Pennsylvania Department of Environmental Protection

Northeast Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0012823**
Facility Type	**Industrial**	APS ID	**985837**
Major / Minor	**Major**	Authorization ID	**1317252**

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

Applicant and Facility Information

Applicant Name	**MC Project Company, LLC**	Facility Name	**Martins Creek Steam Electric Station**
Applicant Address	6605 Foul Rift Road	Facility Address	6605 Foul Rift Road
	Bangor, PA 18013-4857		Bangor, PA 18013-4857
Applicant Contact	Dax Fleckenstein	Facility Contact	Dax Fleckenstein
Applicant Phone	(610) 498-6210	Facility Phone	(610) 498-6210
Client ID	347577	Site ID	239923
SIC Code	4911	Municipality	Lower Mount Bethel Township
SIC Description	Trans. & Utilities - Electric Services	County	Northampton
Date Application Received	June 12, 2020	EPA Waived?	No
Date Application Accepted	June 12, 2020	If No, Reason	Major Facility

Purpose of Application: Renewal of NPDES permit.

Summary of Review

The applicant is requesting renewal of an NPDES permit to discharge industrial wastewater, treated sewage, and stormwater from a 1700 MW steam electric generating facility to the Delaware River, a WWF/MF designated receiving stream in state water plan basin 01-F (Jacoby – Bushkill Creeks). The discharge is located in Delaware River Basin Interstate Zone 1D and is classified as special protection waters for significant resource waters.

Outfall 013

Outfall 013 has a design flow of 7.77 MGD and is the discharge point for all industrial wastewater that flows through the industrial waste treatment basin (IWTB). Flows entering the IWTB include: boiler and cooling tower blowdown, boiler cleaning rinses, filter backwash, demineralizer waste, floor drains, air heater wash water, oil/water separator overflow, and some stormwater. The IWTB also receives similar wastewaters from the Lower Mt. Bethel Energy plant.

Limits and monitoring frequencies derived from the applicable sections of 40 CFR 423 are carried over from the previous permit for Total Chromium, Total Iron, Total Suspended Solids, Oil & Grease, and Free Available Chlorine. Limitations for the other pollutants subject to 40 CFR 423 requirements (Total Copper and Total Zinc) are adjusted to meet the Chapter 93 water quality standards (see below).

DEP's Toxics Management Spreadsheet was used to model the discharge from Outfall 013. For modeling inputs, drainage areas and elevations were obtained from the USGS StreamStats interactive map, RMIs were obtained from DEP's eMapPA, and the low flow yield (LFY) of 0.26 cfs/mi^2 was calculated using $Q_{7\text{-}10}$ flow data from stream gage 01446500 (Delaware River at Belvidere, NJ). The following recommendations were made:

Approve	Deny	Signatures	Date
X		Brian Burden, E.I.T. / Project Manager	October 3, 2025
X		Edward Dudick, P.E. / Environmental Engineer Manager	October 3, 2025

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- Total Aluminum: The maximum reported concentration in the permit renewal application was 0.262 mg/L and the most stringent WQBEL was calculated to be 1.7 mg/L. Aluminum doesn't appear to be a pollutant of concern, and no monitoring requirements are included in the permit.

- Total Chromium: No limitations or monitoring requirements were recommended and the TMS calculated the governing WQBEL as 1.5 mg/L. The existing technology-based limitations (0.2 mg/L) are more stringent and will remain in the permit.

- Total Copper: The maximum reported concentration was 9.38 ug/L (0.00938 mg/L) and the most stringent WQBEL was calculated to be 0.028 mg/L. The previously issued permit includes the average quarterly and daily maximum limitations of 1.0 mg/L. eDMR data indicates the water quality-based limitations can be met and they will come into effect on the permit effective date.

- Total Iron: No limitations or monitoring requirements were recommended and the TMS calculated the governing WQBEL as 149 mg/L. The existing technology-based limitations (1.0 mg/L) are more stringent and will remain in the permit.

- Total Zinc: The maximum reported concentration was < 100 ug/L (0.1 mg/L) and the most stringent WQBEL was calculated to be 0.25 mg/L. The previously issued permit includes the average quarterly and daily maximum limitations of 1.0 mg/L. eDMR data indicates the water quality-based limitations can be met and they will come into effect on the permit effective date.

- Acrylamide: The maximum reported concentration was < 25 ug/L. Since DEP doesn't currently have a target QL for Acrylamide and it was reported as non-detect, the pollutant is assumed to not be present in the discharge as per guidance. No monitoring requirements are included in the permit for Acrylamide.

Outfall 010

Outfall 010 has a design flow of 0.024 MGD and is the discharge point for treated sewage generated at the facility. Limits and monitoring requirements are carried over from the previous permit. No water quality-based limitations are recommended by DEP's WQM 7.0 modeling program for Dissolved Oxygen, $CBOD_5$, or Ammonia-N. The previously issued permit included quarterly monitoring requirements for Total Dissolved Solids (TDS) since that parameter is monitored in sewage discharges by the Delaware River Basin Commission (DRBC). Since there's no DRBC discharge docket for this facility, and the values reported on eDMR during the previous permit term appear to be within DRBC's standards (1,000 mg/L quarterly average), the monitoring requirements for TDS are revised from 1/quarter to 1/year.

