pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

August 30, 2019

William J. Weaver, Plant Manger
Shawville Generating Station
PO Box F
250 Power Plant Drive
Shawville, PA 16873

Re: Draft NPDES Permit- Industrial Waste
Warren Generating Station
Application No. PA0005053
Authorization ID No. 1154466
Conewango Township, Warren County

Dear Mr. Weaver:

The Department of Environmental Protection (DEP) has prepared the enclosed draft NPDES permit for your review and comment.

Please note that the Department is anticipating an NPDES amendment application for the change of the applicant name from "NRG REMA LLC" to "GenOn REMA LLC". Assuming that this is received within the draft permit public comment period, the Department will anticipate that this amendment will occur simultaneously with the final permit issuance.

Also enclosed is a copy of a public notice that, in accordance with DEP regulations at 25 Pa. Code § 92a.82(b), you are required to post near the entrance to your premises and, if the facility or discharge location is remote from these premises, at the entrance to the facility or at the discharge location. These postings shall remain for 30 days.

DEP will publish notice of the draft permit in the Pennsylvania Bulletin in the near future. You may provide written comments on the draft permit up to 30 days following publication of this notice. Following the 30-day public comment period (which may be extended by 15 days at DEP's discretion), DEP will consider any comments received and make a decision on whether to issue a final permit.

If you have any questions, please contact me at 814.332.6352.

Sincerely,

Justin C. Dickey, P.E.
Environmental Engineer Manager
Clean Water Program

Enclosures

cc: Stephen M. Frank, P.E., GenOn – Senior Manager, Environmental
Karen E. McClelland, GenOn – Senior Environmental Specialist
Kathleen Patnode / USFWS (email PDF, w/ attachments)

NPDES PUBLIC NOTICE

Application for National Pollutant Discharge Elimination
System (NPDES) Permit to Discharge to State Waters

Northwest Regional Office: Regional Clean Water Program Manager, 230 Chestnut Street, Meadville, PA 16335-3481, Telephone: 814.332.6942.

PA0005053, Industrial, SIC Code 4911, Genon Rema LLC, 250 Power Plant Drive, Shawville, PA 16873. Facility Name: Warren Generating Station. This existing facility is located in Conewango Township, Warren County.

Description of Existing Activity: The application is for a renewal of an NPDES permit for an existing discharge of treated Industrial Waste.

The receiving stream(s), Allegheny River (WWF), is located in State Water Plan watershed 16-B and is classified for Warm Water Fishes, aquatic life, water supply and recreation. The discharge is not expected to affect public water supplies.

The proposed effluent limits for Outfall 002 are based on a design flow of .029 MGD. - Limits.

	Mass Units (lbs/day)		Concentrations (mg/L)			
Parameters	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX
Total Suspended Solids	XXX	XXX	XXX	30	70	75
Oil and Grease	XXX	XXX	XXX	15.0	20.0	30
Iron, Total	XXX	XXX	XXX	3.5	7.0	8.8
Nickel, Total	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX
Chloride	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX

Sludge use and disposal description and location(s): Sludge generated is shipped offsite to a permitted facility for disposal

You may make an appointment to review the DEP files on this case by calling the File Review Coordinator at 814-332-6340.

The EPA Waiver is in effect

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

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

NPDES PERMIT NO: PA0005053

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.*,

GenOn REMA LLC
250 Power Plant Drive
Shawville, PA 16873

is authorized to discharge from a facility known as **Warren Generating Station**, located in **Conewango Township, Warren County**, to **Allegheny River (WWF)** in Watershed(s) **16-B** 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 _____

THIS PERMIT SHALL EXPIRE AT MIDNIGHT ON _____

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 _____ **ISSUED BY** _____

John A. Holden, P.E.
Environmental Program Manager
Northwest Regional Office

Permit No. PA0005053

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

I. A. For Outfall 002 , **Latitude** 41° 50' 4.00" , **Longitude** 79° 11' 31.00" , **River Mile Index** 186.21 , **Stream Code** 42122

Receiving Waters: Allegheny River (WWF)

Type of Effluent: Treated ash disposal site leachate and stormwater

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.
2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX	Continuous	Recorded
Total Suspended Solids	XXX	XXX	XXX	30	70	75	1/week	24-Hr Composite
Oil and Grease	XXX	XXX	XXX	15.0	20.0	30	1/month	Grab
Iron, Total	XXX	XXX	XXX	3.5	7.0	8.8	1/week	24-Hr Composite
Nickel, Total	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	24-Hr Composite
Chloride	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	24-Hr Composite

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

at Outfall 002

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

Additional Requirements

The permittee may not discharge:

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

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

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

4. Foam or substances that produce an observed change in the color, taste, odor or turbidity of the receiving water, unless those conditions are otherwise controlled through effluent limitations or other requirements in this permit. For the purpose of determining compliance with this condition, DEP will compare conditions in the receiving water upstream of the discharge to conditions in the receiving water approximately 100 feet downstream of the discharge to determine if there is an observable change in the receiving water. (25 Pa Code § 92a.41(c))

Footnotes

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

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

Supplemental Information

The effluent limitations for Outfall 002 were determined using an effluent discharge rate of 0.029 MGD.

II. DEFINITIONS

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

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

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures and other management practices to prevent or reduce the pollutant loading to surface waters of the Commonwealth. The term also includes treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. The term includes activities, facilities, measures, planning or procedures used to minimize accelerated erosion and sedimentation and manage stormwater to protect, maintain, reclaim, and restore the quality of waters and the existing and designated uses of waters within this Commonwealth before, during and after earth disturbance activities. (25 Pa. Code § 92a.2)

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

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

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

Chemical Additive means a chemical product (including products of disassociation and degradation, collectively "products") introduced into a waste stream that is used for cleaning, disinfecting, or maintenance and which may be detected in effluent discharged to waters of the Commonwealth. The term generally excludes chemicals used for neutralization of waste streams, the production of goods, and treatment of wastewater.

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

Composite Sample (for GC/MS volatile organic analysis) consists of at least four aliquots or grab samples collected during the sampling event (not necessarily flow proportioned). A separate analysis should be performed for each sample and the results should be averaged.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

III. SELF-MONITORING, REPORTING AND RECORDKEEPING

A. Representative Sampling

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity (40 CFR 122.41(j)(1)). Representative sampling includes the collection of samples, where possible, during periods of adverse weather, changes in treatment plant performance and changes in treatment plant loading. If possible, effluent samples must be collected where the effluent is well mixed near the center of the discharge conveyance and at the approximate mid-depth point, where the turbulence is at a maximum and the settlement of solids is minimized. (40 CFR 122.48, 25 Pa. Code § 92a.61)

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

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

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

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

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

4. Test Procedures

   a. Facilities that test or analyze environmental samples used to demonstrate compliance with this permit shall be in compliance with laboratory accreditation requirements of Act 90 of 2002 (27 Pa. C.S. §§ 4101-4113) and 25 Pa. Code Chapter 252, relating to environmental laboratory accreditation.

   b. Test procedures (methods) for the analysis of pollutants or pollutant parameters shall be those approved under 40 CFR Part 136 or required under 40 CFR Chapter I, Subchapters N or O, unless the method is specified in this permit or has been otherwise approved in writing by DEP. (40 CFR 122.41(j)(4), 122.44(i)(1)(iv))

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

5. Quality/Assurance/Control

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

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

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

B. Reporting of Monitoring Results

1. The permittee shall effectively monitor the operation and efficiency of all wastewater treatment and control facilities, and the quantity and quality of the discharge(s) as specified in this permit. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.44, 92a.61(i) and 40 CFR §§ 122.41(e), 122.44(i)(1))

2. The permittee shall use DEP's electronic Discharge Monitoring Report (eDMR) system to report the results of compliance monitoring under this permit (see www.dep.pa.gov/edmr). Permittees that are not using the eDMR system as of the effective date of this permit shall submit the necessary registration and trading partner agreement forms to DEP's Bureau of Clean Water (BCW) within 30 days of the effective date of this permit and begin using the eDMR system when notified by DEP BCW to do so. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.61(g) and 40 CFR § 122.41(l)(4))

3. Submission of a physical (paper) copy of a Discharge Monitoring Report (DMR) is acceptable under the following circumstances:

   a. For a permittee that is not yet using the eDMR system, the permittee shall submit a physical copy of a DMR to the DEP regional office that issued the permit during the interim period between the submission of registration and trading partner agreement forms to DEP and DEP's notification to begin using the eDMR system.

   b. For any permittee, as a contingency a physical DMR may be mailed to the DEP regional office that issued the permit if there are technological malfunction(s) that prevent the successful submission of a DMR through the eDMR system. In such situations, the permittee shall submit the DMR through the eDMR system within 5 days following remedy of the malfunction(s).

