplemental Report is not required.

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

- (1) The dates that residual wastes were received.
- (2) The volume (gallons) of wastes received.
- (3) The license plate number of the vehicle transporting the waste to the treatment facility.
- (4) The permit number(s) of the well(s) where residual wastes were generated, if applicable.
- (5) The name and address of the generator of the residual wastes.
- (6) The type of wastewater.
- (7) Documentation of whether or not a chemical analysis of the residual wastes were reported on a Residual Waste Form 26R, or a separate waste characterization using the parameters from Form 26R.

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

- (ii) The following conditions apply to the characterization of residual wastes received by the permitted treatment facility:
  - (1) The permitted facility must receive and maintain on file a characterization of the residual wastes it receives from the generator, as required by 25 Pa. Code 287.54. The characterization shall conform to the Bureau of Waste Management's Form 26R except as noted in paragraph (2), below. Each load of residual waste received must be characterized accordingly.
  - (2) For wastewater generated from hydraulic fracturing operations ("frac wastewater") within the first 30 production days of a well site, the characterization may be a general frac wastewater characterization approved by DEP. Thereafter, the characterization must be waste-specific and reported on the Form 26R.

b. Receipt of Municipal Waste

- (i) The permittee shall document the receipt of all hauled-in municipal wastes (including but not limited to septage and liquid sewage sludge) received for processing at the treatment facility. The permittee shall report hauled-in municipal wastes on a monthly basis to DEP on the "Hauled In Municipal Wastes" Supplemental Report (3800-FM-WSFR0437) as an attachment to the DMR. If no municipal wastes were received during a month, submission of the Supplemental Report is not required.

The following information is required by the Supplemental Report:

- (1) The dates that municipal wastes were received.
  - (2) The volume (gallons) of wastes received.
  - (3) The BOD<sub>5</sub> concentration (mg/l) and load (lbs) for the wastes received.
  - (4) The location(s) where wastes were disposed of within the treatment facility.
- (ii) Sampling and analysis of hauled-in municipal wastes must be completed to characterize the organic strength of the wastes, unless composite sampling of influent wastewater is performed at a location downstream of the point of entry for the wastes.

4. Unanticipated Noncompliance or Potential Pollution Reporting

- a. Immediate Reporting - The permittee shall immediately report any incident causing or threatening pollution in accordance with the requirements of 25 Pa. Code Sections 91.33 and 92a.41(b).
- (i) If, because of an accident, other activity or incident a toxic substance or another substance which would endanger users downstream from the discharge, or would otherwise result in pollution or create a danger of pollution or would damage property, the permittee shall immediately notify DEP by telephone of the location and nature of the danger. Oral notification to the Department is required as soon as possible, but no later than 4 hours after the permittee becomes aware of the incident causing or threatening pollution.
  - (ii) If reasonably possible to do so, the permittee shall immediately notify downstream users of the waters of the Commonwealth to which the substance was discharged. Such notice shall include the location and nature of the danger.
  - (iii) The permittee shall immediately take or cause to be taken steps necessary to prevent injury to property and downstream users of the waters from pollution or a danger of pollution and, in addition, within 15 days from the incident, shall remove the residual substances contained thereon or therein from the ground and from the affected waters of this Commonwealth to the extent required by applicable law.
- b. The permittee shall report any noncompliance which may endanger health or the environment in accordance with the requirements of 40 CFR 122.41(l)(6). These requirements include the following obligations:
- (i) 24 Hour Reporting - The permittee shall orally report any noncompliance with this permit which may endanger health or the environment within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which must be reported within 24 hours under this paragraph:
    - (1) Any unanticipated bypass which exceeds any effluent limitation in the permit;
    - (2) Any upset which exceeds any effluent limitation in the permit; and

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

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

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

#### 5. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under paragraph C.4 of this section or specific requirements of compliance schedules, at the time DMRs are submitted, on the Non-Compliance Reporting Form (3800-FM-WSFR0440). The reports shall contain the information listed in paragraph C.4.b.(ii) of this section. (40 CFR 122.41(l)(7))