Annual monitoring / reporting requirements for nutrients (Total Phosphorus, Total Nitrogen, Total Kjeldahl Nitrogen & Nitrate-Nitrite-N) continue in this renewal for Outfall 010. The required sample types are updated from grab to 8-hour composite (except Total Nitrogen). Annual monitoring / reporting for E. Coli is added to the permit as per current guidance.

Since the facility utilizes ultraviolet radiation for disinfection, the average monthly limitation is removed from the permit and the minimum measurement frequency is updated to "daily when discharging". DEP's TRC Calculation Spreadsheet recommended the technology-based 1.6 mg/L IMAX limitation to replace the older 2.8 mg/L IMAX limitation. The permittee shall sample for TRC on all days where chlorine is utilized for backup disinfection, cleaning, or any other purposes.

Outfall 011

Outfall 011 has a design flow of 0.124 MGD and drains stormwater from the stilling pond, which also receives water from the Delaware River to maintain the pond level. The outfall also conveys stormwater from the Lower Mt. Bethel Energy plant. Monitoring requirements and frequencies for Flow, pH, TSS, and Oil & Grease are carried over from the previous permit.

Outfall 020

Outfall 020 discharges stormwater from closed ash basin #1. Discharge parameters and monitoring frequencies are consistent with the current PAG-03 Appendix H requirements. A requirement to report the minimum pH is carried over from the previous permit. Benchmark values are included in the permit for pH (9.0 S.U.), TSS (100 mg/L), and Oil & Grease (30 mg/L). Benchmark values are not effluent limitations, and exceedances do not constitute permit violations. However, if the permittee's sampling demonstrates exceedances of benchmark values for two or more consecutive monitoring periods, the

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permittee shall take action in accordance with Part C.III.G of the permit. Monitoring frequencies for all parameters are updated to semiannual to remain consistent with the requirements of the PAG-03 permit.

IMP 413

Internal monitoring point 413 (IMP 413) is kept in the permit to monitor stormwater from closed ash basin #4. Discharge parameters and monitoring frequencies are consistent with the current PAG-03 Appendix H requirements. A requirement to report the minimum pH is carried over from the previous permit. Benchmark values are included in the permit for pH (9.0 S.U.), TSS (100 mg/L), and Oil & Grease (30 mg/L). Benchmark values are not effluent limitations, and exceedances do not constitute permit violations. However, if the permittee's sampling demonstrates exceedances of benchmark values for two or more consecutive monitoring periods, the permittee shall take action in accordance with Part C.III.G of the permit. Monitoring frequencies for all parameters are updated to semiannual to remain consistent with the requirements of the PAG-03 permit.

CWIS

The permittee has previously provided facility documentation that demonstrates Best Technology Available as per 316(b) requirements pertaining to cooling water intake structures (CWISs). Both facilities utilizing the cooling water intake structure operate a closed-cycle recirculating cooling system, which is generally considered to be the "gold standard" BTA under the federal 2014 Existing Facilities Rule for reducing impingement and entrainment of aquatic organisms.

DEP's template Part C 316(b) permit language for closed cycle cooling is included in this renewal, which includes requirements to monitor the actual intake flows daily and measurement of the cooling water withdrawals, make-up water, and blow down volume. In lieu of daily intake flow monitoring, the facility may monitor cycles of concentration at a minimum frequency of daily.

Since the facility has an average intake flow less than 125 MGD, biological monitoring isn't required with every permit cycle. EPA generally recommends that facilities complete "periodic" biological monitoring going forward after a BTA determination has been made in the permit (e.g., once every few permit cycles or if there are physical, chemical or biological changes in the waterbody). The requirement for additional biological monitoring is not included in this renewal but may be included in future renewals if determined necessary. As indicated in an email from a National Oceanic and Atmospheric Administration (NOAA) representative, there's not Federally listed or proposed threatened and endangered species under the jurisdiction of NOAA Fisheries known to occur in the project area.

Temperature

EPA's review of the 316(a) work plan submitted with the renewal application states: "there generally doesn't seem to be an issue with meeting PA's WQ criteria (i.e., no need for a thermal variance), and DRBC generally expressed no concerns with the facility meeting their criteria." The DRBC intends to work with the Martins Creek SES to provide a thermal mixing zone once the facility has completed an evaluation of their discharge. Temperature monitoring / reporting continues at Outfall 013.

Part C Conditions

The previously issued permit included fifteen Part C special conditions. The conditions are either carried over or adjusted in this renewal as described below. Most adjusted conditions were updated to conform with the current template Part C conditions.