4. DMRs must be completed in accordance with DEP's published DMR instructions (3800-FM-BCW0463). DMRs must be received by DEP no later than 28 days following the end of the monitoring period. DMRs are based on calendar reporting periods and must be received by DEP in accordance with the following schedule:

   - Monthly DMRs must be received within 28 days following the end of each calendar month.
   - Quarterly DMRs must be received within 28 days following the end of each calendar quarter, i.e., January 28, April 28, July 28, and October 28.
   - Semiannual DMRs must be received within 28 days following the end of each calendar semiannual period, i.e., January 28 and July 28.
   - Annual DMRs must be received by January 28, unless Part C of this permit requires otherwise.

5. The permittee shall complete all Supplemental Reporting forms (Supplemental DMRs) attached to this permit, or an approved equivalent, and submit the signed, completed forms as attachments to the DMR, through DEP's eDMR system. DEP's Supplemental Laboratory Accreditation Form (3800-FM-BCW0189) must be completed and submitted to DEP with the first DMR following issuance of this permit, and anytime thereafter when changes to laboratories or methods occur. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.61(g) and 40 CFR § 122.41(l)(4))

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

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

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

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

C. Reporting Requirements

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

   Notice is required when:

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

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

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

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

2. Planned Changes to Waste Stream – Under the authority of 25 Pa. Code § 92a.24(a), the permittee shall provide notice to DEP as soon as possible but no later than 45 days prior to any planned changes in the volume or pollutant concentration of its influent waste stream, as specified in paragraphs 2.a. and 2.b., below. Notice shall be provided on the "Planned Changes to Waste Stream" Supplemental Report (3800-FM-BCW0482), available on DEP's website. The permittee shall provide information on the quality and quantity of waste introduced into the facility, and any anticipated impact of the change on the quantity or quality of effluent to be discharged from the facility. The Report shall be sent via Certified Mail or other means to confirm DEP's receipt of the notification. DEP will determine if the submission of a new application and receipt of a new or amended permit is required.

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

      New pollutants are defined as parameters that meet all of the following criteria:

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

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

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

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

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

(i) Were detected in the facilities' influent waste stream as reported in the permittee's permit application; or

(ii) Have been approved to be included in the permittee's influent waste stream by DEP in writing; or

(iii) Have an effluent limitation or monitoring requirement in this permit.

The permittee shall provide notification of the introduction of increased influent loading (lbs/day) of approved pollutants in accordance with paragraph 2 above when (1) the cumulative increase in influent loading (lbs/day) exceeds 20% of the maximum loading reported in the permit application, or a loading previously approved by DEP, or (2) may cause an exceedance in the effluent of Effluent Limitation Guidelines (ELGs) or limitations in Part A of this permit, or (3) may cause interference or pass through at the facility (as defined at 40 CFR 403.3), or (4) may cause exceedances of the applicable water quality standards in the receiving stream. Unless specified otherwise in this permit, if DEP does not respond to the notification within 30 days of its receipt, the permittee may proceed with the increase in loading. The acceptance of increased loading of approved pollutants may not result in an exceedance of ELGs or effluent limitations and may not cause exceedances of the applicable water quality standards in the receiving stream.

3. Reporting Requirements for Hauled-In Wastes

a. Receipt of Residual Waste

(i) The permittee shall document the receipt of all hauled-in residual wastes (including but not limited to wastewater from oil and gas wells, food processing waste, and landfill leachate), as defined at 25 Pa. Code § 287.1, that are received for processing at the treatment facility. The permittee shall report hauled-in residual wastes on a monthly basis to DEP on the "Hauled In Residual Wastes" Supplemental Report (3800-FM-BCW0450) as an attachment to the DMR. If no residual wastes were received during a month, submission of the Supplemental Report is not required.

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

(1) The dates that residual wastes were received.

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

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

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

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

(6) The type of wastewater.

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

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

(1) If the generator is required to complete a chemical analysis of residual wastes in accordance with 25 Pa. Code § 287.51, the permittee must receive and maintain on file a chemical analysis of the residual wastes it receives. The chemical analysis must conform to the Bureau of Waste Management's Form 26R except as noted in paragraph (2), below. Each load of residual waste received must be covered by a chemical analysis if the generator is required to complete it.

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

b. Receipt of Municipal Waste

(i) The permittee shall document the receipt of all hauled-in municipal wastes (including but not limited to septage and liquid sewage sludge), as defined at 25 Pa. Code § 271.1, that are received for processing at the treatment facility. The permittee shall report hauled-in municipal wastes on a monthly basis to DEP on the "Hauled In Municipal Wastes" Supplemental Report (3800-FM-BCW0437) as an attachment to the DMR. If no municipal wastes were received during a month, submission of the Supplemental Report is not required.

The following information is required by the Supplemental Report:

(1) The dates that municipal wastes were received.

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

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

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

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

4. Unanticipated Noncompliance or Potential Pollution Reporting

a. Immediate Reporting - The permittee shall immediately report any incident causing or threatening pollution in accordance with the requirements of 25 Pa. Code §§ 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-BCW0440). The reports shall contain the information listed in paragraph C.4.b.(ii) of this section. (40 CFR 122.41(l)(7))

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

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

a. One hundred micrograms per liter.

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

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

d. One milligram per liter for antimony.

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

f. Any other notification level established by DEP.

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

a. Five hundred micrograms per liter.

b. One milligram per liter for antimony.

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

d. Any other notification level established by DEP.

PART B

I. MANAGEMENT REQUIREMENTS

A. Compliance

1. The permittee shall comply with all conditions of this permit. If a compliance schedule has been established in this permit, the permittee shall achieve compliance with the terms and conditions of this permit within the time frames specified in this permit. (40 CFR 122.41(a)(1))

2. The permittee shall submit reports of compliance or noncompliance, or progress reports as applicable, for any interim and final requirements contained in this permit. Such reports shall be submitted no later than 14 days following the applicable schedule date or compliance deadline. (25 Pa. Code § 92a.51(c), 40 CFR 122.47(a)(4))

B. Permit Modification, Termination, or Revocation and Reissuance

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

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

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

C. Duty to Provide Information

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

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

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

D. Proper Operation and Maintenance

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

E. Duty to Mitigate

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

F. Bypassing

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

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

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

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

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

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

4. Notice

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

   b. Unanticipated Bypass – The permittee shall submit oral notice of any other unanticipated bypass within 24 hours, regardless of whether the bypass may endanger health or the environment or whether the bypass exceeds effluent limitations. The notice shall be in accordance with Part A III.C.4.b.

