pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0002933**
Facility Type	**Industrial**	APS ID	**1110543**
Major / Minor	**Minor**	Authorization ID	**1478798**

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

Applicant and Facility Information

Applicant Name	**West Penn Power Company**	Facility Name	**Connellsville West Side**
Applicant Address	341 White Pond Drive	Facility Address	311 S 7th Street
	Akron, OH 44320-1119		Connellsville, PA 15425-3015
Applicant Contact	Carol Trembly	Facility Contact	Same as Applicant
Applicant Phone	(330) 814-1534	Facility Phone	Same as Applicant
Applicant email	ctrembly@firstenergy.com	Facility email	Same as Applicant
Client ID	43623	Site ID	253554
SIC Code	4911	Municipality	Connellsville City
SIC Description	Trans. & Utilities - Electric Services	County	Fayette
Date Application Received	March 29, 2024	EPA Waived?	Yes
Date Application Accepted		If No, Reason	
Purpose of Application	Renewal NPDES Permit Coverage		

Summary of Review

On March 29, 2024, West Penn Power Company submitted an application to renew the NPDES Permit PA00102933 for their general service facility for an electric company. The Facility has a SIC Code of 4911 (Electric Services) and North American Industry Classification System Code of 221122 (Electric power distribution).

The facility's Water Quality Management Permit #2685202, issued on September 5, 2002, authorizes the use of an oil/water separator at Outfall 001 for treatment of the tank farm storm water runoff. Subsequently in October 2008, the Water Quality Management Permit was amended authorizing the installation of MYCELX filtration units to replace the carbon treatment system.

Operations at the FirstEnergy Connellsville West Side Facility focus on providing reliable material and equipment used in operation and construction of electric distribution facilities throughout the FirstEnergy System. Three primary groups perform and provide services out of the facility. These groups include: Energy delivery operations support (which include fleet services, transformer repair & rubber goods testing and metering & support) warehousing & logistics and regional fleet services.

- Energy delivery operations support: The transformer repair & rubber goods and metering & support groups oversee the following operations: meter assembly and testing; rubber good testing; transformer repair, testing, decommissioning and surface coating; high voltage testing; maintenance operations' and machining. These operations are performed primarily within the confines of the facility buildings. However, there are storage operations associated with some of these activities that occur outside of the facility structures.

Approve	Deny	Signatures	Date
X		Angela Rohrer / Environmental Engineering Specialist	February 10, 2025
X		Michael E. Fifth, P.E. / Environmental Engineer Manager	February 21, 2025

Summary of Review

- Regional fleet services: Consist of vehicle and truck repair and material storage operations conducted in the transportation garage and the transportation services buildings. All vehicle repair and storage operations in these areas are performed inside the buildings.

- Warehousing & logistics: This group oversees the management and warehousing of materials in the warehousing and truck loading buildings. Materials stored include operations material supplies, office equipment, furniture and other material pertaining to the operations of FirstEnergy.

  Materials stored outside include new small and large transformers and other large electrical equipment. Transformers (drained and undrained) are also stored outdoors prior to being repaired. If a transformer is leaking, it is placed in the permitted PCB storage (Hazmat) building.

  The Hazmat Building is utilized as a storage building for raw and waste materials. Raw materials that are regulated as hazardous substances are stored in the building until they are needed throughout the service territory. Wastes stored in the building consist of PCB contaminated oils, PCB contaminated debris (in 55-gallon drums) and PCB contaminated articles awaiting disposal. Waste materials are stored in closed 55-gallon drums, overpack drums or waste wranglers. Articles are stacked on wooden pallets or are situated in portable containment pans.

The oil storage area is contained on all four sides by a concrete containment wall with a concrete base. The containment wall around the oil storage area creates a containment volume that has a capacity of approximately 30,000-gallons. This is a capacity three times larger than the largest single tank compartment. A drain in the lowest section of the containment area is directed to a sump that facilitates removal of water from a larger containment area (three-sided) that surrounds the AST concrete containment area. The valve on the pipe from containment area to the sump is kept closed and locked until required for use. The sump in the larger (three-sided) containment area is connected to an oil/water separator that is manually activated.

There are four oil/water separators located at the Connellsville West Side Facility treating groundwater, surface water and wastewater. The oil/water separator at the Transportation Garage and the oil/water separator box in the rear of the Maintenance Shop discharge to the municipal sanitary sewer system.

Stormwater runoff from the facility is discharged both directly and indirectly to the Youghiogheny River via a number of Outfalls. Stormwater runoff from various areas of the facility is conveyed to municipal separate storm sewers that discharge to the Youghiogheny River. Stormwater from other areas of the facility is collected and discharged directly to the Youghiogheny River.

The facility was last inspected by Lisa Milsop on April 13, 2023, with no violations noted.

The facility has no open violations.

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.	001-014	Design Flow (MGD)	0.0
Latitude	See table 1	Longitude	See table 1
Quad Name	Connellsville	Quad Code	1809
Wastewater Description:	Stormwater		
Receiving Waters	Youghiogheny River (HQ-CWF)	Stream Code	37456
NHD Com ID	69918115	RMI	See table 1
Drainage Area	1320 mi^2	Yield (cfs/mi^2)	0.062
Q_{7-10} Flow (cfs)	460	Q_{7-10} Basis	US Army Corp of Engineers
Elevation (ft)	879	Slope (ft/ft)	0.0006
Watershed No.	19-D	Chapter 93 Class.	High Quality – Cold Water Fishes (HQ-CWF)
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	Unknown		
Source(s) of Impairment	Acid Mine Drainage		
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	Municipal Authority for Westmoreland County – McKeesport Water Treatment Plant (12 MGD)		
PWS Waters	Youghiogheny River	Flow at Intake (cfs)	510
PWS RMI	1.39	Distance from Outfall (mi)	43.32

Table 1: Outfall Locations

OUTFALL	LATITUDE	LONGITUDE	RECEVING WATER	RMI
001	40º 00' 47.06"	-79º 35' 45.42"	Youghiogheny River	44.71
003	40º 00' 44.97"	-79º 35' 43.97"	Youghiogheny River	44.72
004	40º 00' 43.16"	-79º 35' 45.24"	Youghiogheny River (Via Municipal Storm Sewer)	44.74
005	40º 00' 42.04"	-79º 35' 44.13"	Youghiogheny River	44.76
006	40º 00' 42.21"	-79º 35' 50.15"	Youghiogheny River (Via Municipal Storm Sewer)	44.74
007	40º 00' 42.71"	-79º 35' 49.07"	Youghiogheny River (Via Municipal Storm Sewer)	44.74
008	40º 00' 46.00"	-79º 35' 51.41"	Youghiogheny River (Via Municipal Storm Sewer)	44.71
009	40º 00' 46.06"	-79º 35' 49.96"	Youghiogheny River (Via Municipal Storm Sewer)	44.71
010	40º 00' 46.48"	-79º 35' 47.79"	Youghiogheny River (Via Municipal Storm Sewer)	44.71
011	40º 00' 46.56"	-79º 35' 47.24"	Youghiogheny River (Via Municipal Storm Sewer)	44.71
012	40º 00' 46.78"	-79º 35' 45.93"	Youghiogheny River (Via Municipal Storm Sewer)	44.71
013	40º 00' 49.08"	-79º 35' 52.68"	Youghiogheny River (Via Municipal Storm Sewer)	44.58
014	40º 00' 49.81"	-79º 35' 49.23"	Youghiogheny River (Via Municipal Storm Sewer)	44.58