- **Part C.I:** Where the permittee does not use chlorine for primary disinfection, but proposes the use of chlorine for cleaning, emergency disinfection, 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.

  Adjusted to: Where the permittee does not use chlorine for primary disinfection, but proposes the use of chlorine for cleaning, emergency disinfection, or other purposes, the permittee shall monitor TRC concentrations in the effluent on each day in which chlorine is used.

  Condition is now under Part C.I.E.

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- **Part C.II:** There shall be no discharge of polychlorinated biphenyl compounds (PCBs) from any outfall at any time.

  Remains in permit unchanged. Condition is now under Part C.VI.

- **Part C.III:** For cooling tower blowdown and once-through cooling water discharges to receiving waters, free available chlorine (FAC) may not be discharged from any unit for more than (2) hours in any one (1) day and not more than one (1) unit in any plant may discharge FAC at any one time unless the utility can demonstrate to the Department that the units in a particular location cannot operate at this level of chlorination. FAC may be analyzed using the DPD Spectrophotometric method or the respective amperometric titration method.

  Remains in permit unchanged. Condition is now under Part C.VII.A.

- **Part C.IV:** The term "daily maximum" as it refers to chlorine discharge means the average of analyses made over a single period of chlorine release which does not exceed two hours.

  Remains in permit unchanged. Condition is now under Part C.VII.B.

- **Part C.V:** The term "Free Available Chlorine" shall mean the value obtained using DPD Spectrophotometric method or the amperometric titration method for free available chlorine described in "Standard Methods for Examination of Water and Wastewater".

  The term "Total Residual Chlorine" means the value obtained using the DPD spectrophotometric method or the amperometric method for total residual chlorine described in 40 CFR Part 136.

  Remains in permit unchanged. Condition is now under Part C.VII.C.

- **Part C.VI:** Cooling tower blowdown discharges shall contain no detectable amounts of the 126 Priority Pollutants listed in 40 CFR Part 423, Appendix A as a result of the use of cooling tower maintenance chemicals with the exception of Total Chromium and Total Zinc. When requested by DEP, the permittee shall conduct monitoring or submit engineering calculations to demonstrate compliance with 40 CFR 423.13(d)1.

  Sampling is required once per week by 8-hour composite only when cooling tower maintenance chemical additives other than chlorine are utilized.

  Adjusted to: Cooling tower blowdown discharges shall contain no detectable amounts of the 126 Priority Pollutants listed in 40 CFR Part 423, Appendix A, that are contained in chemicals added for cooling tower maintenance, except for Total Chromium and Total Zinc. When requested by DEP, the permittee shall conduct monitoring or submit engineering calculations to demonstrate compliance with 40 CFR 423.13(d)(1).

  Sampling is required once per week by 8-hour composite only when cooling tower maintenance chemical additives other than chlorine are utilized.

  Condition is now under Part C.I.H.

- **Part C.VII:** No stormwater from pavements, area ways, roofs, foundation drains or other sources shall be admitted to the sanitary sewers associated with the herein approved discharges.

  Remain in permit unchanged. Condition is now under Part C.III.I.

- **Part C.VII:** 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 and replacement of all sewers or sewerage structures associated with the herein approved discharge in, along, or across private property, with full rights of ingress, egress and regress.

  Adjusted to: 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.

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Condition is now under Part C.I.A.

- **Part C.IX:** REQUIREMENTS APPLICABLE TO 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 B.1 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.

B. New Chemical Additives, Increased Usage, and New Usage

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 as well as the DEP regional office that issued the permit, prior to use. Following placement of the new chemical additive on the Approved List, the permittee shall submit the "Chemical Additives Notification Form" (3800-FM-BPNPSM0487) to the regional office that issued the permit to notify DEP of the intent to use the approved chemical additive at least 60 days prior to use. In the event the permittee wishes to increase the usage rate of an approved additive or use the approved additive for a process not identified in the NPDES permit application or by previous notification, the permittee shall submit the "Chemical Additives Notification Form" to the DEP regional office that issued the permit, at least 60 days prior to increased or new usage. The "Chemical Additives Notification Form" must be completed in whole in order for the DEP regional office to approve the chemical's usage, and a Material Safety Data Sheet (MSDS) that meets the minimum requirements of 29 CFR 1910.1200(g) must be attached. The following additional information shall be included with the request:

   a. Proposed average additive usage rate in lbs/day.
   b. A flow diagram showing the point of chemical addition and the affected outfall(s).
   c. Bioassay data including the 48-hour LC_{50} or EC_{50} on the whole product.
   d. The expected concentration of the product at the final outfall(s).
   e. The product density for liquids (lbs/gal) used to convert usage rate (gpd) to in-system concentrations (mg/L).
   f. Conditioned water discharge rate (blowdown rate) and duration (hours).
   g. Available data on the degradation of or decomposition of the additive in the aquatic environment.
   h. 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).
   i. Any other data or information the permittee believes would be helpful to the Department in completing its review.