II. PENALTIES AND LIABILITY

A. Violations of Permit Conditions

Any person violating Sections 301, 302, 306, 307, 308, 318 or 405 of the Clean Water Act or any permit condition or limitation implementing such sections in a permit issued under Section 402 of the Act is subject to civil, administrative and/or criminal penalties as set forth in 40 CFR 122.41(a)(2).

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

B. Falsifying Information

Any person who does any of the following:

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

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

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

C. Liability

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

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

D. Need to Halt or Reduce Activity Not a Defense

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

III. OTHER RESPONSIBILITIES

A. Right of Entry

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

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

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

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

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

B. Transfer of Permits

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

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

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

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

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

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

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

C. Property Rights

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

D. Duty to Reapply

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

E. Other Laws

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

IV. ANNUAL FEES

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

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

As of the effective date of this permit, the facility covered by the permit is classified in the following fee category: **Minor IW Facility without ELG**.

Invoices for annual fees will be mailed to permittees approximately three months prior to the due date. In the event that an invoice is not received, the permittee is nonetheless responsible for payment. Throughout a five year permit term, permittees will pay four annual fees followed by a permit renewal application fee in the last year of permit coverage. Permittees may contact DEP at 717-787-6744 with questions related to annual fees. The fees identified above are subject to change in accordance with 25 Pa. Code § 92a.62(e).

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

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

PART C

I. OTHER REQUIREMENTS

A. The approval herein given is specifically made contingent upon the permittee acquiring all necessary property rights by easement or otherwise, providing for the satisfactory construction, operation, maintenance or replacement of all structures associated with the herein approved discharge in, along, or across private property, with full rights of ingress, egress and regress.

B. Collected screenings, slurries, sludges, and other solids shall be handled, recycled and/or disposed of in compliance with the Solid Waste Management Act (35 P.S. §§ 6018.101 – 6018.1003), 25 Pa. Code Chapters 287, 288, 289, 291, 295, 297, and 299 (relating to requirements for landfilling, impoundments, land application, composting, processing, and storage of residual waste), Chapters 261a, 262a, 263a, and 270a (related to identification of hazardous waste, requirements for generators and transporters, and hazardous waste, requirements for generators and transporters, and hazardous waste permit programs), federal regulation 40 CFR Part 257, The Clean Streams Law, and the Federal Clean Water Act and its amendments. Screenings collected at intake structures shall be collected and managed and not be returned to the receiving waters.

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

C. 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.

D. 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.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northwest Regional Office
CLEAN WATER PROGRAM

Application Type	Renewal	Application No.	PA0005053
Facility Type	Industrial	APS ID	924752
Major / Minor	Minor	Authorization ID	1154466

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

Applicant and Facility Information

Applicant Name	GenOn REMA LLC (formerly NRG REMA LLC)	Facility Name	Warren Generating Station
Applicant Address	250 Power Plant Drive	Facility Address	20085 Route 6
	Shawville, PA 16873		Warren, PA 16365-3655
Applicant Contact	Stephen M. Frank, Sr. Mgr., Environmental	Facility Contact	William J. Weaver, Plant Manager
Applicant Phone	724-249-3610	Facility Phone	
Client ID	135779	Site ID	263250
SIC Code	4911	Municipality	Conewango Township
SIC Description	Trans. & Utilities - Electric Services	County	Warren
Date Application Received	September 29, 2016	EPA Waived?	Yes
Date Application Accepted	December 7, 2016	If No, Reason	
Purpose of Application	NPDES permit renewal		

Summary of Review

The Warren Generating Station steam units have been deactivated and this portion of the facility is closed. The combustion turbine (CT) continues to be operate.

NRG recently changed their operational name to GenOn Holdings, Inc. As a result of this name change, the applicant submitted a letter received on June 18, 2019 to request that the applicant name be changed from "NRG REMA LLC" to "GenOn REMA LLC". The facility was originally permitted as "GenOn REMA LLC" in the last permit renewal dated March 8, 2012 but the name was changed to "NRG REMA LLC" through a permit amendment dated March 31, 2014. The applicant is now proposing to revert back to the "GenOn REMA LLC" name and was advised on July 11, 2019 that a permit amendment application would be required for this change. The applicant is preparing the application and submittal is expected soon. It is anticipated that this will happen prior to final permit issuance and the amendment can be simultaneously completed at the time of the final permit issuance. The combustion turbine (CT) is reportedly going to be transferred to a different entity (Warren Power LLC). A permit amendment to address this change is anticipated in the near future.

Contact information since the original September 29, 2016 NPDES permit renewal submittal has changed as follows:

Applicant: Stephen M. Frank, P.E.
Senior Manager, Environmental
Stephen.Frank@GenOn.com
724-249-3610

or Karen E. McClelland
Senior Environmental Specialist
Karen.McClelland@GenOn.com
724-877-4462

Facility: William J. Weaver
Plant Manager
William.Weaver@GenOn.com

Approve	Deny	Signatures	Date
X		Justin C. Dickey, P.E. / Environmental Engineer Manager	8/26/2019
X		John A. Holden, P.E. / Environmental Program Manager	

Summary of Review

It was determined during the permit renewal review that this facility's discharge should be regulated under the revised Steam Electric Subcategory (40 CFR 423) as combustion residual leachate. This wastestream is defined in 40 CFR 423.11(r) as "leachate from landfills or surface impoundments containing combustion residuals. Leachate is composed of liquid, including any suspended or dissolved constituents in the liquid, that has percolated through waste or other materials emplaced in a landfill, or that passes through the surface impoundment's containment structure (e.g., bottom, dikes, berms). Combustion residual leachate includes seepage and/or leakage from a combustion residual landfill or impoundment unit. Combustion residual leachate includes wastewater from landfills and surface impoundments located on non-adjoining property when under the operational control of the permitted facility."

The Chapter 92a fee category will be changed to "Minor IW with ELG" upon issuance of this permit.

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.	001	Design Flow (MGD)	N/A
Latitude	41° 50' 07"	Longitude	-79° 11' 20"
Outfall No.	003	Design Flow (MGD)	N/A
Latitude	41° 50' 07"	Longitude	-79° 11' 40"
Outfall No.	004	Design Flow (MGD)	N/A
Latitude	41° 50' 07"	Longitude	-79° 11' 28"
Quad Name	Warren	Quad Code	01073
Wastewater Description:	Stormwater		
Receiving Waters	Allegheny River (WWF)	Stream Code	42122
NHD Com ID	112375359	RMI	-
Drainage Area	-	Yield (cfs/mi^2)	-
Q_{7-10} Flow (cfs)	-	Q_{7-10} Basis	-
Elevation (ft)	-	Slope (ft/ft)	-
Watershed No.	16-B	Chapter 93 Class.	WWF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Impaired		
Cause(s) of Impairment	MERCURY, PATHOGENS		
Source(s) of Impairment	SOURCE UNKNOWN, SOURCE UNKNOWN		
TMDL Status		Name	

Changes Since Last Permit Issuance: None

Other Comments: These stormwater outfalls meet the requirements for being eligible for a no exposure exemption. Therefore, the will not be included in the NPDES permit.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	002	Design Flow (MGD)	.029
Latitude	41° 50' 04"	Longitude	-79° 11' 31"
Quad Name		Quad Code	
Wastewater Description:	Treated ash disposal site leachate and stormwater		

Receiving Waters	Allegheny River (WWF)	Stream Code	42122
NHD Com ID	112375359	RMI	186.21
Drainage Area	3140	Yield (cfs/mi^2)	0.324
Q_{7-10} Flow (cfs)	1017.88	Q_{7-10} Basis	See below
Elevation (ft)	1163	Slope (ft/ft)	0.0003
Watershed No.	16-B	Chapter 93 Class.	WWF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Impaired		
Cause(s) of Impairment	MERCURY, PATHOGENS		
Source(s) of Impairment	SOURCE UNKNOWN, SOURCE UNKNOWN		
TMDL Status		Name	