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

1. That any activity has occurred, or will occur, which would result in the discharge of any toxic pollutant which is not limited in this permit, if that discharge on a routine or frequent basis will exceed the highest of the following "notification levels": (40 CFR 122.42(a)(1))
  - a. One hundred micrograms per liter.
  - b. Two hundred micrograms per liter for acrolein and acrylonitrile.
  - c. Five hundred micrograms per liter for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol.
  - d. One milligram per liter for antimony.
  - e. Five times the maximum concentration value reported for that pollutant in this permit application.
  - f. Any other notification level established by DEP.
2. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following "notification levels": (40 CFR 122.42(a)(2))
  - a. Five hundred micrograms per liter.
  - b. One milligram per liter for antimony.
  - c. Ten times the maximum concentration value reported for that pollutant in the permit application.
  - d. Any other notification level established by DEP.

**PART B**

**I. MANAGEMENT REQUIREMENTS**

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

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

B. Permit Modification, Termination, or Revocation and Reissuance

1. This permit may be modified, terminated, or revoked and reissued during its term in accordance with 25 Pa. Code 92a.72 and 40 CFR 122.41(f).
2. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition. (40 CFR 122.41(f))
3. In the absence of DEP action to modify or revoke and reissue this permit, the permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time specified in the regulations that establish those standards or prohibitions. (40 CFR 122.41(a)(1))

C. Duty to Provide Information

1. The permittee shall furnish to DEP, within a reasonable time, any information which DEP may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. (40 CFR 122.41(h))
2. The permittee shall furnish to DEP, upon request, copies of records required to be kept by this permit. (40 CFR 122.41(h))
3. Other Information - Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to DEP, it shall promptly submit the correct and complete facts or information. (40 CFR 122.41(l)(8))

D. Proper Operation and Maintenance

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

E. Duty to Mitigate

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

F. Bypassing

1. Bypassing Not Exceeding Permit Limitations - The permittee may allow a bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions in paragraphs two, three and four of this section. (40 CFR 122.41(m)(2))
2. Other Bypassing - In all other situations, bypassing is prohibited and DEP may take enforcement action against the permittee for bypass unless:
  - a. A bypass is unavoidable to prevent loss of life, personal injury or "severe property damage." (40 CFR 122.41(m)(4)(i)(A))
  - b. There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance. (40 CFR 122.41(m)(4)(i)(B))
  - c. The permittee submitted the necessary notice required in F.4.a. and b. below. (40 CFR 122.41(m)(4)(i)(C))
3. DEP may approve an anticipated bypass, after considering its adverse effects, if DEP determines that it will meet the conditions listed in F.2. above. (40 CFR 122.41(m)(4)(ii))
4. Notice
  - a. Anticipated Bypass – If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least 10 days before the bypass. (40 CFR 122.41(m)(3)(i))
  - b. Unanticipated Bypass
    - (i) The permittee shall submit immediate notice of an unanticipated bypass causing or threatening pollution. The notice shall be in accordance with Part A III.C.3.a.
    - (ii) The permittee shall submit oral notice of any other unanticipated bypass within 24 hours, regardless of whether the bypass may endanger health or the environment or whether the bypass exceeds effluent limitations. The notice shall be in accordance with Part A III.C.3.b.

## II. PENALTIES AND LIABILITY

### A. Violations of Permit Conditions

Any person violating Sections 301, 302, 306, 307, 308, 318 or 405 of the Clean Water Act or any permit condition or limitation implementing such sections in a permit issued under Section 402 of the Act is subject to civil, administrative and/or criminal penalties as set forth in 40 CFR §122.41(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 92 and 40 CFR §122.41(i), the permittee shall allow authorized representatives of DEP and EPA, upon the presentation of credentials and other documents as may be required by law:

1. To enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit; (40 CFR 122.41(i)(1))
2. To have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit; (40 CFR 122.41(i)(2))
3. To inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and (40 CFR 122.41(i)(3))
4. To sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act or the Clean Streams Law, any substances or parameters at any location. (40 CFR 122.41(i)(4))