2. The permittee shall restrict usage of chemical additives to the maximum usage rates determined and reported to DEP on Chemical Additives Notification Forms.

3. 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 first thoroughly investigate use of alternative products or chemicals to avoid the use of carcinogens. If no suitable alternatives are available, the permittee must submit written documentation as part of the information required above, that demonstrates to the satisfaction of the Department 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.

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4. Based on the information presented, the Department will determine within 60 days whether the existing NPDES permit must be amended to include specific effluent limitations for active ingredients or other control measures. When so required, the permittee will be advised within 60 days that a formal request for a permit amendment is required including a filing fee and Act 14 notices.

5. If a permit amendment application is not requested from the permittee by the Department within 60 days, the permittee may proceed with the use of the proposed chemical additive or usage rate.

C. Chemical Additive Usage Reporting Requirements

1. Accurate records of usage (name of additive, quantity added, date added) of any approved chemical additive and blow down discharge volumes must be maintained on the "Chemical Additives Usage Form" (3800-FM-BPNPSM0439) and kept onsite by the permittee and shall be submitted as an attachment to the Discharge Monitoring Report (DMR) at the time the DMR is submitted. All correspondence and notifications related to the chemical additives and usage rates must also be kept onsite with the required daily chemical usage records. If the notification is incomplete or the Department notifies the permittee that the proposed usage rate will cause violations of water quality standards, then use of the requested chemical additive or requested change in its usage rate will be denied.

D. Chemical additives to control corrosion, scaling, algae, slime, fouling, oxygen, etc., and blow down discharge rates shall be managed by the permittee to ensure that toxic effects in the receiving stream are prevented. Usage rates shall be limited to the minimum amount necessary to accomplish the intended purposes of chemical addition and approval is limited to the chemicals and usage rates contained in the application.

E. 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.

Adjusted to: 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.dep.pa.gov/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-BCW0487) 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-BCW0486) to DEP's Central Office, Bureau of Clean Water (BCW), NPDES Permitting Division, 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 BCW to approve the chemical additive, and a

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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-BCW0439) 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.

E. Chemical additives to control corrosion, scaling, algae, slime, fouling, oxygen, etc., and blow down discharge rates shall be managed by the permittee to ensure that toxic effects in the receiving stream are prevented. Usage rates shall be limited to the minimum amount necessary to accomplish the intended purposes of chemical addition and approval is limited to the chemicals and usage rates contained in the application.

Condition is now under Part C.II.

- **Part C.X:** REQUIREMENTS APPLICABLE TO STORMWATER OUTFALLS AND MONITORING POINTS:

A. Prohibition of Non-stormwater Discharges

1. Except as provided in A.2, all discharges to Outfall 011, Outfall 020, and Internal Monitoring Point 413 shall be composed entirely of non-polluting stormwater.

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

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

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

D. Preparedness, Prevention and Contingency Plans

1. Development of Plan

a. Operators of facilities shall have developed a Preparedness, Prevention and Contingency (PPC) Plan in accordance with 25 Pa. Code § 91.34 and DEP's "Guidelines for the Development and Implementation of Environmental Emergency Response Plans" (DEP ID 400-2200-001), its

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NPDES-specific addendum and the minimum requirements below. The PPC Plan shall identify potential sources of pollution that may reasonably be expected to affect the quality of stormwater discharges from the facility. In addition, the PPC Plan shall describe the BMPs that are to be used to reduce the pollutants in stormwater discharges at the facility ensuring compliance with the terms and conditions of this permit.

2. Non-stormwater Discharges

a. The PPC Plan shall contain a certification that the discharge has been tested or evaluated for the presence of non-stormwater discharges. The certification shall include the identification of potential significant sources of non-stormwater at the site, a description of the results of any test and/or evaluation for the presence of non-stormwater discharges, the evaluation criteria or testing methods used, the date of any testing and/or evaluation, and the on-site drainage points that were directly observed during the test. Such certification may not be feasible if the facility operating the stormwater discharge does not have access to an outfall, manhole, or other point of access to the ultimate conduit that receives the discharge. In such cases, the source identification section of the PPC Plan shall indicate why the certification was not feasible. A discharger that is unable to provide the certification must notify the Department within 180 days of the effective date of this permit.

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

3. Other PPC Plan Requirements

a. The PPC Plan must address actions that will be taken in response to on-site spills or other pollution incidents.

b. 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).

c. The PPC Plan must address security measures to prevent accidental or intentional entry which could result in an unintentional discharge of pollutants.

d. The PPC Plan must include a plan for training employees and contractors on pollution prevention, BMPs, and emergency response measures.

e. 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.

f. Spill Prevention Control and Countermeasure (SPCC) plans may be used to meet the requirements of this section if the minimum requirements are addressed.

g. The PPC Plan shall be evaluated and if necessary updated on an annual basis, at a minimum, and when one or more of the following occur:

1. The Plan fails in an emergency;

2. There is a change in design, industrial process, operation, maintenance, or other circumstances, 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

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emergency;

3. The list of emergency coordinators or equipment changes; or

4. When notified in writing by DEP.

h. All updates must be kept on-site and be made available to DEP upon request.