Background/Ambient Data		Data Source
pH (SU)	7.4	9/98-6/04 sampling @ WQN #866 – Alleg. R. near Warren
Temperature (°F)	25	Default temp for a WWF stream
Hardness (mg/L)	31	Avg. value of samples from WQN #866 (1/95-12/98)
Other:	-	-

Nearest Downstream Public Water Supply Intake		Aqua Pa, Emlenton	
PWS Waters	Allegheny River	Flow at Intake (cfs)	1376
PWS RMI	90.67	Distance from Outfall (mi)	96 miles (approximate)

Changes Since Last Permit Issuance: N/A

Q_{7-10} Flow Calculations:

USGS 03016000 – Allegheny River @ West Hickory (1/1985-9/2010*) – Q7,10 = 1060 cfs; D.A. = 3660 mi^2;
*No flow data was collected at the West Hickory gage from 10/2004 to 9/2007. D-Flow was used to find Q_{7-10}.

USGS 03012600 – Allegheny River @ Kinzua Dam (1935-1965) – Yield = 0.081 cfsm

Flow will be subtracted between West Hickory Gage and Outfall 002 using yield rate prior to construction of Kinzua Dam.

Q7-10 at Outfall 002 = 1060 cfs – [(3660-3140 mi)(0.081 cfsm)] = 1017.88 cfs
Q7-10 at Downstream Point = 1060 cfs –[(3660-3141 mi)(0.081 cfsm)] = 1017.96 cfs
(Just below Morse Run confluence – RMI 184.76)
Q7-10 at PWS (Aqua At Emlenton – RMI 90.57) = 1376 cfs

Discharge, Receiving Waters and Water Supply Information

Outfall No.	005	Design Flow (MGD)	N/A
Latitude	41° 50' 07"	Longitude	-79° 11' 28"
Quad Name		Quad Code	
Wastewater Description:	Stormwater		
Receiving Waters	UNT to Allegheny River (WWF)	Stream Code	42122
NHD Com ID	112375331	RMI	-
Drainage Area	-	Yield (cfs/mi^2)	-
Q_{7-10} Flow (cfs)	-	Q_{7-10} Basis	-
Elevation (ft)	-	Slope (ft/ft)	-
Watershed No.	16-B	Chapter 93 Class.	WWF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	-		
Cause(s) of Impairment	-		
Source(s) of Impairment	-		
TMDL Status	-	Name	-

Background/Ambient Data		Data Source
pH (SU)	-	-
Temperature (°F)	-	-
Hardness (mg/L)	-	-
Other:	-	-

Nearest Downstream Public Water Supply Intake			
PWS Waters		Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	

Changes Since Last Permit Issuance: None

Other Comments: This stormwater outfalls meet the requirements for being eligible for a no exposure exemption. Therefore, the will not be included in the NPDES permit.

Treatment Facility Summary

Treatment Facility Name: Warren Generating Station

WQM Permit No.	Issuance Date
6274203-T3	3/31/2014
6203201-T1	5/4/2011

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Industrial	Chemical (Industrial Waste)	Chemical Precipitation	No Disinfection	---

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
2.21	000	---	Dewatering	Landfill

Changes Since Last Permit Issuance: None

6274203-T3: Ash disposal ponds (original permit issued on 5/19/75)

6203201-T1: Leachate storage pond, pump station, leachate treatment consisting of 2-stage pH adjustment and aeration, settling, sludge thickening, filter press, sludge hopper, and ancillary equipment. (original permit issued on 4/9/2003)

Compliance History

DMR Data for Outfall 002 (from June 1, 2018 to May 31, 2019)

Parameter	MAY-19	APR-19	MAR-19	FEB-19	JAN-19	DEC-18	NOV-18	OCT-18	SEP-18	AUG-18	JUL-18	JUN-18
Flow (MGD) Average Monthly	0.03	0.02	0.02	0.03	0.02	0.02	0.01	0.01	0.01	0.02	0.02	0.02
pH (S.U.) Minimum	7.3	7.0	7.2	7.4	7.1	7.2	7.2	7.0	7.0	7.2	7.1	7.2
pH (S.U.) Maximum	8.0	7.9	7.8	7.9	7.9	7.9	7.9	7.9	8.0	7.8	8.2	7.8
TSS (mg/L) Average Monthly	< 0.2	< 3.8	2.3	4.3	3.2	4.8	5.0	< 2.8	3.8	4.5	2.8	2.5
TSS (mg/L) Daily Maximum	2.0	7.0	3.0	7.0	5.0	6.0	9.0	6.0	6.0	5.0	4.0	4.0
Total Iron (mg/L) Average Monthly	0.4	0.35	< 0.26	0.28	0.24	0.24	0.17	0.08	0.27	0.11	0.33	0.34
Total Iron (mg/L) Daily Maximum	0.48	0.54	0.26	0.35	0.35	0.27	0.36	0.12	0.72	0.13	0.65	0.39

Development of Effluent Limitations

Outfall No. 002 **Design Flow (MGD)** .029
Latitude 41° 50' 4" **Longitude** -79° 11' 31"
Wastewater Description: Treated ash disposal site leachate and stormwater (IW Process Effluent without ELG)

Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Table 1. Applicable Technology Limits (Federal and State):

Parameter	Limit (mg/l)	SBC	Federal Regulation	State Regulation
Oil and Grease	15	Average Monthly	423.12(b)(11)*	95.2(2)(i)
	20	Daily Maximum	423.12(b)(11)*	
	30	IMAX		95.2(2)(i)
Total Suspended Solids	30	Average Monthly	423.12(b)(11)*	
	100	Daily Maximum	423.12(b)(11)*	
pH	6.0 – 9.0 S.U.	Min – Max	423,12(b)(1)*	95.2(1)
Dissolved Iron	7.0	Daily Maximum		95.2(4)

*** Federal Effluent Limitation Guidelines ("ELGs"):** DEP previously determined that no ELGs apply to outfall 002's wastewater. However, the 2015 Final Rule revising the Steam Electric Power Generating ELGs included effluent limits for sources that were previously regulated as part of "low volume waste sources" or that were otherwise unregulated. Pursuant to 40 CFR § 423.11(r), combustion residual leachate is a regulated wastewater under 40 CFR §§ 423.12(b)(11) and 423.13(l). Leachate from the old ash disposal site would be classified as "combustion residual leachate" pursuant to the specialized definition in § 423.11(r). Applicable ELG requirements are listed in the table below.

DEP previously imposed the following case-by-case effluent limits and monitoring requirements pursuant to 40 CFR § 125.3 and Best Professional Judgement (BPJ).

Table 2. BPJ TBELs for Old Ash Disposal Site:

Pollutant	Average of daily values for 30 consecutive days (mg/L)	Maximum for any 1 day (mg/L)
TSS	30.0	70.0
Iron	3.5	7.0
pH	within the range of 6.0 to 10.0	

Comments: The permit currently has a BAT daily maximum limit of 70 mg/l for TSS which was derived from the Acid or Ferruginous Mine Drainage ELG (40 CFR 434.32) which is still being achieved. The previous limit will remain as a BPJ limit in the permit since it is more stringent than the current ELG (see "Anti-Backsliding" discussion). Since the existing BPJ TBEL for total iron using the multiplier is the same as the tech-based dissolved Iron daily max, the dissolved limit is not needed and was omitted.