#### B. Transfer of Permits

1. Transfers by modification. Except as provided in paragraph 2 of this section, a permit may be transferred by the permittee to a new owner or operator only if this permit has been modified or revoked and reissued, or a minor modification made to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act. (40 CFR 122.61(a))
2. Automatic transfers. As an alternative to transfers under paragraph 1 of this section, any NPDES permit may be automatically transferred to a new permittee if:
  - a. The current permittee notifies DEP at least 30 days in advance of the proposed transfer date in paragraph 2.b. of this section; (40 CFR 122.61(b)(1))

- b. The notice includes the appropriate DEP transfer form signed by the existing and new permittees containing a specific date for transfer of permit responsibility, coverage and liability between them; (40 CFR 122.61(b)(2))
  - c. DEP does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue this permit, the transfer is effective on the date specified in the agreement mentioned in paragraph 2.b. of this section; and (40 CFR 122.61(b)(3))
  - d. The new permittee is in compliance with existing DEP issued permits, regulations, orders and schedules of compliance, or has demonstrated that any noncompliance with the existing permits has been resolved by an appropriate compliance action or by the terms and conditions of the permit (including compliance schedules set forth in the permit), consistent with 25 Pa. Code 92a.51 (relating to schedules of compliance) and other appropriate DEP regulations. (25 Pa. Code 92a.71)
3. In the event DEP does not approve transfer of this permit, the new owner or controller must submit a new permit application.

#### C. Property Rights

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

#### D. Duty to Reapply

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

#### E. Other Laws

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

### IV. ANNUAL FEES

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

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

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

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

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

PA Department of Environmental Protection  
Bureau of Water Standards and Facility Regulation  
Re: Chapter 92a Annual Fee  
P.O. Box 8466  
Harrisburg, PA 17105-8466

**PART C**

**I. OTHER REQUIREMENTS**

- A. If, at any time, the DEP determines that the discharge permitted herein creates a public nuisance or causes environmental harm to the receiving water of the Commonwealth, the DEP may require the permittee to adopt such remedial measures as will produce a satisfactory effluent. If the permittee fails to adopt such remedial measures within the time specified by the DEP, the right to discharge herein granted shall, upon notice by the DEP, cease and become null and void.
- B. The following requirements apply with respect to the thermal impact of the discharge from Outfall 001 upon Delaware River Estuary Zone 4:

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

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

- C. If there is a change in ownership of this facility or in the name of the permittee, an application for transfer of the permit must be submitted to the DEP.
- D. 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.
- E. Instantaneous maximum limitations are imposed to allow for a grab sample to be collected by the appropriate regulatory agency to determine compliance. The permittee does not have to monitor for the instantaneous maximum limitation except for the parameters temperature, oil and grease, pH, total residual chlorine, and fecal coliform. However, if grab samples are collected for parameters normally monitored through composite sampling, the results must be reported.
- F. Parameters with a sampling frequency of twice per month must be sampled at least 10 days apart. If more than the required two samples are taken, then only two must be at least 10 days apart. All samples taken must be reported.
- G. Laboratory Certification

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

- H. The term total residual oxidants, for water with bromides generated through the use of a chemical additive, is defined as the value obtained using the amperometric method for total residual chlorine as described in 40 C.F.R. Section 136. This method is described in Standard Methods as the “amperometric titration method.”
- I. For Outfall 001, total residual oxidants may not be discharged from any unit for more than two hours in any one day, and not more than one unit in any plant may discharge total residual oxidants at any one time unless the permittee can demonstrate to DEP that the units in a particular location cannot operate at or below this level of oxidants.
- J. There shall be no discharge of polychlorinated biphenyl (PCB) compounds such as those commonly used for transformer fluid at any time.
- K. The permittee is required to submit an updated Preparedness, Prevention, and Contingency (PPC) Plan within 60 days after the effective date of the permit, and from time to time if the PPC plan receives major modifications. The PPC Plan shall be submitted to DEP’s Regional Office address listed in Part A of this permit, and the transmittal shall reference the permit number and facility name listed on page 1 of the permit.
- L. On December 15, 2003, the U.S. Environmental Protection Agency (EPA), Regions 2 and 3, adopted a Total Maximum Daily Loads (TMDLs) for Polychlorinated Biphenyls (PCBs) for Zones 2, 3, 4, and 5 of the tidal Delaware River. The TMDLs require the facilities identified as discharging PCBs to these zones of the Delaware River or to the tidal portions of tributaries to these zones to conduct monitoring for 209 PCB congeners, and prepare and implement a PCB Pollutant Minimization Plan (PMP).