4. Comprehensive Site Compliance Evaluations and Record Keeping

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

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

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

3. A report summarizing the scope of the inspection shall be completed and made available upon request and retained as part of the PPC Plan for at least one year after coverage under this permit terminates.

E. Stormwater Management Best Management Practices (BMPs)

1. The permittee shall implement at least the following BMPs:

a. Ensure that all fuel tanks have secondary containment and leak detection; run-off from tank areas should be inspected and/or treated for oil and grease before discharge.

b. Use dust control and collection systems in ash handling and transport systems.

c. Reclaim closed ash ponds and piles to minimize erosion and exposure to wind.

d. Develop and implement measures, including run-off controls, oil/water separation, etc., to minimize potential oil and grease contamination in runoff from rail transfer/switchyard areas.

2. In addition to BMPs identified in the PPC Plan, the permittee shall implement the following minimum BMPs relating to stormwater pollution prevention:

a. If applicable, post-construction stormwater BMPs that are required under 25 Pa. Code Chapter 102 must be maintained.

b. For industrial facilities, 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.

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F. Stormwater Sampling and Reporting

1. If stormwater samples are required by this permit, they shall be collected as grab samples during the first 30 minutes but no later than 1 hour of the discharge 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 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. If no storm events cause a discharge per this criteria, then sampling required on page 3 of the permit can be performed by controlled discharges from the stilling pond per facility operational procedures. The discharger must submit, in lieu of sampling data, a description of why samples could not be collected, including available documentation of the event. This sampling waiver may not be used more than once during a two-year period.

2. The permittee shall record stormwater sampling event information on the "Additional Information for the Reporting of Stormwater Discharge Monitoring" form (3800-PM-WSFR0083t) and submit the form as an attachment to the DMR.

G. Annual Inspection and Compliance Evaluation

1. The permittee shall conduct an annual inspection of each outfall identified in paragraph A and record the results on the "Annual Inspection Form for NPDES Permits for Discharges of Stormwater Associated with Industrial Activities" (3800-PM-WSFR0083v). The permittee shall submit a copy of the completed and signed Annual Inspection Form to DEP at the address provided in Part A III.B.3 of this permit by January 28 of each year.

2. Areas contributing to a stormwater discharge associated with industrial activity shall be visually inspected for evidence of, or the potential for, pollutants entering the drainage system. BMPs in the PPC Plan and required by this permit shall be evaluated to determine whether they are adequate and properly implemented in accordance with the terms of this permit or whether additional control measures are needed.

Adjusted to: REQUIREMENTS APPLICABLE TO STORMWATER OUTFALLS AND MONITORING POINTS:

A. Prohibition of Non-stormwater Discharges

1. Except as provided in A.2, all discharges to Outfall 011, Outfall 020, and Internal Monitoring Point 413 shall be composed entirely of non-polluting stormwater.

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

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

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

D. Preparedness, Prevention and Contingency Plans

1. Development of Plan

Summary of Review

a. Operators of facilities shall have developed a Preparedness, Prevention and Contingency (PPC) Plan in accordance with 25 Pa. Code § 91.34 and 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. The PPC Plan shall identify potential sources of pollution that may reasonably be expected to affect the quality of stormwater discharges from the facility. In addition, the PPC Plan shall describe the BMPs that are to be used to reduce the pollutants in stormwater discharges at the facility ensuring compliance with the terms and conditions of this permit.

2. Non-stormwater Discharges

a. The PPC Plan shall contain a certification that the discharge has been tested or evaluated for the presence of non-stormwater discharges. The certification shall include the identification of potential significant sources of non-stormwater at the site, a description of the results of any test and/or evaluation for the presence of non-stormwater discharges, the evaluation criteria or testing methods used, the date of any testing and/or evaluation, and the on-site drainage points that were directly observed during the test. Such certification may not be feasible if the facility operating the stormwater discharge does not have access to an outfall, manhole, or other point of access to the ultimate conduit that receives the discharge. In such cases, the source identification section of the PPC Plan shall indicate why the certification was not feasible. A discharger that is unable to provide the certification must notify the Department within 180 days of the effective date of this permit.

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

3. Other PPC Plan Requirements

a. The PPC Plan must address actions that will be taken in response to on-site spills or other pollution incidents.

b. 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).

c. The PPC Plan must address security measures to prevent accidental or intentional entry which could result in an unintentional discharge of pollutants.

d. The PPC Plan must include a plan for training employees and contractors on pollution prevention, BMPs, and emergency response measures.

e. 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.

f. Spill Prevention Control and Countermeasure (SPCC) plans may be used to meet the requirements of this section if the minimum requirements are addressed.

g. The PPC Plan shall be evaluated and if necessary updated on an annual basis, at a minimum, and when one or more of the following occur:

1. The Plan fails in an emergency;

Summary of Review

2. There is a change in design, industrial process, operation, maintenance, or other circumstances, 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;

3. The list of emergency coordinators or equipment changes; or

4. When notified in writing by DEP.

h. All updates must be kept on-site and be made available to DEP upon request.