Discharge, Receiving Waters and Water Supply Information

Outfall No.	002 (IMP 102)	Design Flow (MGD)	0.001364
Latitude	40º 00' 47.86"	Longitude	-79º 35' 43.89"
Quad Name	Connellsville	Quad Code	1809
Wastewater Description:	Groundwater, Stormwater		
Receiving Waters	Youghiogheny River (HQ-CWF)	Stream Code	37456
NHD Com ID	69918115	RMI	44.67
Drainage Area	1320	Yield (cfs/mi^2)	0.062
Q_{7-10} Flow (cfs)	460	Q_{7-10} Basis	US Army Corp of Engineers
Elevation (ft)	See table 1	Slope (ft/ft)	0.0006
Watershed No.	19-D	Chapter 93 Class.	High Quality – Cold Water Fishes (HQ-CWF)
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	Unknown		
Source(s) of Impairment	Acid Mine Drainage		
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	Municipal Authority for Westmoreland County – McKeesport Water Treatment Plant (12 MGD)		
PWS Waters	Youghiogheny River	Flow at Intake (cfs)	510
PWS RMI	1.39	Distance from Outfall (mi)	43.32

Other Comments:

Monitoring requirements at Outfall 002 were previously eliminated, as the pollutant sources are monitored at IMP 102.

Development of Effluent Limitations

Outfall No.	001	**Design Flow (MGD)**	0.0 (varied)
Latitude	40º 00' 45"	**Longitude**	-79º 35' 50"
Wastewater Description:	Stormwater		

Outfall 001 discharges storm water runoff from the above ground storage tank containment area and adjacent access road. These sources of storm water are collected and treated by an oil-water separator. Outfall 001 is monitored at the oil-water separator discharge pipe prior to mixing with any other water.

The facility has demonstrated compliance with the established benchmark values, with the exception of two consecutive exceedances of the 5.0 mg/L Oil and Grease benchmark value, which occurred in the fourth quarter of 2022 (5.44 mg/L) and the first quarter of 2023 (5.41 mg/L). In response, the facility submitted a Corrective Action Plan and implemented measures to enhance the quality of the discharge.

Technology-Based Limitations

Stormwater Technology Limits

Outfall 001 will be subject to PAG-03 General Stormwater Permit conditions as a minimum requirement because the outfall discharges stormwater associated with industrial activity. The SIC code for the site is 4911 (Electric Services) and the corresponding appendix of the PAG-03 that would apply to the facility is Appendix H (Steam electric generating facilities). The reporting requirements applicable to stormwater discharges are shown in Table 2 below. Along with the monitoring requirements, sector specific BMPs included in Appendix H of the PAG-03 will also be included in Part C of the Draft Permit.

Table 2: PAG-03 Appendix H Monitoring Requirements

Parameter	Max Daily Concentration
Total Nitrogen (mg/L)	Monitor and Report
Total Phosphorus (mg/L)	Monitor and Report
pH (S.U)	Monitor and Report
Total Suspended Solids (TSS) (mg/L)	Monitor and Report
Oil and Grease (mg/L)	Monitor and Report
Total Iron (mg/L)	Monitor and Report

Water Quality-Based Limitations

Stormwater WQBELs

Water quality analyses are typically performed under low-flow (Q7-10) conditions. Stormwater discharges occur at variable rates and frequencies but not however during Q7-10 conditions. Since the discharge from Outfall 001 is composed entirely of stormwater, a formal water quality analysis cannot be accurately conducted. Accordingly, water quality-based effluent limitations based on water quality analyses are not proposed.

Anti-Degradation

Antidegradation regulations under Chapter 93.4c(a)(l)(i) required discharges to protect the existing use of receiving waters. Chapter 93.4c(b) requires dischargers to consider non-discharge alternatives, public participation and social/economic justification when proposing new, additional or increased discharges to high quality or exceptional value streams. Existing use protection required under Chapter 93.4c(a)(l)(i) is ensured for discharges to high quality streams imposing the most stringent of technology-based, water quality based and non-degrading effluent limitations. In this case, non-degradation effluent limitations are not applicable because the discharge is stormwater only. To ensure that the discharge does not degrade the stream, the no exposure benchmark values will be used as the benchmark in the permit. The goal for the permittee is to discharge wastewater consistently below these benchmark values; doing this shows that the discharges are uncontaminated stormwater and will maintain and protect the existing quality of the receiving waters.

Anti-Backsliding

Previous limits can be used pursuant to EPA's anti-backsliding regulation, 40 CFR 122.44(l) and are displayed below in Table 3. These limitations are currently imposed on Outfall 001.

Table 3: Current Effluent Limitation at Outfall 001

Parameters	Mass (lb/day)		Concentration (mg/L)				Monitoring Requirements	
	Average Quarterly	Daily Maximum	Instant. Minimum	Average Quarterly	Daily Maximum	Instant. Maximum	Frequency	Sample Type
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	2/quarter	Grab
Total Suspended Solids	XXX	XXX	XXX	Report	Report	XXX	2/quarter	Grab
Oil and Grease	XXX	XXX	XXX	Report	Report	XXX	2/quarter	Grab

Proposed Effluent Limitations and Monitoring Requirements

The proposed effluent monitoring requirements for Outfall 001 are displayed in Table 4 below, they are the most stringent values from the above effluent limitation development. Outfall 001 will be subject to the monitoring requirements in Appendix H of the PAG-03 General Permit. A Part C condition is included in the Draft Permit requiring development and submission of a Corrective Action Plan whenever there is one exceedance of the benchmark values, which are also included in the Part C condition. The benchmark values are also displayed below in Table 4. These values are not effluent limitations, an exceedance of the benchmark value is not a violation. As described above, if there is one exceedance of the benchmark value, a Corrective Action Plan must be conducted to evaluate site stormwater controls and BMPs. Benchmark monitoring is a feedback tool, along with routine inspections and visual assessments, for assessing the effectiveness of stormwater controls and BMPs. An exceedance of the benchmark provides permittees with an indication that the facility's controls may not be sufficiently controlling pollutants in stormwater.

As established in the previous permit, the benchmark values for the No Exposure Certification were chosen as the monitoring requirement benchmark, since the discharge is into the Youghiogheny River, which is classified as a High Quality - Cold Water Fishery (HQ-CWF).

The previous permit required monitoring at Outfall 001 to be conducted twice per quarter. However, the monitoring frequency has been revised to require sampling twice per year, on a semiannual basis, due to the facility's general maintenance of No Exposure conditions during the current permit cycle and current permitting practices.

The average quarterly limits are not applicable to a 1/6 months reporting frequency. Consequently, the average quarterly report will be removed and replaced with Daily Maximum Report. Additionally, Flow will no longer have average quarterly reporting requirements; instead, Daily Maximum report will be required.