Subsequent monitoring required by DRBC in 2005 confirmed the presence of PCBs, and indicates that this facility does contribute to 99 percent of the cumulative loadings from all point sources.

Therefore, the permittee shall collect one 24-hour composite samples annually during a wet weather flow and one 24-hour composite samples annually during a dry weather flow. The samples shall be collected from Outfall 001.

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

In accordance with the U.S. EPA, Regions 2 and 3, TMDLs for PCBs for Zones 2–5 of the Tidal Delaware River, the permittee shall submit a PMP for PCBs within 12 months from the effective date of the permit. The permittee shall comply with the requirements of Section 4.30.9 of DRBC’s Water Quality Regulations. Additional information regarding PMP development may be found at <http://www.state.nj.us/drbc/programs/quality/pmp.html>. In addition, the permittee shall:

1. Commence implementation of its PMP as submitted within 60 days of receipt of a PMP completeness determination issued by DEP.
2. Submit an Annual Report beginning one year from the date of commencement of the PMP to the DRBC and DEP consistent with the guidance specified at <http://www.state.nj.us/drbc/programs/quality/pmp.html>.

The PMP, 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

M. Analysis for Spectrus CT1300 shall be performed using Methyl Orange Method. The effluent limit is based on the current available method detection limit.

## II. CHEMICAL ADDITIVES

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

<u>Name</u>	<u>Usage Rate Requirements</u>
Spectrus OX 1200	At Outfall 001, the instantaneous maximum limit of 0.2 mg/l for Total Residual Oxidant will govern the usage rate
Spectrus DT1400	Spectrus CT1300 level will govern
Spectrus CT1300	Effluent limit for the product will govern
Trisodium Phosphate	1.75 lbs/day as average, 2 lbs/day as maximum
Hydrazine Hydrate*	0.3 gpd as average, 0.4 gpd as maximum

\* The usage rate of Hydrazine Hydrate is subject to the condition that the level of the product in the effluent shall remain undetectable. Proper documentation must be provided to satisfy this condition. Following special requirements are applicable for Hydrazine Hydrate effluent limit:

### REPORTING REQUIREMENTS FOR HYDRAZINE HYDRATE

1. The calculated limits for as specified in this permit are the final limits necessary to comply with the state water quality standards. These effluent limits are lower than the Method Detection Limit (MDL) of the most sensitive existing EPA-approved (40 CFR Part 136) test method or other DEP-approved method. If the sensitivity of the specified method improves or a more sensitive test method becomes available, DEP may modify the permit to require use of the more sensitive method.
2. All samples shall be analyzed using the specified EPA method or other equivalent test method, as approved by DEP. When a laboratory determines that the result of an analysis is below the detection limit (or quantitation limit), it will report the result as < (less than) the detection limit value (e.g., < 0.1 µg/L). These "non-detect" values should be handled as follows:
  - a. If all the reported sample results are non-detect values, report the non-detect value (e.g., < 0.1 µg/L) on the DMR for any required field (e.g., average values). If there are different non-detect values reported, report the highest non-detect value.

- b. If both non-detect values and positive values above the detection limit are reported by the laboratory and must be averaged, use zero (0) in the calculation for each non-detect value, and report the calculated average on the DMR, even if it is below the detection limit, and the number of samples that were reported by the lab as non-detect results in the "Comments" section of the DMR.
- c. Report all non-detect values exactly as reported by the lab (e.g., < 0.1 µg/L) on supplemental reporting forms.
- d. Do not report zero (0) or "ND" on the DMR for any field. Always report a numerical value (e.g., < 0.1 µg/L).