4. Comprehensive Site Compliance Evaluations and Record Keeping

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

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

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

3. A report summarizing the scope of the inspection shall be completed and made available upon request and retained as part of the PPC Plan for at least one year after coverage under this permit terminates.

E. Stormwater Management Best Management Practices (BMPs)

1. The permittee shall implement at least the following BMPs:

a. Ensure that all fuel tanks have secondary containment and leak detection; run-off from tank areas should be inspected and/or treated for oil and grease before discharge.

b. Use dust control and collection systems in ash handling and transport systems.

c. Reclaim closed ash ponds and piles to minimize erosion and exposure to wind.

d. Develop and implement measures, including run-off controls, oil/water separation, etc., to minimize potential oil and grease contamination in runoff from rail transfer/switchyard areas.

2. In addition to BMPs identified in the PPC Plan, the permittee shall implement the following minimum BMPs relating to stormwater pollution prevention:

a. If applicable, post-construction stormwater BMPs that are required under 25 Pa. Code Chapter 102 must be maintained.

b. For industrial facilities, 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.

Summary of Review

F. Stormwater Sampling and Reporting

1. If stormwater samples are required by this permit, they shall be collected as grab samples during the first 30 minutes but no later than 1 hour of the discharge 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 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. If no storm events cause a discharge per this criteria, then sampling required on page 3 of the permit can be performed by controlled discharges from the stilling pond per facility operational procedures. The discharger must submit, in lieu of sampling data, a description of why samples could not be collected, including available documentation of the event. This sampling waiver may not be used more than once during a two-year period.

2. 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 implement a corrective action plan to reduce the concentrations of the parameters in stormwater discharges in accordance with Paragraph G below.

Parameter	Benchmark Value
pH	9.0 S.U.
Total Suspended Solids	100 mg/L
Oil & Grease	30 mg/L

G. Corrective Action Plan

1. After **two or more** consecutive exceedances of benchmark values (starting on the effective date of this Permit), develop a corrective action plan (CAP) to reduce the concentrations of the pollutants in stormwater discharges. Failure to submit and implement a CAP constitutes non-compliance.

   The permittee shall submit the CAP to DEP within 90 days of the end of the monitoring period triggering the need for the plan and shall implement the plan immediately or in accordance with a schedule proposed by the permittee in the CAP, unless otherwise notified by DEP in writing. The permittee shall, in developing the plan, evaluate alternatives to reduce stormwater concentrations and implement all relevant and feasible control measures, unless the permittee can demonstrate one or more of the following:

   a. The exceedances are solely attributable to natural background sources or to run-on from off-site;

   c. No further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice; or

   d. Further pollutant reductions are not necessary to prevent stormwater discharges from causing or contributing to an exceedance of applicable water quality standards.

2. After **four or more** consecutive exceedances of benchmark values (starting on the effective date of this Permit), the permittee shall develop a CAP and consider implementation of all additional stormwater BMPs outlined in the Stormwater BMPs Checklist (3800-PM-BCW0083l) for the applicable appendix. Failure to submit and implement a CAP and the Stormwater BMPs Checklist constitutes non-compliance with this General Permit.

   The permittee shall submit a new CAP and include the Stormwater BMPs Checklist (3800-PM-BCW0083l) to certify that all applicable controls have been considered for implementation within 90 days of the end of the monitoring period for which the fourth or more consecutive exceedance was identified. For each BMP in the checklist that is not implemented, the permittee shall demonstrate one or more of the following:

   a. The BMP is infeasible for the facility;

Summary of Review

b. The exceedances are solely attributable to natural background sources or to run-on from off-site;

c. The exceedances were due to some aberration or extraordinary circumstances; or

d. Further pollutant reductions are not necessary to prevent stormwater discharges from causing or contributing to an exceedance of applicable water quality standards.

The permittee shall identify on the Stormwater BMPs Checklist that either the BMPs have been implemented or a reason why they were infeasible or not applicable. The Stormwater BMPs Checklist shall be included with the CAP for each additional consecutive exceedance.

H. Annual Inspection and Compliance Evaluation

1. 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.

2. Areas contributing to a stormwater discharge associated with industrial activity shall be visually inspected for evidence of, or the potential for, pollutants entering the drainage system. BMPs in the PPC Plan and required by this permit shall be evaluated to determine whether they are adequate and properly implemented in accordance with the terms of this permit or whether additional control measures are needed.

I. No stormwater from pavements, area ways, roofs, foundation drains or other sources shall be admitted to the sanitary sewers associated with the herein approved discharges.