Water Quality-Based Limitations

A "Reasonable Potential Analysis" (Attachment 1) determined the following parameters were candidates for limitations: Total Dissolved Solids (TDS), Total Boron, Dissolved Iron, Total Manganese, Total Mercury, Total Nickel, Total Phenols (Phenolics), and Total Thallium.

The following limitations were determined through water quality modeling (Attachment 2): N/A

Best Professional Judgment (BPJ) Limitations

Table 3. Summary of BPJ Limitations:

Parameter	Limit (mg/l)	SBC	Model
Chloride	Monitor & Report	Average Quarterly	Collecting data to evaluate mussel protection
Nickel	Monitor & Report	Average Quarterly	Collecting data to evaluate mussel protection

Comments: Chloride and Nickel monitoring is proposed due the presence of threatened and endangered mussel species in the Allegheny River. See the "Threatened and Endangered Mussel Species Concerns and Considerations" discussion on Page 9 of this Fact Sheet.

Anti-Backsliding

EPA's anti-backsliding regulation at 40 CFR § 122.44(l)(1) requires that reissued permits contain effluent limitations, standards, or conditions that are at least as stringent as the effluent limitations, standards, or conditions in the previous permit even if less stringent Federal Effluent Limitations Guidelines applicable to the discharge were promulgated after the BPJ TBELs were imposed. Therefore, both the ELG TBELs and BPJ TBELs will apply with the more stringent of the overlapping limits (70 mg/L TSS maximum daily limit) imposed in the permit consistent with 40 CFR § 122.44(l)(2).[1]

Other Comments

The Oil and Grease sampling frequency has been established as 1/month rather than 1/week due to the non-detect results provided in the application sampling data oil and grease is not expected to be present in the effluent.

[1] 40 CFR § 122.44(l)(2): "In the case of effluent limitations established on the basis of Section 402(a)(1)(B) of the CWA, a permit may not be renewed, reissued, or modified on the basis of effluent guidelines promulgated under section 304(b) subsequent to the original issuance of such permit, to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit."

Threatened and Endangered Mussel Species Concerns and Considerations

The Allegheny River is known to contain state and federally listed threatened and endangered mussel species. Due to this being a direct discharge to the Allegheny River, potential impacts were evaluated.

The USFWS has indicated in comment letters on other NPDES permits, that to protect threatened and endangered mussel species, wastewater discharges containing ammonia-nitrogen (NH3-N), chloride (Cl-) and nickel, where mussels or their habitat exist, can be no more than 1.9 mg/l, 78 mg/l and 7.3 µg/l, respectively.

Although the current application form associated with the subject NPDES permit renewal does require sampling for ammonia-nitrogen, chloride, and nickel, NPDES permits for industrial wastewater treatment facilities of this nature do not, generally, include routine monitoring requirements for pollutants such as ammonia-nitrogen, chloride and nickel. Chloride sampling was not completed at the time of this permit renewal application submittal as received on September 29, 2016. Therefore, with exception of the permit renewal application sampling for ammonia-nitrogen and nickel, the Department has limited data to support its determination that a properly constructed, operated and maintained industrial wastewater treatment facility of this size is expected to produce an effluent that would be protective of all the uses of the receiving stream including threatened and endangered mussels.

A summary of the data is as follows:

Sampling Data for USFWS Parameters of Concern		
Parameter	**Min.**	**Max.**
Ammonia-Nitrogen (NH_3-N) (mg/L)	0.42	0.44
Chloride (mg/L)	Not Sampled	Not Sampled
Nickel (µg/L)	49.9	52.6
NOTES: 1. *The samples are all composite samples.*		

Based on this sampling data, the existing discharge from the generating station is not believed to be having any adverse impacts to threatened or endangered mussel species in the Allegheny River. The ammonia-nitrogen concentration is far below the USFWS criteria. Although the nickel concentration in the effluent exceeds the USFWS criteria (52.6 µg/L compared to 7.3 µg/L), nickel in the Allegheny River at the point of discharge is not expected to be measurable at levels that would exceed the USFWS criteria considering the instantaneous assimilative capacity of the Allegheny River is expected (0.029 MGD = 0.045 cfs wastestream compared to the 1017.88 cfs $Q_{7\text{-}10}$ stream flow => 1:22620 ratio of waste flow to stream flow).

Considering the lack of data for Chloride and the exceedance of the nickel criteria, the Department will establish quarterly effluent monitoring for Chloride and Nickel to develop a dataset to further evaluating potential impacts in the upcoming permit term. Chloride and Nickel monitoring would not typically be required for a permit of this nature.

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

Outfall 002, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX	Continuous	Recorded
TSS	XXX	XXX	XXX	30	70	75	1/week	24-Hr Composite
Total Iron	XXX	XXX	XXX	3.5	7.0	8.8	1/week	24-Hr Composite
Oil and Grease	XXX	XXX	XXX	15	20	30	1/month	Grab
Chloride	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	24-Hr Composite
Total Nickel (µg/l)	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	24-Hr Composite

Compliance Sampling Location: at Outfall 002

Other Comments: Changes include Oil and Grease limits and monitoring requirements, Chloride monitoring requirements, and nickel monitoring requirements.