Table 4: Proposed Effluent Limitation at Outfall 001

Parameters	Mass (lb/day)		Concentration (mg/L)				Monitoring Requirements		No Exposure Benchmark Value (mg/L)
	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Frequency	Sample Type	
Flow (MGD)	XXX	Report	XXX	XXX	XXX	XXX	1/6 months	Measured	XXX
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Calculation	≤2.0
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab	≤1.0
pH (S.U)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab	6.0 to 9.0
Total Suspended Solids (TSS)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab	≤30.0
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab	≤5.0
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab	≤7.0

Development of Effluent Limitations

Outfall No.	002 (IMP 102)	**Design Flow (MGD)**	0.0 (varied)
Latitude	40º 00' 47.86"	**Longitude**	-79º 35' 43.89"

Wastewater Description: Treated Contaminated Groundwater, Stormwater

This discharge shall consist solely of uncontaminated storm water runoff from the office building and warehouse roof drains, and those discharges monitored at Internal Monitoring Point 102. Previously imposed Outfall 002 monitoring requirements have been eliminated since the pollutant sources are monitored at IMP 102.

Development of Effluent Limitations

IMP No.	102	**Design Flow (MGD)**	0.001364
Latitude	40º 00' 47.86"	**Longitude**	-79º 35' 43.89"

Wastewater Description: Treated oil contaminated groundwater

Groundwater is collected from the basement of the office building located between the transformer repair shop and the main warehouse. Treatment consists of an oil-water separator, two bag filters, a 7 cell MYCELX filter system, a 4-cell MICELX filter system, redundant associated pumps, valves, flow metering and an oil storage tank.

Technology-Based Limitations

Regulatory Effluent Standards and Monitoring Requirements

Flow monitoring is required pursuant to 25 Pa. Code § 92a.61(d)(1).

As oil-bearing wastewaters, discharges from IMP 301 are subject to effluent standards for oil and grease from 25 Pa. Code § 95.2(2).

Industrial Waste may not contain more than 7 milligrams per liter of dissolved iron per 25 Pa. Code § 95.2(4).

Effluent standards for pH are also imposed on industrial wastes by 25 Pa. Code § 95.2(1) as indicated in Table 5.

Table 5: Regulatory Effluent Standards and Monitoring Requirements for IMP 102

Parameter	Monthly Average	Daily Maximum	IMAX	Units
Flow	Monitor and Report		XXX	MGD
Oil & Grease	15	30	XXX	mg/L
Iron, Dissolved	XXX	7.0	XXX	mg/L
pH	Not less than 6.0 nor greater than 9.0			S.U.

Water Quality-Based Limitations

Toxics Management Spread Sheet

The Department of Environmental Protection (DEP) has developed the DEP Toxics Management Spreadsheet (“TMS”) to facilitate calculations necessary for completing a reasonable potential (RP) analysis and determining water quality-based effluent limitations for discharges of toxic pollutants. The Toxics Management Spreadsheet is a macro-enabled Excel binary file that combines the functions of the PENTOXSD model and the Toxics Screening Analysis spreadsheet to evaluate the reasonable potential for discharges to cause excursions above water quality standards and to determine WQBELs. The Toxics Management Spread Sheet is a single discharge, mass-balance water quality calculation spread sheet that includes consideration for mixing, first-order decay and other factors to determine recommended WQBELs for toxic substances and several non-toxic substances. Required input data including stream code, river mile index, elevation, drainage area, discharge name, NPDES permit number, discharge flow rate and the discharge concentrations for parameters in the permit application or in DMRs, which are entered into the spread sheet to establish site-specific discharge conditions. Other data such as low flow yield, reach dimensions and partial mix factors may also be entered to further characterize the conditions of the discharge and receiving water. Discharge concentrations for the parameters are chosen to represent the "worst case" quality of the discharge (i.e., maximum reported discharge concentrations). The spread sheet then evaluates each parameter by computing a Waste Load Allocation for each applicable criterion, determining a recommended maximum WQBEL and comparing that recommended WQBEL with the input discharge concentration to determine which is more stringent. Based on this evaluation, the Toxics Management Spread sheet recommends average monthly and maximum daily WQBELs.

Reasonable Potential Analysis and WQBEL Development for IMP 102

Discharges from IMP 102 are evaluated based on concentrations reported on the application and on DMRs; data from those sources are entered into the Toxics Management Spread Sheet. The maximum reported value of the parameters from the application form or from previous DMRs is used as the input concentration in the Toxics Management Spread Sheet. All

toxic pollutants whose maximum concentrations, as reported in the permit application or on DMRs, are greater than the most stringent applicable water quality criterion are considered to be pollutants of concern. [This includes pollutants reported as "Not Detectable" or as "<MDL" where the method detection limit for the analytical method used by the applicant is greater than the most stringent water quality criterion]. The Toxics Management Spread Sheet is run with the discharge and receiving stream characteristics shown in Table 6. For IW discharges, the design flow used in modeling is the average flow during production or operation taken from the permit application. Pollutants for which water quality standards have not been promulgated (e.g., TSS, oil and grease) are excluded from the analysis. All the parameters are evaluated using the model to determine the water quality-based effluent limits applicable to the discharge and the receiving stream. The spreadsheet then compares the reported discharge concentrations to the calculated water quality-based effluent limitations to determine if a reasonable potential exists to exceed the calculated WQBELs. Effluent limitations are established in the draft permit where a pollutant's maximum reported discharge concentration equals or exceeds 50% of the WQBEL. For non-conservative pollutants, monitoring requirements are established where the maximum reported concentration is between 25% - 50% of the WQBEL. For conservative pollutants, monitoring requirements are established where the maximum reported concentration is between 10% - 50% of the WQBEL. The information described above including the maximum reported discharge concentrations, the most stringent water quality criteria, the pollutant-of-concern (reasonable potential) determinations, the calculated WQBELs, and the WQBEL/monitoring recommendations are displayed in the Toxics Management Spread Sheet in Attachment C of this Fact Sheet. The Toxics Management Spread Sheet did not recommend any WQBELs for Toxics at IMP 102.

Table 6: TMS Inputs for IMP 102

Parameter	**Value**
River Mile Index	44.67
Discharge Flow (MGD)	0.001364
Basin/Stream Characteristics	
Parameter	**Value**
Area in Square Miles	1320
Q_{7-10} (cfs)	460
Low-flow yield (cfs/mi^2)	0.062
Elevation (ft)	879
Slope	0.0006

Anti-Degradation

The Department's regulations at 25 PA Code Chapters 96.3 and 93.4 require that any new, additional or increased discharger to High Quality or Exceptional Value waters shall evaluate non-discharge alternatives to the proposed discharge and use an alternative that is environmentally sound and cost-effective when compared with the cost of the proposed discharge. The Department has reviewed the NPDES permit renewal application and has determined that this is not a new, additional, or increased discharge. Therefore, the requirements of 25 PA Code 93.4 pertaining to discharges to high quality waters are satisfied.

Anti-Backsliding

Previous limits can be used pursuant to EPA's anti-backsliding regulation, 40 CFR 122.44(l) and are displayed below in Table 7. These limitations are currently imposed on IMP 102.