The parameter(s), required analytical test method(s), and MDL(s) applicable to this condition are as follows:

<u>Parameter Name</u>	<u>Required Analytical Test Method</u>	<u>MDL</u>
HYDRAZINE HYDRATE	ASTM D1385-78	5 µg/L

- A. Chemical additives to control corrosion, scaling, algae, slime, fouling or oxygen, etc., and blowdown discharge rates shall be managed by the permittee to ensure that toxic effects in the receiving stream are prevented. These also include substances/compounds added to the wastewater such as polymers, water softeners, flocculents, coagulants, emulsion breakers, dispersants, and oxygen scavengers.
- B. Usage rates shall be consistent with the quantities and rates approved by the DEP and shall be limited to the minimum amount necessary to accomplish the intended purposes of chemical addition.
- C. Accurate usage records (name of additive, quantity added, date added) of any approved chemical additive and blowdown discharge volumes must be maintained on the Chemical Additive Reporting form and kept on site by the permittee. To the maximum extent possible, sampling and laboratory analytical procedures for these chemicals are to conform with the "Sampling and Analytical Testing Instructions for Industrial Discharges" routinely used for completion of NPDES permit applications.
- D. Whenever a change in chemical additive or increase in usage rates is desired by the permittee, a written notification shall be submitted to the DEP at least sixty (60) days prior to the proposed use of the chemical. All required data must be provided on the form for each new or changed chemical additive or proposed change in the usage rate.
- E. As a minimum, the following information must be provided on the whole product (if data on the whole product is not available, monitoring data for all active ingredients in the product shall be provided):
  1. Trade names of additive.
  2. Name and address of additive manufacturer.
  3. Material Safety Data Sheet (MSDS) or other available information on mammalian or aquatic toxicological effects.
  4. Bioassay data including the 96-hour LC50 on the whole product.
  5. Proposed average and maximum additive usage rates in lbs/day.
  6. A flow diagram showing the point of chemical addition and the affected outfalls.
  7. The expected concentration of the product at the final outfall.
  8. The product density for liquids (lb/gal) used to convert usage rate (gpd) to in-system concentrations (mg/l).

9. The analytical test method that could be used to verify final discharge concentrations when the product is in use and the associated minimum analytical detection level (mg/l).
  10. Conditioned water discharge rate (blowdown rate) and duration (hours).
  11. Available data on the degradation of or decomposition of the additive in the aquatic environment.
  12. Any other data or information the permittee believes would be helpful to the DEP in completing its review.
- F. Based on the information presented, the DEP will decide whether specific effluent limitations for one or more active ingredients or other control requirements are necessary. Where necessary, the DEP may establish permit limits, require other controls or deny use of these chemicals. If the information is complete, use of the proposed chemical additive or usage rate will be considered approved 60 days after the date of notification to the DEP. If the notification is incomplete or the DEP notifies the permittee that the proposed usage rate will cause violations of water quality standards, the permittee will be advised that a permit amendment is required and would likely be denied. All such letters and notifications must be kept on site with the required daily chemical usage data.
- G. Use of products or chemicals that contain one or more ingredients that are carcinogens is generally prohibited. Before proposing limited use of such products or chemicals, the permittee must thoroughly investigate the use of alternative products or chemicals to avoid the use of the carcinogens. If no alternatives are available, the permittee must submit written documentation as part of the information required above, that demonstrates to the satisfaction of the DEP that no suitable alternatives are available and that any carcinogen in the proposed chemical or product will not be detectable in the final effluent using the most sensitive analytical method available. Based on the information presented, the DEP will decide whether specific effluent limitations or other control requirements are necessary for the chemicals, and where necessary, establish permit limits require other controls or deny use of these chemicals.

### III. COOLING WATER INTAKE STRUCTURES

The purpose of Section 316(b) of the Clean Water Act (CWA) is to establish the best technology available (BTA) for minimizing adverse environmental impacts associated with the use of cooling water intake structures.

As the operator of a facility with an existing cooling water intake structure, the following conditions apply:

- A. The design, location, and operation of the facility's cooling water intake structure(s) must conform to requirements pursuant to Section 316(b) of the CWA and any state regulations effective at the time an appropriate BTA is approved by the DEP.
- B. The location, design, or capacity of the intake structure(s) may not be altered without prior approval of the DEP.
- C. Changes to the location, design, or capacity of the intake structure(s) will require a Section 316(b) impingement and, if applicable, entrainment study.
- D. The facility must submit the following information by December 31, 2008:
  1. Source Waterbody Flow Information (a or b) as listed below:
    - a. Cooling water intake structures located in a freshwater river or stream shall provide the annual mean flow, Q710 flow of the waterbody, and any supporting documentation and engineering calculations to support an analysis of whether the design intake flow is greater than five percent of the annual mean flow of the river or stream. Representative historical data (from a period of time up to 10 years, if available) shall be used.