Figure 1: eMAP – Stream Designation

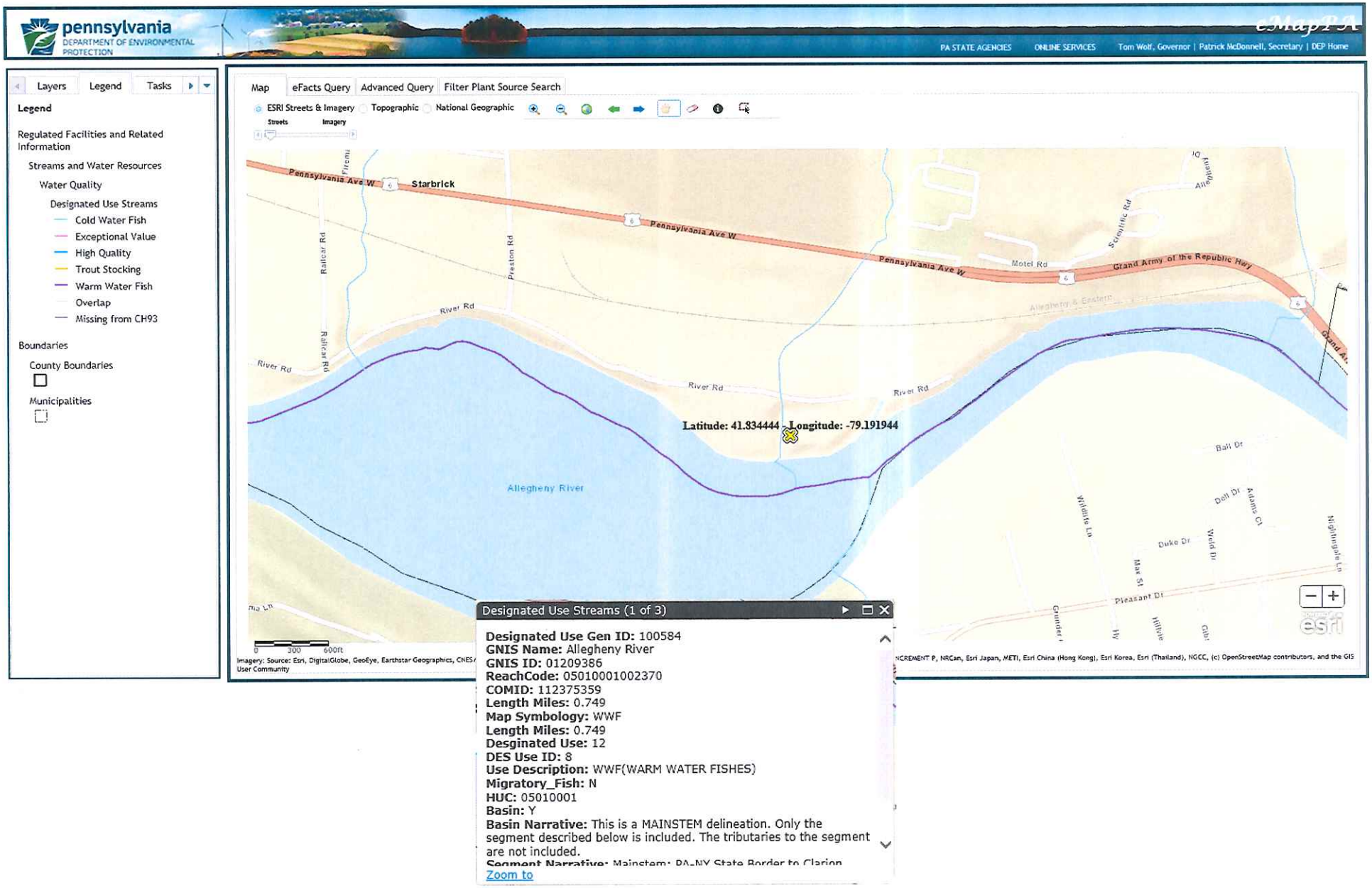


Figure 2: Google Earth Aerial Imagery

ATTACHMENTS

ATTACHMENT A: Toxics Screening Analysis Spreadsheets

ATTACHMENT B: PENTOXSD Modeling Results

ATTACHMENT C: USGS StreamStats Reports

ATTACHMENT A

Toxics Screening Analysis Spreadsheets

TOXICS SCREENING ANALYSIS
WATER QUALITY POLLUTANTS OF CONCERN
VERSION 2.6

Facility: Warren Generating Station
NPDES Permit No.: PA0005053
Outfall: 002
Analysis Hardness (mg/L): 31
Discharge Flow (MGD): 0.029
Analysis pH (SU): 7.4
Stream Flow, Q_{7-10} (cfs): 1017

	Parameter		Maximum Concentration in Application or DMRs (µg/L)	Most Stringent Criterion (µg/L)	Candidate for PENTOXSD Modeling?	Most Stringent WQBEL (µg/L)	Screening Recommendation
Group 1	Total Dissolved Solids		2550000	500000	Yes	1.53E+10	No Limits/Monitoring
	Chloride			250000			
	Bromide			N/A			
	Sulfate			250000			
	Fluoride			2000			
Group 2	Total Aluminum		61.6	750	No		
	Total Antimony	<	0.5	5.6	No (Value < QL)		
	Total Arsenic	<	0.5	10	No (Value < QL)		
	Total Barium		10.4	2400	No		
	Total Beryllium		0.7	N/A	No		
	Total Boron		2640	1600	Yes	2610000	No Limits/Monitoring
	Total Cadmium	<	0.1	0.271	No (Value < QL)		
	Total Chromium	<	2	N/A	No		
	Hexavalent Chromium	<	10	10.4	No		
	Total Cobalt		18.2	19	No		
	Total Copper	<	0.5	9.3	No (Value < QL)		
	Total Cyanide	<	10	N/A	No		
	Total Iron		7000	1500	Yes	34030000	No Limits/Monitoring
	Dissolved Iron		7000	300	Yes	1040000	No Limits/Monitoring
	Total Lead	<	0.2	3.2	No (Value < QL)		
	Total Manganese		4880	1000	Yes	3480000	No Limits/Monitoring
	Total Mercury		0.1	0.05	Yes	174.218	No Limits/Monitoring
	Total Molybdenum		180	N/A	No		
	Total Nickel		52.6	52.2	Yes	56457.03	No Limits/Monitoring
	Total Phenols (Phenolics)		10	5	Yes	153360.8	No Limits/Monitoring
	Total Selenium		0.8	5.0	No		
	Total Silver	<	0.1	3.8	No (Value < QL)		
	Total Thallium		0.3	0.24	Yes	836.248	No Limits/Monitoring
	Total Zinc		8.4	119.8	No		
Group 3	Acrolein	<		3			
	Acrylamide	<		0.07			
	Acrylonitrile	<		0.051			
	Benzene	<		1.2			
	Bromoform	<		4.3			
	Carbon Tetrachloride	<		0.23			
	Chlorobenzene	<		130			
	Chlorodibromomethane	<		0.4			
	Chloroethane	<		N/A			
	2-Chloroethyl Vinyl Ether	<		3500			
	Chloroform	<		5.7			
	Dichlorobromomethane	<		0.55			
	1,1-Dichloroethane	<		N/A			
	1,2-Dichloroethane	<		0.38			
	1,1-Dichloroethylene	<		33			
	1,2-Dichloropropane	<		2200			
	1,3-Dichloropropylene	<		0.34			
	Ethylbenzene	<		530			
	Methyl Bromide	<		47			
	Methyl Chloride	<		5500			
	Methylene Chloride	<		4.6			
	1,1,2,2-Tetrachloroethane	<		0.17			
	Tetrachloroethylene	<		0.69			
	Toluene	<		330			
	1,2-trans-Dichloroethylene	<		140			
	1,1,1-Trichloroethane	<		610			
	1,1,2-Trichloroethane	<		0.59			
	Trichloroethylene	<		2.5			
	Vinyl Chloride	<		0.025			
Group 4	2-Chlorophenol	<		81			
	2,4-Dichlorophenol	<		77			
	2,4-Dimethylphenol	<		130			
	4,6-Dinitro-o-Cresol	<		13			
	2,4-Dinitrophenol	<		69			
	2-Nitrophenol	<		1600			
	4-Nitrophenol	<		470			
	p-Chloro-m-Cresol	<		30			
	Pentachlorophenol	<		0.27			
	Phenol	<		10400			
	2,4,6-Trichlorophenol	<		1.4			

Toxics Screening Analysis Spreadsheet (v 2.6), 8/26/2019

ATTACHMENT B

PENTOXSD Modeling Results

PENTOXSD Analysis Results

Recommended Effluent Limitations

SWP Basin	Stream Code:	Stream Name:
18A	42122	ALLEGHENY RIVER

RMI	Name	Permit Number	Disc Flow (mgd)
186.21	Warren Gen Sta	PA0005053	0.0290

Parameter	Effluent Limit (µg/L)	Governing Criterion	Max. Daily Limit (µg/L)	Most Stringent WQBEL (µg/L)	Most Stringent WQBEL Criterion
BORON	2640	INPUT	4118.824	2610000	AFC
DISSOLVED IRON	7000	INPUT	10921.13	1040000	THH
MANGANESE	4880	INPUT	7613.584	3480000	THH
MERCURY	0.1	INPUT	0.156	174.218	THH
NICKEL	52.6	INPUT	82.064	58457.03	AFC
PHENOLICS (PWS)	10	INPUT	15.602	153360.8	THH
THALLIUM	0.3	INPUT	0.468	836.248	THH
TOTAL DISSOLVED SOLIDS (PWS	2550000	INPUT	3970000	.533607E+10	THH
TOTAL IRON	7000	INPUT	10921.13	3.403E+07	CFC

PENTOXSD

Modeling Input Data

Stream Code	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope	PWS With (mgd)	Apply FC
42122	186.21	1163.00	3140.00	0.00000	0.00	☑

Stream Data

	LFY	Trib Flow	Stream Flow	WD Ratio	Rch Width	Rch Depth	Rch Velocity	Rch Trav Time	Tributary Hard	Tributary pH	Stream Hard	Stream pH	Analysis Hard	Analysis pH
	(cfsm)	(cfs)	(cfs)		(ft)	(ft)	(fps)	(days)	(mg/L)		(mg/L)		(mg/L)	
Q7-10	0.1	1017.88	0	0	0	0	0	0	31	7.4	0	0	0	0
Qh		0	0	0	0	0	0	0	100	7	0	0	0	0