- The 2014 permit initially established technology-based limits for Oil and Grease, with a monthly average of 15.0 mg/L and a daily maximum of 30.0 mg/L, in accordance with 25 Pa. Code § 95.2(2). However, these limits were removed in 2019 due to the reported concentrations during the permit cycle. In their place, because the discharge

is to the Youghiogheny River, a designated High Quality - Cold Water Fishery (HQ-CWF), the oil and grease No Exposure Certification benchmark value of 5.0 mg/L daily maximum was selected for the monitoring requirement.

Table 7: Current Effluent Limitation at IMP 102

Parameters	Mass (lb/day)		Concentration (mg/L)				Monitoring Requirements	
	Average Monthly	Daily Maximum	Daily Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Frequency	Sample Type
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	2/month	Measured
pH (S.U)	XXX	XXX	6.0	XXX	9.0	XXX	2/month	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	2/month	Grab
PCBs, Total (µg/L)	XXX	XXX	XXX	Report	1.75	XXX	2/month	Grab

Proposed Effluent Limitations and Monitoring Requirements

West Penn Power (WPP) requested to eliminate the treatment system sampling requirements for the IMP 102. The facility claimed that the system was installed due to detectable PCB results, but PCB has now been undetected for over 12 years. The continued monitoring of this location is not prudent economically for both manpower and materials reasons. WPP conducted an influent sampling study from October 2023 – March 2024 for Oil and Grease and PCB.

Based on previous technical reviews, PCBs have been historically known to be present in the discharge from IMP 102. Consequently, a 'Not-Detectable' PCB effluent limitation was established as a technology based effluent limitation in previous permit issuances to ensure that the facility's discharge complies with environmental standards. While the facility has generally demonstrated compliance with this requirement, a single detection of PCBs was reported in March 2020. Nevertheless, subsequent monitoring has indicated that PCBs have been largely non-detectable in the discharge. In order to continue verifying that PCBs are not being discharged into the Youghiogheny River (HQ-CWF), the Department will maintain the monitoring requirements at IMP 102. However, in consideration of the facility's compliance history, the Department proposes to reduce the monitoring frequency to once per month.

The average monthly report requirement for PCBs is not applicable to 1/month reporting frequency. Consequently, the average monthly report will be removed. Additionally, Flow will no longer have average monthly reporting requirements; instead, Daily Maximum report will be required.

The pH reporting requirement has been updated to reflect current permitting practices. Specifically, the daily maximum and daily minimum reporting requirements have been replaced with instantaneous maximum and instantaneous minimum reporting requirements, respectively.

Table 8: Proposed Effluent Limitation at IMP 102

Parameters	Mass (lb/day)		Concentration (mg/L)				Monitoring Requirements	
	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Frequency	Sample Type
Flow (MGD)	XXX	Report	XXX	XXX	XXX	XXX	1/month	Measured
pH (S.U)	XXX	XXX	6.0	XXX	XXX	9.0	1/month	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/month	Grab
PCBs, Total (µg/L)	XXX	XXX	XXX	XXX	1.75	XXX	1/month	Grab

Development of Effluent Limitations

Outfall No.	003	**Design Flow (MGD)**	0.0 (varied)
Latitude	40º 00' 44.97	**Longitude**	-79º 35' 43.97"

Wastewater Description: Stormwater

Outfall 003 discharges storm water runoff from outdoor storage area, building roof drains, and roadway.

Technology-Based Limitations

Stormwater Technology Limits

Outfall 003 will be subject to PAG-03 General Stormwater Permit conditions as a minimum requirement because the outfall discharges stormwater associated with industrial activity. The SIC code for the site is 4911 (Electric Services) and the corresponding appendix of the PAG-03 that would apply to the facility is Appendix H (Steam electric generating facilities). The reporting requirements applicable to stormwater discharges are shown in Table 9 below. Along with the monitoring requirements, sector specific BMPs included in Appendix H of the PAG-03 will also be included in Part C of the Draft Permit.

Table 9: PAG-03 Appendix H Monitoring Requirements

Parameter	Max Daily Concentration
Total Nitrogen (mg/L)	Monitor and Report
Total Phosphorus (mg/L)	Monitor and Report
pH (S.U)	Monitor and Report
Total Suspended Solids (TSS) (mg/L)	Monitor and Report
Oil and Grease (mg/L)	Monitor and Report
Total Iron (mg/L)	Monitor and Report

Water Quality-Based Limitations

Stormwater WQBELs

Water quality analyses are typically performed under low-flow (Q7-10) conditions. Stormwater discharges occur at variable rates and frequencies but not however during Q7-10 conditions. Since the discharge from Outfall 003 is composed entirely of stormwater, a formal water quality analysis cannot be accurately conducted. Accordingly, water quality-based effluent limitations based on water quality analyses are not proposed.

Anti-Degradation

Antidegradation regulations under Chapter 93.4c(a)(l)(i) required discharges to protect the existing use of receiving waters. Chapter 93.4c(b) requires dischargers to consider non-discharge alternatives, public participation and social/economic justification when proposing new, additional or increased discharges to high quality or exceptional value streams. Existing use protection required under Chapter 93.4c(a)(l)(i) is ensured for discharges to high quality streams imposing the most stringent of technology-based, water quality based and non-degrading effluent limitations. In this case, non-degradation effluent limitations are not applicable because the discharge is stormwater only. To ensure that the discharge does not degrade the stream, the no exposure benchmark values will be used as the benchmark in the permit. The goal for the permittee is to discharge wastewater consistently below these benchmark values; doing this shows that the discharges are uncontaminated stormwater and will maintain and protect the existing quality of the receiving waters.

Anti-Backsliding

Previous limits can be used pursuant to EPA's anti-backsliding regulation, 40 CFR 122.44(l) and are displayed below in Table 10. These limitations are currently imposed on Outfall 003.

Table 10: Current Effluent Limitation at Outfall 003

Parameters	Mass (lb/day)		Concentration (mg/L)				Monitoring Requirements	
	Average Quarterly	Daily Maximum	Instant. Minimum	Average Quarterly	Daily Maximum	Instant. Maximum	Frequency	Sample Type
Chemical Oxygen Demand	XXX	XXX	XXX	Report	Report	XXX	2/quarter	Grab

Proposed Effluent Limitations and Monitoring Requirements

The proposed effluent monitoring requirements for Outfall 003 are displayed in Table 11 below, they are the most stringent values from the above effluent limitation development. Outfall 003 will be subject to the monitoring requirements in Appendix H of the PAG-03 General Permit. A Part C condition is included in the Draft Permit requiring development and submission of a Corrective Action Plan whenever there is one exceedance of the benchmark values, which are also included in the Part C condition. The benchmark values are also displayed below in Table 11. These values are not effluent limitations, an exceedance of the benchmark value is not a violation. As described above, if there is one exceedance of the benchmark value, a Corrective Action Plan must be conducted to evaluate site stormwater controls and BMPs. Benchmark monitoring is a feedback tool, along with routine inspections and visual assessments, for assessing the effectiveness of stormwater controls and BMPs. An exceedance of the benchmark provides permittees with an indication that the facility's controls may not be sufficiently controlling pollutants in stormwater.