- b. Cooling water intake structures located in a lake or reservoir that are proposed to increase design intake flow shall submit a description of the thermal stratification in the waterbody, and any supporting documentation and engineering calculations to show that the total design intake flow after the increase will not disrupt the natural thermal stratification and turnover pattern in a way that adversely impacts fisheries, including the results of any consultations with federal or state regulatory agencies.

2. Impingement Mortality and/or Entrainment Characterization Study. The study shall include:

- a. Taxonomic identifications of all life stages of fish, shellfish, and any species protected under federal or state law that are in the vicinity of the cooling water intake structure(s) and are susceptible to impingement and/or entrainment.
- b. A characterization of all life stages of fish, shellfish, and any species protected under federal or state law, including a description of the abundance and temporal and spatial characteristics in the vicinity of the cooling water intake structure(s), based on sufficient data to characterize operational, annual, seasonal, and diel variations in impingement mortality and entrainment. These may include historical data that are representative of the current operation of the facility or activity and of the biological conditions at the site.
- c. Documentation of the current impingement mortality and entrainment of all life stages of fish, shellfish, and any species protected under federal or state law and an estimate of impingement mortality and entrainment to be used as a calculation baseline. Estimates of impingement mortality and entrainment shall consider the results of collection efficiency studies. The documentation may include historical data that are representative of the current operation of the facility and of biological conditions at the site.

Impingement mortality and entrainment samples to support baseline calculations shall be collected during periods of representative operational flows for the cooling water intake structure(s), and the operational flows as well as the source waterbody flows associated with the samples shall be documented.

3. Design and Construction Technology Plan, shall include:

- a. The capacity utilization rate for the facility and/or for individual cooling water intake structures.
- b. The average annual net generation of the facility (in MWh) measured over a 5-year period of representative operating conditions.
- c. The total net capacity of the facility (in MW) and underlying calculations.
- d. The calculated and/or measured through screen velocities at each intake during the annual mean flow and the Q7-10 flow of the waterbody.
- e. A narrative description of the design and operations of all design and construction technologies and/or operational measures (existing and proposed), including fish handling and return systems, that you have in place or may use to reduce impingement mortality of those species expected to be susceptible to impingement, and information that demonstrates the efficacy of the technologies and/or operational measures for those species.
- f. A narrative description of the design and operation of all design and construction technologies and/or operational measures (existing and proposed) that you have in place or may use to reduce entrainment of those species expected to be susceptible to entrainment, if applicable, and information that demonstrates the efficacy of the technologies and/or operational measures for those species.
- g. Calculations of the reduction in impingement mortality and entrainment of all life stages of fish and shellfish that would be achieved by the technologies and/or operational measures that may be

selected. In determining reductions of impingement mortality and/or entrainment, a facility shall assess the total reduction against the calculation baseline. Reductions in impingement mortality and entrainment from this calculation baseline as a result of any design and construction technologies and/or operational measures already implemented at the facility shall be added to the reductions expected to be achieved by any additional design and/or construction technologies and operational measures that will be implemented. Facilities that recirculate a portion of their flow, but do not reduce flow to that commensurate with a closed-cycle recirculating system, may take into account the reduction in impingement mortality and entrainment associated with the reduction in flow when determining the net reduction associated with existing design and construction technologies and/or operational measures. This estimate shall include a site-specific evaluation of the suitability of the technologies and/or operational measures based on the species that are found at the site and may be determined based on representative studies and/or site-specific technology prototype or pilot studies.

- E. If the DEP requests any additional information to review any submission required by this permit regarding Section 316(b), the permittee shall submit the additional information within 30 days of receipt of the DEP's request.
- F. The permittee must maintain and retain data and other records for any information developed pursuant to Section 316(b) for a minimum of 10 years.
- G. The information submission requirements for Section 316(b) of the CWA are for the purpose of establishing BTA for minimizing adverse environmental impacts associated with the use of cooling water intake structures. This permit may be modified to incorporate a compliance alternative that is based on information submitted.