Condition is now under Part C.III.

- **Part C.XI:** 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 currently 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. Requirements for Permit Renewal Application.

If this permit expires after July 14, 2018, the permittee shall submit the applicable information specified in 40 CFR § 122.21(r) with its subsequent permit renewal application, as follows:

1. Source water physical data.

2. Cooling water intake structure data.

3. Source water biological baseline characterization data.

4. Cooling water system data.

5. Chosen method(s) of compliance with impingement mortality standard.

6. Entrainment performance studies.

7. Operational status.

Summary of Review

8. If the facility covered by this permit withdraws at least 125 MGD on an Actual Intake Flow basis as defined in 40 CFR § 125.92, the permittee must submit the applicable information in 40 CFR §122.21(r)(9) – (r)(13) with the subsequent permit renewal application, as follows:

   a. Entrainment Characterization Study.

   b. Comprehensive Technical Feasibility and Cost Evaluation Study (including, but not limited to, evaluations of closed-cycle recirculating cooling, fine mesh screens with a mesh size of 2 mm or less, alternate sources of cooling water, water reuse, variable speed pumps, variable frequency drives, and seasonal flow reductions).

   c. Benefits Valuation Study.

   d. Non-Water Quality Environmental and Other Impacts Study.

   e. Peer Review, completed by peer reviewer(s) approved by DEP.

9. If DEP requests additional information to make a BTA determination, the permittee shall submit information within 30 days unless an alternate schedule is approved by DEP.

E. 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.

F. 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)).

Adjusted to: 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 currently employed at the cooling water intake structure(s) must be operated in a way that minimizes impingement mortality and entrainment to the fullest extent possible.

C. The permittee shall not alter the location, design, construction or capacity of the intake structure(s) without prior approval of DEP.

D. Best Technology Available (BTA) Requirements

To meet BTA requirements to minimize adverse impacts from impingement and entrainment, the permittee shall utilize a closed-cycle recirculating cooling system. To comply with these BTA requirements the permittee shall:

1. Operate a closed cycle recirculating system as defined at 40 CFR § 125.92(c).

2. Monitor the actual intake flows at a minimum frequency of daily, including measurements of cooling water withdrawals, make-up water and blow down volume or alternatively monitor cycles of concentration at a minimum frequency of daily.

3. Submit the results of monitoring in paragraph D.2 above on the Cooling Water Intake Monitoring Supplemental Report (3800-FM-BCW0010) as an attachment to monthly DMRs.

E. If DEP determines the methods to meet impingement and entrainment BTA requirements are not sufficient, the permittee shall employ additional controls to reduce adverse impacts from impingement and entrainment.

Summary of Review

F. The permittee shall, on an annual basis, submit a report describing any modifications to the operation of any unit at the facility that impacts cooling water withdrawals or operation of the cooling water intake structure(s) during a calendar year. If not applicable, the permittee shall submit a statement certifying that no modifications have occurred in lieu of a report. The annual report or statement is due by January 28 of each year.

G. If the permittee wishes to submit a request for a reduction in permit application requirements as specified in 40 CFR § 125.95(c), the request must be submitted to DEP at least two years and six months before the permit expiration date.

H. 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.

I. 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)).

Condition is now under Part C.IV.

- **Part C.XII:** 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.

  Remains in permit unchanged. Condition moved to Part C.I.B.

- **Part C.XIII:** The terms and conditions of Water Quality Management (WQM) permits that may have been issued to the permittee relating to discharge requirements are superseded by this NPDES permit unless otherwise stated herein.

  Remains in permit unchanged. Condition moved to Part C.I.C.

- **Part C.XIV:** 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.

  Remains in permit unchanged. Condition moved to Part C.I.D.

- **Part C.XV:** During boiler cleaning operations, wastewater from the chemical cleaning process shall be drained to temporary holding tanks and hauled off-site to a permitted disposal facility. After removal of the chemical cleaning wastewater, the boiler is to be rinsed. The rinse water shall be drained to temporary holding tanks and sampled for pH, Ca, Cu, Fe, Mg, Mn, Ni, and Zn before it is pumped to the industrial waste treatment basin. Sampling results are to be submitted to the Department for review.

  Remains in permit unchanged. Condition moved to Part C.VIII.

The template Part C condition titled “BMPs to Address Aqueous Film Forming Foam (AFFF)” is added to the permit (see Part C.V.)

Summary of Review

None of the existing effluent limitations have been made less stringent, therefore, the antibacksliding requirement has been met. Removal of the monthly average TRC limitation isn't considered backsliding since there were changes made to the facility that warrant its removal (UV disinfection). There are no new or increased discharges requested during this permit renewal so there is no need for an antidegradation analysis. No TMDL exists for the receiving stream and there's no DRBC docket for this facility. There are no open violations that would warrant withholding the issuance of this permit. The EPA waiver is not in effect.