As established in the previous permit, the benchmark values for the No Exposure Certification were chosen as the monitoring requirement benchmark, since the discharge is into the Youghiogheny River, which is classified as a High Quality - Cold Water Fishery (HQ-CWF).

The monitoring frequency of 2/quarter for COD was imposed in the previous permit. However, to reflect existing permitting practices, this has been changed and the monitoring frequency of 1/quarter will be imposed.

The average quarterly limits are not applicable to a 1/quarter reporting frequency. Consequently, the average quarterly report will be removed and replaced with Daily Maximum Report.

The monitoring frequency for the parameters listed in Appendix H of the General permit will be set at once every six months. However, due to that the facility exceeding the benchmark for Chemical Oxygen Demand (COD) on several occasions, the monitoring frequency for COD will be set at quarterly.

Table 11: Proposed Effluent Limitation at Outfall 003

Parameters	Mass (lb/day)		Concentration (mg/L)				Monitoring Requirements		No Exposure Benchmark Value (mg/L)
	Average Monthly	Daily Maximum	Instant. Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Frequency	Sample Type	
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Calculation	≤2.0
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab	≤1.0
pH (S.U)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab	6.0 to 9.0
Total Suspended Solids (TSS)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab	≤30.0
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab	≤5.0
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab	≤7.0
Chemical Oxygen Demand	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab	≤30.0

Development of Effluent Limitations

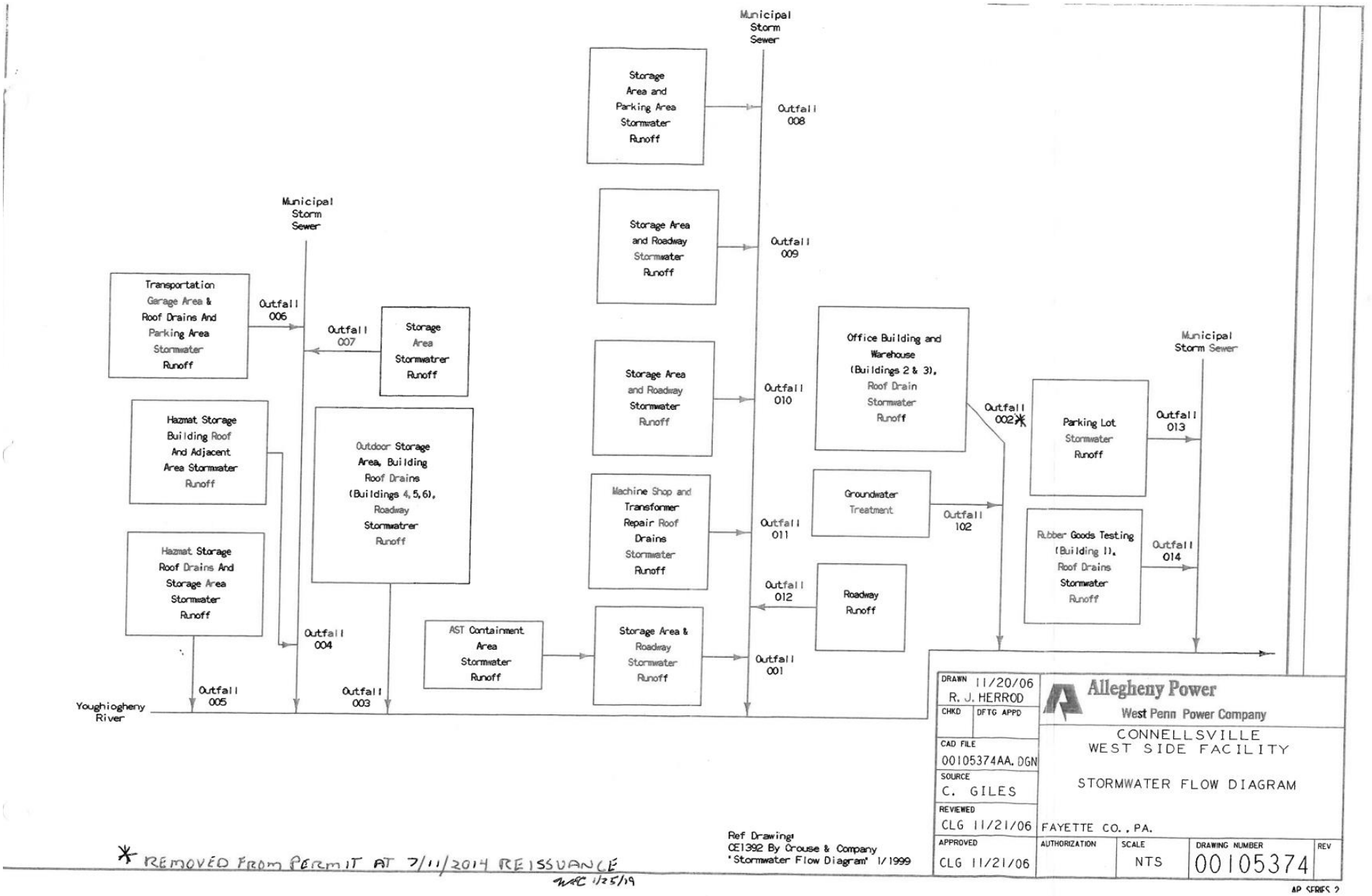
Outfall No. 004 - 014 **Design Flow (MGD)** 0.0 (varied)
Latitude See Table 1 **Longitude** See Table 1
Wastewater Description: Stormwater

Outfalls 004-014 have traditionally been exempt from monitoring requirements. As part of the current review, the facility submitted sample data for Outfalls 005 and 006, which were deemed representative of outfalls 004-014. The data, which included parameters outlined in Module 1 of the Individual Permit application, showed that the drainage areas of Outfalls 005 and 006 meet the No Exposure conditions. As a result, the exemption from monitoring requirements for these outfalls will be retained in the permit.

Pollutant	Concentration (mg/L)		No Exposure Benchmark Value (mg/L)
	Outfall 005	Outfall 006	
Oil and Grease	<5.0	<5.0	≤5.0
BOD_5	3.0	3.0	≤10.0
COD	16.0	15.0	≤30.0
Total Suspended Solids	5.0	10.0	≤30.0
Total Nitrogen	<1.11	<1.24	≤2.0
Total Phosphorus	0.01	0.02	≤1.0
pH (S.U)	7.42	8.27	6.0 to 9.0

Tools and References Used to Develop Permit	
☐	WQM for Windows Model (see Attachment)
☒	Toxics Management Spreadsheet (see Attachment C)
☐	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☐	Technical Guidance for the Development and Specification of Effluent Limitations, 386-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 386-2000-019, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 386-2000-018, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 386-2183-001, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 386-2183-002, 12/97.
☐	Pennsylvania CSO Policy, 386-2000-002, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 386-2000-008, 4/97.
☐	Determining Water Quality-Based Effluent Limits, 386-2000-004, 12/97.
☐	Implementation Guidance Design Conditions, 386-2000-007, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 386-2000-016, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 386-2000-012, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 386-2000-009, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 386-2000-015, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 386-2000-022, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 386-2000-013, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 386-2000-011, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 386-2000-001, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 386-2000-021, 10/97.
☐	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 386-2000-020, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 386-2000-005, 3/99.
☐	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 386-2000-010, 3/1999.
☐	Design Stream Flows, 386-2000-003, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 386-2000-006, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 386-3200-001, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☐	SOP:
☐	Other:

ATTACHMENT A.
SITE PLAN

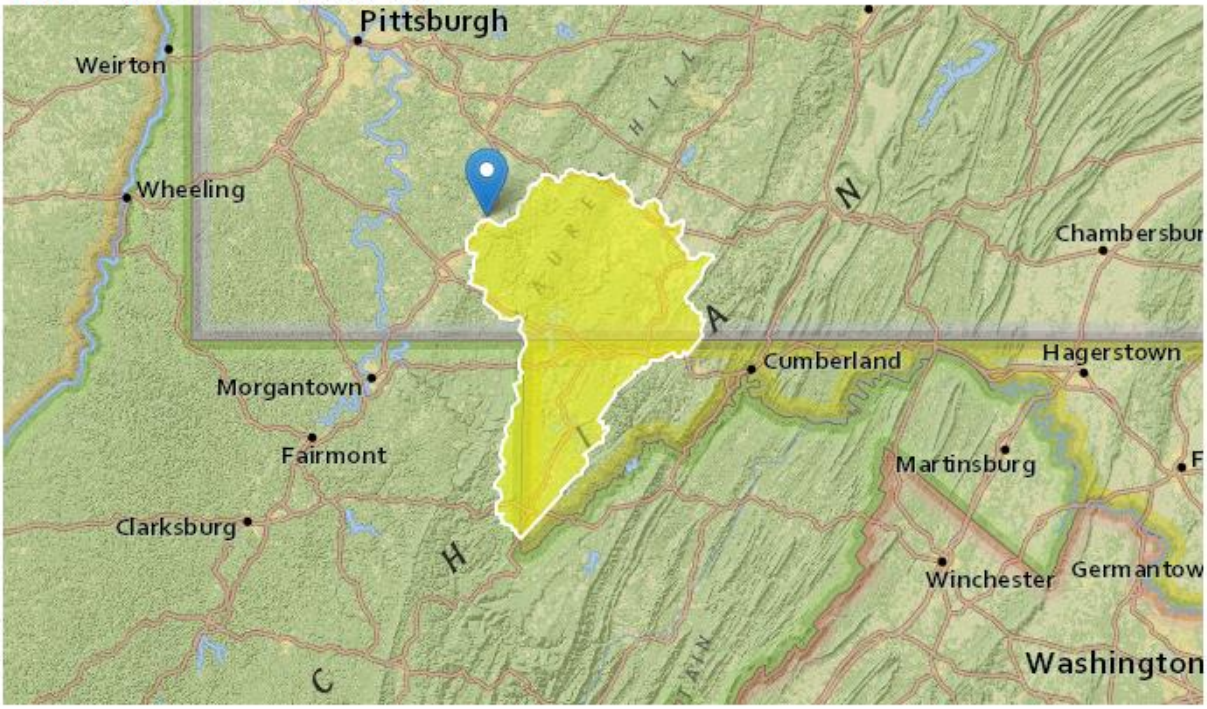

Municipal Storm Sewer
Storage Area and Parking Area Stormwater Runoff
Outfall 008
Storage Area and Roadway Stormwater Runoff
Outfall 009
Municipal Storm Sewer
Transportation Garage Area & Roof Drains And Parking Area Stormwater Runoff
Outfall 006
Outfall 007
Storage Area Stormwatrer Runoff
Storage Area and Roadway Stormwater Runoff
Outfall 010
Office Building and Warehouse (Buildings 2 & 3), Roof Drain Stormwater Runoff
Outfall 002*
Municipal Storm Sewer
Parking Lot Stormwater Runoff
Outfall 013
Hazmat Storage Building Roof And Adjacent Area Stormwater Runoff
Outdoor Storage Area, Building Roof Drains (Buildings 4, 5, 6), Roadway Stormwater Runoff
Machine Shop and Transformer Repair Roof Drains Stormwater Runoff
Outfall 011
Groundwater Treatment
Outfall 102
Rubber Goods Testing (Building 1), Roof Drains Stormwater Runoff
Outfall 014
Hazmat Storage Roof Drains And Storage Area Stormwater Runoff
Outfall 012
Roadway Runoff
Outfall 004
AST Containment Area Stormwater Runoff
Storage Area & Roadway Stormwater Runoff
Outfall 001
Youghiogheny River
Outfall 005
Outfall 003
DRAWN 11/20/06 R. J. HERROD
CHKD
DFTG APPD
CAD FILE 00105374AA.DGN
SOURCE C. GILES
REVIEWED CLG 11/21/06
APPROVED CLG 11/21/06
Allegheny Power
West Penn Power Company
CONNELLSVILLE WEST SIDE FACILITY
STORMWATER FLOW DIAGRAM
FAYETTE CO., PA.
AUTHORIZATION
SCALE NTS
DRAWING NUMBER 00105374
REV
Ref Drawing:
CE1392 By Crouse & Company
"Stormwater Flow Diagram" 1/1999
* REMOVED FROM PERMIT AT 7/11/2014 REISSUANCE
MRC 1/25/19
AP SERIES 2


Touch Free Automatic
013
008
006
009
007
014
010
011
012
004
001
005
003
Google Earth

Attachment B.
StreamStats Report

PA0002933 - StreamStats Report

Region ID: PA
Workspace ID: PA20241227160454380000
Clicked Point (Latitude, Longitude): 40.01310, -79.59517
Time: 2024-12-27 11:05:18 -0500



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CARBON	Percentage of area of carbonate rock	0	percent
DRNAREA	Area that drains to a point on a stream	1320	square miles
ELEV	Mean Basin Elevation	2266	feet
FOREST	Percentage of area covered by forest	73.0384	percent
PRECIP	Mean Annual Precipitation	45	inches
URBAN	Percentage of basin with urban development	1.5939	percent

Attachment C
Toxic Management Spreadsheet for IMP 102

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2023

Discharge Information

Instructions | Discharge | Stream

Facility: **West Power Company** NPDES Permit No.: **PA0002933** Outfall No.: **102**

Evaluation Type: **Major Sewage / Industrial Waste** Wastewater Description: **Groundwater**

Discharge Characteristics								
Design Flow (MGD)*	Hardness (mg/l)*	pH (SU)*	Partial Mix Factors (PMFs)				Complete Mix Times (min)	
			AFC	CFC	THH	CRL	Q_{7-10}	Q_h
0.00136	100	7.3						