Discharge Data

Name	Permit Number	Existing Disc Flow	Permitted Disc Flow	Design Disc Flow	Reserve Factor	AFC PMF	CFC PMF	THH PMF	CRL PMF	Disc Hard	Disc pH
		(mgd)	(mgd)	(mgd)						(mg/L)	
Warren Gen Sta	PA0005053	0.029	0.029	0.029	0	0	0	0	0	100	7

Parameter Data

Parameter Name	Disc Conc (µg/L)	Trib Conc (µg/L)	Disc Daily CV	Disc Hourly CV	Steam Conc (µg/L)	Stream CV	Fate Coef	FOS	Crit Mod	Max Disc Conc (µg/L)
BORON	2640	0	0.5	0.5	0	0	0	0	1	0
DISSOLVED IRON	7000	0	0.5	0.5	0	0	0	0	1	0
MANGANESE	4880	0	0.5	0.5	0	0	0	0	1	0
MERCURY	0.1	0	0.5	0.5	0	0	0	0	1	0
NICKEL	52.6	0	0.5	0.5	0	0	0	0	1	0
PHENOLICS (PWS)	10	0	0.5	0.5	0	0	0	0	1	0
THALLIUM	0.3	0	0.5	0.5	0	0	0	0	1	0
TOTAL DISSOLVED SOLIDS (PWS)	2550000	0	0.5	0.5	0	0	0	0	1	0
TOTAL IRON	7000	0	0.5	0.5	0	0	0	0	1	0

Stream Code	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope	PWS With (mgd)	Apply FC
42122	184.76	1161.00	3141.00	0.00000	0.00	☑

Stream Data

	LFY	Trib Flow	Stream Flow	WD Ratio	Rch Width	Rch Depth	Rch Velocity	Rch Trav Time	Tributary Hard	Tributary pH	Stream Hard	Stream pH	Analysis Hard	Analysis pH
	(cfsm)	(cfs)	(cfs)		(ft)	(ft)	(fps)	(days)	(mg/L)		(mg/L)		(mg/L)	
Q7-10	0.1	0	1017.96	0	0	0	0	0	100	7	0	0	0	0
Qh		0	0	0	0	0	0	0	100	7	0	0	0	0

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	AFC PMF	CFC PMF	THH PMF	CRL PMF	Disc Hard (mg/L)	Disc pH
		0	0	0	0	0	0	0	0	100	7

Parameter Data

Parameter Name	Disc Conc (µg/L)	Trib Conc (µg/L)	Disc Daily CV	Disc Hourly CV	Steam Conc (µg/L)	Stream CV	Fate Coef	FOS	Crit Mod	Max Disc Conc (µg/L)
BORON	0	0	0.5	0.5	0	0	0	0	1	0
DISSOLVED IRON	0	0	0.5	0.5	0	0	0	0	1	0
MANGANESE	0	0	0.5	0.5	0	0	0	0	1	0
MERCURY	0	0	0.5	0.5	0	0	0	0	1	0
NICKEL	0	0	0.5	0.5	0	0	0	0	1	0
PHENOLICS (PWS)	0	0	0.5	0.5	0	0	0	0	1	0
THALLIUM	0	0	0.5	0.5	0	0	0	0	1	0
TOTAL DISSOLVED SOLIDS (PWS)	0	0	0.5	0.5	0	0	0	0	1	0
TOTAL IRON	0	0	0.5	0.5	0	0	0	0	1	0

Stream Code	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope	PWS With (mgd)	Apply FC
42122	90.67	864.00	3600.00	0.00000	0.50	☑

Stream Data

	LFY	Trib Flow	Stream Flow	WD Ratio	Rch Width	Rch Depth	Rch Velocity	Rch Trav Time	Tributary Hard	Tributary pH	Stream Hard	Stream pH	Analysis Hard	Analysis pH
	(cfsm)	(cfs)	(cfs)		(ft)	(ft)	(fps)	(days)	(mg/L)		(mg/L)		(mg/L)	
Q7-10	0.1	0	1376	0	0	0	0	0	100	7	0	0	0	0
Qh		0	0	0	0	0	0	0	100	7	0	0	0	0

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	AFC PMF	CFC PMF	THH PMF	CRL PMF	Disc Hard (mg/L)	Disc pH
		0	0	0	0	0	0	0	0	100	7

Parameter Data

Parameter Name	Disc Conc (µg/L)	Trib Conc (µg/L)	Disc Daily CV	Disc Hourly CV	Steam Conc (µg/L)	Stream CV	Fate Coef	FOS	Crit Mod	Max Disc Conc (µg/L)
BORON	0	0	0.5	0.5	0	0	0	0	1	0
DISSOLVED IRON	0	0	0.5	0.5	0	0	0	0	1	0
MANGANESE	0	0	0.5	0.5	0	0	0	0	1	0
MERCURY	0	0	0.5	0.5	0	0	0	0	1	0
NICKEL	0	0	0.5	0.5	0	0	0	0	1	0
PHENOLICS (PWS)	0	0	0.5	0.5	0	0	0	0	1	0
THALLIUM	0	0	0.5	0.5	0	0	0	0	1	0
TOTAL DISSOLVED SOLIDS (PWS)	0	0	0.5	0.5	0	0	0	0	1	0
TOTAL IRON	0	0	0.5	0.5	0	0	0	0	1	0

PENTOXSD Analysis Results

Hydrodynamics

SWP Basin	Stream Code:	Stream Name:
18A	42122	ALLEGHENY RIVER

RMI	Stream Flow (cfs)	PWS With (cfs)	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope	Depth (ft)	Width (ft)	WD Ratio	Velocity (fps)	Reach Trav Time (days)	CMT (min)
Q7-10 Hydrodynamics											
186.210	1017.9	0	1017.9	0.04486	0.0003	1.0836	637.43	588.26	1.4738	0.0601	1000+
184.760	1018	0	1018	NA	0.0006	1.0725	615.40	573.82	1.5424	3.728	NA
90.670	1376	0.7735	1375.2	NA	0	0	0	0	0	0	NA
Qh Hydrodynamics											
186.210	3160.2	0	3160.2	0.04486	0.0003	1.7838	637.43	357.35	2.7794	0.0319	1000+
184.760	3160.4	0	3160.4	NA	0.0006	1.7655	615.40	348.57	2.9088	1.9767	NA
90.670	4112.8	0.7735	4112.1	NA	0	0	0	0	0	0	NA

PENTOXSD Analysis Results

Wasteload Allocations

RMI	Name	Permit Number
186.21	Warren Gen Sta	PA0005053

AFC

Q7-10: CCT (min) 15 PMF 0.022 Analysis pH 7.398 Analysis Hardness 31.136

Parameter	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)
PHENOLICS (PWS)	0	0	0	0	NA	NA	NA
TOTAL IRON	0	0	0	0	NA	NA	NA
DISSOLVED IRON	0	0	0	0	NA	NA	NA
MANGANESE	0	0	0	0	NA	NA	NA
MERCURY	0	0	0	0	1.4	1.647	829.756
	Dissolved WQC. Chemical translator of 0.85 applied.						
NICKEL	0	0	0	0	174.492	174.842	88082.04
	Dissolved WQC. Chemical translator of 0.998 applied.						
THALLIUM	0	0	0	0	65	65	32745.74
BORON	0	0	0	0	8100	8100	4080000
TOTAL DISSOLVED SOLIDS (PWS)	0	0	0	0	NA	NA	NA