TMS PA0012823.pdf


WQM Modeling.pdf


TRC Calculation.pdf


Watershed Information.pdf

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	010 011 013 020 413 (IMP)	Design Flow (MGD)	0.024 0.124 7.77 0 (SW) 0 (SW)
Latitude	40º 47' 45" 40º 47' 30" 40º 47' 24" 40º 47' 30" 40º 47' 49"	Longitude	-75º 6' 15" -75º 6' 30" -75º 7' 1" -75º 7' 1" -75º 6' 25"
Quad Name	Belvidere	Quad Code	1245
Wastewater Description:	Industrial Wastewater / Stormwater		

Receiving Waters	Delaware River	Stream Code	2
NHD Com ID	26031896	RMI	119.5
Drainage Area	4550 mi^2	Yield (cfs/mi^2)	0.26
Q_{7-10} Flow (cfs)	1183	Q_{7-10} Basis	Gage 01446500
Elevation (ft)	200	Slope (ft/ft)	0.0007
Watershed No.	1-F	Chapter 93 Class.	WWF, MF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment	-		
Source(s) of Impairment	-		
TMDL Status	-	Name	-

Background/Ambient Data		Data Source
pH (SU)	7	Default value
Temperature (°C)	25	Default WWF value
Hardness (mg/L)	100	Default value
Other:	-	-

Nearest Downstream Public Water Supply Intake		Easton Area Water System	
PWS Waters	Delaware River	Flow at Intake (cfs)	1206
PWS RMI	110.4	Distance from Outfall (mi)	~9

Parameter	TBEL (mg/L)	TBEL Regulation	WQBEL (mg/L)
Total Chromium	0.2 (Avg Qrtly) 0.2 (Daily Max)	40 CFR 423	1.5 (Avg Qrtly) 2.4 (Daily Max)
Free Available Chlorine	0.2 (Avg Qrtly) 0.5 (Maximum)	40 CFR 423	N/A
Oil and Grease	15 (Avg Qrtly) 20 (Daily Max)	40 CFR 423	N/A
Total Suspended Solids	30 (Avg Qrtly) 100 (Daily Max)	40 CFR 423	N/A
Total Zinc	1.0 (Avg Qrtly) 1.0 (Daily Max)	40 CFR 423	0.25 (Avg Qrtly) 0.39 (Daily Max)
Total Copper	1.0 (Avg Qrtly) 1.0 (Daily Max)	40 CFR 423	0.028 (Avg Qrtly) 0.045 (Daily Max)
Total Iron	1.0 (Avg Qrtly) 1.0 (Daily Max)	40 CFR 423	149 (Avg Qrtly) 232 (Daily Max)

Table 1. TBEL & WQBEL Comparison for Outfall 013

Parameter	TBEL	TBEL Regulation	WQBEL
$CBOD_5$	25 mg/L (Avg Mo) 50 mg/L (IMAX)	92a.47(a)(1) N/A	N/A
TSS	30 mg/L (Avg Mo) 60 mg/L (IMAX)	92a.47(a)(1) N/A	N/A
pH	6.0 - 9.0 S.U.	95.2(1)	N/A
Fecal Coliform 5/1 - 9/30	200 CFU/100mL (Geo Mean) 1,000 CFU/100mL (IMAX)	92a.47(a)(4)	N/A
Fecal Coliform 10/1 - 4/30	2,000 CFU/100mL (Geo Mean) 10,000 CFU/100mL (IMAX)	92a.47(a)(4)	200 CFU/100mL (Geo Mean) Not greater than 1,000/100mL in more than 10% of the samples tested.
TRC	0.5 mg/L 1.6 mg/L	92a.48(b)(2)	N/A
Ammonia-N	25 mg/L (Avg Mo)	BPJ - see DEP doc no. BPNPSM-PMT-033	20 mg/L (Avg Mo)
Dissolved Oxygen	4.0 (Min)	BPJ - see DEP doc no. BPNPSM-PMT-033	2.0 (Min)*

Table 2. TBEL & WQBEL Comparison for Outfall 010

*The 2 mg/L D.O. minimum has been incorporated in previous permits dating back to the 3/29/1990 issued permit, at least. It is carried over in this permit. The D.O. minimum of 4.0 mg/L is not included in the permit as a best professional judgement (BPJ) limitation due to the assimilative capacity of the Delaware River.

Pollutant	Monitoring Requirements [1],[2]		Benchmark Values
	Minimum Measurement Frequency	Sample Type	
Total Nitrogen (mg/L) [3]	1 / 6 months	Calculation	XXX
Total Phosphorus (mg/L)	1 / 6 months	Grab	XXX
pH (S.U.)	1 / 6 months	Grab	9.0
Total Suspended Solids (TSS) (mg/L)	1 / 6 months	Grab	100
Oil and Grease (mg/L)	1 / 6 months	Grab	30
Total Iron (mg/L)	1 / 6 months	Grab	XXX

Table 3. Appendix H Monitoring Requirements of PAG-03 General Permit