					0 if left blank		0.5 if left blank		0 if left blank			1 if left blank	
	Discharge Pollutant	Units	Max Discharge Conc		Trib Conc	Stream Conc	Daily CV	Hourly CV	Stream CV	Fate Coeff	FOS	Criteria Mod	Chem Transl
Group 1	Total Dissolved Solids (PWS)	mg/L											
	Chloride (PWS)	mg/L											
	Bromide	mg/L											
	Sulfate (PWS)	mg/L											
	Fluoride (PWS)	mg/L											
Group 2	Total Aluminum	µg/L											
	Total Antimony	µg/L	<										
	Total Arsenic	µg/L	<										
	Total Barium	µg/L											
	Total Beryllium	µg/L	<										
	Total Boron	µg/L											
	Total Cadmium	µg/L											
	Total Chromium (III)	µg/L	<										
	Hexavalent Chromium	µg/L	<										
	Total Cobalt	µg/L	<										
	Total Copper	µg/L	<										
	Free Cyanide	µg/L											
	Total Cyanide	µg/L	<										
	Dissolved Iron	mg/L		0.1									
	Total Iron	µg/L											
	Total Lead	µg/L		0.0293									
	Total Manganese	µg/L											
	Total Mercury	µg/L											
	Total Nickel	µg/L											
	Total Phenols (Phenolics) (PWS)	µg/L	<										
	Total Selenium	µg/L	<										
	Total Silver	µg/L	<										
	Total Thallium	µg/L											
	Total Zinc	µg/L											
	Total Molybdenum	µg/L											
	Acrolein	µg/L	<										
	Acrylamide	µg/L	<										
	Acrylonitrile	µg/L	<										
	Benzene	mg/L	<	0.0005									
	Bromoform	µg/L	<										
	Carbon Tetrachloride	µg/L	<										
	Chlorobenzene	µg/L											
	Chlorodibromomethane	µg/L	<										
	Chloroethane	µg/L	<										
	2-Chloroethyl Vinyl Ether	µg/L	<										

Group 3	Chloroform	µg/L	<										
	Dichlorobromomethane	µg/L	<										
	1,1-Dichloroethane	µg/L	<										
	1,2-Dichloroethane	µg/L	<										
	1,1-Dichloroethylene	µg/L	<										
	1,2-Dichloropropane	µg/L	<										
	1,3-Dichloropropylene	µg/L	<										
	1,4-Dioxane	µg/L	<										
	Ethylbenzene	mg/L	<	0.0005									
	Methyl Bromide	µg/L	<										
	Methyl Chloride	µg/L	<										
	Methylene Chloride	µg/L	<										
	1,1,2,2-Tetrachloroethane	µg/L	<										
	Tetrachloroethylene	mg/L	<	0.0005									
	Toluene	mg/L	<	0.0005									
	1,2-trans-Dichloroethylene	µg/L	<										
	1,1,1-Trichloroethane	µg/L	<										
	1,1,2-Trichloroethane	µg/L	<										
	Trichloroethylene	mg/L	<	0.0005									
	Vinyl Chloride	mg/L	<	0.0005									
Group 4	2-Chlorophenol	µg/L	<										
	2,4-Dichlorophenol	µg/L	<										
	2,4-Dimethylphenol	µg/L	<										
	4,6-Dinitro-o-Cresol	µg/L	<										
	2,4-Dinitrophenol	µg/L	<										
	2-Nitrophenol	µg/L	<										
	4-Nitrophenol	µg/L	<										
	p-Chloro-m-Cresol	µg/L	<										
	Pentachlorophenol	µg/L	<										
	Phenol	µg/L	<										
	2,4,6-Trichlorophenol	µg/L	<										
Group 5	Acenaphthene	µg/L	<										
	Acenaphthylene	µg/L	<										
	Anthracene	µg/L	<										
	Benzidine	µg/L	<										
	Benzo(a)Anthracene	mg/L	<	0.0002									
	Benzo(a)Pyrene	mg/L	<	0.0002									
	3,4-Benzofluoranthene	µg/L	<										
	Benzo(ghi)Perylene	mg/L	<	0.0002									
	Benzo(k)Fluoranthene	mg/L	<	0.0002									
	Bis(2-Chloroethoxy)Methane	µg/L	<										
	Bis(2-Chloroethyl)Ether	µg/L	<										
	Bis(2-Chloroisopropyl)Ether	µg/L	<										
	Bis(2-Ethylhexyl)Phthalate	µg/L	<										
	4-Bromophenyl Phenyl Ether	µg/L	<										
	Butyl Benzyl Phthalate	µg/L	<										
	2-Chloronaphthalene	µg/L	<										
	4-Chlorophenyl Phenyl Ether	µg/L	<										
	Chrysene	mg/L	<	0.0002									
	Dibenzo(a,h)Anthrancene	µg/L	<										
	1,2-Dichlorobenzene	µg/L	<										
	1,3-Dichlorobenzene	µg/L	<										
	1,4-Dichlorobenzene	µg/L	<										
	3,3-Dichlorobenzidine	µg/L	<										
	Diethyl Phthalate	µg/L	<										
	Dimethyl Phthalate	µg/L	<										
	Di-n-Butyl Phthalate	µg/L	<										
	2,4-Dinitrotoluene	µg/L	<										
	2,6-Dinitrotoluene	µg/L	<										
	Di-n-Octyl Phthalate	µg/L	<										
	1,2-Diphenylhydrazine	µg/L	<										
	Fluoranthene	µg/L	<										
	Fluorene	µg/L	<										
	Hexachlorobenzene	µg/L	<										
	Hexachlorobutadiene	µg/L	<										
	Hexachlorocyclopentadiene	µg/L	<										
	Hexachloroethane	µg/L	<										

	Indeno(1,2,3-cd)Pyrene	µg/L	<										
	Isophorone	µg/L	<										
	Naphthalene	mg/L	<	0.0002									
	Nitrobenzene	µg/L	<										
	n-Nitrosodimethylamine	µg/L	<										
	n-Nitrosodi-n-Propylamine	µg/L	<										
	n-Nitrosodiphenylamine	µg/L	<										
	Phenanthrene	mg/L	<	0.0002									
	Pyrene	mg/L	<										
	1,2,4-Trichlorobenzene	µg/L	<										
Group 6	Aldrin	µg/L	<										
	alpha-BHC	µg/L	<										
	beta-BHC	µg/L	<										
	gamma-BHC	µg/L	<										
	delta BHC	µg/L	<										
	Chlordane	µg/L	<										
	4,4-DDT	µg/L	<										
	4,4-DDE	µg/L	<										
	4,4-DDD	µg/L	<										
	Dieldrin	µg/L	<										
	alpha-Endosulfan	µg/L	<										
	beta-Endosulfan	µg/L	<										
	Endosulfan Sulfate	µg/L	<										
	Endrin	µg/L	<										
	Endrin Aldehyde	µg/L	<										
	Heptachlor	µg/L	<										
	Heptachlor Epoxide	µg/L	<										
	PCB-1016	mg/L	<	0.00042									
	PCB-1221	mg/L	<	0.00042									
	PCB-1232	mg/L	<	0.00042									
	PCB-1242	mg/L	<	0.00042									
	PCB-1248	mg/L	<	0.00042									
	PCB-1254	mg/L	<	0.00042									
	PCB-1260	mg/L	<	0.00042									
	PCBs, Total	µg/L	<										
	Toxaphene	µg/L	<										
	2,3,7,8-TCDD	ng/L	<										
Group 7	Gross Alpha	pCi/L											
	Total Beta	pCi/L	<										
	Radium 226/228	pCi/L	<										
	Total Strontium	µg/L	<										
	Total Uranium	µg/L	<										
	Osmotic Pressure	mOs/kg											

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Toxics Management Spreadsheet
Version 1.4, May 2023