CFC

Q7-10: CCT (min) 720 PMF 0.163 Analysis pH 7.399 Analysis Hardness 31.019

Parameter	Stream Conc. (µg/L)	Stream CV	Trib Conc. (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)
PHENOLICS (PWS)	0	0	0	0	NA	NA	NA
TOTAL IRON	0	0	0	0	1500	1500	3.403E+07
	WQC = 30 day average. PMF = 1.						
DISSOLVED IRON	0	0	0	0	NA	NA	NA
MANGANESE	0	0	0	0	NA	NA	NA
MERCURY	0	0	0	0	0.77	0.906	3156.426
	Dissolved WQC. Chemical translator of 0.85 applied.						
NICKEL	0	0	0	0	19.319	19.377	67517.02
	Dissolved WQC. Chemical translator of 0.997 applied.						
THALLIUM	0	0	0	0	13	13	45296.77
BORON	0	0	0	0	1600	1600	5570000

PENTOXSD Analysis Results

Wasteload Allocations

RMI	Name	Permit Number						
186.21	Warren Gen Sta	PA0006063						
TOTAL DISSOLVED SOLIDS (PWS)			0	0	0	0	NA	NA	NA

THH

Q7-10: CCT (min) 720 PMF 1 Analysis pH NA Analysis Hardness NA

Parameter	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)
PHENOLICS (PWS)	0	0	0	0	5	5	153360.6
WQC applied at RMI 90.67 with a design stream flow of 1376.							
TOTAL IRON	0	0	0	0	NA	NA	NA
DISSOLVED IRON	0	0	0	0	300	300	1040000
MANGANESE	0	0	0	0	1000	1000	3460000
MERCURY	0	0	0	0	0.05	0.05	174.216
NICKEL	0	0	0	0	610	610	2120000
THALLIUM	0	0	0	0	0.24	0.24	836.248
BORON	0	0	0	0	3100	3100	1.08E+07
TOTAL DISSOLVED SOLIDS (PWS)	0	0	0	0	500000	500000	1.533607E+10
WQC applied at RMI 90.67 with a design stream flow of 1376.							

CRL

Q9: CCT (min) 720 PMF 0.223

Parameter	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)
PHENOLICS (PWS)	0	0	0	0	NA	NA	NA
TOTAL IRON	0	0	0	0	NA	NA	NA
DISSOLVED IRON	0	0	0	0	NA	NA	NA
MANGANESE	0	0	0	0	NA	NA	NA
MERCURY	0	0	0	0	NA	NA	NA
NICKEL	0	0	0	0	NA	NA	NA

PENTOXSD Analysis Results

Wasteload Allocations

RMI	Name	Permit Number						
186.21	Warren Gen Sta	PA0005053						
	THALLIUM		0	0	0	0	NA	NA	NA
	BORON		0	0	0	0	NA	NA	NA
TOTAL DISSOLVED SOLIDS (PWS)			0	0	0	0	NA	NA	NA

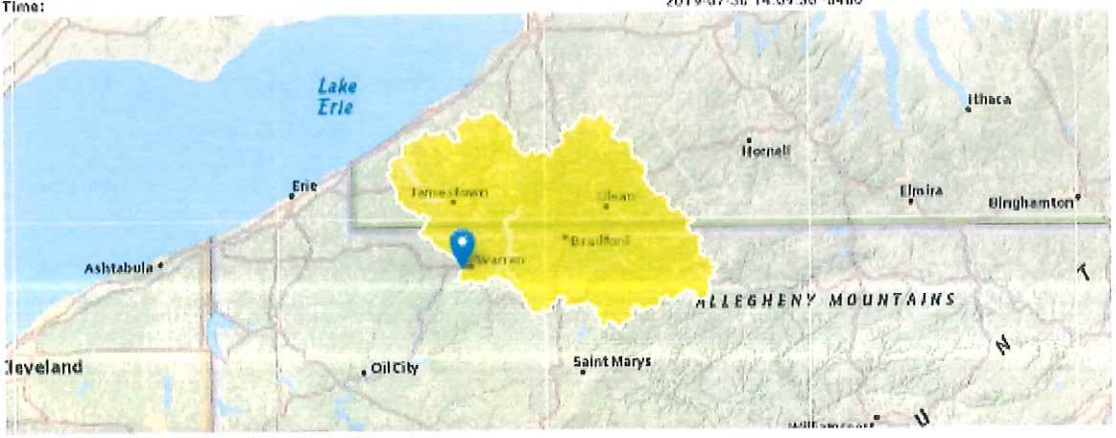
ATTACHMENT C

USGS StreamStats Reports

StreamStats

Warren Generating Station - Outfall 002 (RMI 186.21)

Region ID: PA
Workspace ID: PA20190730180911085000
Clicked Point (Latitude, Longitude): 41.83333, -79.19132
Time: 2019-07-30 14:09:36 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	3140	square miles
ELEV	Mean Basin Elevation	1784.2	feet
PRECIP	Mean Annual Precipitation	43	inches

Low Flow Statistics Parameters[99 Percent (3116 square miles) Low Flow Region 3]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	3140	square miles	2.33	1720
ELEV	Mean Basin Elevation	1784.2	feet	698	2700
PRECIP	Mean Annual Precipitation	43	inches	30.7	47.9

Low-Flow Statistics Disclaimers[99 Percent (3116 square miles) Low Flow Region 3]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.Weighted flows were not calculated. Users should be careful to evaluate the applicability of the provided estimates. Percentage of area falls outside where region is undefined. Whole estimates have been provided using available regional equations.

Low Flow Statistics Flow Report[99 Percent (3116 square miles) Low Flow Region 3]

Statistic	Value	Unit
7 Day 2 Year Low Flow	413	ft^3/s
30 Day 2 Year Low Flow	527	ft^3/s
7 Day 10 Year Low Flow	250	ft^3/s
30 Day 10 Year Low Flow	303	ft^3/s
90 Day 10 Year Low Flow	416	ft^3/s

Low Flow Statistics Citations

Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)

1017.88 cfs

Allegheny River just below Morse Run (RMI 184.76)

Region ID: PA
Workspace ID: PA20190730164108134000
Clicked Point (Latitude, Longitude): 41.83811, -79.21667
Time: 2019-07-30 14:41:35 -0400

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	3140	square miles
ELEV	Mean Basin Elevation	1783.7	feet
PRECIP	Mean Annual Precipitation	43	inches

Low Flow Statistics Parameters

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	3140	square miles	2.33	1720
ELEV	Mean Basin Elevation	1783.7	feet	898	2700
PRECIP	Mean Annual Precipitation	43	inches	38.7	47.9

Low Flow Statistics Disclaimers

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors. Weighted flows were not calculated. Users should be careful to evaluate the applicability of the provided estimates. Percentage of area falls outside where region is undefined. Whole estimates have been provided using available regional equations.

Low Flow Statistics Flow Report

Statistic	Value	Unit
7 Day 2 Year Low Flow	413	ft^3/s
30 Day 2 Year Low Flow	527	ft^3/s
7 Day 10 Year Low Flow	250	ft^3/s
30 Day 10 Year Low Flow	303	ft^3/s
90 Day 10 Year Low Flow	416	ft^3/s

Low-Flow Statistics Citations

Stuckey, M.H., 2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)

1017.96 cfs

Nearest PWS - Aqua Pa, Emlenton (RMI 90.67)

Region ID: PA
Workspace ID: PA20190801130051240000
Clicked Point (Latitude, Longitude): 41.17625, -79.71358
Time: 2019-08-01 09:01:15 -0400

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	6390	square miles

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Application Version: 4.3.8