Stream / Surface Water Information

West Power Company, NPDES Permit No. PA0002933, Outfall 102

Instructions | Discharge | *Stream*

Receiving Surface Water Name: **Youghiogheny River**

No. Reaches to Model: **1**

- (•) Statewide Criteria
- ( ) Great Lakes Criteria
- ( ) ORSANCO Criteria

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi^2)*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	037456	44.67	879	1,320			Yes
End of Reach 1	037456	1.39	741	1,760			Yes

$Q_{7\text{-}10}$

Location	RMI	LFY (cfs/mi^2)*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness*	pH*	Hardness	pH
Point of Discharge	44.67	0.1	460									100	7		
End of Reach 1	1.39	0.1	510												

Q_h

Location	RMI	LFY (cfs/mi^2)	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness	pH	Hardness	pH
Point of Discharge	44.67														
End of Reach 1	1.39														

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Toxics Management Spreadsheet
Version 1.4, May 2023

Model Results

West Power Company, NPDES Permit No. PA0002933, Outfall 102

Instructions | Results | RETURN TO INPUTS | SAVE AS PDF | PRINT | (•) All ( ) Inputs ( ) Results ( ) Limits

☐ ***Hydrodynamics***

☑ ***Wasteload Allocations***

☑ ***AFC*** CCT (min): 15 PMF: 0.050 Analysis Hardness (mg/l): 100 Analysis pH: 7.00

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	64.581	81.6	892,624	Chem Translator of 0.791 applied
Benzene	0	0		0	640	640	6,997,108	
Ethylbenzene	0	0		0	2,900	2,900	31,705,644	
Tetrachloroethylene	0	0		0	700	700	7,653,086	
Toluene	0	0		0	1,700	1,700	18,586,067	
Trichloroethylene	0	0		0	2,300	2,300	25,145,855	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
Benzo(a)Anthracene	0	0		0	0.5	0.5	5,466	
Benzo(a)Pyrene	0	0		0	N/A	N/A	N/A	
Benzo(k)Fluoranthene	0	0		0	N/A	N/A	N/A	
Chrysene	0	0		0	N/A	N/A	N/A	
Naphthalene	0	0		0	140	140	1,530,617	
Phenanthrene	0	0		0	5	5.0	54,665	

☑ ***CFC*** CCT (min): 720 PMF: 0.346 Analysis Hardness (mg/l): 100 Analysis pH: 7.00

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	2.517	3.18	240,974	Chem Translator of 0.791 applied
Benzene	0	0		0	130	130	9,846,198	
Ethylbenzene	0	0		0	580	580	43,929,190	
Tetrachloroethylene	0	0		0	140	140	10,603,598	
Toluene	0	0		0	330	330	24,994,194	
Trichloroethylene	0	0		0	450	450	34,082,992	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
Benzo(a)Anthracene	0	0		0	0.1	0.1	7,574	
Benzo(a)Pyrene	0	0		0	N/A	N/A	N/A	
Benzo(k)Fluoranthene	0	0		0	N/A	N/A	N/A	
Chrysene	0	0		0	N/A	N/A	N/A	
Naphthalene	0	0		0	43	43.0	3,256,819	
Phenanthrene	0	0		0	1	1.0	75,740	

☑ ***THH*** CCT (min): 720 PMF: 0.346 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Dissolved Iron	0	0		0	300	300	22,721,995	
Total Lead	0	0		0	N/A	N/A	N/A	
Benzene	0	0		0	N/A	N/A	N/A	
Ethylbenzene	0	0		0	68	68.0	5,150,319	
Tetrachloroethylene	0	0		0	N/A	N/A	N/A	
Toluene	0	0		0	57	57.0	4,317,179	
Trichloroethylene	0	0		0	N/A	N/A	N/A	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
Benzo(a)Anthracene	0	0		0	N/A	N/A	N/A	
Benzo(a)Pyrene	0	0		0	N/A	N/A	N/A	
Benzo(k)Fluoranthene	0	0		0	N/A	N/A	N/A	
Chrysene	0	0		0	N/A	N/A	N/A	
Naphthalene	0	0		0	N/A	N/A	N/A	
Phenanthrene	0	0		0	N/A	N/A	N/A	

☑ ***CRL*** CCT (min): 720 PMF: 0.520 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	
Benzene	0	0		0	0.58	0.58	226,432	
Ethylbenzene	0	0		0	N/A	N/A	N/A	
Tetrachloroethylene	0	0		0	10	10.0	3,903,992	
Toluene	0	0		0	N/A	N/A	N/A	
Trichloroethylene	0	0		0	0.6	0.6	234,239	
Vinyl Chloride	0	0		0	0.02	0.02	7,808	
Benzo(a)Anthracene	0	0		0	0.001	0.001	390	
Benzo(a)Pyrene	0	0		0	0.0001	0.0001	39.0	
Benzo(k)Fluoranthene	0	0		0	0.01	0.01	3,904	
Chrysene	0	0		0	0.12	0.12	46,848	
Naphthalene	0	0		0	N/A	N/A	N/A	
Phenanthrene	0	0		0	N/A	N/A	N/A	

☑ ***Recommended WQBELs & Monitoring Requirements***

No. Samples/Month: 4

	Mass Limits		*Concentration Limits*						
Pollutants	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units	Governing WQBEL	WQBEL Basis	Comments

☑ ***Other Pollutants without Limits or Monitoring***

The following pollutants do not require effluent limits or monitoring based on water quality because reasonable potential to exceed water quality criteria was not determined and the discharge concentration was less than thresholds for monitoring, or the pollutant was not detected and a sufficiently sensitive analytical method was used (e.g., <= Target QL).

Pollutants	Governing WQBEL	Units	Comments
Dissolved Iron	22,722	mg/L	Discharge Conc ≤ 10% WQBEL
Total Lead	240,974	µg/L	Discharge Conc ≤ 10% WQBEL
Benzene	N/A	N/A	Discharge Conc < TQL
Ethylbenzene	N/A	N/A	Discharge Conc < TQL
Tetrachloroethylene	N/A	N/A	Discharge Conc < TQL
Toluene	N/A	N/A	Discharge Conc < TQL
Trichloroethylene	N/A	N/A	Discharge Conc < TQL
Vinyl Chloride	N/A	N/A	Discharge Conc < TQL
Benzo(a)Anthracene	0.39	mg/L	Discharge Conc < TQL
Benzo(a)Pyrene	0.039	mg/L	Discharge Conc < TQL
Benzo(ghi)Perylene	N/A	N/A	No WQS
Benzo(k)Fluoranthene	3.9	mg/L	Discharge Conc < TQL
Chrysene	46.8	mg/L	Discharge Conc < TQL
Naphthalene	981	mg/L	Discharge Conc < TQL
Phenanthrene	35.0	mg/L	Discharge Conc < TQL
PCB-1016	N/A	N/A	No WQS
PCB-1221	N/A	N/A	No WQS
PCB-1232	N/A	N/A	No WQS
PCB-1242	N/A	N/A	No WQS
PCB-1248	N/A	N/A	No WQS
PCB-1254	N/A	N/A	No WQS
PCB-1260	N/A	N/A	No WQS